

Ranhill

RANHILL ENERGY

AND

RESOURCES

BERH.

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PROSPECTUS

INITIAL PUBLIC OFFERING OF UP TO 407,000,000 ORDINARY SHARES OF RM1.00 EACH IN RANHILL ENERGY AND RESOURCES BERHAD ("RANHILL") ("IPO SHARES") IN CONJUNCTION WITH THE LISTING OF AND QUOTATION FOR THE ENTIRE 961,766,000 ORDINARY SHARES OF RM1.00 EACH IN RANHILL ("SHARES") ON THE MAIN MARKET OF BURSA MALAYSIA SECURITIES BERHAD COMPRISING AN OFFER FOR SALE OF UP TO 77,000,000 EXISTING SHARES ("OFFER SHARES") AND A PUBLIC ISSUE OF 330,000,000 NEW SHARES ("ISSUE SHARES") INVOLVING:

- (I) BOOKBUILDING ("INSTITUTIONAL PRICE"); AND
- (II) THAN THE RETAIL PRICE,

SUBJECT TO THE CLAWBACK AND REALLOCATION PROVISIONS AND THE OVER-ALLOTMENT OPTION (AS DEFINED HEREIN). THE FINAL RETAIL PRICE WILL BE EQUAL TO THE LOWER OF (I) THE RETAIL PRICE; OR (II) THE INSTITUTIONAL PRICE.

Joint Global Coordinators, Joint Bookrunners, Joint Managing Underwriters and Joint Underwriters



AFFIN Investment Bank Berhad (9999-V)

YOU ARE ADVISED TO READ AND UNDERSTAND THE CONTENTS OF THIS PROSPECTUS. IF IN DOUBT, PLEASE CONSULT A PROFESSIONAL ADVISER.

FOR INFORMATION CONCERNING CERTAIN RISK FACTORS RELATING TO AN INVESTMENT IN THE SHARES WHICH SHOULD BE CONSIDERED BY PROSPECTIVE INVESTORS, SEE "RISK FACTORS" IN SECTION 5 OF THIS PROSPECTUS.

LISTING SOUGHT: MAIN MARKET OF BURSA MALAYSIA SECURITIES BERHAD



*The offshore platforms depicted in the photographs do not belong to us. However, we have provided front end engineering and detailed design for these offshore platforms.

RANHILL ENERGY AND RESOURCES BERHAD

(Incorporated in Malaysia under the Companies Act, 1965)

THIS PROSPECTUS IS DATED 4 JULY 2013

PROSPECTUS

INSTITUTIONAL OFFERING OF UP TO 328,721,680 IPO SHARES TO MALAYSIAN AND FOREIGN INSTITUTIONAL AND SELECTED INVESTORS, INCLUDING BUMIPUTERA INVESTORS APPROVED BY THE MINISTRY OF INTERNATIONAL TRADE AND INDUSTRY AT THE INSTITUTIONAL PRICE TO BE DETERMINED BY WAY OF

RETAIL OFFERING OF 78,278,320 ISSUE SHARES TO THE ELIGIBLE DIRECTORS AND EMPLOYEES OF RANHILL AND ITS SUBSIDIARIES ("RANHILL GROUP"), PERSONS WHO HAVE CONTRIBUTED TO THE SUCCESS OF THE RANHILL GROUP AND THE MALAYSIAN PUBLIC, AT THE RETAIL PRICE OF RM1.85 PER SHARE ("RETAIL PRICE"), PAYABLE IN FULL UPON APPLICATION AND SUBJECT TO REFUND OF THE DIFFERENCE BETWEEN THE RETAIL PRICE AND THE FINAL RETAIL PRICE (AS DEFINED HEREIN), IN THE EVENT THAT THE FINAL RETAIL PRICE IS LESS

Principal Adviser





CIMB Investment Bank Berhad (18417-M) (A Participating Organisation of Bursa Malaysia Securities Berhad)

Joint Underwriters

Bank Muamalat Malaysia Berhad (6175-W)

MIDF Amanah Investment Bank Berhad (23878-X)

RHB Investment Bank Berhad (19663-P)

THIS PROSPECTUS IS NOT TO BE DISTRIBUTED OUTSIDE MALAYSIA

OUR DIRECTORS, THE SELLING SHAREHOLDER AND THE PROMOTERS HAVE SEEN AND APPROVED THIS PROSPECTUS AND THEY COLLECTIVELY AND INDIVIDUALLY ACCEPT FULL RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION CONTAINED IN THIS PROSPECTUS. THEY CONFIRM, AFTER MAKING ALL REASONABLE ENQUIRIES THAT, TO THE BEST OF THEIR KNOWLEDGE AND BELIEF, THERE ARE NO FALSE OR MISLEADING STATEMENTS OR OTHER FACTS WHICH, IF OMITTED, WOULD MAKE ANY STATEMENT IN THIS PROSPECTUS FALSE OR MISLEADING.

MAYBANK INVESTMENT BANK BERHAD ("MAYBANK IB"), AS THE PRINCIPAL ADVISER, JOINT GLOBAL COORDINATOR AND JOINT BOOKRUNNER FOR THE INSTITUTIONAL OFFERING IN RELATION TO OUR INITIAL PUBLIC OFFERING ("IPO") ACKNOWLEDGES THAT, BASED ON ALL AVAILABLE INFORMATION AND TO THE BEST OF ITS KNOWLEDGE AND BELIEF, THIS PROSPECTUS CONSTITUTES A FULL AND TRUE DISCLOSURE OF ALL MATERIAL FACTS CONCERNING OUR IPO.

CIMB INVESTMENT BANK BERHAD, AS THE JOINT GLOBAL COORDINATOR AND JOINT BOOKRUNNER FOR THE INSTITUTIONAL OFFERING IN RELATION TO OUR IPO ACKNOWLEDGES THAT, BASED ON ALL AVAILABLE INFORMATION AND TO THE BEST OF ITS KNOWLEDGE AND BELIEF, THIS PROSPECTUS CONSTITUTES A FULL AND TRUE DISCLOSURE OF ALL MATERIAL FACTS CONCERNING OUR IPO.

THE SECURITIES COMMISSION MALAYSIA ("SC") HAS APPROVED OUR IPO AND A COPY OF THIS PROSPECTUS HAS BEEN REGISTERED WITH THE SC. THE APPROVAL AND REGISTRATION OF THIS PROSPECTUS SHOULD NOT BE TAKEN TO INDICATE THAT THE SC RECOMMENDS THE OFFERING OR ASSUMES RESPONSIBILITY FOR THE CORRECTNESS OF ANY STATEMENT MADE OR OPINION EXPRESSED OR REPORT CONTAINED IN THIS PROSPECTUS. THE SC HAS NOT, IN ANY WAY, CONSIDERED THE MERITS OF OUR SHARES BEING OFFERED FOR INVESTMENT.

THE SC IS NOT LIABLE FOR ANY NON-DISCLOSURE IN THIS PROSPECTUS BY US. THE SC ALSO TAKES NO RESPONSIBILITY FOR THE CONTENTS OF THIS PROSPECTUS, MAKES NO REPRESENTATION AS TO ITS ACCURACY OR COMPLETENESS, AND EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY LOSS THAT YOU MAY SUFFER AS A RESULT OF YOUR RELIANCE ON THE WHOLE OR ANY PART OF THE CONTENTS OF THIS PROSPECTUS.

YOU SHOULD RELY ON YOUR OWN EVALUATION TO ASSESS THE MERITS AND RISKS OF OUR IPO AND AN INVESTMENT IN US. IF YOU ARE IN ANY DOUBT AS TO THE ACTION TO BE TAKEN, YOU SHOULD IMMEDIATELY CONSULT YOUR STOCKBROKERS, BANK MANAGERS, SOLICITORS, ACCOUNTANTS OR OTHER PROFESSIONAL ADVISERS BEFORE APPLYING FOR OUR SHARES.

OUR COMPANY HAS OBTAINED THE APPROVAL OF BURSA MALAYSIA SECURITIES BERHAD ("BURSA SECURITIES") FOR THE LISTING OF AND QUOTATION FOR OUR ENTIRE ENLARGED ISSUED AND PAID-UP SHARE CAPITAL COMPRISING 961,766,000 ORDINARY SHARES OF RM1.00 EACH IN OUR COMPANY ("SHARES"). OUR ADMISSION TO THE OFFICIAL LIST OF THE MAIN MARKET OF BURSA SECURITIES IS NOT TO BE TAKEN AS AN INDICATION OF THE MERITS OF OUR IPO, OUR COMPANY OR OUR SHARES. THIS PROSPECTUS CAN BE VIEWED OR DOWNLOADED FROM THE WEBSITE OF BURSA MALAYSIA BERHAD AT www.bursamalaysia.com.

A COPY OF THIS PROSPECTUS AND THE ACCOMPANYING APPLICATION FORMS HAVE ALSO BEEN LODGED WITH THE REGISTRAR OF COMPANIES, MALAYSIA, WHO TAKES NO RESPONSIBILITY FOR THEIR CONTENTS.

YOU ARE ADVISED TO NOTE THAT RECOURSE FOR FALSE OR MISLEADING STATEMENTS OR ACTS MADE IN CONNECTION WITH THIS PROSPECTUS IS DIRECTLY AVAILABLE THROUGH SECTIONS 248, 249 AND 357 OF THE CAPITAL MARKETS AND SERVICES ACT, 2007 ("**CMSA**").

SECURITIES LISTED ON BURSA SECURITIES ARE OFFERED TO THE PUBLIC PREMISED ON FULL AND ACCURATE DISCLOSURE OF ALL MATERIAL INFORMATION CONCERNING OUR IPO FOR WHICH THE PERSONS SET OUT IN SECTION 236 OF THE CMSA, E.G. DIRECTORS AND ADVISERS, ARE RESPONSIBLE.

OUR SHARES ARE CLASSIFIED AS SHARIAH-COMPLIANT BY THE SHARIAH ADVISORY COUNCIL OF THE SC ("**SAC**") BASED ON THE COMBINED FINANCIAL STATEMENTS (AS DEFINED HEREIN) FOR THE 18 MONTHS ENDED 31 DECEMBER 2011 AND YEAR ENDED 31 DECEMBER 2012. THIS CLASSIFICATION REMAINS VALID FROM THE DATE OF THIS PROSPECTUS UNTIL THE NEXT SHARIAH COMPLIANCE REVIEW IS UNDERTAKEN BY THE SAC. UPDATES ON THE CLASSIFICATION WILL BE RELEASED IN THE UPDATED LIST OF SHARIAH-COMPLIANT SECURITIES ON THE LAST FRIDAY OF THE MONTH OF MAY AND NOVEMBER OF EACH YEAR.

YOU SHOULD NOT TAKE THE AGREEMENT BY THE JOINT MANAGING UNDERWRITERS AND THE JOINT UNDERWRITERS NAMED IN THIS PROSPECTUS TO UNDERWRITE OUR SHARES UNDER THE RETAIL OFFERING AS AN INDICATION OF THE MERITS OF OUR SHARES BEING OFFERED.

THIS PROSPECTUS HAS BEEN PREPARED IN THE CONTEXT OF AN IPO UNDER THE LAWS OF MALAYSIA. IT DOES NOT COMPLY WITH THE LAWS OF ANY JURISDICTION OTHER THAN MALAYSIA, AND HAS NOT BEEN AND WILL NOT BE LODGED, REGISTERED OR APPROVED PURSUANT TO OR UNDER ANY APPLICABLE SECURITIES OR EQUIVALENT LEGISLATION OR BY ANY REGULATORY AUTHORITY OF ANY JURISDICTION OTHER THAN MALAYSIA.

THIS PROSPECTUS IS PUBLISHED SOLELY IN CONNECTION WITH OUR IPO. OUR SHARES BEING OFFERED IN OUR IPO ARE OFFERED SOLELY ON THE BASIS OF THE INFORMATION CONTAINED AND REPRESENTATIONS MADE IN THIS PROSPECTUS. OUR COMPANY, THE SELLING SHAREHOLDER, THE PROMOTERS, THE PRINCIPAL ADVISER, THE JOINT GLOBAL COORDINATORS, THE JOINT BOOKRUNNERS, THE JOINT MANAGING UNDERWRITERS AND THE JOINT UNDERWRITERS HAVE NOT AUTHORISED ANYONE TO PROVIDE ANY INFORMATION OR TO MAKE ANY REPRESENTATION NOT CONTAINED IN THIS PROSPECTUS. ANY INFORMATION OR REPRESENTATION NOT CONTAINED IN THIS PROSPECTUS. ANY INFORMATION OR REPRESENTATION NOT CONTAINED IN THIS PROSPECTUS. ANY INFORMATION OR REPRESENTATION NOT CONTAINED IN THIS PROSPECTUS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORISED BY OUR COMPANY, THE SELLING SHAREHOLDER, THE PROMOTERS, THE PRINCIPAL ADVISER, THE JOINT GLOBAL COORDINATORS, THE JOINT BOOKRUNNERS, THE JOINT MANAGING UNDERWRITERS AND THE JOINT UNDERWRITERS OR ANY OF THEIR RESPECTIVE DIRECTORS, OR ANY OTHER PERSONS INVOLVED IN OUR IPO.

THE DISTRIBUTION OF THIS PROSPECTUS AND OUR IPO ARE SUBJECT TO THE LAWS OF MALAYSIA. THIS PROSPECTUS WILL NOT BE DISTRIBUTED OUTSIDE MALAYSIA EXCEPT INSOFAR AS IT IS PART OF THE OFFERING MEMORANDUM DISTRIBUTED TO FOREIGN INSTITUTIONAL INVESTORS OUTSIDE MALAYSIA IN CONNECTION WITH OUR IPO. OUR COMPANY, THE SELLING SHAREHOLDER, THE THE PRINCIPAL ADVISER, THE JOINT GLOBAL COORDINATORS, THE JOINT PROMOTERS, BOOKRUNNERS, THE JOINT MANAGING UNDERWRITERS AND THE JOINT UNDERWRITERS NAMED IN THIS PROSPECTUS HAVE NOT AUTHORISED AND TAKE NO RESPONSIBILITY FOR THE DISTRIBUTION OF THIS PROSPECTUS OUTSIDE MALAYSIA EXCEPT INSOFAR AS IT IS PART OF THE OFFERING MEMORANDUM DISTRIBUTED TO FOREIGN INSTITUTIONAL INVESTORS OUTSIDE MALAYSIA IN CONNECTION WITH OUR IPO. NO ACTION HAS BEEN TAKEN TO PERMIT ANY OFFERING OF OUR SHARES BASED ON THIS PROSPECTUS IN ANY JURISDICTION OTHER THAN MALAYSIA. ACCORDINGLY, THIS PROSPECTUS MAY NOT BE USED FOR THE PURPOSE OF AND DOES NOT CONSTITUTE AN OFFER FOR SUBSCRIPTION OR PURCHASE OR INVITATION TO SUBSCRIBE FOR OR PURCHASE OF OUR SHARES IN ANY JURISDICTION OR IN ANY CIRCUMSTANCE IN WHICH SUCH AN OFFER IS NOT AUTHORISED OR LAWFUL OR TO ANY PERSON TO WHOM IT IS UNLAWFUL TO MAKE SUCH OFFER OR INVITATION. THE DISTRIBUTION OF THIS PROSPECTUS AND THE SALE OF OUR SHARES OFFERED UNDER OUR IPO IN CERTAIN OTHER JURISDICTIONS MAY BE RESTRICTED BY LAW. PROSPECTIVE INVESTORS WHO MAY BE IN POSSESSION OF THIS PROSPECTUS ARE REQUIRED TO INFORM THEMSELVES OF AND TO OBSERVE SUCH RESTRICTIONS.

OUR SHARES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933 ("U.S. SECURITIES ACT"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR TRANSFERRED WITHIN OR INTO THE UNITED STATES OF AMERICA ("UNITED STATES"), EXCEPT PURSUANT TO AN EXEMPTION UNDER THE U.S. SECURITIES ACT. OUR SHARES ARE BEING OFFERED AND SOLD TO CERTAIN PERSONS IN OFFSHORE TRANSACTIONS IN RELIANCE ON REGULATION S UNDER THE U.S. SECURITIES ACT.

OUR SHARES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION IN THE UNITED STATES OR ANY OTHER UNITED STATES REGULATORY AUTHORITY, NOR HAVE ANY OF THE FOREGOING AUTHORITIES PASSED UPON OR ENDORSED THE MERITS OF OUR IPO OR THE ACCURACY OR DETERMINED THE ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENCE IN THE UNITED STATES.

ELECTRONIC PROSPECTUS

THE CONTENTS OF THE ELECTRONIC PROSPECTUS AND THE COPY OF THIS PROSPECTUS REGISTERED WITH THE SC ARE THE SAME. YOU MAY OBTAIN A COPY OF THE ELECTRONIC PROSPECTUS FROM THE WEBSITE OF MALAYAN BANKING BERHAD AT www.maybank2u.com.my, CIMB INVESTMENT BANK BERHAD AT www.eipocimb.com, CIMB BANK BERHAD AT www.cimbclicks.com.my, RHB BANK BERHAD AT www.rhb.com.my, AFFIN BANK BERHAD AT www.affinOnline.com AND PUBLIC BANK BERHAD AT www.pbebank.com.

THE INTERNET IS NOT A FULLY SECURE MEDIUM. YOUR INTERNET SHARE APPLICATION (AS DEFINED HEREIN) MAY BE SUBJECT TO RISKS IN DATA TRANSMISSION, COMPUTER SECURITY THREATS SUCH AS VIRUSES, HACKERS AND CRACKERS, FAULTS WITH COMPUTER SOFTWARE AND OTHER EVENTS BEYOND THE CONTROL OF THE INTERNET PARTICIPATING FINANCIAL INSTITUTIONS (AS DEFINED HEREIN). THESE RISKS CANNOT BE BORNE BY THE INTERNET PARTICIPATING FINANCIAL INSTITUTIONS. IF YOU DOUBT THE VALIDITY OR INTEGRITY OF THE ELECTRONIC PROSPECTUS, YOU SHOULD IMMEDIATELY REQUEST FROM US OR THE ISSUING HOUSE, A PAPER/PRINTED COPY OF THIS PROSPECTUS. IF THERE IS ANY DISCREPANCY BETWEEN THE CONTENTS OF THE ELECTRONIC PROSPECTUS AND THE PAPER/PRINTED COPY OF THIS PROSPECTUS, THE CONTENTS OF THE PAPER/PRINTED COPY OF THIS PROSPECTUS WHICH ARE IDENTICAL TO THE COPY OF THE PROSPECTUS REGISTERED WITH THE SC SHALL PREVAIL.

IN RELATION TO ANY REFERENCE IN THIS PROSPECTUS TO THIRD PARTY INTERNET SITES ("THIRD PARTY INTERNET SITES"), WHETHER BY WAY OF HYPERLINKS OR BY WAY OF DESCRIPTION OF THE THIRD PARTY INTERNET SITES, YOU ACKNOWLEDGE AND AGREE THAT:

- (I) WE DO NOT ENDORSE AND ARE NOT AFFILIATED IN ANY WAY TO THE THIRD PARTY INTERNET SITES. ACCORDINGLY, WE ARE NOT RESPONSIBLE FOR THE AVAILABILITY OF OR THE CONTENT OR ANY DATA, FILE OR OTHER MATERIAL PROVIDED ON THE THIRD PARTY INTERNET SITES. YOU BEAR ALL RISKS ASSOCIATED WITH THE ACCESS TO OR USE OF THE THIRD PARTY INTERNET SITES;
- (II) WE ARE NOT RESPONSIBLE FOR THE QUALITY OF PRODUCTS OR SERVICES IN THE THIRD PARTY INTERNET SITES, PARTICULARLY IN FULFILLING ANY OF THE TERMS OF ANY OF YOUR AGREEMENTS WITH THE THIRD PARTY INTERNET SITES. WE ARE ALSO NOT RESPONSIBLE FOR ANY LOSS OR DAMAGE OR COST THAT YOU MAY SUFFER OR INCUR IN CONNECTION WITH OR AS A RESULT OF DEALING WITH THE THIRD PARTY INTERNET SITES OR THE USE OF OR RELIANCE ON ANY DATA, FILE OR OTHER MATERIAL PROVIDED BY THE THIRD PARTY INTERNET SITES; AND
- (III) ANY DATA, FILE OR OTHER MATERIAL DOWNLOADED FROM THE THIRD PARTY INTERNET SITES IS DONE AT YOUR OWN DISCRETION AND RISK. WE ARE NOT RESPONSIBLE, LIABLE OR UNDER OBLIGATION FOR ANY DAMAGE TO YOUR COMPUTER SYSTEM OR LOSS OF DATA RESULTING FROM THE DOWNLOADING OF ANY SUCH DATA, INFORMATION, FILES OR OTHER MATERIAL.

WHERE AN ELECTRONIC PROSPECTUS IS HOSTED ON THE WEBSITE OF THE INTERNET PARTICIPATING FINANCIAL INSTITUTION, YOU ARE ADVISED THAT:

- (I) THE INTERNET PARTICIPATING FINANCIAL INSTITUTION IS ONLY LIABLE IN RESPECT OF THE INTEGRITY OF THE CONTENTS OF AN ELECTRONIC PROSPECTUS, TO THE EXTENT OF THE CONTENT OF THE ELECTRONIC PROSPECTUS ON THE WEB SERVER OF THE INTERNET PARTICIPATING FINANCIAL INSTITUTION WHICH MAY BE VIEWED VIA YOUR WEB BROWSER OR OTHER RELEVANT SOFTWARE. THE INTERNET PARTICIPATING FINANCIAL INSTITUTION IS NOT RESPONSIBLE FOR THE INTEGRITY OF THE CONTENTS OF AN ELECTRONIC PROSPECTUS WHICH HAS BEEN OBTAINED FROM THE WEB SERVER OF THE INTERNET PARTICIPATING FINANCIAL INSTITUTION AND SUBSEQUENTLY COMMUNICATED OR DISSEMINATED IN ANY MANNER TO YOU OR OTHER PARTIES;
- (II) WHILE ALL REASONABLE MEASURES HAVE BEEN TAKEN TO ENSURE THE ACCURACY AND RELIABILITY OF THE INFORMATION PROVIDED IN AN ELECTRONIC PROSPECTUS, THE ACCURACY AND RELIABILITY OF AN ELECTRONIC PROSPECTUS CANNOT BE GUARANTEED BECAUSE THE INTERNET IS NOT A FULLY SECURE MEDIUM; AND

(III) THE INTERNET PARTICIPATING FINANCIAL INSTITUTION IS NOT LIABLE (WHETHER IN TORT OR CONTRACT OR OTHERWISE) FOR ANY LOSS, DAMAGE OR COSTS, YOU OR ANY OTHER PERSON MAY SUFFER OR INCUR DUE TO, AS A CONSEQUENCE OF OR IN CONNECTION WITH ANY INACCURACIES, CHANGES, ALTERATIONS, DELETIONS OR OMISSIONS IN RESPECT OF THE INFORMATION PROVIDED IN AN ELECTRONIC PROSPECTUS WHICH MAY ARISE IN CONNECTION WITH OR AS A RESULT OF ANY FAULT WITH WEB BROWSERS OR OTHER RELEVANT SOFTWARE, ANY FAULT ON YOUR OR ANY THIRD PARTY'S PERSONAL COMPUTER, OPERATING SYSTEM OR OTHER SOFTWARE, VIRUSES OR OTHER SECURITY THREATS, UNAUTHORISED ACCESS TO INFORMATION OR SYSTEMS IN RELATION TO THE WEBSITE OF THE INTERNET PARTICIPATING FINANCIAL INSTITUTION, AND/OR PROBLEMS OCCURRING DURING DATA TRANSMISSION WHICH MAY RESULT IN INACCURATE OR INCOMPLETE COPIES OF INFORMATION BEING DOWNLOADED OR DISPLAYED ON YOUR PERSONAL COMPUTER.

INDICATIVE TIMETABLE

The following events are intended to take place on the following indicative dates:

Event	Date
Opening of the Institutional Offering ⁽¹⁾	4 July 2013
Issuance of Prospectus/Opening of the Retail Offering	10:00 a.m., 4 July 2013
Closing of the Retail Offering	5:00 p.m., 11 July 2013
Closing of the Institutional Offering	12:00 p.m., 15 July 2013
Price Determination Date	15 July 2013
Balloting of applications for the Issue Shares under the Retail Offering	15 July 2013
Allotment/Transfer of the IPO Shares to successful applicants	29 July 2013
Listing	31 July 2013

Note:

⁽¹⁾ Other than the Institutional Offering to the Cornerstone Investors. The master cornerstone placing agreement for the acquisition of the IPO Shares by the Cornerstone Investors was entered into on 21 June 2013.

The Institutional Offering will close on the date stated above or such other date or dates as our Directors, the Selling Shareholder and the Joint Global Coordinators may decide in their absolute discretion. The applications for the Issue Shares under the Retail Offering will close at the time and on the date stated above or such other date or dates as our Directors and the Joint Managing Underwriters may decide in their absolute discretion.

In the event that the closing date and/or time of either the Institutional Offering or the Retail Offering is extended, the Price Determination Date and dates for the balloting of applications for the Issue Shares under the Retail Offering, allotment/transfer of the IPO Shares to successful applicants and our Listing may be extended accordingly. Any extension will be announced in widely circulated Bahasa Malaysia and English daily newspapers within Malaysia.

All defined terms used in this Prospectus are defined under "Presentation of Financial and Other Information", "Definitions" and "Glossary of Technical Terms" commencing on pages (x), (xiv) and (xxiv) respectively.

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PRESENTATION OF FINANCIAL AND OTHER INFORMATION

All references to "our Company" and "Ranhill" in this Prospectus are to Ranhill Energy and Resources Berhad. All references to "our Group" and "Ranhill Group" in this Prospectus are to our Company and our subsidiaries as a whole, and all references to "we", "us", "our" and "ourselves" are to our Company and our subsidiaries, save where the context otherwise requires. Unless the context otherwise requires, references to "management" are to our Directors and key management personnel as at the date of this Prospectus, and statements as to our beliefs, expectations, estimates and opinions are those of our Company.

In this Prospectus, all references to the "Selling Shareholder" are to Cheval and references to the "Promoters" are to TSHM, LOSB and RCorp.

All references to "our PAT" are references to PAT attributable to equity holders of our Company and noncontrolling interests.

In this Prospectus, all references to the "Government" are to the Government of Malaysia; and all references to "RM" and "sen" are to the lawful currency of Malaysia. Any discrepancies in the tables between the amounts listed and the totals in this Prospectus are due to rounding. Other abbreviations and acronyms used herein are defined in the "Definitions" section appearing on pages xiv to xxiii of this Prospectus and technical terms used herein are defined in the "Glossary of Technical Terms" section appearing on pages xxiv to xxvi of this Prospectus, respectively. Words denoting the singular shall include the plural and vice versa and words denoting the masculine gender shall, where applicable, include the feminine gender and vice versa. Reference to persons shall include companies and corporations.

Any reference to any provisions of the statutes, rules, regulations, enactments or rules of stock exchange shall (where the context admits), be construed as a reference to provisions of such statutes, rules, regulations, enactments or rules of stock exchange (as the case may be) as modified by any written law or (if applicable) amendments or re-enactment to the statutes, rules, regulations, enactments or rules of stock exchange for the time being in force.

All references to dates and times are references to dates and times in Malaysia, unless otherwise stated.

This Prospectus includes statistical data provided by us and various third parties and cites third-party projections regarding growth and performance of the industries in which we operate and our estimated market share in the industries in which we operate. This data is taken or derived from information published by industries sources and from our internal data. In each such case, the source is stated in this Prospectus, provided that where no source is stated, it can be assumed that the information originates from us, or is extracted from the Executive Summary of the IMR Report as set out in Section 8 of this Prospectus. In addition, certain information in this Prospectus is extracted or derived from the IMR Report. The IMR Report is available for inspection at the location and during the period set out in Section 15.8 of this Prospectus. We have appointed Frost & Sullivan to provide an independent market and industry review. In compiling their data for the review, Frost & Sullivan had relied on industry sources, published materials, their own private databanks and direct contacts within the industries. The information on the industries as contained in this Prospectus and the statistical data and projections cited in this Prospectus are intended to help prospective investors understand the major trends in the industries in which we operate. However, we, the Selling Shareholder, the Promoters, the Principal Adviser, the Joint Global Coordinators, the Joint Bookrunners, the Joint Managing Underwriters and the Joint Underwriters and their respective advisers have not independently verified these figures.

PRESENTATION OF FINANCIAL AND OTHER INFORMATION (cont'd)

Neither we nor the Selling Shareholder, the Promoters, the Principal Adviser, the Joint Global Coordinators, the Joint Bookrunners, the Joint Managing Underwriters and the Joint Underwriters and their respective advisers make any representation as to the correctness, accuracy or completeness of such data and projections and accordingly, prospective investors should not place undue reliance on the statistical data and projections cited in this Prospectus. Further, third-party projections cited in this Prospectus are subject to significant uncertainties that could cause actual data to differ materially from the projected figures. No assurances are or can be given that such projections will be achieved, and you should not place undue reliance on the third-party projections cited in this Prospectus.

The information on our website or any website directly or indirectly linked to such website does not form part of this Prospectus and you should not rely on it.

References to the "LPD" in this Prospectus are to 31 May 2013, which is the latest practicable date for certain information to be obtained and disclosed in this Prospectus prior to the registration of this Prospectus with the SC.

EBITDA, as well as the related ratios presented in this Prospectus, are supplemental measures of our performance and liquidity that are not required by or presented in accordance with the FRS and the MFRS. Furthermore, EBITDA is not a measure of our financial performance or liquidity under the FRS and the MFRS and should not be considered as an alternative to net income, operating income or any other performance measures derived in accordance with the FRS or the MFRS or as an alternative to cash flows from operating activities or as a measure of liquidity. In addition, EBITDA is not a standardised term, and hence, a direct comparison of EBITDA between companies may not be possible. Other companies may calculate EBITDA differently from us, limiting its usefulness as a comparative measure.

We believe that EBITDA may facilitate comparisons of operating performance from period to period and company to company by eliminating potential differences caused by variations in capital structures (affecting interest expense and finance charges), tax positions (such as the impact on periods or companies of changes in effective tax rates or net operating losses), the age and booked depreciation and amortisation of assets (affecting relative depreciation and amortisation expenses). EBITDA has been presented because we believe that it is frequently used by securities analysts, investors and other interested parties in evaluating similar companies, many of whom present such non-FRS and non-MFRS financial measures when reporting their results. Finally, EBITDA is presented as a supplemental measure of our ability to service debt. Nevertheless, EBITDA has limitations as an analytical tool, and prospective investors should not consider it in isolation from, or as a substitute of or analysis of our financial condition or results of operations, as reported under the FRS and the MFRS. Due to these limitations, EBITDA should not be considered as a measure of discretionary cash available to invest in the growth of our business.

FORWARD-LOOKING STATEMENTS

This Prospectus contains forward-looking statements. All statements other than statements of historical facts included in this Prospectus, including, without limitation, those regarding our financial position, business strategies, plans and objectives for future operations, are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. Such forward-looking statements reflect our current view with respect to future events and do not guarantee future performance. Forward-looking statements can be identified by the use of forward-looking terminologies such as the words "may", "would", "could", "believe", "expect", "anticipate", "intend", "estimate", "aim", "plan", "forecast" or similar expressions and include all statements that are not historical facts. Such forward-looking statements include, without limitation, statements relating to:

- (i) the demand for our services and general industry environment;
- (ii) potential growth opportunities;
- (iii) our business strategies, trends and competitive position;
- (iv) our future plans and objectives for future operations;
- (v) the regulatory environment and the effects of future regulation; and
- (vi) our future financial position, earnings, cash flows and liquidity.

Our actual results may differ materially from information contained in such forward-looking statements as a result of a number of factors beyond our control, including, without limitation:

- (i) the general economic, business, social, political and investment environment in Malaysia and in the countries in which we operate;
- (ii) the continued availability of capital and financing;
- (iii) significant capital expenditure requirements;
- (iv) government policy, legislation or regulation;
- (v) interest rates, tax rates and foreign exchange rates;
- (vi) the competitive environment in the industries in which we operate;
- (vii) the activities and financial position of our customers, suppliers and other business partners;
- (viii) delays, cost overruns, shortages in labour or problems with the execution of our expansion plans;
- (ix) the cost and availability of adequate insurance coverage;
- (x) fixed and contingent obligations and commitments; and
- (xi) any other factors beyond our control.

FORWARD-LOOKING STATEMENTS (cont'd)

Additional factors that could cause our actual results, performance or achievements to differ materially include, but are not limited to those discussed in Section 5 of this Prospectus on "Risk Factors" and Sections 10.2 and 10.4 of this Prospectus on "Management's discussion and analysis of pro forma financial condition and results of operations" and "Management's discussion and analysis of financial condition and results of operations based on combined financial information" respectively. We cannot give any assurance that the forward-looking statements made in this Prospectus will be realised. Such forward-looking statements are made only as at the LPD. Save as required by Section 238(1) of the CMSA and Paragraph 1.02 of the Prospectus Guidelines (Supplementary/Replacement Prospectus), we expressly disclaim any obligation or undertaking to release publicly any update or revision to any forward-looking statement contained in this Prospectus to reflect any change in our expectations with regard to such statement or any change in events, conditions or circumstances on which any such statement is based.

The following terms in this Prospectus bear the same meanings as set out below unless the term is defined otherwise or the context requires otherwise:

AA	:	Amran Awaluddin
Acquisition by RPSB	:	Acquisition by RPSB from RB of the following:
		 (i) 70% equity interest in RUSB; (ii) 51% equity interest in RWorley; (iii) 50% equity interest less one share in RBSB; and (iv) 100% equity interest in RBV,
		for a total purchase consideration of RM825,000,000 which was satisfied by the setting-off of an amount owing by RB to RPSB of RM735,000,000 and deferred cash payment of RM90,000,000
Act	:	Companies Act, 1965, as amended, supplemented or modified from time to time and any re-enactment thereof
ADA	:	Authorised Depository Agent
Admission	:	Admission of our Shares to the Official List of the Main Market of Bursa Securities
AGM	:	Annual general meeting
Application Form	:	Application form for the application of the Issue Shares under the Retail Offering accompanying this Prospectus
Articles	:	Articles of Association of our Company
АТМ	:	Automated teller machine
AZJ	:	Ahmad Zahdi Jamil
BNM	:	Bank Negara Malaysia
Board	:	Our board of Directors as at the date of this Prospectus
Bursa Depository	:	Bursa Malaysia Depository Sdn Bhd
Bursa Securities	:	Bursa Malaysia Securities Berhad
CCC	:	Certificate of fitness for occupation, certificate of completion and compliance or any certificate of the same nature issued or approved by the relevant authorities in Malaysia, China and Thailand
CDS	:	Central Depository System
Cheval	:	Cheval Infrastructure Fund L.P. (acting via its general partner, TAEL Management Co. (Cayman) Ltd)
CIMB	:	CIMB Investment Bank Berhad
CMSA	:	Capital Markets and Services Act, 2007, as amended, supplemented or modified from time to time and any re-enactment thereof

Combined Financial Statements	:	Audited combined financial statements of the Identified Entities prepared as if the Identified Entities had operated as a single economic entity throughout the financial years/period under review
Cornerstone Investors	:	Collectively, Corston-Smith Asset Management Sdn Bhd, Eastspring Investment Berhad, Hwang Investment Management Bhd and Lembaga Tabung Haji
DCF	:	Discounted cash flow
DRM	:	Don Rashid Mustafa
EBITDA	:	Earnings before interest, taxation, depreciation and amortisation
EC	:	Energy Commission, the statutory body established under the Energy Commission Act, 2001
EIA	:	Environmental Impact Assessment under the EQA
Electronic Share Application	:	Application for the Issue Shares under the Retail Offering through a Participating Financial Institution's ATM
Eligible Individuals	:	Eligible directors and employees of our Group, and persons who have contributed to the success of our Group
EMEPMI	:	ExxonMobil Exploration and Production Malaysia Inc
EPF	:	Employees Provident Fund
EPS	:	Earnings per Share
EQA	:	Environmental Quality Act, 1974, as amended, supplemented or modified from time to time and any re-enactment thereof
Equity Guidelines	:	Equity Guidelines issued by the SC, as amended, supplemented or modified from time to time
ETP	:	Economic Transformation Programme
Facility Agreement	:	Facility agreement dated 11 March 2009 between SAJH and PAAB granting SAJH rights of use over all the existing water assets and by way of supplemental agreements, over new water assets (to be constructed) owned by PAAB in the State of Johor
Final Retail Price	:	Final price per Issue Share to be paid by investors pursuant to the Retail Offering, equivalent to the Retail Price or the Institutional Price, whichever is lower, to be determined on the Price Determination Date
Frost & Sullivan	:	Frost & Sullivan Malaysia Sdn Bhd
FRS	:	Financial Reporting Standards
GDP	:	Gross domestic product
Government	:	Government of Malaysia
IC 4	:	IC Interpretation 4, "Determining Whether an Arrangement Contains a Lease"

Identified Entities	:	Collectively, (i) RUSB, its subsidiaries, jointly-controlled entities and associates; (ii) RPSB and its subsidiaries; (iii) RWorley and its jointly-controlled entity; (iv) RBSB, its jointly-controlled entity and associate; and (v) RBV
IMR Report	:	Independent market research report prepared by Frost & Sullivan
ΙΜΤΝ	:	Islamic Medium Term Notes
Institutional Offering	:	Offering of up to 328,721,680 IPO Shares at the Institutional Price, subject to clawback and reallocation provisions and the Over-allotment Option, to the following:
		 Malaysian institutional and selected investors including Bumiputera investors approved by the MITI; and
		 (ii) foreign institutional and selected investors outside the United States in reliance on Regulation S
Institutional Price	:	Price per IPO Share to be paid by investors pursuant to the Institutional Offering which will be determined on the Price Determination Date by way of bookbuilding
Internal Reorganisation	:	Internal reorganisation exercise undertaken by RB, as further described in Section 6.1.2 of this Prospectus
Internet Participating Financial Institution	:	A participating financial institution for the Internet Share Application
Internet Share Application	:	Application for the Issue Shares under the Retail Offering through an Internet Participating Financial Institution
IOC	:	International oil company
IPO	:	Collectively, the Offer for Sale and the Public Issue
IPO Shares	:	Collectively, the Offer Shares and the Issue Shares
IPP	:	Independent power producer
Issue Shares	:	New Shares to be issued pursuant to the Public Issue
Issuing House or MIH	:	Malaysian Issuing House Sdn Bhd
Joint Bookrunners	:	Collectively, Maybank IB and CIMB
Joint Global Coordinators	:	Collectively, Maybank IB and CIMB
Joint Managing Underwriters	:	Collectively, Maybank IB and CIMB
Joint Underwriters	:	Collectively, Maybank IB, CIMB, AFFIN Investment Bank Berhad, Bank Muamalat Malaysia Berhad, MIDF Amanah Investment Bank Berhad and RHB Investment Bank Berhad
KPI	:	Key performance indicator
Listing	:	Listing of and quotation for our entire enlarged issued and paid-up share capital on the Main Market of Bursa Securities

Listing Requirements	:	Main Market Listing Requirements of Bursa Securities
LOSB	:	Lambang Optima Sdn Bhd
LOSB (Cayman)	:	LOSB (Cayman) Ltd
LPD	:	31 May 2013; being the latest practicable date prior to the registration of this Prospectus with the SC
Market Day	:	A day on which Bursa Securities is open for trading in securities
Master Agreement	:	Master agreement dated 11 March 2009 between SAJH, the Government, State Government of Johor, RUSB, PAAB and SAJSB, governing the migration of SAJH to the new licensing regime and transferring of all SAJH's water assets and liabilities to PAAB
Maybank IB	:	Maybank Investment Bank Berhad
MCCG 2012	:	Malaysian Code on Corporate Governance 2012
Melaka LNG Regas Unit	:	Melaka regasification unit and island berth of the LNG regasification facility project undertaken by RWorley
Memorandum	:	Memorandum of Association of our Company
MFRS	:	Malaysian Financial Reporting Standards
Migration	:	The migration of our water supply business in the State of Johor from the previous concession-based regulatory framework for the Malaysian water industry to the new licence-based regulatory framework as of September 2009 pursuant to the Water Services Industry Act
МІТІ	:	Ministry of International Trade and Industry, Malaysia
MOA	:	Memorandum of agreement
MOU	:	Memorandum of understanding
NA	:	Net assets
NAR	:	Norlian Abd Rahim
NBV	:	Net book value
NTA	:	Net tangible assets
Offer for Sale	:	Offer for sale of up to 77,000,000 Offer Shares by the Selling Shareholder
Offer Shares	:	Existing Shares to be offered by the Selling Shareholder pursuant to the Offer for Sale
Official List	:	A list specifying all securities listed on the Main Market of Bursa Securities
OPEC	:	Organisation of the Petroleum Exporting Countries
OSA Agreements	:	Collectively, the Master Agreement, the Facility Agreement and the Water Supply Agreement

Over-allotment Option	:	Over-allotment option that may be granted by the Selling Shareholder to the Stabilising Manager (on behalf of the placement managers) as set out in Section 4.3.4 of this Prospectus
PAAB	:	Pengurusan Aset Air Berhad
Participating Financial Institution	:	A participating financial institution for the Electronic Share Application
PAT	:	Profit after taxation
ΡΑΤΑΜΙ	:	Profit after taxation and minority interests
PBT	:	Profit before taxation
PE Multiple	:	Price-to-earnings multiple
PETRONAS	:	Petroliam Nasional Berhad
PETRONAS Carigali	:	PETRONAS Carigali Sdn Bhd
PETRONAS Gas	:	PETRONAS Gas Berhad
PETRONAS Group	:	PETRONAS and its group of companies
Placement Agreement		The placement agreement to be entered into by our Company, the Selling Shareholder, the Joint Global Coordinators, the Joint Bookrunners and the Placement Managers in respect of such number of Shares to be offered under the Institutional Offering
Placement Managers	:	Collectively, Maybank IB and CIMB
PPAs	:	Collectively, the RPI PPA and the RPII PPA
PPE	:	Property, plant and equipment
Pre-IPO Reorganisation	:	Reorganisation exercise undertaken by our Company prior to our IPO, as further described in Section 6.1.2 of this Prospectus
Price Determination Date	:	The date on which the Institutional Price and the Final Retail Price will be determined
Promoters	:	Promoters as defined under Section 226 of the CMSA comprising TSHM, RCorp and LOSB, collectively
Proposed RWT (Cayman) Acquisition 1	:	Proposed acquisition by RUSB of 45.23% equity interest in RWT (Cayman) from Robinson for a cash consideration of USD31,659,574, equivalent to approximately RM98,018,041 (based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from BNM's website), which is subject to interest of 5% per annum on the balance consideration (being the consideration less the deposit paid of USD1,000,000) to be calculated from 11 January 2013, being the date of signing of the RWT (Cayman) Agreement 1, up to the date of completion of the RWT (Cayman) Agreement 1)

Proposed RWT (Cayman) Acquisition 2	:	Proposed acquisition by RUSB of 2.67% equity interest in RWT (Cayman) from the Vendors for a cash consideration of approximately USD1,872,340, equivalent to approximately RM5,796,765 (based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from BNM's website)
Proposed RWT (Cayman) Acquisitions	:	Collectively, the Proposed RWT (Cayman) Acquisition 1 and the Proposed RWT (Cayman) Acquisition 2
Prospectus Guidelines	:	Guidelines on Prospectus – Equity issued by the SC, as amended, supplemented or modified from time to time
PRWSB	:	Perunding Ranhill Worley Sdn Bhd
PRWSB Service Agreement	:	Service agreement dated 12 July 2002 between RWorley and PRWSB, as amended by a supplemental agreement dated 7 August 2003, for the exclusive appointment by PRWSB of RWorley to perform the EPCM services in respect of all the projects awarded to PRWSB by its clients in Malaysia as at 1 February 2002 and throughout the term of the agreement which shall continue until terminated
PSMA	:	Petroleum (Safety Measures) Act 1984 as amended, supplemented or modified from time to time and any re-enactment thereof
PUB	:	Public Utilities Board of Singapore
Public Issue	:	Public issue of 330,000,000 Issue Shares by our Company
R&D	:	Research and development
RA	:	Roni Anak Adrian @ Ronnie Anak Adrian
Ranhill or Company	:	Ranhill Energy and Resources Berhad
Ranhill Group or Group	:	Collectively, Ranhill and its Subsidiaries
Ranhill Shares or Shares	:	Ordinary shares of RM1.00 each in our Company
RB	:	Ranhill Berhad
RB Group	:	Collectively, RB and its subsidiaries and associates
RCivil	:	RCivil Sdn Bhd (formerly known as Ranhill Civil Sdn Bhd)
RCorp	:	Ranhill Corporation Sdn Bhd
Regulation S	:	Regulation S under the U.S. Securities Act, an exemption from the registration requirements of the U.S. Securities Act for offers and sales of securities made outside the United States in "offshore transactions" (as defined in Regulation S) and not involving any activity undertaken for the purpose of, or that could reasonably be expected to have the effect of, conditioning the market in the United States for any of the securities being offered
REPC	:	REPC Services Sdn Bhd (formerly known as Ranhill Engineers and Constructors Sdn Bhd)

Retail Offering	:	Offering of 78,278,320 Issue Shares at the Retail Price, subject to the clawback and reallocation provisions, to the Eligible Individuals and the Malaysian public
Retail Price	:	Initial price of RM1.85 per Issue Share to be fully paid upon application pursuant to the Retail Offering, subject to adjustment as detailed in Section 4.8.1 of this Prospectus
Retail Underwriting Agreement	:	Retail underwriting agreement dated 20 June 2013 between our Company, the Joint Managing Underwriters and the Joint Underwriters in relation to the underwriting of the Issue Shares under the Retail Offering
Robinson	:	Robinson Investments Limited
ROC	:	Registrar of Companies, Malaysia
RPI PPA	:	Power purchase agreement dated 9 December 2004 between RPI and Sabah Electricity for the sale of generating capacity and electrical energy of the 190 MW combined-cycle, gas-turbine power plant in Kota Kinabalu by RPI to Sabah Electricity
RPII PPA	:	Power purchase agreement dated 30 June 2006 between RPII and Sabah Electricity, as amended by a supplemental agreement dated 16 July 2008, for the sale of generating capacity and electrical energy of the 190 MW combined-cycle, gas-turbine power plant in Kota Kinabalu Industrial Park by RPII to Sabah Electricity
Rules of Bursa Depository	:	The rules of Bursa Depository as issued pursuant to the SICDA
RUSB Group	:	RUSB and its subsidiaries
RWT (Cayman) Agreement 1	:	Conditional sale and purchase agreement dated 11 January 2013 between RUSB and Robinson for the Proposed RWT (Cayman) Acquisition 1
RWT (Cayman) Agreement 2	:	Conditional sale and purchase agreement dated 11 January 2013 between RUSB and the Vendors for the Proposed RWT (Cayman) Acquisition 2
RWT (Cayman) Group	:	RWT (Cayman) and its subsidiaries
Sabah Electricity	:	Sabah Electricity Sdn Bhd
SAC	:	Shariah Advisory Council of the SC
SAJSB	:	Syarikat Air Johor Sdn Bhd
Samsung	:	Samsung Engineering Co., Ltd.
SC	:	Securities Commission Malaysia
SDEB		Senai-Desaru Expressway Berhad
SECSB	:	Sabah Energy Corporation Sdn Bhd
Selling Shareholder	:	Cheval

Share Lending Agreement	:	The agreement to be entered into by the Selling Shareholder and the Stabilising Manager under which the Selling Shareholder will lend Shares to the Stabilising Manager to cover over-allotments, if any
SICDA	:	Securities Industry (Central Depositories) Act, 1991, as amended, supplemented or modified from time to time and any re-enactment thereof
SIRIM	:	Institut Penyelidikan Piawaian dan Perindustrian Malaysia
SPAN	:	Suruhanjaya Perkhidmatan Air Negara, the National Water Services Commission of Malaysia
Stabilising Manager	:	Maybank IB
Subsidiaries	:	Subsidiaries of our Company as defined under the Act and as set out in Part III of this Definitions Section
Sukuk	:	RM800.0 million nominal value of Sukuk issued by RPSB
TNB	:	Tenaga Nasional Berhad
TSHM	:	Tan Sri Hamdan Mohamad
U.S. Securities Act	:	United States Securities Act of 1933, as amended, supplemented or modified from time to time and any re-enactment thereof
Vendors	:	Collectively, Sierra Master (M) Sdn Bhd, AZJ, Koh Boon Sian, Faizal Othman and Soon Tet Heng
Water Services Industry Act	:	Water Services Industry Act, 2006, as amended, supplemented or modified from time to time and any re-enactment thereof
Water Supply Agreement	:	Water supply agreement dated 9 July 2009 between the State Government of Johor, SAJSB, RUSB and SAJH to regulate the supply of raw water and treated water by the State Government of Johor to SAJH
WorleyParsons	:	WorleyParsons Limited
YPJ	:	YPJ Corporation Sdn Bhd
Part I - Currency		
HKD	:	Hong Kong Dollar
RM and sen	:	Ringgit Malaysia and sen
RMB	:	Chinese Renminbi
Rs	:	Indian Rupee
SAR	:	Saudi Riyal
ТНВ	:	Thai Baht
USD	:	US Dollar

China or PRC	:	People's Republic of China
Hong Kong	:	Hong Kong, Special Administrative Region of China
UK	:	United Kingdom
US or United States	:	United States of America
Saudi Arabia	:	Kingdom of Saudi Arabia

Part II - Country

Part III - Subsidiaries

AnuRAK	:	AnuRAK Water Treatment Facilities Co Ltd
KWI (Guangzhou)	:	KWI (Guangzhou) Environmental Engineering Technology Co Ltd
PWSB	:	Premier Water Services Sdn Bhd
Ranhill (Hefei)	:	Ranhill (Hefei) Wastewater Treatment Co Ltd
Ranhill (Nanchang)	:	Ranhill (Nanchang) Wastewater Treatment Co Ltd
Ranhill (Xinxiang)	:	Ranhill (Xinxiang) Wastewater Treatment Co Ltd
Ranhill (Yingkou)	:	Ranhill (Yingkou) Wastewater Treatment Co Ltd
Ranhill International Trade	:	Ranhill International Trade (Hong Kong) Investment Limited
RAWSB	:	Ranhill Arabco Water Sdn Bhd
RBV	:	RB Ventures Sdn Bhd
RPI	:	Ranhill Powertron Sdn Bhd
RPII	:	Ranhill Powertron II Sdn Bhd
RPOM	:	Ranhill Power O&M Sdn Bhd
RPOMII	:	Ranhill Power II O&M Sdn Bhd
RPSB	:	Ranhill Power Sdn Bhd
RPS	:	Ranhill Power Services Sdn Bhd (formerly known as Ranhill Trans Bakti Sdn Bhd)
RUSB	:	Ranhill Utilities Sdn Bhd
RUTL	:	Ranhill Utilities Thai Limited
RWHK	:	Ranhill Water (Hong Kong) Limited
RWorley	:	Ranhill WorleyParsons Sdn Bhd
RWP	:	RanhillWP Sdn Bhd

Part III – Subsidiaries (cont'd)			
RWSB	:	Ranhill Water Services Sdn Bhd	
RWT	:	Ranhill Water Technologies Sdn Bhd	
RWT (Cayman)	:	Ranhill Water Technologies (Cayman) Ltd	
RWT (Shanghai)	:	Ranhill Water Technologies (Shanghai) Co. Ltd	
RWT (Thai)	:	Ranhill Water Technologies (Thai) Ltd	
SAJH	:	SAJ Holdings Sdn Bhd	
TZS	:	Top Zone Solutions Sdn Bhd	
Jointly-controlled entities			
PWL	:	Pinang Water Limited	
Transfield Services	:	Transfield Services-WorleyParsons JV (M) Sdn Bhd	
Yichun Pinang	:	Yichun Pinang Water Co Ltd	
Associates			
Haldia Water	:	Haldia Water Management Limited	
PLT Asia	:	PLT Asia (Airport Consultants) Sdn Bhd	
RBSB	:	Ranhill Bersekutu Sdn Bhd	
RBSL	:	Ranhill Bersekutu Saudi Limited	
SRAA	:	Syarikat Ranhill Al-Arabia	

Part III – Subsidiaries (cont'd)

Aqua SMART	:	Strategic management and analytical resource terminal system is a web- based application developed as an operational tool and has become an integral component of the NRW reduction strategy
BOO	:	Build operate own, a form of project financing where it involves a private entity financing, designing, constructing, operating and maintaining the assets during the agreed concession period, and the concessionaire will take ownership of these assets after the expiry of the concession
ВОТ	:	Build operate transfer, a form of project financing where it involves a private entity financing, designing, constructing, operating and maintaining the assets during the agreed concession period and the concessionaire will transfer these assets to the government or client after the expiry of the concession
вто	:	Build transfer operate which involves the design, construction and handover of the assets to the client after the construction such that the concessionaire will operate and maintain the assets on behalf of the client during the concession period
CCGT	:	Combined-cycle gas fired turbines including gas turbines, steam turbine generator, heat recovery steam generators and all ancillaries
COD	:	Commercial operation date, being the date on which a facility has completed all testing and commissioning and is the initiation date to which electricity can be generated for sale
DMA	:	District metering areas refer to the division of a water supply system into smaller areas which allows the monitoring of treated water circulated and water consumed thereby facilitating the monitoring of NRW
EOR	:	Enhanced oil recovery. EOR projects are designed to extend the lifetime of mature oil and gas fields and sustain production levels by applying advanced production technologies to extract deposits not accessible via conventional methods
EPC	:	Engineering, procurement and construction. This refer to the provision of services comprising project design, procurement of materials and construction work
EPCIC	:	Engineering, procurement, construction, installation and commissioning. This refers to the typical scope of work in an infrastructure development project and comprises project design, procurement of materials, construction work, installation and project commissioning
EPCM	:	Detailed engineering, procurement and construction management. EPCM contracts are solely services contracts. An EPCM contractor manages the entire EPC project on behalf of the client and selects the contractors
FEED	:	Front-end engineering design. This refer to the work prior to the detailed engineering phase and include preliminary engineering feasibility studies, concept development and evaluation, cost estimation and scheduled development, among others

floating production and offloading facilities	:	Floating, production, storage and offloading system, an offshore system comprising a large tanker or similar vessel equipped with a high-capacity production facility. Floating production and offloading facilities are normally moored at the bow to the seabed to maintain a geo-stationary position, and serve as a fixed point for risers to connect subsea wellheads to on-board processing/production, storage and offloading systems. Produced oil is periodically offloaded to smaller shuttle tankers, which transports the oil to onshore facilities for further processing
GIS	:	Geographical Information System. GIS is a mapping system that provides information on customers, the pipe network, infrastructure facilities and water quality indices, and is used as a tool to improve the efficiency of water supply management operations
GWh	:	Gigawatt hour, a unit of energy representing one billion watt hours and is equivalent to one million kilowatt hours
hectare	:	A unit of area equals to 10,000 square meters
jacket	:	Structure under a platform fixed to the seabed using piles
kJ	:	Kilojoule
km	:	Kilometre
4 km ²	:	Square kilometre
kWh	:	Kilowatt hour, the basic unit for the measurement of electricity production
LNG	:	Liquefied natural gas
Mgd	:	Million gallons per day
MLD	:	Million litres per day
мт	:	Metric tonne
MW	:	Megawatt, equivalent to 1,000 kilowatts
NRW	:	Non-revenue water. Normally presented in percentage which indicates the water loss (without yielding any revenue) compared to the total water supplied into the water supply system
O&M	:	Operations and maintenance, being the performance of routine, preventive, predictive, scheduled, and unscheduled actions aimed at preventing equipment failure or decline with the goal of increasing efficiency, reliability and safety
рН	:	A measure of the activity of the (solvated) hydrogen ion
regasification terminal	:	Facility for receiving, unloading, storing and re-gasifying LNG
SELECT	:	A specialist business line of RWorley which focuses on project viability assessment and development concept selection, and supports decision making on critical front-end planning issues
topside	:	Oil production facility above the water, usually on a platform or production unit for drilling, production, accommodation or a mixture of these purposes

TOT

: Take-over operating transfer involves taking over existing assets from the client, and operate and maintaining these assets during the concession period. The concessionaire will transfer the assets to the government or the client after the expiry of the concession

Company No. 1014445-T

BOARD OF DIRECTORS

Name	Address	Nationality	Profession
Tan Sri Dato' Ahmad Fuzi Haji Abdul Razak (Independent Non-Executive Chairman)	B-6-5 Mont' Kiara Aman 4, Jalan Kiara 2 Mont' Kiara 50480 Kuala Lumpur Malaysia	Malaysian	Company Director
Tan Sri Hamdan Mohamad (Executive Director/President and Chief Executive)	No. 32 & 34, Jalan Setiabistari Bukit Damansara 50490 Kuala Lumpur Malaysia	Malaysian	Engineer
Amran Awaluddin (Executive Director/Chief Operating Officer)	No. 12, Jalan 14 Taman Mesra 43000 Kajang Selangor Darul Ehsan Malaysia	Malaysian	Chartered Accountant
Mohammed Rashdan Mohd Yusof (Independent Non-Executive Director)	No. 5, Jalan SS4B/1 Kelana Jaya 47301 Petaling Jaya Selangor Darul Ehsan Malaysia	Malaysian	Chartered Accountant
Hee Kang Yow (Independent Non-Executive Director)	No. 8, Jalan PJU 1A/50B Damansara Idaman 47301 Petaling Jaya Selangor Darul Ehsan Malaysia	Malaysian	Company Director
Roni Anak Adrian @ Ronnie Anak Adrian <i>(Executive Director)</i>	Unit 27-1, The CapSquare Residences No. 2, Persiaran CapSquare Capital Square 50100 Kuala Lumpur Malaysia	Malaysian	Company Director
Loong Mei Yin (Non-Independent Non- Executive Director)	C8-2, One Menerung 1, Jalan Menerung Bukit Bandaraya 59100 Kuala Lumpur Malaysia	Malaysian	Company Director

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AUDIT COMMITTEE

Name	Designation	Directorship
Mohammed Rashdan Mohd Yusof	Chairman	Independent Non-Executive Director
Tan Sri Dato' Ahmad Fuzi Haji Abdul Razak	Member	Independent Non-Executive Chairman
Hee Kang Yow	Member	Independent Non-Executive Director

NOMINATING AND REMUNERATION COMMITTEE

Name	Designation	Directorship
Tan Sri Dato' Ahmad Fuzi Haji Abdul Razak	Chairman	Independent Non-Executive Chairman
Mohammed Rashdan Mohd Yusof	Member	Independent Non-Executive Director
Hee Kang Yow	Member	Independent Non-Executive Director

COMPANY SECRETARY	: Lau Bey Ling (MAICSA 7001523) No. 158, Jalan A9 Taman Melawati 53100 Kuala Lumpur Malaysia
REGISTERED OFFICE/HEAD OFFICE	 Level 15, Wisma Perkeso No. 155, Jalan Tun Razak 50400 Kuala Lumpur Malaysia Tel. No.: +603 2685 5200 Fax No.: +603 2685 5286 Website address: www.ranhill.com.my
SELLING SHAREHOLDER	 Cheval Infrastructure Fund L.P. (acting via its general partner, TAEL Manageme Co. (Cayman) Ltd) Cricket Square Hutchins Drive P.O. Box 2681, Grand Cayman KY1-1111, Cayman Islands Tel. No.: +65 6500 0911 Fax No.: +65 6238 5621
PRINCIPAL BANKERS (in alphabetical order)	 AmBank (M) Berhad 22nd Floor, Bangunan AmBank Group No. 55, Jalan Raja Chulan 50200 Kuala Lumpur Malaysia Tel. No.: +603 2036 2633
	Bank Islam Malaysia Berhad Level 32, Menara Bank Islam No. 22, Jalan Perak 50450 Kuala Lumpur

CIMB Bank Berhad Ground & 1st Floor Jalan Setiawangsa 9 Taman Setiawangsa 54200 Kuala Lumpur Malaysia

Tel. No.: +603 2088 8000

Malaysia

Tel. No.: +603 4252 0610

Malayan Banking Berhad 14th Floor, Menara Maybank 100, Jalan Tun Perak 50050 Kuala Lumpur Malaysia Tel. No.: +603 2070 8833

AUDITORS AND REPORTING ACCOUNTANTS	Ernst & Young Level 23A, Menara Milenium Jalan Damanlela Pusat Bandar Damansara 50490 Kuala Lumpur Malaysia Tel. No.: +603 7495 8000	
PRINCIPAL ADVISER	Maybank Investment Bank Berhad 32 nd Floor, Menara Maybank 100, Jalan Tun Perak 50050 Kuala Lumpur Malaysia Tel. No.: +603 2059 1888	
JOINT GLOBAL COORDINATORS	Maybank Investment Bank Berhad 32 nd Floor, Menara Maybank 100, Jalan Tun Perak 50050 Kuala Lumpur Malaysia Tel. No.: +603 2059 1888	
	CIMB Investment Bank Berhad 10 th Floor, Bangunan CIMB Jalan Semantan Damansara Heights 50490 Kuala Lumpur Malaysia Tel. No.: +603 2084 8888	
JOINT BOOKRUNNERS	Maybank Investment Bank Berhad 32 nd Floor, Menara Maybank 100, Jalan Tun Perak 50050 Kuala Lumpur Malaysia Tel. No.: +603 2059 1888	
	CIMB Investment Bank Berhad 10 th Floor, Bangunan CIMB Jalan Semantan Damansara Heights 50490 Kuala Lumpur Malaysia Tel. No.: +603 2084 8888	
JOINT MANAGING UNDERWRITERS AND JOINT UNDERWRITERS	Maybank Investment Bank Berhad 32 nd Floor, Menara Maybank 100, Jalan Tun Perak 50050 Kuala Lumpur Malaysia Tel. No.: +603 2059 1888	
	CIMB Investment Bank Berhad 10 th Floor, Bangunan CIMB Jalan Semantan Damansara Heights 50490 Kuala Lumpur Malaysia Tel. No.: +603 2084 8888	

JOINT UNDERWRITERS (in alphabetical order)	: AFFIN Investment Bank Berhad 27th Floor, Menara Boustead 69, Jalan Raja Chulan 50200, Kuala Lumpur Malaysia Tel. No.: +603 2084 8888
	Bank Muamalat Malaysia Berhad Ibu Pejabat, Menara Bumiputera 21, Jalan Melaka 50100 Kuala Lumpur Malaysia Tel. No.: +603 2698 8787
_	MIDF Amanah Investment Bank Berhad Level 8, 9, 10, 11 & 12 Menara MIDF 82, Jalan Raja Chulan 50200 Kuala Lumpur Malaysia Tel. No.: +603 2173 8888
	RHB Investment Bank Berhad Level 10, Tower One RHB Centre Jalan Tun Razak 50400 Kuala Lumpur Malaysia Tel. No.: +603 9287 3888
	: <i>To our Company as to Malaysian Law</i> Adnan, Sundra & Low Level 11, Menara Olympia No. 8, Jalan Raja Chulan 50200 Kuala Lumpur Malaysia Tel. No.: +603 2070 0466
	<i>To our Company as to United States and English law</i> Cleary Gottlieb Steen & Hamilton LLP 39/F, Bank of China Tower One Garden Road Central Hong Kong Tel. No.: +852 2521 4122
	To the Joint Global Coordinators, Joint Bookrunners, Joint Managing Underwriters and Joint Underwriters as to Malaysian law Zaid Ibrahim & Co. Level 19, Menara Milenium Jalan Damanlela Pusat Bandar Damansara 50490 Kuala Lumpur Malaysia Tel. No.: +603 2087 9999

LEGAL ADVISERS (cont'd)	To the Joint Global Coordinators, Joint Bookrunners, Joint Managing Underwriters and Joint Underwriters as to United States and English law Clifford Chance 28 th Floor, Jardine House One Connaught Place Hong Kong Tel. No.: +852 2825 8888
INDEPENDENT MARKET RESEARCH CONSULTANT	 Frost & Sullivan Malaysia Sdn Bhd Suite E-08-15 Block E Plaza Mont' Kiara 2 Jalan Kiara, Mont Kiara 50480 Kuala Lumpur Malaysia Tel. No.: +603 6204 5800
SHARE REGISTRAR	: Symphony Share Registrars Sdn Bhd Level 6, Symphony House Pusat Dagangan Dana 1 Jalan PJU 1A/46 47301 Petaling Jaya Selangor Darul Ehsan Malaysia Tel. No.: +603 7849 0777
ISSUING HOUSE	: Malaysian Issuing House Sdn Bhd Level 6, Symphony House Pusat Dagangan Dana 1 Jalan PJU 1A/46 47301 Petaling Jaya Selangor Darul Ehsan Malaysia Tel. No.: +603 7841 8000
LISTING SOUGHT	: Main Market of Bursa Securities
SHARIAH STATUS	: Approved by the SAC

This Prospectus is dated 4 July 2013.

We have registered this Prospectus with the SC. We have also lodged a copy of this Prospectus together with the Application Forms with the ROC, who takes no responsibility for their contents.

We received the SC's approval for our IPO and Listing on 11 June 2013. The approval of the SC shall not be taken to indicate that the SC recommends our IPO or assumes responsibility for the correctness of any statement made or opinion or report expressed in this Prospectus. The SC has not, in any way, considered the merits of our Shares being offered for investment. The SC is not liable for any non-disclosure on the part of our Company and takes no responsibility for the contents of this Prospectus, makes no representation as to its accuracy or completeness and expressly disclaims any liability for any part of the contents of this Prospectus. On 26 February 2013, the SAC classified our Shares as Shariah-compliant based on the Combined Financial Statements for the 18 months ended 31 December 2011. Further to the above, the SAC, on 14 June 2013, reconfirmed the classification of our Shares as Shariah-compliant based on the Combined Financial Statements for the year ended 31 December 2012. This classification remains valid from the date of this Prospectus until the next Shariah compliance review is undertaken by the SAC. Updates on the classification will be released in the updated list of Shariah-compliant securities on the last Friday of the month of May and November of each year.

You are advised to make your own independent assessment of our Company and should rely on your own evaluation to assess the merits and risks of our IPO and an investment in our Company.

We have received Bursa Securities' approval on 17 June 2013 for the Admission and the listing of and quotation for all our Shares including the IPO Shares on the Main Market of Bursa Securities. Our Shares will be admitted to the Official List and official quotation will commence upon receipt of confirmation from Bursa Depository that all the IPO Shares have been credited into the respective CDS accounts of the successful applicants and the notices of allotment have been despatched to all successful applicants. Admission to the Official List shall not be taken as an indication of the merits of our Company, our Shares or our IPO.

Pursuant to Section 14(1) of the SICDA, Bursa Securities has prescribed our Shares as a prescribed security. Consequently, our Shares offered in our IPO will be deposited directly with Bursa Depository. Any dealings in our Shares will be carried out in accordance with the SICDA and the Rules of Bursa Depository. We will not issue any share certificate to the successful applicants.

The completion of the Retail Offering and the Institutional Offering are inter-conditional. Our IPO is also subject to the public shareholding spread requirement under the Listing Requirements as set out in Section 4.3.7 of this Prospectus.

Pursuant to the Listing Requirements, at least 25% of the total number of Shares for which listing is sought must be held by at least 1,000 public shareholders holding not less than 100 Shares each at the point of our Listing. We expect to achieve this at the time of our Listing. In the event that the above requirement is not met, we may not be allowed to proceed with our Listing. Should such an event occur, we will return in full, without interest, monies paid in respect of all applications and if such monies are not returned in full within 14 days after we and the Selling Shareholder become liable to do so, in accordance with the provision of Section 243(2) of the CMSA, in addition to the liability of our Company and the Selling Shareholder, the officers of our Company and the Selling Shareholder shall be jointly and severally liable to return such monies with interest at the rate of 10% per annum or at such other rate as may be prescribed by the SC from the expiration of that period until the full refund is made.

In the case of an application by way of Application Form, you should state your CDS account number in the space provided in the Application Form. If you do not presently have a CDS account, you must open a CDS account with an ADA before making an application for our IPO Shares. For an application by way of Electronic Share Application, only an applicant who has a CDS account number can make an Electronic Share Application and you should furnish your CDS account number to a Participating Financial Institution by way of keying in your CDS account number if the instructions on the ATM screen at which you submit your Electronic Share Application requires you to do so. In the case of an application by way of Internet Share Application, only an applicant who has a CDS account opened with an Internet Participating Financial Institution can make an Internet Share Application. Your CDS account number will automatically appear in the electronic IPO online Application Forms. A corporation or institution cannot apply for our IPO Shares by way of Electronic Share Application or Internet Share Application.

IF YOU ARE IN ANY DOUBT ABOUT THIS DOCUMENT OR IN CONSIDERING YOUR INVESTMENT, OR IF YOU ARE IN ANY DOUBT AS TO THE ACTION TO BE TAKEN, YOU SHOULD CONSULT YOUR STOCKBROKERS, BANK MANAGERS, SOLICITORS, ACCOUNTANTS OR ANY OTHER PROFESSIONAL ADVISERS IMMEDIATELY.

This section is only a summary of the salient information about us and our IPO and is extracted and summarised from the full text of this Prospectus. You should read and understand this section together with the entire Prospectus before you decide whether or not to invest in us.

3.1 Overview

3.

We are a Malaysian conglomerate with interests in 2 main sectors: energy and environment. In our energy sector, we have 2 main businesses: oil and gas, in which we provide engineering and related services, and power generation. In our environment sector, we provide water supply services, operate water and wastewater treatment plants, and provide specialised services in the management and optimisation of water utility assets. We conduct our operations and provide our services primarily in Malaysia, and our international operations are centered in Asian markets such as China, Thailand and South East Asia.

In our energy sector's oil and gas business, we provide multidisciplinary engineering services to onshore and offshore oil and gas, refinery and petrochemical industries. Our scope of services includes feasibility and concept studies (which we refer to as "SELECT"), front-end engineering design (which we refer to as "FEED"), and detailed engineering, procurement services, construction management (which we refer to as "EPCM").

In our energy sector's power business, we own and operate two 190 MW CCGT power plants in Sabah, Malaysia via our subsidiaries, RPI and RPII, on a BOO and BOT basis, respectively. We have entered into PPAs with Sabah Electricity, a subsidiary of TNB, providing for the sale of up to 380 MW of electricity generating capacity and electricity production for a 21-year period, commencing on 25 October 2008 with respect to RPI, and commencing on 22 April 2011 with respect to RPII. We provide O&M services to our RPI and RPII power plants through RPOM and RPOMII, respectively.

In our environment sector, we have been granted an exclusive licence (on a 3-year term, renewable for successive 3-year terms on a rollover basis) by the Minister of Energy, Green Technology and Water, Malaysia to provide source-to-tap water supply services to endcustomers in the entire State of Johor, the second most populous state in Malaysia, with a population of approximately 3.4 million people as at 2012 (*Source: Department of Statistics, Malaysia*). Outside of Malaysia, we have 10 water and wastewater concessions, on a BOT, BTO or TOT basis, in relation to water treatment plants and wastewater treatment plants, with an aggregate treatment capacity of 310 MLD. In addition, through our jointly-controlled entity, Yichun Pinang, we also operate a potable water treatment plant in Yichun City, China with a treatment capacity of 50 MLD.

Refer to Section 7 of this Prospectus for further information on our business.

3.2 Competitive strengths, business strategies and future plans

3.2.1 Competitive strengths

- Comprehensive engineering expertise and cost effective skilled workforce in the oil and gas business in partnership with WorleyParsons;
- (ii) Exclusive water operator in Johor and largest IPP in Sabah with strong operational capabilities and proven track record;
- (iii) Proven track record in securing contracts/concessions;
- (iv) Presence in high growth markets and well-positioned to capitalise on China's water and wastewater sector;
- (v) Stable cash flows from long-term contracts and concessions; and

(vi) Strength and depth in leadership and talent.

3.2.2 Business strategies and future plans

3.2.2.1 Energy sector

- (i) Opportunities in the rejuvenation of oil and gas infrastructure;
- (ii) Global expansion through potential collaboration with international EPC contractors;
- (iii) Expanding scope of work into procurement;
- (iv) Maximising value through linkages in the energy production chain; and
- (v) Capitalising on ETP across the oil and gas and power businesses.

3.2.2.2 Environment sector

- (i) Expanding our regional operations;
- (ii) Commercialising our NRW management system; and
- (iii) Capitalising on Government initiatives in the environment sector.

For detailed information on our competitive strengths, business strategies and future plans, refer to Sections 7.2 and 7.3 of this Prospectus, respectively.

3.3 Financial information

3.3.1 Summary of historical financial information

The following selected historical financial information for the years ended 30 June 2010, 18 months ended 31 December 2011 and year ended 31 December 2012 have been prepared from the consolidated financial statements of RB as well as the individual financial statements of the Identified Entities and should be read in conjunction with the "Management's discussion and analysis of financial condition and results of operations based on combined financial information" set out in Section 10.4 of this Prospectus and the Accountants' Report together with its related notes as set out in Section 11 of this Prospectus.

Prospective investors should note that we are part of the RB Group prior to the Internal Reorganisation and did not operate independently as a group. The Combined Financial Statements have been prepared as if the Identified Entities have operated as a single economic entity throughout the financial years ended 30 June 2010, 18 months ended 31 December 2011 and year ended 31 December 2012. The financial information as presented in the Combined Financial Statements may not be the same as the consolidated financial statements of our Group post IPO. Further, such information does not purport to predict our Group's financial position, results and cash flows. Refer to Sections 6.1.2 and 10.6 of this Prospectus for further information.

		Audited	
	Year ended 30 June	18 months ended 31 December	Year ended 31 December
	2010	2011	2012
	(RM'000)	(RM'000)	(RM'000)
Revenue	1,346,358	2,454,146	1,985,193
Cost of sales	(916,321)	(1,702,060)	(1,395,204)
Gross profit	430,037	752,086	589,989
Interest income	13,181	67,314	77,369
Other income	1,420,498	14,773	60,587
Administrative expenses	(198,270)	(362,152)	(249,568)
Other operating expenses Tendering and marketing	(1,489)	(3,260)	(2,059)
expenses	(3,996)	(3,965)	(2,470)
Finance costs	(88,113)	(115,137)	(84,505)
Zakat	-	(3,336)	(1,968)
Share of results of associates	851	(9,071)	-
PBT	1,572,699	337,252	387,375
Income tax expense	(44,882)	(35,370)	(105,149)
PAT	1,527,817	301,882	282,226
Other comprehensive income:			
Foreign currency translation, representing other comprehensive income for the			
period/year, net of tax Total comprehensive	(5,434)	(203)	(1,759)
income for the period/year	1,522,383	301,679	280,467
PAT attributable to: Equity holders of our			
Company	1,059,781	181,572	161,091
Non-controlling interests	468,036	120,310	121,135
Non-controlling interests	1,527,817	301,882	282,226
Total comprehensive income attributable to: Equity holders of our			
Company	1,056,002	181,367	159,882
Non-controlling interests	466,381	120,312	120,585
·	1,522,383	301,679	280,467
EBITDA (1)	1,809,338	665,910	594,881
Gross profit margin ⁽²⁾ (%)	31.94	30.65	29.72
EBITDA margin ⁽³⁾ (%)	⁽⁸⁾ 134.39	27.13	29.90
PBT margin $^{(4)}$ (%)	⁽⁸⁾ 116.81	13.74	19.51
PAT margin $^{(5)}$ (%)	⁽⁸⁾ 113.48	12.30	
Basic EPS ⁽⁶⁾ (RM)			14.22
	1.68	0.29	0.25
Diluted EPS (7) (RM)	1.10	0.19	0.17

Notes:

- ⁽¹⁾ EBITDA represents earnings before interest, taxation, depreciation and amortisation.
- ⁽²⁾ Computed based on gross profit over total revenue.
- ⁽³⁾ Computed based on EBITDA over total revenue.
- ⁽⁴⁾ Computed based on PBT over total revenue.
- ⁽⁵⁾ Computed based on PAT over total revenue.
- (6) Computed based on PAT attributable to equity holders of our Company over 631.8 million Shares, being the weighted average number of Shares in issue for the year/period ended under review.
- (7) Computed based on PAT attributable to equity holders of our Company over the enlarged share capital of approximately 961.8 million Shares, after taking into account the Public Issue.
- (8) The higher margin is due to the unusual non-taxable effect of RM1,370.1 million arising from the transfer of water-related assets to PAAB in connection with the Migration.

Refer to Sections 10 and 11 of this Prospectus for further financial information relating to our Group.

3.3.2 Summary of pro forma consolidated statements of financial position of our Company

The pro forma consolidated statements of financial position as at 31 December 2012 has been prepared on the assumption that the following transactions were completed on 31 December 2012:

- the Internal Reorganisation;
- the Pre-IPO Reorganisation;
- the Proposed RWT (Cayman) Acquisitions; and
- our IPO, our Listing and the receipt and utilisation by our Company of the estimated proceeds from our IPO as set out in Section 4.10 of this Prospectus.

The pro forma consolidated statements of financial position should be read in conjunction with the Reporting Accountants' letter on the pro forma consolidated financial information as set out in Section 10.6 of this Prospectus.

	Audited As at 31 December 2012	Pro forma I After the Internal Reorganisation and the Pre- IPO Reorganisation	Pro forma II After Pro forma I and the Proposed RWT (Cayman) Acquisitions	Pro forma III After Pro forma I, II, our IPO, Listing and utilisation of proceeds
	(RM'000)	(RM'000)	(RM'000)	(RM'000)
	,			, , , , , , , , , , , , , , , , , , ,
Non-current assets Property, plant and equipment	_	616,709	621,389	621,389
Investment properties	-	375	375	375
Operating financial assets		152,360	292,453	292,453
Service concession assets	-	364,735	364,735	364,735
Intangible assets	-	328,446	347,829	347,829
Finance lease receivables Deferred tax assets	-	699,831 338,858	699,831 339,212	699,831 339,212
Trade and other receivables	· -	70,546	70,590	70,590
	-	2,571,860	2,736,414	2,736,414
• • •				
Current assets Operating financial assets	_	5,359	10,286	10,286
Inventories		58,907	59,209	59,209
Finance lease receivables	-	30,430	30,430	30,430
Trade and other receivables	-	411,047	416,040	416,040
Tax recoverable	-	6,174	6,403	6,403
Other financial assets	-	43,554	43,554	43,554
Other current assets Deposits, cash and bank	136	101,589	102,469	102,469
balances	-	453,399	459,629	519,629
	136	1,110,459	1,128,020	1,188,020
Total assets	136	3,682,319	3,864,434	3,924,434
Equity and liabilities				
Equity attributable to equity				
holders of our Company				
Share capital	-	631,766	631,766	961,766
Share premium	-	852,884	852,884	1,118,421
Currency translation reserve Equity component of	-	(4,178)	(4,218)	(4,218)
convertible unsecured loan				
stocks	-	1,049	1,049	1,049
Retained earnings	(4,383)	356,182	356,182	331,347
Merger deficit	- (4.000)	(1,495,538)	(1,495,538)	(1,495,538)
Nen controlling interacts	(4,383)	342,165 333,118	342,125 333,118	912,827 333,118
Non-controlling interests Total equity	(4,383)	675,283	675,243	1,245,945
Total equity	(1111)			
Non-current liabilities				
Retirement benefit obligations	-	54,049	54,049	54,049
Finance lease payables	-	1,212	1,257	1,257
Long term borrowings	-	1,855,098	1,903,158	1,538,619
Trade and other payables	-	569	569	569
Service concession obligations Consumer deposits	-	171,869 141,485	171,869 141,485	171,869 141,485
Deferred tax liabilities	-	35,761	39,371	39,371
		2,260,043	2,311,758	1,947,219

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	Audited As at 31 December 2012 (RM'000)	Pro forma I After the Internal Reorganisation and the Pre- IPO Reorganisation (RM'000)	Pro forma II After Pro forma I and the Proposed RWT (Cayman) Acquisitions (RM'000)	Pro forma III After Pro forma I, II, our IPO, Listing and utilisation of proceeds (RM'000)
Current liabilities				
Retirement benefit obligations	-	4,664	4,664	4,664
Finance lease payables	-	702	725	725
Short term borrowings	-	72,321	78,855	76,692
Zakat	-	4,335	4,335	4,335
Trade and other payables	4,519	472,529	589,202	445,202
Other current liabilities	-	20,055	27,261	27,261
Service concession obligations	-	164,402	164,402	164,402
Income tax payables		7,985	7,989	7,989
	4,519	746,993	877,433	731,270
Total liabilities	4,519	3,007,036	3,189,191	2,678,489
Total equity and liabilities	136	3,682,319	3,864,434	3,924,434
Number of Shares in issue				
('000)	_*	631,766	631,766	961,766
NÁ ⁽¹⁾	(4,383)	342,165	342,125	912,827

Notes:

* Represents 2 Shares.

⁽¹⁾ Being NA attributable to ordinary shareholders (excluding non-controlling interests).

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3.3.3 Capitalisation and indebtedness

The information in this table should be read in conjunction with the Accountants' Report together with its accompanying notes set out in Section 11 of this Prospectus, as well as our pro forma consolidated financial information as set out in Section 10.6 of this Prospectus. The pro forma financial information below does not represent our Group's actual capitalisation and indebtedness as at 31 December 2012 and is provided for illustrative purposes only. The total indebtedness of our Group is not guaranteed by any third party.

	Audited*	Pro forma
	As at	After our IPO and
	31 December 2012	Listing
	(RM'000)	(RM'000)
Cash and cash equivalents ⁽¹⁾	218,436	280,954
Indebtedness		
Short term debt		
Secured		
- Term loans	2,858	5,485
- IMTN	55,038	55,038 ⁽⁴⁾
 Bank overdrafts 	1,907	3,660
 Bankers' acceptances 	2,342	4,496
- Obligation under finance lease	43	43
- Sukuk	2,163	-
 Musharakah medium term notes 	7,970	7,970
	72,321	76,692
Long term debt		
Secured	50.000	100.000
- Term loans	52,268	100,328
- IMTN	324,203	-
- Musharakah medium term notes	699,979 767,920	699,979 727,584
- Sukuk	188	188
 Obligation under finance lease Unsecured 	100	100
	10,540	10,540
- Convertible unsecured loan stocks	1,855,098	1,538,619
(2)	1,927,419	1,615,311
Total indebtedness ⁽²⁾	1,327,413	1,010,011
Total shareholders' funds	1 104 402	012 827
	1,194,492 640,935	912,827 333,118
Non-controlling interests		
Total capitalisation	1,835,427	1,245,945
Total conitalization and		
Total capitalisation and indebtedness	3,762,846	2,861,256
indeptedness		
Gearing ratio (times) ⁽³⁾	1.61	1.77 ⁽⁵⁾

Notes:

* Based on Combined Financial Statements.

- Cash and cash equivalents include deposits, cash and bank balances less bank overdrafts and restricted deposit.
- ⁽²⁾ Total indebtedness includes short-term debts and long-term debts.
- ⁽³⁾ Computed based on total indebtedness over total shareholders' funds of our Group.
- (4) Such amount which falls due on 27 June 2013 will be repaid using our internally generated funds.
- ⁽⁵⁾ Our pro forma gearing ratio is higher than our gearing ratio based on the Combined Financial Statements mainly due to the lower pro forma shareholders' funds resulting from the merger deficit, being the difference between the consideration paid/transferred and the equity acquired in respect of the transactions pursuant to the Internal Reorganisation and Acquisition of RWP as defined in Section 6.1.2 of this Prospectus. The impact of the merger deficit is not reflected in the Combined Financial Statements as it does not take into account of such transactions.

3.4 Dividend policy

No inference should be made from any of the following statements as to our actual future profitability or our ability to pay dividends in the future.

As our Company is a holding company, our income, and therefore our ability to pay dividends, is dependent upon the dividends that we receive from our Subsidiaries, jointly-controlled entities and associates. The payment of dividends by our Subsidiaries, jointly-controlled entities and associates will depend upon their operating results, distributable profits, capital requirements, financial condition and other relevant factors.

Refer to Section 10.7 of this Prospectus for information on our dividend policy.

3.5 Particulars of our IPO

Our IPO is subject to the terms and conditions of this Prospectus and upon acceptance, the IPO Shares are expected to be allocated/transferred in the manner described below, subject to the clawback and reallocation provisions and the Over-allotment Option as set out in Sections 4.3.3 and 4.3.4 of this Prospectus, respectively.

Our IPO of up to 407,000,000 IPO Shares, representing up to approximately 42.3% of the enlarged issued and paid-up share capital of our Company, comprising the Offer for Sale of up to 77,000,000 Offer Shares and the Public Issue of 330,000,000 Issue Shares are offered by the Selling Shareholder and our Company, respectively, in the manner set out below. For the avoidance of doubt, the IPO Shares offered under the Institutional Offering and the Retail Offering do not include the Shares under the Over-allotment Option.

3.5.1 Institutional Offering

Institutional offering involves the offering of up to 328,721,680 IPO Shares (comprising up to 77,000,000 Offer Shares and 251,721,680 Issue Shares) at the Institutional Price, representing up to approximately 34.2% of the enlarged issued and paid-up share capital of our Company, in the following manner:

- up to 110,603,090 Issue Shares to Bumiputera investors approved by the MITI; and
- (ii) 141,118,590 Issue Shares and up to 77,000,000 Offer Shares to the following persons:
 - (a) Malaysian institutional and selected investors (other than Bumiputera investors approved by the MITI); and
 - (b) foreign institutional and selected investors outside the United States in reliance on Regulation S.

3.5.2 Retail Offering

Retail offering involves the offering of 78,278,320 Issue Shares at the Retail Price, representing approximately 8.1% of the enlarged issued and paid-up share capital of our Company in the following manner:

(i) 59,043,000 Issue Shares reserved for application by the Eligible Individuals; and

(ii) 19,235,320 Issue Shares for application by the Malaysian public, of which 9,617,660 Issue Shares have been set aside for application by Bumiputera citizens, companies, co-operatives, societies and institutions.

Refer to Section 4.3 of this Prospectus for further information on the particulars of our IPO.

3.6 Utilisation of proceeds

We expect to use the gross proceeds from the Public Issue of RM610.50 million in the following manner:

Details of utilisation of	Estimated timeframe for utilisation from the date of	244000	
proceeds	our Listing	RM'000	%
Redemption of RPI's outstanding	Within 3 months	330,000	54.0
Partial redemption of Sukuk	Within 6 months	42,500	7.0
Part settlement of the purchase consideration of the Proposed RWT (Cayman) Acquisitions	Within 1 month	104,000	17.0
Settlement of the purchase consideration for the Acquisition by RPSB	Within 1 month	40,000	6.6
Expansion of environment (water) business in China	Within 12 months	61,000	10.0
Part payment of the estimated expenses for our IPO and our Listing	Within 1 month	33,000	5.4
Total gross proceeds		610,500	100.0

Our Company will not receive any proceeds from the Offer for Sale. The gross proceeds from the Offer for Sale of up to RM142.45 million will accrue entirely to the Selling Shareholder.

For detailed information on the utilisation of proceeds from the Public Issue, refer to Section 4.10 of this Prospectus.

3.7 Risk factors

Before investing in our Shares, you should carefully consider, along with other matters in this Prospectus, the risks of such an investment as summarised below. The following is not an exhaustive list of all of the risks that we currently face or that may develop in the future.

3.7.1 Risks relating to industries in which we operate

3.7.1.1 Industry risks relating to our energy sector

- (i) Risk relating to our oil and gas business
 - (a) Demand for the services of our oil and gas business depends significantly on trends of oil and natural gas prices;
 - (b) The operation of projects designed by us may cause health, environmental or other harm to people and property;
 - (c) We face keen competition in our market;
 - (d) Inaccurate estimates by us in applying percentage-ofcompletion accounting could result in a reduction of previously reported profits and have a significant impact on our period-to-period results of operations; and
 - (e) Our order book may not be representative of our future results.
- (ii) Risks relating to our power business
 - (a) We are exposed to operational risks;
 - (b) We may not be able to obtain adequate fuel supplies for our power generating plants;
 - (c) We are obligated under our gas supply contracts to pay for a minimum quantity of natural gas, but Sabah Electricity is not obligated to despatch our power plants at a level that is sufficient to ensure that we will use natural gas equal to our minimum natural gas purchase obligation;
 - (d) Our power business is subject to extensive environmental regulation and permit requirements that may involve significant and increasing costs;
 - (e) Our operations may cause harm to people and property; and
 - (f) We rely on Sabah Electricity as the sole offtaker for the power produced by our power plants.

3.7.1.2 Industry risks relating to our environment sector

- (i) The rates that we charge our water supply customers are subject to regulations;
- (ii) We are required to comply with certain service obligations;

- (iii) Contamination of our raw water supply may disrupt our services and harm our reputation;
- (iv) Failure of our water treatment plants, network of water pipes or water reservoirs could result in losses and damages;
- (v) We are exposed to the risk of disruption in the supply of important goods or services from third parties;
- (vi) We are reliant on PAAB to deliver new water infrastructure assets;
- (vii) Risks relating to our Subsidiaries in China; and
- (viii) We may not be successful in maintaining existing concessions or securing new concessions.

3.7.2 Risks relating to our Company

- (i) We are exposed to risks in relation to our growth and expansion strategies;
- (ii) The operation of our business is dependent upon certain permits, licences and approvals;
- (iii) We are exposed to technological and information systems risk;
- (iv) Our operations are primarily conducted in Malaysia, which exposes us to risks associated with Malaysia and the performance of the Malaysian economy;
- (v) Funding, especially on terms acceptable to us, may not be available to meet our future capital needs;
- (vi) We depend on certain key personnel and skilled employees;
- (vii) Failure to maintain good employee relations may adversely affect our operations and the success of our business;
- (viii) We are exposed to the credit risks of our customers;
- (ix) We are controlled by our Promoters, whose interests may not be aligned with those of the other shareholders of our Company;
- Exchange rate fluctuations could negatively affect our financial condition and results of operations;
- Our ability to generate sufficient cash flow to fulfil our debt obligations is not assured;
- (xii) There may be conflicts of interest between our Group and our related parties; and
- (xiii) Existing or future claims against our Company, our subsidiaries, our Directors or our key management may have an unfavourable impact on us.

3.7.3 Risks relating our Shares

- (i) There has been no prior market for our Shares;
- (ii) Our Share price and trading volume may be volatile;

- (iii) There may be a delay or failure in trading of our Shares;
- (iv) We may not be able to pay dividends;
- (v) We are a holding company and, as a result, are dependent on dividends from our Subsidiaries, jointly-controlled entities and associates to meet our obligations and to provide funds for payment of dividends on our Shares;
- (vi) We plan to use the proceeds from the Public Issue primarily for repayment of indebtedness, investment in RWT (Cayman) and the Acquisition by RPSB, and you may not necessarily agree with how we use them;
- (vii) The sale or the possible sale of a substantial number of our Shares in the public market following our IPO could adversely affect the price of our Shares;
- (viii) Because the Retail Price and the Institutional Price are higher than our net asset value per Share, purchasers of our Shares in the IPO will experience immediate and substantial dilution and purchasers of our Shares may experience further dilution if we issue additional Shares in the future; and
- (ix) Forward-looking statements in this Prospectus may not be accurate.

For a detailed discussion on the risks associated with investing in our Company, refer to Section 5 of this Prospectus.

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4.1 Opening and closing of applications

Application for the Issue Shares under the Retail Offering will open at 10:00 a.m. on 4 July 2013 and will remain open until 5:00 p.m. on 11 July 2013 or such other date or dates as our Directors and the Joint Managing Underwriters may decide in their absolute discretion.

4.2 Indicative timetable

The following events are intended to take place on the following indicative dates:

Event	Date
Opening of the Institutional Offering ⁽¹⁾	4 July 2013
Issuance of Prospectus/Opening of the Retail Offering	10:00 a.m., 4 July 2013
Closing of the Retail Offering	5:00 p.m., 11 July 2013
Closing of the Institutional Offering	12:00 p.m., 15 July 2013
Price Determination Date	15 July 2013
Balloting of applications for the Issue Shares under the Retail Offering	15 July 2013
Allotment/Transfer of the IPO Shares to successful applicants	29 July 2013
Listing	31 July 2013

Note:

- (1)
- Other than the Institutional Offering to the Cornerstone Investors. The master cornerstone placing agreement for the acquisition of the IPO Shares by the Cornerstone Investors was entered into on 21 June 2013.

The Institutional Offering will close on the date stated above or such other date or dates as our Directors, the Selling Shareholder and the Joint Global Coordinators may decide in their absolute discretion. The applications for the Issue Shares under the Retail Offering will close at the time and on the date stated above or such other date or dates as our Directors and the Joint Managing Underwriters may decide in their absolute discretion.

In the event that the closing date and/or time of either the Institutional Offering or the Retail Offering is extended, the Price Determination Date and dates for the balloting of applications for the Issue Shares under the Retail Offering, allotment/transfer of the IPO Shares to successful applicants and our Listing may be extended accordingly. Any extension will be announced in widely circulated Bahasa Malaysia and English daily newspapers within Malaysia.

4. **DETAILS OF OUR IPO** (cont'd)

4.3 Particulars of our IPO

Our IPO is subject to the terms and conditions of this Prospectus and upon acceptance, the IPO Shares are expected to be allocated/transferred in the manner described below, subject to the clawback and reallocation provisions and the Over-allotment Option as set out in Sections 4.3.3 and 4.3.4 of this Prospectus, respectively.

Our IPO of up to 407,000,000 IPO Shares, representing up to approximately 42.3% of the enlarged issued and paid-up share capital of our Company, comprising the Offer for Sale of up to 77,000,000 Offer Shares and the Public Issue of 330,000,000 Issue Shares are offered by the Selling Shareholder and our Company, respectively, in the manner set out below. For the avoidance of doubt, the IPO Shares offered under the Institutional Offering and the Retail Offering do not include the Shares under the Over-allotment Option.

4.3.1 Institutional Offering

Institutional offering involves the offering of up to 328,721,680 IPO Shares (comprising up to 77,000,000 Offer Shares and 251,721,680 Issue Shares) at the Institutional Price, representing up to approximately 34.2% of the enlarged issued and paid-up share capital of our Company in the following manner:

- up to 110,603,090 Issue Shares to Bumiputera investors approved by the MITI; and
- (ii) 141,118,590 Issue Shares and up to 77,000,000 Offer Shares to the following persons:
 - (a) Malaysian institutional and selected investors (other than Bumiputera investors approved by the MITI); and
 - (b) foreign institutional and selected investors outside the United States in reliance on Regulation S.

Pursuant to a master cornerstone placing agreement dated 21 June 2013, entered into between our Company, the Selling Shareholder, the Joint Bookrunners and the Cornerstone Investors, the Cornerstone Investors have agreed severally, and not jointly, to acquire the IPO Shares, subject to the terms of the individual cornerstone placing agreements, in the aggregate of 118,274,200 IPO Shares, representing 12.3% of the enlarged issued and paid-up share capital of our Company from the Selling Shareholder and/or the Company at RM1.85 per IPO Share or the Institutional Price, whichever is lower.

Both the master cornerstone placing agreement and the individual cornerstone placing agreements are conditional upon the Retail Underwriting Agreement and the Placement Agreement, having become unconditional by no later than the date as specified in those agreements and not having been terminated pursuant to their respective terms.

4.3.2 Retail Offering

Retail offering involves the offering of 78,278,320 Issue Shares at the Retail Price, representing approximately 8.1% of the enlarged issued and paid-up share capital of our Company in the following manner:

- (i) 59,043,000 Issue Shares reserved for application by the Eligible Individuals; and
- (ii) 19,235,320 Issue Shares for application by the Malaysian public, of which 9,617,660 Issue Shares have been set aside for application by Bumiputera citizens, companies, co-operatives, societies and institutions.

A summary of the allocation of the 59,043,000 Issue Shares to the Eligible Individuals respectively are as follows:

Category of persons	No. of eligible persons	Aggregate no. of Issue Shares allocated
Eligible directors of our Group ⁽¹⁾	21	1,897,000
Eligible employees of our Group ⁽²⁾	. 3,741	50,763,000
Persons who have contributed to the success of our Group ⁽³⁾	360	6,383,000
Total	4,122	59,043,000

Notes:

- (1) Includes among others, all eligible directors and an alternate director of our Group who have been allocated between 55,000 and 161,000 Issue Shares each. For our Directors' shareholdings in our Company, refer to Section 9.1.2 of this Prospectus.
- ⁽²⁾ The criteria for allocation to the eligible employees of our Group are based on their length of service and job grade.
- ⁽³⁾ The criteria for allocation to persons who have contributed to the success of our Group are based on, among others, their current and past contributions to our Group and duration of their respective relationships with our Group.

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	Offer for Sale	r Sale	Public Issue	lssue	Total	I
Categories	No. of Shares	% of enlarged share capital	No. of Shares	% of enlarged share capital	No. of Shares	% of enlarged share capital
Retail Offering:						
Malaysian public (via balloting)			0 617 660	6	9 617 660	
- Non-Bumiputera	•		9,617,660	0.1	9,617,660	
Eligible directors and employees of our Group		'	52,660,000	5.5	52,660,000	5.5
Persons who have contributed to the success of our Group	1	ı	6,383,000	0.6	6,383,000	
Sub-total	1	1	78,278,320	8.1	78,278,320	
100-00						
Institutional Offering:						
MITI approved Bumiputera investors Other Malaysian and foreign institutional and selected investors	- 77,000,000	8.0	110,603,090 1 4 1,118,590	11.5 14.7	110,603,090 218,118,590	11.5 22.7
Sub-total	77 000 000	0.8	251.721.680	26.2	328.721.680	34.2
Total	77,000,000	8.0	330,000,000	34.3	407,000,000	42.3

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4.3.3 Clawback and reallocation

The Retail Offering and the Institutional Offering shall be subject to the following clawback and reallocation provisions:

- (i) if the Issue Shares allocated to Bumiputera investors approved by the MITI are not fully taken up, the Issue Shares which are not taken up may be allocated to other institutional and selected investors under the Institutional Offering;
- subject to Section 4.3.3(i) above, if there is an over-subscription in the Retail Offering and an under-subscription in the Institutional Offering, the IPO Shares may be clawed back from the Institutional Offering and allocated to the Retail Offering; and
- (iii) if there is an under-subscription in the Retail Offering and an oversubscription in the Institutional Offering, the IPO Shares may be clawed back from the Retail Offering and allocated to the Institutional Offering.

There will be no clawback and reallocation if there is an over-subscription in both the Institutional Offering and the Retail Offering.

Any Issue Shares not taken up by the Eligible Individuals ("**Excess Issue Shares**") shall be made available for application by the Eligible Individuals who have applied for excess on top of their pre-determined allocation and allocated on a fair and equitable basis and in the following priority:

- firstly, for allocation on a pro-rata basis based on the number of Excess Issue Shares applied to the Eligible Individuals who have applied for the Excess Issue Shares; and
- (ii) secondly, to minimise the odd lots.

In addition, the Board reserves the right to allocate to the Eligible Individuals who have applied for excess on top of their pre-determined allocation at the discretion of our Board in such manner as it deems fit and expedient in the best interest of our Company. The Board also reserves the right to accept any Excess Issue Shares application, in full or in part, without assigning any reason. Nevertheless, the Board will allocate any Excess Issue Shares on a fair and equitable manner.

Thereafter, any unsubscribed Issue Shares unallocated to the Eligible Individuals will be made available for application by the Malaysian public under the Retail Offering, with any remaining Issue Shares thereafter underwritten by the underwriters, subject to the clawback and reallocation provisions.

4.3.4 Over-allotment Option

The Selling Shareholder may grant an Over-allotment Option to the Stabilising Manager (on behalf of the Placement Managers) and may appoint the Stabilising Manager to undertake any price stabilisation actions. The Stabilising Manager (or persons acting on behalf of the Stabilising Manager) may at their absolute discretion, over-allot our Shares (on behalf of the Placement Managers) and subsequently, effect transactions which may stabilise or maintain the market price of our Shares at levels that might not otherwise prevail in the open market. Such transactions consist of bids or purchases to peg, fix or maintain the price of our Shares. If the Stabilising Manager creates a short position in our Shares in connection with the Institutional Offering, the Stabilising Manager may reduce that short position by purchasing our Shares in the open market. The Stabilising Manager may also elect to reduce any short positions by exercising all or part of the Over-allotment Option.

If granted, the Over-allotment Option will be exercisable in whole or in part by the Stabilising Manager, on one or more occasions, by giving written notice to the Selling Shareholder at any time, within 30 days from the date of our Listing to purchase from the Selling Shareholder up to an aggregate of 38,460,000 Shares at the Institutional Price for each Share, representing up to approximately 9.45% of the total number of IPO Shares offered, solely for purposes of covering over-allotments of our Shares (if any).

Subject to there being an over-allotment, the Stabilising Manager will (on behalf of the Placement Managers) enter into the Share Lending Agreement with the Selling Shareholder to borrow up to 38,460,000 Shares to cover the over-allotments. Any of our Shares that may be borrowed by the Stabilising Manager under the Share Lending Agreement will be returned by the Stabilising Manager to the Selling Shareholder either through the purchase of our Shares in the open market by the Stabilising Manager in the conduct of stabilisation activities or through the exercise of the Over-allotment Option by the Stabilising Manager, or a combination of both. The exercise of the Over-allotment Option will not increase the total number of our Shares issued.

Purchases of a security to stabilise the price or to cover the over-allotment may cause the price of the security to be higher than it might be in the absence of these purchases. Such transactions may be effected on the Main Market of Bursa Securities and in other jurisdictions where it is permissible to do so, in each case, in compliance with all applicable laws and regulations, including the CMSA and any regulations thereunder. The number of Shares that the Stabilising Manager (or persons acting on behalf of the Stabilising Manager) may buy to undertake stabilising action, shall not exceed an aggregate of 38,460,000 Shares, representing approximately 9.45% of the total number of IPO Shares offered. However, there is no obligation for the Stabilising Manager (or persons acting on behalf of the Stabilising Manager) to undertake any such stabilising action. Such stabilising actions may commence on or after the commencement of trading of our Shares on the Main Market of Bursa Securities and, if commenced, may be discontinued at any time and cannot be effected after the earliest of (i) the date falling 30 days from the commencement of trading of our Shares on the Main Market of Bursa Securities; or (ii) the date when the Stabilising Manager has bought on the Main Market of Bursa Securities, an aggregate of 38,460,000 Shares, representing approximately 9.45% of the total number of IPO Shares offered to undertake the stabilising action.

Neither our Company, the Selling Shareholder nor the Stabilising Manager makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our Shares. In addition, neither our Company, the Selling Shareholder nor the Stabilising Manager makes any representation that the Stabilising Manager will engage in such transactions, or that such transactions once commenced, will not be discontinued without notice (unless such notice is required by law).

4.3.5 Share capital

Upon the completion of our IPO, our share capital would be as follows:

	No. of Shares	RM
Authorised	2,000,000,000	2,000,000,000
Issued and fully paid-up Issued and fully paid-up as at the date of this		
Prospectus	631,766,000	631,766,000
To be issued and fully paid-up pursuant to the Public Issue	330,000,000	330,000,000
Enlarged issued and paid-up share capital upon Listing	961,766,000	961,766,000

The Offer for Sale would not have any effect on our issued and paid-up share capital as the Offer Shares are already in existence prior to our IPO.

Based on the Retail Price, the market capitalisation of our Company upon Listing would be approximately RM1.78 billion.

4.3.6 Classes of shares and ranking

As at the date of this Prospectus, we only have one class of shares, being ordinary shares of RM1.00 each.

The Issue Shares will, upon allotment and issue, rank equally in all respects with our other existing issued and paid-up Shares, including voting rights, and will be entitled to all rights, dividends and distributions that may be declared subsequent to the date of allotment of the Issue Shares, subject to any applicable Rules of Bursa Depository.

The Offer Shares rank equally in all respects with our existing issued and paid-up Shares, including voting rights, and will be entitled to all rights, dividends and distributions that may be declared subsequent to the date of transfer of the Offer Shares, subject to any applicable Rules of Bursa Depository.

Upon allotment and issue and subject to any special rights attaching to any Shares which we may issue in the future, our shareholders shall, in proportion to the amount paid-up on the Shares held by them, be entitled to share the profits paid out by us in the form of dividends and other distributions. Similarly, if our Company is liquidated, our shareholders shall be entitled to the surplus, if any, in accordance with our Articles after the satisfaction of any preferential payments in accordance with the Act and our liabilities.

At every general meeting of our Company, each of our shareholders shall be entitled to vote in person, by proxy or by attorney or by duly authorised representative. On a show of hands, each shareholder present either in person, by proxy, by attorney or by other duly authorised representatives shall have one vote. On a poll, each shareholder present either in person, by proxy, by attorney or by other duly authorised representative shall have one vote for each Share held or represented. A proxy may but need not be a member of our Company.

4.3.7 Minimum subscription level

There is no minimum subscription level in terms of proceeds to be raised by our Company and the Selling Shareholder from our IPO. However, in order to comply with the public shareholding spread requirement under the Listing Requirements, the minimum subscription level in terms of the number of Shares will be the number of Shares required to be held by the public shareholders of our Company to comply with the public shareholding spread requirement under the Listing Requirements or as approved by Bursa Securities.

In the event that the public shareholding spread requirement is not met pursuant to our IPO and/or if we and the Selling Shareholder decide in our absolute discretion not to proceed with our Listing, monies paid in respect of any application for the IPO Shares will be returned in full without interest and if such monies are not returned in full within 14 days after our Company and the Selling Shareholder become liable to do so, then our Company and the Selling Shareholder and the officers of our Company and the Selling Shareholder shall be jointly and severally liable to return such monies with interest at the rate of 10% per annum or at such other rate as may be prescribed by the SC from the expiration of that period until the full refund is made.

4.4 Selling Shareholder

Cheval is the Selling Shareholder.

As at 14 June 2013, Cheval holds 228,988,359 Shares, representing 36.2% of the issued and paid-up share capital of our Company, of which up to 77,000,000 Shares are being offered pursuant to the Offer for Sale. Following our IPO, Cheval is expected to hold 151,988,359 Shares, representing 15.8% of the enlarged issued and paid-up share capital of our Company, assuming no exercise of the Over-allotment Option.

4.5 Brokerage, underwriting commission and placement fee

We will pay brokerage in respect of the Issue Shares under the Retail Offering, at the rate of 1% of the Final Retail Price in respect of all successful applications which bear the stamp of either the participating organisations of Bursa Securities, members of the Association of Banks in Malaysia, members of the Malaysian Investment Banking Association and/or the Issuing House.

The Joint Global Coordinators and Joint Bookrunners are entitled to charge brokerage commission to successful applicants under the Institutional Offering. For the avoidance of doubt, such brokerage commission under the Institutional Offering will not be payable by us or the Selling Shareholder.

As stipulated in the Retail Underwriting Agreement, the Joint Managing Underwriters and the Joint Underwriters have agreed to underwrite the Issue Shares under the Retail Offering for a total managing underwriting and an underwriting commission calculated at the rate of 2.0% of the Retail Price multiplied by the number of Issue Shares underwritten pursuant to the Retail Offering in accordance with the terms of the Retail Underwriting Agreement.

The Selling Shareholder in respect of the Offer Shares and we in respect of the Issue Shares, will pay the Joint Global Coordinators and the Joint Bookrunners a placement fee of 2% of the Institutional Price multiplied by the number of IPO Shares sold pursuant to the Institutional Offering to Malaysian and foreign institutional and selected investors and a discretionary fee of up to 0.5% of the Institutional Price multiplied by the number of IPO Shares sold pursuant to the Institutional Offering to Malaysian and foreign institutional and selected investors and a discretionary fee of up to 0.5% of the Institutional Price multiplied by the number of IPO Shares sold pursuant to the Institutional Offering to Malaysian and foreign institutional and selected investors (other than Bumiputera investors approved by the MITI) in accordance with the terms of the Placement Agreement.

The placement fee to be paid by the Selling Shareholder to the relevant Joint Global Coordinators and Joint Bookrunners will be funded using proceeds raised from the Offer for Sale.

4.6 Details of the underwriting, placement and lock-up arrangements

4.6.1 Underwriting

We have on 20 June 2013 entered into the Retail Underwriting Agreement with the Joint Managing Underwriters and the Joint Underwriters to underwrite 78,278,320 Issue Shares under the Retail Offering, subject to the clawback and reallocation provisions as set out in Section 4.3.3 of this Prospectus and upon the terms and subject to the conditions of the Retail Underwriting Agreement.

Details of the underwriting commission are set out in Section 4.5 of this Prospectus, while the salient terms of the Retail Underwriting Agreement are as follows:

Subject to certain conditions precedent set out in the Retail Underwriting Agreement, Maybank IB has agreed to underwrite 33,266,992 Issue Shares, CIMB has agreed to underwrite 18,011,328 Issue Shares, each of AFFIN Investment Bank Berhad and MIDF Amanah Investment Bank Berhad has agreed to underwrite 9,000,000 Issue Shares and each of RHB Investment Bank Berhad and Bank Muamalat Malaysia Berhad has agreed to underwrite 4,500,000 Issue Shares.

The Joint Managing Underwriters may on behalf of the Joint Underwriters, and by notice in writing to our Company given at any time before the date of Listing, terminate, cancel and withdraw the Joint Underwriters' underwriting commitment if:

 there is any breach by our Company of any of the representations, warranties or undertakings set out in the Retail Underwriting Agreement in any respect;

- (ii) our Company withhold any material information from the Joint Managing Underwriters and the Joint Underwriters, which, in the opinion of the Joint Managing Underwriters and Joint Underwriters, will likely have a material adverse effect on:
 - (a) the condition (financial or otherwise), management, assets, earnings, business, operations or prospects of our Group; or
 - (b) our Company's ability to perform our obligations under or to consummate the Retail Underwriting Agreement, the other transaction agreements pursuant to our IPO and this Prospectus; or
 - (c) the ability of our Group to conduct our businesses and to own or lease its material assets and properties as described in this Prospectus; or
 - (d) the IPO.

("Material Adverse Effect");

- (iii) any event or series of events which are unpredictable and beyond the reasonable control of the Joint Managing Underwriters and the Joint Underwriters which could not have been avoided or prevented by reasonable foresight, planning and implementation ("Force Majeure") which would have or can reasonably be expected to have a Material Adverse Effect on the business, operations, financial condition or prospects of our Group or the success of our IPO, or which is likely to have the effect of making any material obligation under the Retail Underwriting Agreement incapable of being performed in accordance with its terms;
- (iv) any government requisition or other occurrence of any nature whatsoever which would have or is likely to have a Material Adverse Effect on the business, operations, financial condition or prospects of our Group or on the success of our IPO;
- (v) any material adverse change in national or international monetary, financial and capital markets (including stock market conditions and interest rates), political or economic conditions or exchange control or currency exchange rates which in the opinion of the Joint Managing Underwriters and the Joint Underwriters would have or is likely to have a Material Adverse Effect or a material adverse effect (whether in the primary market or in respect of dealings in the secondary market). For the avoidance of doubt, if the FTSE Bursa Malaysia KLCI Index ("Index") is, at the close of normal trading on Bursa Securities, on any Market Day:
 - (a) on or after the date of the Retail Underwriting Agreement; and
 - (b) prior to the closing of the Retail Offering,

lower than 85%, of the level of Index at the last close of normal trading on the relevant exchange on the Market Day immediately prior to the date of the Retail Underwriting Agreement and remains at or below that level for at least 3 consecutive Market Days, it shall be deemed a material adverse change in the stock market condition;

- (vi) trading of all securities on Bursa Securities has been suspended or other material form of general restriction in trading for 3 consecutive Market Days or more;
- (vii) any new law or regulation or change in law, regulation, directive, policy or ruling in any jurisdiction which in the reasonable opinion of the Joint Managing Underwriters and the Joint Underwriters is likely to prejudice the success of our Listing or which is likely to have the effect of making the Retail Underwriting Agreement incapable of being performed in accordance with its terms;
- (viii) the Institutional Offering and/or the Retail Offering is stopped or delayed by the Selling Shareholder and/or our Company and/or the regulatory authorities for any reason whatsoever (unless such stoppage or delay has been approved by the Joint Managing Underwriters and the Joint Underwriters);
- (ix) the Listing does not take place by 14 August 2013 or such other extended date as may be agreed by the Joint Managing Underwriters;
- (x) any commencement of legal proceedings or action against any member of our Group or any Selling Shareholder or any of their directors, which in the reasonable opinion of the Joint Managing Underwriters and the Joint Underwriters, would have or likely to have a Material Adverse Effect, or make it impracticable to market our IPO or to enforce contracts to allot and/or transfer our Shares;
- (xi) if the SC or any other relevant authority issues an order pursuant to Malaysian laws such as to make it, in the reasonable opinion of the Joint Managing Underwriters and the Joint Underwriters (after consultation with us), impracticable to market our IPO or to enforce contracts to allot and transfer our Shares; or
- (xii) the Placement Agreement shall have been terminated or rescinded.

4.6.2 Placement

We and the Selling Shareholder expect to enter into the Placement Agreement with the Joint Global Coordinators, the Joint Bookrunners and the Placement Manager(s) in relation to the placement of 328,721,680 IPO Shares under the Institutional Offering, subject to the clawback and reallocation provisions and the Over-allotment Option as set out in Sections 4.3.3 and 4.3.4 of this Prospectus, respectively. We and the Selling Shareholder will be requested, on a several basis, to give various representations, warranties and undertakings, and to indemnify the Joint Global Coordinators, the Joint Bookrunners and the Placement Manager(s) against certain liabilities in connection with our IPO.

4.6.3 Lock-up arrangement

- Our Company has agreed to a lock-up arrangement with the Joint (i) Bookrunners via our letter dated 21 June 2013, under which our Company agrees that for a period of 180 days from the date of our Listing, our Company shall not, without the prior written consent of the Joint Bookrunners, (a) offer, sell, contract to sell, assign, issue, or issue or sell any option or contract to purchase, purchase any option or contract to sell, grant or agree to grant any option, right or warrant to purchase, lend, subscribe for, or otherwise transfer or dispose of, directly or indirectly, conditionally or unconditionally, any Shares (or any securities convertible into or exercisable or exchangeable for our Shares), whether any such transaction is to be settled by delivery of our Shares or such other securities, in cash or otherwise; (b) enter into any swap, hedge or derivative or other transaction or arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our Shares (or any securities convertible into or exercisable or exchangeable for, or that represent the right to receive or are substantially similar to, our Shares), whether any such transaction is to be settled by delivery of our Shares or such other securities, in cash or otherwise; or (c) agree to do or announce any intention to do any of the above, whereby the restrictions shall not apply to the IPO Shares;
- (ii) The Selling Shareholder has agreed to a lock-up arrangement with the Joint Bookrunners via its letter dated 21 June 2013, under which the Selling Shareholder agree that in relation to the Shares of which the Selling Shareholder is the beneficial owner of as at the date of Listing ("Relevant Shares") and for a period of 180 calendar days from the date of Listing, the Selling Shareholder shall not and shall procure that its nominees and/or trustees holding the Relevant Shares on trust for or on its behalf shall not. without the prior written consent of the Joint Bookrunners, sell, assign, or otherwise transfer or dispose of any Relevant Shares and such restrictions shall apply to all the Relevant Shares in the capital of our Company held by the Selling Shareholder at the date of Listing. For the avoidance of doubt, the restrictions under the lock-up arrangement do not apply to the Shares to be sold under the Offer for Sale and the Over-allotment Option (if any), other exempted transfers of Shares stipulated in this Prospectus or the international offering circular to be issued in connection with our IPO or pursuant to a share lending agreement or a call option agreement (if any) as well as to any Relevant Shares which are no longer subject to any moratorium imposed by the SC;
- (iii) The Promoters have agreed to a lock-up arrangement with the Joint Bookrunners via its letter dated 21 June 2013, under which the Promoters agree that for a period of 180 days from the date of the Listing, the Promoters shall not, without the prior written consent of the Joint Bookrunners, (a) offer, sell, contract to sell, issue or sell any option or contract to purchase. purchase any option or contract to sell, grant or agree to grant any option. right or warrant to purchase, lend, subscribe for, or otherwise transfer or dispose of, directly or indirectly, conditionally or unconditionally, any Shares (or any securities convertible into or exercisable or exchangeable for Shares), whether any such transaction is to be settled by delivery of our Shares or such other securities, in cash or otherwise; and (b) sell, transfer or otherwise dispose of any interest in any shares in any company or other entity controlled by it which is directly, or through another company or other entity indirectly, the beneficial owner of our Shares, and these restrictions shall apply to all Shares (or any interest therein) in the capital of our Company held by the Promoters at the date of Listing; and

(iv) The Cornerstone Investors are subject to lock-up arrangements pursuant to which they agreed that they shall not and shall procure their affiliates and nominees or trustees holding Shares on trust for them or on their behalf, without the prior collective written consent of the Company, the Selling Shareholder and the Joint Bookrunners, for a period of 90 days from the date of Listing (a) offer, pledge, sell, contract to sell, mortgage, charge, assign, issue or sell any option or contract to purchase, purchase any option or contract to sell, grant or agree to grant any option, right or warrant to purchase, lend, subscribe for, hypothecate or create any encumbrance, or otherwise transfer or dispose of, directly or indirectly, conditionally or unconditionally, any Shares (or any securities convertible into or exercisable or exchangeable for Shares), whether any such transaction is to be settled by delivery of Shares or such other securities, in cash or otherwise; (b) enter into any swap, hedge or derivative or other transaction or arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Shares (or any securities convertible into or exercisable or exchangeable for or that represent the right to receive or are substantially similar to, the Shares), whether any such transaction is to be settled by delivery of Shares or such other securities, in cash or otherwise; (c) deposit any Shares (or any securities convertible into or exchangeable for or which carry rights to subscribe or purchase or that represent the right to receive or are substantially similar to, the Shares) in any depository receipt facilities; (d) agree to do or announce any intention to do any of the above or an offering or sale of, any of the Shares or any other securities exercisable or exchangeable for or convertible into or that represent the right to receive, or are substantially similar to, such Shares (or any interest therein or in respect thereof or any economic consequences of ownership thereto) or file any registration statement under the U.S. Securities Act with respect to any of the foregoing; or (e) sell, transfer or otherwise dispose of any interest in any shares in any company or other entity controlled by it which is directly, or through another company or other entity indirectly, the beneficial owner of the Shares.

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4. DETAILS OF OUR IPO (cont'd)

4.7 Objectives of our IPO

The objectives of our IPO are as follows:

- (i) to facilitate our Listing and enhance our profile and visibility;
- (ii) to raise funds for the purposes as set out in Section 4.10 of this Prospectus;
- (iii) to give us access to the equity capital market for cost effective capital raising to facilitate our market expansion; and
- (iv) to provide an opportunity for the general public and the investing community, including the Eligible Individuals to participate in the continuing growth of our Group.

4.8 Basis of arriving at the price of the IPO Shares and refund mechanism

4.8.1 Retail Price

The Retail Price of RM1.85 per Issue Share was determined and agreed upon between our Directors, the Selling Shareholder, the Principal Adviser, the Joint Global Coordinators and the Joint Managing Underwriters, after taking into consideration the following factors:

- (i) our operating history and financial performance as described in Sections 7, 10 and 11 of this Prospectus, respectively;
- (ii) our competitive strengths, business strategies and future plans as outlined in Sections 7.2 and 7.3 of this Prospectus, respectively;
- (iii) the outlook of the industries in which we operate as described in Section 8 of this Prospectus; and
- (iv) the prevailing market conditions including market performance of key global indices and companies which are in businesses similar to ours as well as investors' sentiments.

The Final Retail Price will be determined after the Institutional Price is determined on the Price Determination Date and will be the lower of:

- (i) the Retail Price of RM1.85 per Share; and
- (ii) the Institutional Price,

subject to rounding to the nearest sen.

In the event that the Final Retail Price is lower than the Retail Price, the difference between the Retail Price and the Final Retail Price will be refunded to successful applicants, without any interest thereon. Further details on the refund mechanism are set out in Section 4.8.3 of this Prospectus.

Prospective retail investors should be aware that the Final Retail Price will not, in any event, be higher than the Retail Price of RM1.85 per Share nor lower than the par value of our Shares.

The Final Retail Price and the Institutional Price are expected to be announced within 2 Market Days from the Price Determination Date via Bursa Listing Information Network ("Bursa LINK"). In addition, all successful applicants will be given written notice of the Final Retail Price and the Institutional Price, together with the notices of allotment for the Issue Shares.

Applicants should also note that the vagaries of market forces and other uncertainties may affect the market price of our Shares after Listing.

4.8.2 Institutional price

The Institutional Price will be determined by a bookbuilding process wherein prospective institutional and selected investors will be invited to bid for portions of the Institutional Offering by specifying the number of IPO Shares they would be prepared to acquire and the price they would be prepared to pay for such IPO Shares in respect of the Institutional Offering. This bookbuilding process commenced on 4 July 2013 and will end at 12:00 p.m. on 15 July 2013 or such date or dates as our Directors, the Selling Shareholder and the Joint Global Coordinators may decide in their absolute discretion. Upon the completion of the bookbuilding process, the Institutional Price will be fixed by our Directors and the Selling Shareholder in consultation with the Joint Global Coordinators on the Price Determination Date.

4.8.3 Refund mechanism

In the event that the Final Retail Price is lower than the Retail Price, the difference between the Retail Price and the Final Retail Price will be refunded to the successful applicants without any interest thereon. The refund will be made in the form of cheques which will be despatched by ordinary mail to the address of the successful applicants maintained with Bursa Depository for applications made via the Application Form or by crediting into the accounts of successful applicants with the Participating Financial Institution for applications made via the Electronic Share Application or by crediting into the accounts of the successful applicants with the Internet Participating Financial Institution for applications made via Internet Share Application, within 10 Market Days from the date of the final ballot of applications, at the successful applicants' own risk.

For further details on the refund mechanism, refer to Sections 16.10 and 16.11 of this Prospectus, respectively.

4.9 Dilution

Dilution is the amount by which the price paid by retail and institutional and selected investors for our Shares exceeds our consolidated NA per Share after our IPO. Our proforma consolidated NA per Share as at 31 December 2012 was RM0.54, based on our issued and paid-up share capital of 631,766,000 Shares following the Pre-IPO Reorganisation. The proforma consolidated NA per Share represents the equity attributable to the shareholders of our Company over the number of Shares outstanding immediately prior to the IPO. The difference between our proforma consolidated NA as at 31 December 2012 before and after the Pre-IPO Reorganisation is primarily due to the merger deficit of RM1,495.5 million, which represent the difference between the consideration paid/transferred and the equity acquired in respect of the transactions pursuant to the Internal Reorganisation and Acquisition of RWP as defined in Section 6.1.2 of this Prospectus.

After giving effect to the issue of 330,000,000 new Shares under the Public Issue, and after adjusting for the estimated expenses for our IPO and the Listing, our proforma consolidated NA per Share as at 31 December 2012 (based on our enlarged issued and paid-up share capital of 961,766,000 Shares) would be RM0.95 per Share. This represents an immediate increase in NA per Share of RM0.41 to our existing shareholders and an immediate dilution in NA per Share of RM0.90, representing 48.6% of the Retail Price and the Institutional Price (assuming the Institutional Price and the Final Retail Price will be the Retail Price), to our retail and institutional and selected investors. For further details on our NA per Share, refer to Section 10.6 of this Prospectus.

The following table illustrates such dilution on a per Share basis assuming the Final Retail Price and the Institutional Price are equal to the Retail Price:

	RM
Assumed Final Retail Price/Institutional Price	1.85
Proforma consolidated NA per Share as at 31 December 2012 after adjusting for the Pre-IPO Reorganisation but before adjusting for our	
IPO	0.54
Proforma consolidated NA per Share as at 31 December 2012, after giving effect to our IPO	0.95
Increase in NA per Share	0.41
Dilution in proforma consolidated NA per Share to retail/institutional and selected investors	0.90
Dilution in proforma consolidated NA per Share to retail/institutional and selected investors as a percentage of the Retail Price/Institutional Price	48.6%

Save for the Shares issued pursuant to the Pre-IPO Reorganisation, none of our substantial shareholders, Directors or key management, or persons connected to them have acquired and/or subscribed for Shares in our Company from the date of incorporation of our Company up to the LPD.

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4.10 Utilisation of proceeds

We expect to use the gross proceeds from the Public Issue of RM610.50 million in the following manner:

	Estimated timeframe for utilisation from the date		
Details of utilisation of proceeds	of our Listing	RM'000	%
Redemption of RPI's outstanding IMTN ⁽¹⁾	Within 3 months	330,000	54.0
Partial redemption of Sukuk	Within 6 months	42,500 ⁽²⁾	7.0
Part settlement of the purchase consideration of the Proposed RWT (Cayman) Acquisitions ⁽³⁾	Within 1 month	104,000	17.0
Part settlement of the purchase consideration for the Acquisition by RPSB ⁽⁴⁾	Within 1 month	40,000	6.6
Expansion of environment (water) business in China ⁽⁵⁾	Within 12 months	61,000	10.0
Part payment of estimated expenses for our IPO and our Listing ⁽⁶⁾	Within 1 month	33,000	5.4
Total gross proceeds		610,500	100.0

Our Company will not receive any proceeds from the Offer for Sale. The gross proceeds from the Offer for Sale of up to RM142.45 million will accrue entirely to the Selling Shareholder.

Notes:

(1)

The breakdown of the outstanding IMTN of RM330.0 million under the existing IMTN Programme of up to RM540.0 million is as follows:

Tranche	Nominal value (RM million)	Profit rate (%)	Maturity date	Purpose of the borrowing
1	55	6.90	27 June 2014	
2	55	7.10	26 June 2015	RM260.0 million was used to fully redeem RPI's revolving credit
3	55	7.30	27 June 2016	facility and the balance of RM280.0 million was used to partially finance
4	55	7.50	27 June 2017	all costs associated with the development, design, construction,
5	55	7.60	27 June 2018	start-up and initial operations of the conversion works of RPI's power
6	55	7.70	27 June 2019	plant.
Total	330			

Based on the existing profit rate of the IMTN, we expect to achieve total profit savings of approximately RM84.7 million following the redemption of RPI's outstanding IMTN.

(2)

The proceeds raised from the issuance of the Sukuk were on-lent to RB to finance RB's redemption of USD220.0 million guaranteed notes and to reimburse advances to contractors to complete the construction of the Senai Desaru Expressway. Such amount owing by RB to RPSB was set-off against part of the purchase consideration payable by RPSB in connection with the Acquisition by RPSB.

(3)

Pending full utilisation, such proceeds will be deposited in an escrow account held in trust by Maybank IB as the Facility Agent for the Sukuk. The amount will be utilised by RPSB to partially redeem RM39.0 million nominal value of Sukuk with the balance of RM3.5 million to be utilised to finance the buy-back premium (subject to negotiation with the holders of the Sukuk).

Based on the existing profit rate of the Sukuk and assuming redemption of the Sukuk on a pro-rata basis, we expect to achieve total profit and guarantee fee savings of approximately RM19.2 million following the partial redemption of the Sukuk.

The purchase consideration for the Proposed RWT (Cayman) Acquisitions was arrived at on a "willing buyer and willing seller basis" after taking into consideration the earnings potential of RWT (Cayman). As at the LPD, the RWT (Cayman) Group has 10 water and wastewater concessions in relation to the water and wastewater treatment plants, with an aggregate treatment capacity of 310 MLD which is expected to contribute positively to the earnings of the RWT (Cayman) Group. In addition, through our jointly-controlled entity, Yichun Pinang, we also operate a potable water treatment plant in Yichun City, China with a treatment capacity of 50 MLD. Refer to Section 7.1 of this Prospectus for details on the list of water and wastewater treatment plants of the RWT (Cayman) Group.

The purchase consideration for the Proposed RWT (Cayman) Acquisition represents the following PE Multiples:

	PAT		PE Multiple (2)
	USD' million	RM' million (1)	times
Unaudited consolidated PAT of RWT (Cayman) for the year ended 30 June 2012	5.40	16.72	13.0
Annualised based on audited consolidated PAT of RWT (Cayman) for the 15 months ended 30 September 2012 of USD8.50 million	6.80	21.05	10.3

Notes:

(1)

(2)

- Based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from BNM's website.
- Computed based on the purchase consideration for the Proposed RWT (Cayman) Acquisitions over 47.9% of the consolidated PAT of RWT (Cayman).

The allocated proceeds will be utilised to settle: (i) the balance of the purchase consideration (being the purchase consideration less the deposit of USD1.0 million which was paid on 11 January 2013 using internal funds) for the Proposed RWT (Cayman) Acquisition 1 of USD30.66 million, which is equivalent to approximately RM94.92 million^ ("RWT (Cayman) Balance Consideration 1"); (ii) the final interest on the RWT (Cayman) Balance Consideration 1"); (ii) the final interest on the RWT (Cayman) Balance Consideration 1, based on an interest rate of 5% per annum to be calculated from 11 January 2013, being the date of signing of the RWT (Cayman) Agreement 1, up to the date of completion of the RWT (Cayman) Agreement 1 ("Interest"); and (iii) the purchase consideration of the Proposed RWT (Cayman) Acquisition 2 amounting to USD1.87 million, which is equivalent to approximately RM5.79 million^ ("RWT (Cayman) Consideration 2"). Any excess funds not utilised to the allocated proceeds are insufficient to settle the RWT (Cayman) Balance Consideration 1, the Interest and the RWT (Cayman) Consideration 2 based on the USD:RM exchange rate to be determined later, any shortfall will be funded via internally generated funds. Refer to Sections 6 and 7.5.2(ii) of this Prospectus for details on the business of the RWT (Cayman) Group.

A Based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from BNM's website.

(4)

(5)

There is an amount of RM90.0 million which arose from the Acquisition by RPSB owing by RPSB to RB as at 18 December 2012 ("Outstanding Amount"). Our Company intends to partially settle the Outstanding Amount using the allocated proceeds with the balance of the Outstanding Amount of RM50.0 million to be settled using internally generated funds.

The allocated proceeds will be utilised to finance the equity portion of the development cost required for the water and/or wastewater treatment projects in China should the investment opportunities pursuant to the MOUs and/or investment agreements entered into between RUSB Group with the local government agencies materialise. For further details on the MOUs and/or investment agreements, refer to Section 7.5.2(ii) of this Prospectus. Any excess funds not utilised for this purpose will be utilised for the expansion of the environment (water) business in China in conjunction with our business strategies and future plans as set out in Section 7.3 of this Prospectus.

4. DETAILS OF OUR IPO (cont'd)

(6)

The expenses for our IPO and our Listing to be borne by our Company are estimated to be RM34.0 million and expected to comprise the following:

Estimated professional fees	14.3
Brokerage, underwriting and placement fees	15.0
Expenses in connection with our IPO such as printing, advertising, travel and roadshow expenses	3.0
Miscellaneous expenses and contingencies	1.7
Total	34.0

An amount of RM1.0 million will be funded from internally generated funds. In the event that the actual listing expenses are higher than budgeted, the excess will also be funded out of internally generated funds.

We intend to place the proceeds raised from the Public Issue (including accrued interest, if any) or the balance thereof with banks or licensed financial institutions in interest-bearing instruments/funds prior to the eventual utilisation of proceeds from our IPO for the above intended purposes.

The exact amount of the gross proceeds to be raised from the Public Issue will depend upon the Institutional Price and the Final Retail Price. We will first vary the amount allocated for the partial redemption of RPSB's Sukuk and secondly the amount allocated for the listing expenses, in the event there is any variation to the gross proceeds to be raised from the Public Issue, being the difference between the Retail Price and the Final Retail Price as well as the Institutional Price.

Through our IPO, we will increase our shareholders' funds and redeem RPI's IMTN and partially redeem RPSB's Sukuk, thereby reducing our gearing. We expect this to provide greater financial flexibility for us to fund our expansion.

The financial impact of the utilisation of proceeds from the Public Issue on our pro forma consolidated financial information as at 31 December 2012 is set out in Section 10.6 of this Prospectus.

4.11 Trading and settlement in secondary market

Upon our Listing, our IPO Shares will be traded through Bursa Securities and settled by bookentry settlement through CDS, which is operated by Bursa Depository. This will be effected in accordance with the Rules of Bursa Depository for the operation of CDS accounts, as amended from time to time and the provisions of the SICDA. Accordingly, we will not deliver share certificates to subscribers or purchasers of our IPO Shares.

Beneficial owners of our Shares are required under the Rules of Bursa Depository to maintain the Shares in CDS accounts, either directly in their name or through authorised nominees. Persons whose names appear in the Record of Depositors maintained by Bursa Depository will be treated as our shareholders in respect of the number of Shares credited to the respective securities accounts.

Transactions in our Shares under the book-entry settlement system will be reflected by the seller's CDS account being debited with the number of Shares sold and the buyer's CDS account being credited with the number of Shares acquired. No transfer stamp duty is currently payable for our Shares that are settled on a book-entry basis, although there is a nominal transfer fee of RM10 payable for each transfer not transacted on the market.

Shares held in CDS accounts may not be withdrawn from the CDS except in the following instances:

to facilitate a share buy-back;

- (ii) to facilitate conversion of debt securities;
- (iii) to facilitate company restructuring process;
- (iv) where a body corporate is removed from the Official List;
- (v) to facilitate a rectification of any error; and
- (vi) in any other circumstances determined by Bursa Depository from time to time, after consultation with the SC.

Trading of shares of companies listed on Bursa Securities is normally done in "board lots" of 100 shares. Investors who desire to trade less than 100 shares are required to trade under the odd lot market. Settlement of trades done on a "ready" basis on Bursa Securities generally takes place on the third Market Day following the transaction date, and payment for the securities is generally settled on the third Market Day following the transaction date.

It is expected that the Shares will not commence trading on Bursa Securities until approximately 12 Market Days after the close of the Institutional Offering. Holders of our Shares will not be able to sell or otherwise deal in our Shares (except by way of book-entry transfers to other CDS accounts in circumstances which do not involve a change in beneficial ownership) prior to the commencement of trading on Bursa Securities.

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5. RISK FACTORS

Before investing in our Shares, prospective investors should pay particular attention to the fact that our Company, and to a large extent our Group and operations, are governed by the legal, regulatory and business environment in Malaysia and other countries in which we operate, whether currently or in the future. Our business is subject to a number of factors, many of which are outside our control. Before making an investment decision, prospective investors should carefully consider, along with the other matters set forth in this Prospectus, the risks and investment considerations set out below. You should note that the following list is not an exhaustive list of all of the risks that we currently face or that may develop in the future. These and other risks, whether known or unknown, may potentially have a material adverse effect on us or our Shares.

5.1 Risks relating to the industries in which we operate

5.1.1 Industry risks relating to our energy sector

- (i) Risks relating to our oil and gas business
 - (a) Demand for the services of our oil and gas business depends significantly on trends in oil and natural gas prices

As our customers operate mainly in the offshore oil and gas industry, demand for the engineering and related services provided by our oil and gas business is particularly sensitive to the level of exploration, development and production activity of, and the corresponding capital spending by, oil and natural gas companies, which in turn is primarily affected by trends in oil and natural gas prices. Both oil and natural gas prices have been volatile historically and are likely to continue to be volatile.

Prices for oil and natural gas are subject to large fluctuations in response to a variety of factors, including, without limitation:

- the level of demand for oil and natural gas, which is strongly correlated with global economic growth;
- the cost of producing and delivering oil and natural gas;
- the level of oil production by non-OPEC countries and the availability of excess production capacity within OPEC;
- government policies, including policies regarding the exploration for and production and development of their oil and natural gas reserves, particularly offshore reserves;
- adverse global weather conditions and natural disasters;
- global political, military and economic conditions;
- shifts in end-customer preferences toward fuel efficiency; and
- potential development of alternative fuels.

Any prolonged reduction in oil and natural gas prices will depress the immediate levels of exploration, development and production activity and ultimately the level of demand for the engineering services that we provide to the oil and gas industry. In addition, the perception of longer term lower oil and natural gas prices by oil and natural gas companies can also similarly reduce or defer major expenditures given the long-term nature of many large-scale development projects. As such, uncertainty concerning potential movements in oil and natural gas prices could have a material adverse effect on our financial condition and results of operations.

(b) The operation of projects designed by us may cause health, environmental or other harm to people and property

Our engineering designs and services are subject to the risks inherent in engineering and construction services for the oil and gas and petrochemical industries. Equipment failures, fires or explosions as a result of our designs or services may lead to bodily injuries, deaths, business disruptions, damages to real or personal property, pollution or other environmental damages, and we could be subject to substantial claims if any of these types of risks materialise on projects that we have designed. Accordingly, the occurrence of any of these events could have a material adverse effect on our reputation, financial condition and results of operations.

Our policy is to contractually mitigate our liability for claims by defining in our contracts the scope of our services and our liabilities that ensue from performing these types of services for our clients. We also procure insurance that is relevant to our projects at levels that are acceptable to us based on the size and type of services required by our clients. However, these types of precautions may not always prove to be effective or may not be able to offset any liabilities that we may incur. Further concerns include the potential inability of clients and subcontractors to commit financial resources in order to meet their indemnification obligations to us and our potential inability to obtain adequate insurance coverage on commercially reasonable terms for certain types of risks.

(c) We face keen competition in our market

The market for oil and gas engineering services is highly competitive and any failure to sustain our competitiveness would adversely affect our market position, results of operations and financial condition. We are exposed to keen competition, both domestically and internationally. Some of our competitors may have more experience, greater financial resources, more advanced technologies and/or better third-party relationships that would enable them to deliver more innovative products or to achieve greater economies of scale. As a result, our competitors may be in a better position than we are to compete for future business opportunities, and if they are able to deliver more technically advanced products and services, there may be reduced demand for our products and services. Since cost-effective skilled labour forms a substantial portion of our cost of sales, competitors with access to similarly cost-effective skilled labour also could provide significant competition if they were to acquire sufficient technology and experience to compete for the higher margin products and services that are our primary target markets.

Our affiliate PRWSB is licensed by PETRONAS to provide engineering design (conceptual, front-end and detailed design), health, safety and environment consultancy services, draughting services, engineering commissioning services and specialist manpower supply. This licence is required to bid for contracts tendered by the PETRONAS Group in Malaysia and all other tenders for upstream oil and gas works undertaken by PETRONAS' production sharing contractors in Malaysia. The works relating to those contracts that are successfully tendered for by PRWSB are subcontracted to us, and accordingly, we place significant reliance on PRWSB's position in the market as a licensed provider. A significant portion of our revenue from our oil and gas business is derived from projects for the PETRONAS Group. In the year ended 31 December 2012 and the 18 months ended 31 December 2011, the PETRONAS Group accounted for 43.4% and 24.2%, respectively, of the revenue of our oil and gas business and 16.6% and 8.1%, respectively, of our total revenue. If the PETRONAS Group were to change its policies either by increasing the number of licensed companies or by allowing non-Malaysian companies to bid for these engineering and construction contracts, we would face materially increased competition, especially from new entrants with advanced technology.

(d) Inaccurate estimates by us in applying percentage-of-completion accounting could result in a reduction of previously reported profits and have a significant impact on our period-to-period results of operations

As with most engineering and construction companies, we use the percentage-of-completion method to recognise and account for revenues derived from our fixed-price contracts in progress. Use of the percentage-of-completion method requires us to estimate the percentage of completion, the extent of the contract cost incurred, the estimated total contract revenue, including variation orders, and contract claims and contract costs. The percentage of completion is measured by reference to the contract costs incurred to date and the estimated total costs for the contract. In making the estimates, we rely on past experiences, the use of engineering tools and the work of specialists. Any variation to the final contract sum and estimated cost to completion will have a corresponding effect on the contract profit or loss.

If the outcome of a construction contract cannot be reliably estimated, we recognise revenue only to the extent of the contract costs incurred, the recovery of which is probable at that point in time. As a result, the timing of recognition of net sales that we report may differ materially from the timing of actual contract payments received. This revenue recognition policy, and the corresponding impact on the amount and timing of recognising net sales and cost of sales, provisions for estimated losses, charges against current earnings, trade receivables and advance receipts, is primarily affected by our ability to reliably measure the percentage of completion and to reliably estimate the total costs required to complete the contract. If there are inaccuracies or flaws in our measurements for any given project or in the estimation methodology as a whole, it could have a material adverse effect on the amount and timing of recognising net sales and related financial items.

We expense estimated losses on uncompleted fixed-price contracts in the period in which the losses are determined, resulting in a charge against our current earnings. These charges may significantly reduce our earnings, depending on the size of the contract and the estimated losses. In addition, because many of our fixed-price contracts are completed over a period of several months or years, the timing of the recognition of related net sales could have a significant impact on our results of operations.

(e) Our order book may not be representative of our future results

The contracts that make up the order book of our oil and gas business as at the LPD totalled RM161.1 million. Our order book as of any date represents the total stated contract value of orders yet to be delivered less the portion of revenue that we have recognised in respect of these orders.

Given the forward-looking nature of our order book, the amount of our order book is not necessarily indicative of our future earnings. For example, we may not achieve our expected margins, for we may suffer losses on one or more of these contracts, in which case our income would be reduced. In addition, if any of the projects in our order book were to be cancelled, we may only be able to recover expenses incurred up to the date of cancellation. Because of these uncertainties, we cannot predict when or whether the projects in our order book will be performed and generate revenue. Any operational issues with the performance of contracts in the order book, or cancellations or delays of such contracts, could adversely affect our business, financial condition and results of operations.

(ii) Risks relating to our power business

(a) We are exposed to operational risks

The financial performance of our power business depends on the successful operation of our power generating plants. Our ability to successfully generate power and deliver the required energy to Sabah Electricity is subject to, among others, the following risks:

- operator error or failure of equipment or processes, particularly with older generating plants;
- unexpected maintenance needs associated with operational issues;
- operational limitations that may be imposed by environmental or other regulatory authorities;
- labour disputes;
- terrorist attacks;
- interruptions in the supply of natural gas, diesel fuel or other material supplies;
- compliance with mandatory reliability standards;
- shortfalls in output levels and power generation efficiencies;
- information technology system failure;

- cyber intrusion; and
- catastrophic events such as fires, explosions, floods, droughts, tropical storms, pandemic health events such as influenzas, or other similar occurrences.

For example, one of the gas turbine generators of the RPII power plant failed in December 2012 due to damages to the compressor blades and stator vanes which resulted in the RPII power plant running at half capacity of 95 MW for 79 days from 5 December 2012 to 21 February 2013. We expect that this event will have a material adverse effect on our financial position and results of operations. Refer to Section 7.7 of this Prospectus for further information.

In addition, any failure on our part to satisfy performance criteria specified in our PPAs would result in a decrease in the level of capacity payments made to us by Sabah Electricity. A decrease or elimination of revenues from our power generating plants or an increase in the cost of operating the facilities could have a material adverse effect on our financial position and results of operations.

(b) We may not be able to obtain adequate fuel supplies for our power generating plants

We secure the natural gas supply for our power generating plants through long-term contracts with the PETRONAS Group. However, any disruption in the delivery of natural gas, including disruptions as a result of, among other things, transportation delays, weather, labour relations, environmental regulations and force majeure events, could limit our ability to operate our power generating plants. In addition, from 2020 through 2031, the quantity of natural gas to be delivered to us under the gas supply agreement relating to our RPII power plant may be limited by availability of natural gas under certain circumstances, as described in Section 7.5.1(ii)(c) of this Prospectus. We have entered into an agreement with Shell Timur Sdn Bhd to supply diesel to our power generating plants as backup fuel as a safeguard against any disruption in the supply of natural gas to our facilities. We have storage capacity for up to 7 days' supply of diesel, and we expect that, in the event of a disruption in the supply of natural gas, we would be able to operate our power plants on diesel fuel. However, a disruption in the supply of natural gas and a disruption in the supply of diesel at the same time could have a material adverse effect on our results of operations.

(c) We are obligated under our gas supply contracts to pay for a minimum quantity of natural gas, but Sabah Electricity is not obligated to despatch our power plants at a level that is sufficient to ensure that we will use natural gas equal to our minimum natural gas purchase obligation

> Our gas supply agreements have so-called "take-or-pay" obligations that specify the volumes of natural gas that PETRONAS is required to make available to us during each year of the contract and obligate us to purchase and take delivery of at least 75% of the specified volume in each year. Energy payments due to us under the PPAs are determined by the level at which Sabah Electricity despatches our power plants, which will depend on a number of factors that are outside our control, such as increased demand for electricity in Sabah and the quantity of generating capacity available to Sabah Electricity does not despatch our power plants at a level that is sufficient to ensure that we use natural gas in an amount equal to our minimum quantity obligations under our natural gas supply agreements, our results of operations and financial condition could be materially and adversely affected.

(d) Our power business is subject to extensive environmental regulation and permit requirements that may involve significant and increasing costs

Our power business is subject to extensive environmental regulations with respect to, among others, air quality, noise level, water quality and waste disposal, and compliance with these regulations involves significant costs and time. We are also required to obtain and comply with conditions established by licences, permits and other approvals to construct, operate or modify our facilities. Failure to comply with these requirements could subject us to civil or criminal liability, the imposition of liens or fines, actions by regulatory agencies seeking to curtail our power operations or termination of our PPAs. There also can be no assurance that regulatory authorities would not impose additional regulations on us that may affect the profitability of our power generating business. Any unanticipated changes in regulations governing the conduct of our power operations may also create additional bottlenecks and restrictions that may have a material adverse effect on our financial performance. We will incur additional effort and costs for monitoring and ensuring compliance with any new regulations that may be imposed on US.

(e) Our operations may cause harm to people and property

The nature of our operations may expose our employees to hazardous working conditions and, to a lesser extent, the general public to various risks. Injuries caused by these risks can subject us to liability that can be significant. These types of liabilities are very difficult to predict, may not be covered by our insurance policies and may make it difficult for us to secure insurance in the future at acceptable rates. The range of possible liabilities includes amounts that could have a material adverse effect on our liquidity, financial condition and results of operations.

(f) We rely on Sabah Electricity as the sole offtaker for the power produced by our power plants

We rely on Sabah Electricity to purchase the power generated by our RPI and RPII power plants. There is no assurance that Sabah Electricity will be able to continue to meet its obligations under the PPAs in the future. Sabah Electricity's failure to make payments under our PPAs could materially and adversely affect our business, financial condition, results of operations and cash flows.

5.1.2 Industry risks relating to our environment sector

(i) The rates that we charge our water supply customers are subject to regulations

Our ability to maintain profitability in our water supply business is dependent upon our ability to recover our costs through the rates that we charge to our customers. These rates are subject to regulations imposed by SPAN, the Malaysian National Water Services Commission. Every 3 years, we are required to file with SPAN a business plan that sets out, among others, our cost projections, including costs arising from projected changes in water usage and in lease rental payments due to PAAB, a government-owned water asset holding company regulated by SPAN that leases our water infrastructure assets to us. Our business plan also sets forth the tariff rates that we propose to support our projected costs and earn a reasonable return. Depending on changes in the general economic conditions in which our Company operates, we may also request tariff increases from time to time. Once we have filed a business plan or otherwise requested a tariff increase, the ensuing administrative process may be lengthy, and there can be no assurance that our business plan will be approved by SPAN without alterations. We anticipate that, in the event that SPAN does not approve our proposed rate increases in full or at all, SPAN would request PAAB to reduce the amount of lease payments required under our agreement with PAAB to a level that would permit us to earn a reasonable return. There can be no assurance, however, that this will necessarily be the case. In the event that our business plan. including proposed tariff adjustments, is approved, the rate increases that are implemented may be untimely or inadequate to recover expenses, including lease payments and expenses arising from changes in water usage.

(ii) We are required to comply with certain service obligations

Under the service licence relating to our water supply business and the KPI targets that SPAN requires us to achieve, we are bound to comply with certain service obligations relating to, among others, achieving targets in water service coverage, water quality and availability, water pressure, security of supply, customer service and NRW reduction. There can be no assurance that we will be able to continuously meet these service targets or, in the event that we face difficulties in fulfilling the service targets, that the service targets would be amended to be more favourable to us. Non-compliance with the agreed service targets may result in SPAN imposing financial penalties or, in the event of a continuous breach of the terms which is attributable to us, our service licence may be terminated by the Minister of Energy, Green Technology and Water, Malaysia at the recommendation of SPAN. The financial penalties which may be imposed by SPAN come in the form of reduction in the profit margin of SAJH in the next operating period. As set out in Section 7.16.1 of this Prospectus, SAJH enjoys a reasonable return as may be approved by the Government, subject to SAJH complying with the agreed KPI. For more information on factors which affect the profit margin of SAJH, refer to Sections 10.2.3(iii)(a) and (b) of this Prospectus. If our service licence is terminated or if SPAN takes other actions unfavourable to us as a result of such failures or for any other reason, there would be a material adverse effect on our financial condition and results of operations.

(iii) Contamination of our raw water supply may disrupt our services and harm our reputation

Our raw water supply may be subject to contamination, including contamination as a result of naturally-occurring compounds; pollution resulting from man-made sources, such as man-made organic chemicals; and deliberate acts, such as terrorist attacks. Floods, which occur from time to time in our catchment areas, often have a negative impact on the quality of our raw water supply. If any of our raw water supply sources become contaminated, we may have to interrupt the use of such raw water supply source and, to the extent feasible, make alternative arrangements to supply water to our customers. Failure to source raw water from an uncontaminated water source, or to adequately treat the contaminated water source in a cost-effective manner, will result in a material adverse effect on our business, financial condition and results of operations. We are also potentially liable for costs or claims arising out of human exposure to hazardous substances in our water supplies or other environmental damages, which may not be covered at all by our insurance policies. While our water supply agreement with the State Government of Johor obligates the State Government of Johor to provide sufficient supply of water of adequate quality, if for any reason the State Government of Johor does not perform this obligation effectively or in a timely manner, any of the foregoing factors could have a material adverse effect on our business, financial condition, results of operations and reputation.

We maintain security measures at our facilities and have heightened employee awareness of potential threats to our water systems. Despite our security measures, certain risks of contamination are largely outside our control.

(iv) Failure of our water treatment plants, network of water pipes or water reservoirs could result in losses and damages

The success of our operations in the environment sector is largely dependent on the quality and condition of our water treatment plants and our extensive network of pipes, through which we treat and distribute water, and our reservoirs, where our water supply is stored. A failure of any major water treatment plant, pipe or reservoir could result in injuries and property damage for which we may be liable. The failure of a major water treatment plant, pipe or reservoir may also result in closing some of our facilities or parts of our network to conduct repairs. Failures and shutdowns could arise from factors such as natural disasters, including but not limited to earthquakes, floods, prolonged droughts and tropical storms; human errors in operating the water supply systems; industrial actions by employees in our environment business; and acts of terrorism. These types of failures and shutdowns may limit our ability to supply water in sufficient quality and quantities to our customers in accordance with standards prescribed by governmental regulators, and may have a material adverse effect on our reputation and our business, financial condition and results of operations. Any business interruption or other losses might not be covered by insurance policies, and such losses-may make it difficult for us to secure insurance in the future at reasonable rates.

(v) We are exposed to the risk of disruption in the supply of important goods or services from third parties

We are dependent on a continuous supply of important goods and services from suppliers in the operations of our water supply business. Any disruption or prolonged delays in obtaining important supplies or services, such as purchased water, maintenance services, treatment chemicals or electricity, could adversely affect our water supply services and our ability to operate in compliance with all regulatory requirements, which could have a significant effect on our results of operations. In certain areas of our operations, we rely on third parties to provide services (such as certain customer bill printing, mail activities and telecommunications services). There can be no assurance that these third parties would be able to perform such services at all times, and a disruption in these services could materially and adversely affect our results of operations and financial condition. Some possible reasons for a delay or disruption in the supply of important goods and services include:

- the State Government of Johor, which is contractually obligated to provide raw water to us, or our suppliers of treated water, may not provide us with water in sufficient quantities or may provide us with water that does not meet applicable quality standards or is contaminated;
- our other suppliers may not provide materials that meet our specifications in sufficient quantities;
- our suppliers may face production delays due to natural disasters or due to strikes, lock-outs or other similar industrial actions; and
- one or more suppliers could make strategic changes in the lines of products and services they offer.

As a result of any of these factors, we may be required to find alternative suppliers for the materials and services on which we rely. Accordingly, we may experience delays in obtaining materials and services of adequate quality on a timely basis and in sufficient quantities from such alternative suppliers at a reasonable price, which could interrupt services to our customers and have a material adverse effect on our business, financial condition and results of operations.

(vi) We are reliant on PAAB to deliver new water infrastructure assets

SAJH relies on PAAB to carry out the capital works related to the new water infrastructure assets in Johor according to the business plan approved by SPAN. PAAB is required to deliver to SAJH any new water infrastructure assets based on the defined scope, design, specification and timing as proposed under the approved business plan. There is no assurance that PAAB will deliver to SAJH the prescribed new water infrastructure assets at the right scope, design, specification or on time. If for any reason PAAB is unable to perform its obligation effectively or in a timely manner, any of the foregoing factors could have a material adverse effect on our business, financial condition, results of operation and reputation.

(vii) Risks relating to our Subsidiaries in China

We have Subsidiaries incorporated in China which operate wastewater treatment plants. Accordingly, we are subject to various environmental laws and regulations which include the restrictions in pollutant discharge, and safety facilities in relation to the storage of hazardous chemicals and prevention of occupational diseases. As such, we are required to make the relevant filings and registrations and/or to obtain the necessary licences, certificates and qualifications.

There are incidents of non-compliances with such regulations. For example, certain Subsidiaries incorporated in China are not in compliance with requirements pertaining to environmental pollution treatment facilities, pollutant discharge and safety conditions in relation to hazardous chemicals construction projects and occupational diseases. For more information on our treatment facilities, refer to Section 7.9.2 of this Prospectus. Where rectification of the non-compliances involves making applications to the relevant authorities, the relevant applications have been made by the relevant Subsidiaries. Based on the relevant laws and regulations, the relevant authorities are at liberty to impose fines ranging from RMB20,000 (equivalent to RM10,092 based on the exchange rate of RM0.5046/RMB1, being the closing rate as at the LPD as extracted from BNM's website) to RMB1 million (equivalent to RM504,600 based on the exchange rate of RM0.5046/RMB1, being the closing rate as at the LPD as extracted from BNM's website) in respect of each non-compliance. In addition, the relevant local authorities may temporarily suspend operations of our plants. For those non-compliances which do not involve making any application to the authorities, we are arranging for the day-to-day operations of our affected water treatment plants to be sub-contracted to a party which is able to comply with the regulations.

Accordingly, we may incur costs which may be substantial in connection with our compliance with and/or non-compliance with such laws and regulations. If we have to make any capital expenditure to comply with such laws and regulations, or if we are required to incur expenses in connection with non-compliance with such laws and regulations or if our non-compliance results in our inability to operate or construct one or more of our water treatment plants, this may have a material adverse effect on our business, financial condition and results of operations.

(viii) We may not be successful in maintaining existing concessions or securing new concessions

Our future plans in relation to the environment sector contemplate the maintenance of our current concessions and continued acquisition of new concessions and projects. Our ability to expand our business and increase operating profits may be limited as a result of various external events. For example, concessions for new projects under consideration may be awarded to competing bidders, potentially on the basis of political or other non-commercial factors, or competition for such concessions may decrease the returns available from them. In addition, political or economic developments in the countries in which we currently have concessions, including but not limited to changes in laws, rules or regulations or government policy, such as unexpected changes in regulatory requirements (including with respect to taxation and tariffs), could increase the cost of conducting the environment sector or change the potential return available to us from a project, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

5.2 Risks relating to our Company

5.2.1 We are exposed to risks in relation to our growth and expansion strategies

In line with our long-term initiative of pursuing growth and achieving sustainability, our management may engage in the active recruitment and retention of skilled talents, prudent cost control, exploration of merger and acquisition opportunities as well as the expansion of our businesses both in terms of capacity and geography. Among others, such strategic moves are intended to result in the realisation of savings, creation of efficiencies, offering of new products or services, generation of cash or income and/or reduction of risk.

Such initiatives expose us to various uncertainties and risks which may or may not have been foreseen by our management. There can be no assurance that our management will be able to achieve the desired result in a specified period through such strategies. Factors affecting the outcome of management's strategies may range from general economic conditions, successful integration across functions, possession of the necessary technology and intellectual properties or the presence of skilled personnel.

5.2.2 The operation of our business is dependent upon certain permits, licences and approvals

We require certain permits, licenses and approvals to operate our business and facilities. We may be required to renew these permits, licences and approvals or to obtain new permits and approvals. While we have not experienced any difficulty in renewing and maintaining these permits, licences and approvals as and when required, there can be no assurance that the relevant authorities will continue to issue the required permits, licences or approvals in the time-frame we anticipate or at all. In addition, we are also in the midst of rectifying certain violations which require us to obtain the necessary licences, certificates, qualifications and/or approvals as detailed in Section 5.1.2(vii) of this Prospectus. Failure by us to renew, maintain or obtain the required permits, licences, certificates, qualifications and approvals may interrupt our operations or delay or prevent the implementation of projects. Any disruption in relation to required permits, licences, certificates, qualifications or approvals may have a material adverse effect on our business, financial condition and results of operations. For further information regarding our permits and licences, refer to Annexure B of this Prospectus.

5.2.3 We are exposed to technological and information systems risks

We operate in capital intensive industries, where competitive advantages in technological and information systems are vital to our competitiveness. We rely on information technology and systems in connection with the operation of our business, especially with respect to the monitoring and operation of our facilities including but not limited to the management of assets, maintenance and construction projects, supply of materials, compliance requirements, human resource functions, data backup, customer service, and billing and accounting. A loss of these systems or any disruptions associated with these systems could adversely affect our operations and have a material adverse effect on our business, financial condition and results of operations. Our information technology systems may be vulnerable to damage or interruption from:

- power loss, computer system failures, and internet, telecommunications or data network failures;
- operator negligence or improper operation by, or supervision of, employees;

- physical and electronic loss of data;
- computer viruses;
- intentional security breaches, misappropriation of data and similar events; and
- tropical storms, fires, floods, earthquakes and other natural disasters.

The foregoing risks may result in the loss or compromise of customer, financial or operational data, disruption of billing, collections or normal field service activities, disruption of electronic monitoring and control of operational systems and delays in financial reporting and other normal management functions. Adverse effects on us may include remediation costs related to lost, stolen or compromised data, costly repairs of data processing systems, increased cyber security protection costs, adverse effects on our compliance with regulatory and environmental laws and regulations, litigation and reputational damage.

5.2.4 Our operations are primarily conducted in Malaysia, which exposes us to risks associated with Malaysia and the performance of the Malaysian economy

We are incorporated in Malaysia, and historically, we have derived, and continue to derive, the majority of our revenues and operating profits from Malaysia. Accordingly, our business is highly dependent on the state of the Malaysian economy. Demand for water and electricity is directly related to the performance of the Malaysian economy (including overall growth and income levels) and the overall levels of business activity in Malaysia. Between July 1997 and 1999, Malaysia experienced a significant financial and economic downturn that resulted in, among others, a significant depreciation of the RM and an increase in the number and size of companies filing for corporate reorganisation and protection from their creditors. The ongoing European sovereign debt crisis, recent developments in the Middle East and general weakening of the global economy have increased the uncertainty of global economic prospects and may continue to adversely affect the Malaysian economy. For example, the Malaysian economy was affected by the global economic crisis that began in late 2007, as evidenced by the 1.5% decline in Malaysia's GDP in 2009 and the decline in the growth rate of Malaysia's GDP to 4.8% in 2008, compared to 6.3% in 2007. Malaysia's GDP grew at 7.2% in 2010 and 5.1% in 2011 (Source: World dataBank's website at http://databank.worldbank.org). We cannot assure you that the Malaysian economy will continue to grow or that Malaysia's GDP will not decrease. Factors that may adversely affect the Malaysian economy include:

- decreases in business, industrial, manufacturing or financial activities in Malaysia;
- scarcity of credit or other financing, resulting in lower demand for products and services provided by companies in Malaysia;
- exchange rate fluctuations;
- a prolonged period of inflation or increase in interest rates;
- changes in the Government's taxation policies;
- a re-emergence of Severe Acute Respiratory Syndrome, avian influenza (commonly known as bird flu), swine flu or the emergence of another similar disease in Malaysia;

- natural disasters, including landslides, tropical storms, fires, floods or similar events;
- political instability, terrorism or military conflict in Malaysia, other countries in the South East Asia region or globally; and
- other regulatory, political or economic developments in or affecting Malaysia.

The factors above and other factors beyond our control may reduce the demand for water and electricity in Malaysia and could have a material adverse effect on our business, growth prospects, financial condition, results of operations and cash flows.

5.2.5 Funding, especially on terms acceptable to us, may not be available to meet our future capital needs

Our ability to implement our growth strategy, to make necessary operational capital expenditures and to make timely repayments of our debt obligations depends in significant part on our ability to obtain external financing. The availability of external financing is subject to a number of factors, including, our future results of operations, financial condition and cash flows, the condition of the Malaysian economy, the markets for our products, the cost of financing and the condition of financial markets. There can be no assurance that any required additional financing, on either a short-term or a long-term basis, will be made available to us on satisfactory terms, if at all. If adequate funding is not available when needed, or is available only on unfavourable terms, it may become challenging for us to meet our capital needs, take advantage of business opportunities or respond to competitive pressures, which could have a material and adverse effect on our business, financial condition and results of operations.

5.2.6 We depend on certain key personnel and skilled employees

Our success depends on the continued contributions of our key personnel and skilled employees. The pool of qualified talents in the industries in which we operate is limited, and competition for qualified personnel is intense. Although we intend to focus on succession planning issues to reduce our dependence on such personnel, the experience and knowledge gained by our key personnel, including our directors, senior management and engineers, may be difficult to replace. There can be no assurance that the loss of any key management personnel can be avoided. Moreover, a significant increase in the wages paid by competing employers could result in a reduction of our skilled labour force, increases in the wage rates that we must pay, or both. If we are unable to retain our existing key personnel, including our Directors and senior management, or skilled employees, or attract, hire appropriate replacements and successors, our operations may be materially and adversely affected.

5.2.7 Failure to maintain good employee relations may adversely affect our operations and the success of our business

Maintaining good employee relations is important for the smooth operation of our production facilities and our business as a whole. As at the LPD, approximately 33.2% of our employees were unionised, all of whom are employees of SAJH, and in our environment sector we are a party to a collective bargaining agreement with the labour union of SAJH (namely Kesatuan Pekerja-Pekerja SAJH) representing its employees. We may not be able to negotiate the terms and conditions of any new labour agreements to our favour, and strikes or disruptions to our operations may occur in the future due to this or other reasons. If we are unable to maintain good employee relations in the future or fail to negotiate collective bargaining agreements in the future or maintain or implementation of the collective bargaining agreements, our business, financial condition and results of operations may be adversely affected. For more information on our employees, refer to Section 7.11 of this Prospectus.

5.2.8 We are exposed to the credit risks of our customers

We are exposed to the credit risk of our customers, and default on material payments owed to us by our customers could significantly reduce our operating cash flows and liquidity, as well as have a material adverse effect on their financial condition and results of operations. Some of our customers could also experience cash flow difficulties or become subject to liquidation which could, in turn, lead to long delays in collection of payments or write-off of accounts receivable. There is no assurance that our exposure to the risk of delayed payments from our customers or defaults in payment by our customers will not increase, or that we will not experience losses or cash flow constraints as a result. If any of these events were to occur, our financial condition, results of operations and liquidity could be materially and adversely affected. For more information on our credit risks, refer to Sections 10.2.7(iii) and 10.4.7(iii) of this Prospectus.

5.2.9 We are controlled by our Promoters, whose interests may not be aligned with those of the other shareholders of our Company

Upon the successful completion of the IPO, our Promoters will own 39.1% of our enlarged issued and paid-up share capital and thus, will be able to exercise control over our Company. Our Promoters, other than in respect of certain votes regarding matters in which they are interested must abstain from voting under the Listing Requirements, will be able to exercise influence the election of our Directors and the approval of any corporate proposals or transactions requiring the approval of our shareholders. While we will be required to comply with the Listing Requirements with regards to the mitigation of conflicts of interest, there can be no assurance that the interests of our Promoters will be aligned with the interests of the other shareholders of our Company.

5.2.10 Exchange rate fluctuations could negatively affect our financial condition and results of operations

Part of our income and expenses, particularly those relating to our oil and gas projects outside Malaysia and our water concessions in China and Thailand, are denominated in foreign currencies, while our reporting currency is in RM. Fluctuations in the exchange rate between the RM and foreign currencies may not have a material impact on our foreign currency denominated cash flow, but they may have an adverse impact on our reported income and expenses, as they are required to be stated in RM, as well as on financial and other covenants contained in our indebtedness that are based upon such reported financial figures.

5.2.11 Our ability to generate sufficient cash flow to fulfil our debt obligations is not assured

Based on our pro forma consolidated statements of financial position as at 31 December 2012, the total interest-bearing indebtedness of our Group as adjusted for our IPO and Listing is approximately RM1,615.3 million. There is no assurance that our Group will be able to generate sufficient cash flow in the future to fulfil our debt obligations. Further, our Group's indebtedness may, among others, limit our ability to obtain additional financing and require our Group to dedicate a substantial portion of our cash flow to service our current and future debt obligations, which will reduce funds available for other purposes.

5.2.12 There may be conflicts of interest between our Group and our related parties

Some of our Directors and/or substantial shareholders have engaged and/or may in the future engage in other businesses or corporations which carry on a similar trade as that of our Group or which are our customers or suppliers, from which potential conflicts of interest may arise. Details are set out in Sections 9.1.4 and 9.3.5 of this Prospectus. There can be no assurance that direct or indirect competition or conflicts of interest will not arise in the future between us and our related parties in any areas of business which may have a material and adverse effect on our business, financial condition and results of operations.

5.2.13 Existing or future claims against our Company, our subsidiaries, our Directors or our key management may have an unfavourable impact on us

From time to time, our Company, our subsidiaries, our Directors or our key management may be subject to litigation, investigations, claims and other legal proceedings. Refer to Section 9.5 of this Prospectus for a description of an action brought against certain of our Directors and key management. An adverse decision in this or any similar action could have a negative impact on our Company's reputation or relations with our customers or other third parties. In addition, the time required to defend against this or other legal proceedings could divert our management's attention from our day-to-day operations. We cannot predict with certainty the outcome of any legal proceedings in which we become involved with, and it is difficult for us to estimate the possible costs to us stemming from any such matters. An unfavourable outcome in any such legal proceedings could have a material adverse effect on our business, financial position, results of operations and cash flows.

5.3 Risks relating to our Shares

5.3.1 There has been no prior market for our Shares

There has been no prior market for our Shares, and there can be no assurance as to the liquidity of any market that may develop for our Shares, the ability of holders to sell our Shares or the prices at which holders would be able to sell our Shares. None of us, our Promoters, the Selling Shareholder and the Placement Managers have an obligation to make a market in our Shares. Application has been made to Bursa Securities for the listing of and quotation for our entire enlarged issued and paid-up share capital (including the IPO Shares) on the Main Market of Bursa Securities, and it is expected that there will be an approximate 13 Market Day gap between closing of the Retail Offering and trading of our Shares. We cannot assure you that there will be no event or occurrence that will have an adverse impact on the securities markets, the industries in which we operate or us during this period that would adversely affect the market price of our Shares when they begin trading. Our Shares could trade at prices that may be lower than the Institutional Price or the Final Retail Price depending on many factors, including prevailing economic and financial conditions in Malaysia, our operating results and the markets for similar securities. In addition, the market for securities in emerging markets has been subject to disruptions that have caused intense volatility in the prices of securities similar to our Shares. There can be no assurance that the market for our Shares, if any, will not be subject to similar disruptions. Any disruption in such markets may have a material and adverse effect on the holders of our Shares.

5.3.2 Our Share price and trading volume may be volatile

The market price of our Shares could be affected by numerous factors, including:

- general market, political and economic conditions;
- trading liquidity of our Shares;
- changes in earnings estimates and recommendations by financial analysts;
- changes in market valuations of listed shares in general or shares of companies comparable to ours;
- changes in government policy, legislation or regulation; and
- general operational and business risks.

In addition, many of the risks described elsewhere in this Prospectus could materially and adversely affect the market price of our Shares. Furthermore, if the trading volume of our Shares is low, price fluctuations may be exacerbated. Accordingly, there can be no assurance that our Shares will not trade at prices lower than the Institutional Price or the Final Retail Price.

Over the past few years, the Malaysian, regional and global equity markets have experienced significant price and volume volatility that have affected the share prices of many companies. Share prices of many companies have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. There can be no assurance that the price and trading of our Shares will not be subject to fluctuation.

5.3.3 There may be a delay or failure in trading of our Shares

The occurrence of certain events, including the following, may cause a delay in or termination of our Listing:

- we are unable to meet the minimum public spread requirement as determined by Bursa Securities, that is, having at least 25% of our issued and paid-up Shares in the hands of at least 1,000 public shareholders holding at least 100 Shares each at the point of Listing; or
- we are not able to obtain the approval of Bursa Securities for the Listing for whatever reason.

In such an event, investors will not receive any IPO Shares, and we and the Selling Shareholder will be jointly and severally liable to return in full, without interest, monies paid in respect of all applications for the IPO Shares. If such monies are not returned within 14 days after we and the Selling Shareholder become liable to repay it, then, pursuant to Section 243(2) of the CMSA, in addition to the liability of our Company and the Selling Shareholder, the officers of our Company and the Selling Shareholder will become jointly and severally liable to return such monies with interest at the rate of 10% per annum or such other rate as may be prescribed by the SC upon expiration of that period until full refund is made.

In the event that our Listing is aborted and our Shares have been allotted to the investors, a return of monies to investors could only be achieved by way of cancellation of share capital as provided under the Act. Such cancellation requires the approval of our shareholders by special resolution in a general meeting, consent of our creditors (unless dispensation with such consent has been granted by the High Court of Malaya) and the confirmation of High Court of Malaya. There can be no assurance that such monies can be recovered within a short period of time or at all in such circumstances.

5.3.4 We may not be able to pay dividends

We propose to pay dividends out of cash generated by our operations after setting aside necessary funding for our capital expenditure and working capital needs as well as after taking into account any restrictive covenants that we are obligated to observe. Dividend payments are not guaranteed, and our Board may decide, in its sole absolute discretion, at any time and for any reason, not to pay dividends or to pay smaller dividends than we currently propose. If we do not pay dividends, or pay dividends at levels lower than that anticipated by investors, the market price of our Shares may be negatively affected and the value of your investment in our Shares may be reduced.

Further, our payment of dividends may adversely affect our ability to fund unexpected capital expenditures as well as our ability to make future interest and principal repayments on any borrowings we may have outstanding at the time. As a result, we may be required to borrow additional money or raise capital by issuing equity securities, which may not be possible or on favourable terms or at all. Further, in the event we incur new borrowings subsequent to the Listing, we may be subject to covenants restricting our ability to pay dividends.

5.3.5 We are a holding company and, as a result, are dependent on dividends from our Subsidiaries, jointly-controlled entities and associates to meet our obligations and to provide funds for payment of dividends on our Shares

We are a holding company and conduct substantially all of our operations through our Subsidiaries, jointly-controlled entities and associates. Accordingly, dividends and other distributions received from our Subsidiaries, jointly-controlled entities and associates are our principal source of income. Consequently, the amount of these dividends and distributions are an important factor in our ability to pay dividends on our Shares (to the extent declared by our Board). The ability of our Subsidiaries to pay dividends or make other distributions to us is subject to the availability of distributable reserves and to these companies' having sufficient funds that are not needed to fund their operations, other obligations or business plans or to maintain compliance with their debt covenants.

As we are a shareholder of our Subsidiaries, our claims as a shareholder will generally rank junior to all claims of our Subsidiaries' creditors and claimants. In the event of a liquidation of a Subsidiary, there may not be sufficient assets for us to recoup our investment in that Subsidiary.

5.3.6 We plan to use the proceeds from the Public Issue primarily for repayment of indebtedness, investment in RWT (Cayman) and the Acquisition by RPSB, and you may not necessarily agree with how we use them

The net proceeds to be received by us from the Public Issue are expected to be RM610.5 million. We may utilise the net proceeds from the Public Issue in ways you may not agree with or that may not yield a favourable return to our shareholders. Even though at the time of the investment decision our Board believed in good faith that the investment would be beneficial to our Company and maximise returns to our shareholders, the benefits of the investment, for whatever reason, may not be realised as expected.

We plan to use the net proceeds from the Public Issue primarily for repayment of indebtedness, investment in RWT (Cayman) and the Acquisition by RPSB, as described in Section 3.6 of this Prospectus. We will have discretion as to the actual application of our net proceeds, detailed further in Section 4.10 of this Prospectus, and you are providing your funds to us, upon whose judgment you must depend for the specific uses we will make of the net proceeds from the Public Issue.

5.3.7 The sale or the possible sale of a substantial number of our Shares in the public market following our IPO could adversely affect the price of our Shares

Following the Listing, 39.1% of our enlarged issued and paid-up share capital will be held by our Promoters and 42.3% of our enlarged issued and paid-up share capital will be held publicly by investors participating in our IPO, assuming Over-allotment Option is not exercised. Following the Listing, our Shares will be tradable on the Main Market of Bursa Securities without restriction. Our Shares may also be sold outside the United States subject to the restrictions of Regulation S. We, the Promoters, the Selling Shareholder and the Cornerstone Investors have entered into the lock-up arrangements as described in Section 4.6.3 of this Prospectus in addition to these lock-ups, TSHM, RCorp and LOSB, as our Promoters, as well as Cheval, are subject to a moratorium as described in Section 12.2 of this Prospectus. However, notwithstanding our existing level of cash and cash equivalents, we may issue additional Shares after the end of the lock-up period in connection with financing activities or otherwise, and it is possible that our Promoters or any party may dispose of some or all of their Shares after the lock-up and moratorium periods pursuant to their own investment objectives. If our Promoters or any party sell or are perceived as intending to sell a substantial amount of Shares, the market price for our Shares could be adversely affected.

5.3.8 Because the Retail Price and the Institutional Price are higher than our net asset value per Share, purchasers of our Shares in the IPO will experience immediate and substantial dilution and purchasers of our Shares may experience further dilution if we issue additional Shares in the future

The Retail Price and the Institutional Price are higher than the net asset value per Share. Therefore, purchasers of our Shares in the IPO will experience an immediate dilution in net asset value of RM0.90 per Share, and our existing shareholders will experience an increase in the net asset value per Share.

In order to meet our funding requirements, we may consider offering and issuing additional Shares or equity-linked securities in the future. Purchasers of our Shares may experience further dilution in the net asset value per share if we issue additional Shares or equity-linked securities in the future.

5.3.9 Forward-looking statements in this Prospectus may not be accurate

This Prospectus contains forward-looking statements. All statements, other than statements of historical facts, included in this Prospectus, including, without limitation, those regarding our financial position, business strategies, plans and prospects of our management for future operations are forward-looking statements. Such forward-looking statements are made based on assumptions that we believe to be reasonable as at the date hereof. Forward-looking statements can be identified by the use of forward-looking terminology such as words "may", "will", "would", "could", "believe", "expect", "anticipate", "intend", "estimate", "aim", "plan", "forecast" or similar expressions and include all statements that are not historical facts. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of our Group, or industry results, to be materially different from any results or performance expressed or implied by such forward-looking statements.

Such forward-looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. Such factors include, among others, general economic and business conditions, competition, the impact of new laws and regulations affecting our industry and initiatives of the Government.

In light of these uncertainties, the inclusion of such forward-looking statements in this Prospectus should not be regarded as a representation or warranty by us or our advisers that such plans and objectives will be achieved.

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6.1 Our Company

6.1.1 History and background

Our Company was incorporated in Malaysia under the Act as a public limited company on 17 August 2012 under its current name, and commenced its business on 14 June 2013.

Our Company was incorporated to facilitate the Listing. Our principal activity is investment holding. Our Subsidiaries are principally engaged in 2 main sectors: energy and environment. In our energy sector, we have 2 main businesses: oil and gas, where we provide engineering and related services, and power generation. In our environment sector, we provide water supply services, operate water and wastewater treatment plants as well as provide specialised services in the management and optimisation of water utility assets.

By way of background, all of the companies within our Group were part of the RB Group. RB was listed on 15 February 2001 on the then Main Board of the Kuala Lumpur Stock Exchange (now known as Main Market of Bursa Securities).

For the years ended 30 June 2008 and 2010 respectively, the RB Group had registered losses and marginal PATAMI. For the year ended 30 June 2008, the RB Group registered loss after tax and minority interest of approximately RM737 million mainly due to significant provisions made for the non-recoverability of an amount due from a customer and joint venture partner in respect of the Melut Basin Oil Development project which involved expansion of the existing Al-Jabalayn central processing facility from 200,000 to 300,000 barrels of oil per day, amounting to RM316 million and RM240 million respectively.

For the year ended 30 June 2010, the RB Group recorded marginal PATAMI of RM15.0 million after accounting for the impairment of the irredeemable convertible unsecured loan stocks in SDEB ("**SDEB ICULS**") amounting to RM31.4 million. The high profits recorded by the RB Group for the year ended 30 June 2009 was due to a one-off tax credit arising from the reversal of deferred tax liabilities of approximately RM525.76 million which had it been excluded, the RB Group would have only registered a loss after tax and minority interest of RM139.70 million for the said financial year.

On 9 August 2011, Cheval, TSHM, RCorp, LOSB and Pacific Energy Overseas Ltd (collectively, the "Joint Offerors") undertook a voluntary take-over offer to acquire all the remaining voting shares in RB not already owned by the Joint Offerors ("Offer Shares") for a cash offer price of RM0.90 per Offer Share ("Offer"), which represent an illustrative market capitalisation of RB of approximately RM537.5 million based on the total number of RB shares in issue of 597,264,816 as at 9 August 2011.

The Joint Offerors had undertaken the Offer after taking into consideration the following:

- (i) prospects of certain business segments of the RB Group at that time, particularly the infrastructure and construction related activities, which would continue to be challenging over the immediate term with potential provisions and impairments for some of the RB Group's investments such as the SDEB ICULS in the event, inter-alia, actual traffic flow is not achieved by SDEB as well as for the terminated Libya housing project;
- thin trading volume and performance of the shares of RB which had been trading below par for the 12 months prior to the serving of the notice of the Offer; and

(iii) high gearing of the RB Group coupled with its existing debt covenants which may impede the RB Group's ability to raise new capital and/or obtain further debt financing to expand and grow the RB Group's businesses, locally or regionally.

At the time of the Offer, the most significant and material project under the construction business of the RB Group was the Libya housing project undertaken by Amona Ranhill Consortium Sdn Bhd ("**ARC**"), a 60%-owned subsidiary of RB. Due to the civil unrest in Libya in February 2011 which was ensued by a civil war, all construction activities in Libya were suspended, including ARC's housing project. As the civil unrest in Libya was not likely to end at the time, ARC had subsequently terminated the contract as ARC was in a force majeure situation under the terms of the contract which it had entered into the Libyan Government's Housing and Infrastructure Board, and accordingly, ARC was entitled to terminate the contract.

With the termination of the housing project, ARC does not have any other business and any other source of income. However, ARC has a considerable amount of liabilities, including its obligation to RB in relation to the guarantees extended by RB pursuant to the Libya housing project in the event the guarantee is enforced.

At the time of the Offer, the companies within the RB Group which are involved in the construction business were, on a combined basis, in a net liabilities position. The termination of the Libya housing project by ARC coupled with the financial position of the construction companies of the RB Group, had affected RB's ability to dispose or restructure its construction arm, while it was still listed on the Main Market of Bursa Securities.

The Joint Offerors had intended to undertake the necessary review of the RB Group post completion of the Offer. The Joint Offeror believed that being in a private domain would accord the Joint Offerors with greater flexibility:

- (i) to decide on the strategic direction of the RB Group as well as the reorganisation and rationalisation of the RB Group, if necessary, especially since the general partner of Cheval, TAEL Management Co. (Cayman) Ltd, has prior exposure to utilities and infrastructures related businesses. Acting via its general partner, Cheval is therefore able to impart the necessary expertise to assist the RB Group to undertake such reorganisation and rationalisation exercise as well as arranging for the raising of new capital, if required, to provide a platform for the future growth of the RB Group; and
- (ii) to address the problems faced by the companies within the RB Group which are involved in construction arising from the termination of the Libya housing project by ARC as well as their external liabilities, being amount owing to the external parties, amounting to approximately RM788.9 million as at 30 June 2011, which would need to be either fully settled, restructured and/or waived which otherwise would have necessitated a capital injection by the shareholders of RB in the event that these companies are unable to raise the necessary funding from financial institutions.

However, the market price of RB shares which had been trading below par for the 12 months prior to the serving of the notice of the Offer which would have affected RB's ability to raise funds from its shareholders while it was still listed on the Main Market of Bursa Securities. As at 30 June 2011, RB had provided corporate guarantees in respect of the financing facilities extended to these construction companies, and obligations amounting to RM552.8 million in the event the guarantees are enforced. Such efforts in addressing the problems faced by the construction companies of the RB Group may further impact the earnings as well as cash flow position of the RB Group and in turn, adversely affect the dividend payment capability of RB. Following the successful completion of the Offer, the Joint Offerors undertook a compulsory acquisition pursuant to Section 222 of the CMSA to acquire all the Offer Shares not accepted under the Offer, resulting in the Joint Offerors owning the entire issued and paid-up share capital of RB. RB was subsequently delisted from the Main Market of Bursa Securities on 14 November 2011.

Subsequent to the close of the Offer, the RB Group incurred additional cost due to expanded scope of work with respect to SDEB's construction project. In addition, as at 31 December 2012, the companies within the RB Group which are involved in the construction business continue to be in a net liabilities position.

It is expected that there will also be further impairment of the RB Group's investment in the SDEB ICULS, provision in respect of the amount due from ARC's customer pursuant to the Libya housing project (which may be partially set-off against the amount due to the said customer), as well as provision in respect of the amount due from REPC's customer, namely SDEB, which, if materialises will be recognised in the consolidated financial statements of the RB Group.

6.1.2 Significant developments since the privatisation of the RB Group

The RUSB Group has been involved in wastewater and sewerage technology business outside of Malaysia since the acquisition of 70% equity interest in RWT in 2005 and the last concessions entered into by the RUSB Group prior to the Offer took place in 2009 relating to the 30 MLD wastewater treatment plant in Xiaolan, Jiangxi Province on a BOT basis for a 30-year period and 50 MLD wastewater treatment plant in Xinxiang, Henan Province on a TOT basis for a 28-year period.

Subsequent to the Offer, since June 2012, the RUSB Group had entered into 3 MOUs and 6 investment agreements relating to several water and/or wastewater treatment projects in China. The entry into these agreements enables the RUSB Group to undertake investment evaluation and feasibility study on these projects with an aggregate capacity of 435 MLD, which in turn allows it to bid competitively for these concessions, on either a BOT or TOT basis, during the bidding process. Refer to Section 7.5.2(ii) of this Prospectus for further details on the MOUs and investment agreements. The total development costs for these investments is approximately RM850 million over a period of up to 4 years.

RWorley has also on 12 April 2013 entered into a MOA with Samsung where both parties have agreed to co-develop and pursue mutually beneficial business dealings, namely for the tender of engineering, procurement, construction and installation projects worldwide and also for the provision of engineering services by RWorley to the engineering, procurement, construction and installation projects secured by Samsung.

Pursuant to the MOA, a joint steering committee and working committee will be formed to jointly target mutually beneficial project opportunities and to jointly cooperate on an exclusive basis for such project opportunities that is selected by the joint steering working committee. The MOA is effective for a period of 3 years from 12 April 2013 or such earlier date as agreed between the parties or by other agreement that supersedes the MOA.

In January 2013, RB completed an internal group reorganisation exercise which had entailed the following:

(i) Acquisition by RPSB; and

(ii) acquisition by RWP from RB of 100% equity interest in RPSB for a purchase consideration of RM330,000,000 which was satisfied by the provision of a guarantee by RWP to RB to fully indemnify and hold RB harmless in respect of any claims received by RB from RUSB amounting to RM330,000,000 and whereby, upon RB's notice of any demand by RUSB, RWP shall pay RB the amount of the demand.

(items (i) and (ii) above are to be collectively referred to as "Internal Reorganisation")

Subsequently on 14 June 2013, our Company had also completed the following transactions:

- acquisition of 100% equity interest in RWP from Cheval, LOSB, RCorp, TSHM, YPJ, AA and AZJ for a purchase consideration of RM1,158,000,095 to be satisfied by the issuance of 492,765,998 new Ranhill Shares at an issue price of RM2.35 per Ranhill Share ("Acquisition of RWP"); and
- (ii) acquisition of 30% equity interest in RUSB from LOSB, LOSB Cayman, TSHM and AZJ for a purchase consideration of RM326,650,000 to be satisfied by the issuance of 139,000,000 new Ranhill Shares at an issue price of RM2.35 per Ranhill Share ("Acquisition of RUSB").

(items (i) and (ii) above are to be collectively referred to as "Pre-IPO Reorganisation")

The purchase consideration for the Acquisition of RWP was arrived at on a "willingbuyer willing-seller" basis after taking into consideration the valuation of RWP and its Subsidiaries, associated companies and jointly-controlled entities prior to the completion of the Pre-IPO Reorganisation, by Ranhill's management using the sumof-parts valuation, as follows:

(i) 70% equity interest in RUSB

The valuation of RUSB was derived at based on the estimated equity value of SAJH, RWT (Cayman) Group and RWSB.

The equity valuation of SAJH was derived using the DCF method of valuation where the projected free cash flow of SAJH is discounted using an appropriate discount rate with the following key assumptions:

- (a) The projected free cash flow of SAJH are estimated based on SAJH's future cash flow from operations less capital expenditure;
- (b) The discount rate is based on the estimated cost of equity of SAJH since SAJH is debt-free, and is derived from the capital asset pricing model ("CAPM") formula with the relevant assumptions estimated based on the yield of the Malaysian government securities ("MGS"), beta coefficient estimated based on SAJH's comparable companies analysis and market risk premium for Malaysia estimated based on the average market return assumptions employed by selected research houses; and
- (c) Terminal value estimated based on an appropriate assumed terminal growth rate.

The equity value of RWT (Cayman) (for effective shareholding of 36.5%) was derived using the DCF method of valuation of its subsidiaries that hold water concessions in China, where the free cash flow of these companies which had taken into consideration the subcontracting arrangement of the day-today operations of the wastewater treatment plants in China to a third party are discounted using an appropriate discount rate over the concession period. The discount rate is based on the RWT (Cayman) Group's estimated weighted average cost of capital ("WACC").

The equity valuation of RWSB (for effective shareholding of 70%) was derived using the earnings method of valuation by multiplying the projected earnings of RWSB for the year ending 31 December 2013 with an appropriate PE Multiple after taking into consideration the range of trading PE Multiple of comparable companies which are involved in the engineering and consultancy business with exposure to the water sector of between 8.7 times and 17.6 times.

(ii) 51% equity interest in RWorley

The equity valuation of RWorley was derived using the equity method of valuation by multiplying the projected earnings of RWorley for the year ending 31 December 2013 with an appropriate PE Multiple after taking into consideration the range of trading PE Multiple of comparable companies which are involved in engineering and consultancy business which are listed on foreign stock exchanges and has an exposure to the oil and gas sector of between 8.7 times and 13.8 times.

(iii) 50% equity interest less one share in RBSB

The equity valuation of RBSB was derived using the equity method of valuation by multiplying the projected earnings of RBSB for the year ending 31 December 2013 with an appropriate PE Multiple after taking into consideration the range of trading PE Multiple of comparable companies which are involved in the engineering and consultancy business which are listed on foreign stock exchanges of between 8.7 times and 10.6 times.

(iv) 100% equity interest in RPSB

The equity valuation of RPSB was derived using the DCF method of valuation of its subsidiaries, namely RPI, RPII, RPOM and RPOMII, where the free cash flow of these companies over the concession period are discounted using an appropriate discount rate with the following key assumptions:

- (a) RPI PPA will expire on 25 October 2029 with a terminal value which has been estimated using the projected EBITDA and an appropriate EBITDA exit multiple. The RPI PPA stipulates that Sabah Electricity has the option to purchase the power plant at fair market value upon expiry of the RPI PPA;
- (b) RPII PPA will expire on 22 April 2032 and has a terminal value of RM10 based on the RPII PPA which specifies that in the event Sabah Electricity and RPII are unable to agree on the extension of the RPII PPA, then if requested in writing by Sabah Electricity and upon payment of RM10 by Sabah Electricity to RPII, RPII shall transfer the power plant to Sabah Electricity;
- (c) The discount rate adopted to value the RPI and RPII is based on RPI and RPII's estimated WACC; and

(d) As RPOM and RPOMII conduct routine maintenance on RPI and RPII power plants respectively, the tenure of the services to be provided by RPOM and RPOMII have been assumed to be the same as the tenure as the respective PPAs. The discount rate adopted to value RPOM and RPOMII is based on RPOM and RPOMII's estimated WACC.

(v) 100% equity interest in RBV

The valuation of RBV did form part of the valuation of RWP and its Subsidiaries, associated companies and jointly-controlled entities as RBV is a property investment holding company, holding the master tenancy for the RB Group and Ranhill Group's offices and has been loss-making since the year ended 30 June 2010.

The purchase consideration for the Acquisition of RUSB was also arrived at on a "willing-buyer willing-seller" basis after taking into consideration the valuation of RUSB by Ranhill's management pursuant to the Acquisition of RWP.

The equity value of RWP (comprising RWP, its subsidiaries, associated companies and jointly-controlled entities) of approximately RM1,236.8 million is higher than the sum-of-parts valuation of the RB Group, after excluding the construction business, the SDEB ICULS as well as 50% plus one share in RBSB, at the time of the Offer of RM1,085.0 million.

This is primarily due to higher earnings expected from our oil and gas business when compared to the earnings expected from our oil and gas business at the time of the Offer, as well as the higher valuation multiple used in arriving at the equity value of RWorley when compared to the valuation multiple used at the time of the Offer which was based on the average traded PE Multiple of comparable mid-cap sized infrastructure and construction companies listed on the Main Market of Bursa Securities. However, investors should note the timing difference in the valuation as well as the valuation multiple and discount rates used which were arrived at based on and/or having considered prevailing market conditions at each valuation point.

6.1.3 The listing of the Ranhill Group

In essence, the Internal Reorganisation and the Pre-IPO Reorganisation are steps taken by our Promoters towards realising their vision of creating a listed energy and resources group with stable cash flows coupled with growth opportunities, particularly the water and wastewater treatment businesses in China, and our need to raise the necessary funds to finance such extensive capital investment should these investment opportunities materialise.

Pursuant to the Internal Reorganisation, companies involved in the energy and environment businesses were identified to form part of our Group and the companies remaining within the RB Group after the completion of the Internal Reorganisation are either dormant or involved in the construction sector where the prospect of such companies continues to be challenging over the immediate to medium term.

We have allocated approximately 61% of the gross proceeds to be raised from the Public Issue to redeem RPI's outstanding IMTN and partially redeem RPSB's Sukuk which in turn will increase our capacity for debt and project financing to facilitate our business strategies and future plans as set out in Section 7.3 of this Prospectus, as well as to facilitate future dividend payouts.

We have only allocated approximately 10.0% of the gross proceeds to be raised from the Public Issue to part-finance the equity portion of the development cost required for the water and/or wastewater treatment projects as we expect to fund the remaining development cost from our internally generated funds and bank borrowings. We have procured bank borrowings amounting to RMB3 billion from a bank in China to finance the project development cost in China.

In order to enhance our position as well as reap higher benefits from our potential ventures in China, we are also undertaking the Proposed RWT (Cayman) Acquisitions where we have allocated approximately 17.0% of the gross proceeds to be raised from the Public Issue to finance the said acquisition.

Investors should note that the business profile of our Group is different from that of the RB Group, in view of the post Pre-IPO Reorganisation group structure and our focus is in the energy sector, comprising oil and gas, and power generation businesses, and environment sector with the increased exposure in RUSB as well as the additional equity stake in RWT (Cayman) to be acquired.

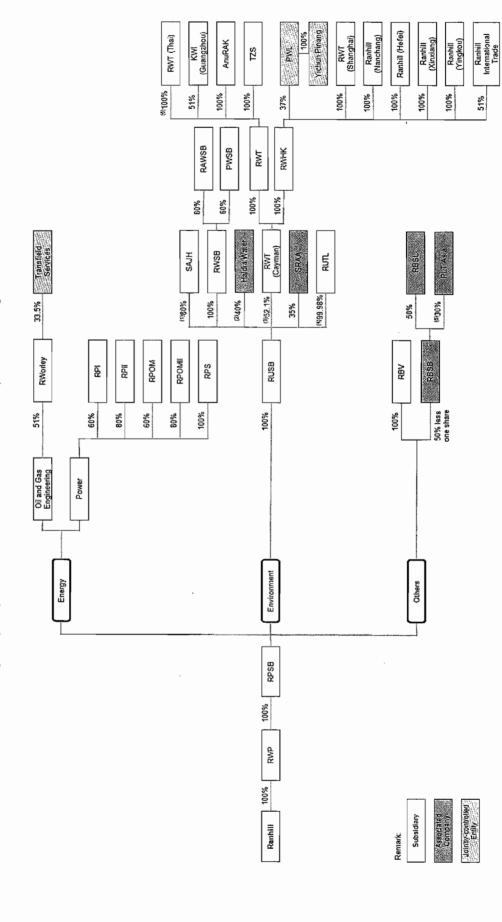
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Company No. 1014445-T

6. INFORMATION ON OUR GROUP (cont'd)

6.1.4 Our Group structure

Our Group structure, including our jointly-controlled entities and associates, upon our Listing is set out below:



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9	INFORMATIC	INFORMATION ON OUR GROUP (cont'd)
	Notes:	
	(1)	Pursuant to the Master Agreement, 20% of the ordinary shares in SAJH are deemed to have been transferred to the State Government of Johor.
	(2)	Includes the 1,092 ordinary shares jointly-held with AZJ and Faizal Othman
	(E)	Upon completion of the Proposed RWT (Cayman) Acquisitions, RUSB will hold 100% of the issued and paid-up share capital of RWT (Cayman).
	(4)	Pursuant to Section 64(6)(d) of the Act, RUTL is deemed a 99.98%-owned subsidiary of RUSB by virtue of a trust arrangement with Supasak Chirasavinuprap.
	(5)	The 30% share in PLT Asia is held by Yap Yuen Thye, a nominee of RBSB.
	(9)	Pursuant to Section 6A(6)(d) of the Act, RWT (Thai) is deemed a wholly-owned subsidiary of RWT by virtue of a trust arrangement with Lamom Sirisayunt, Prapoj Jirasathitpompong and Nataya Charuwanakul.
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6.1.5 Share capital

As at 14 June 2013, our authorised share capital is RM2,000,000,000 comprising 2,000,000,000 Shares whilst our issued and paid-up share capital is RM631,766,000 comprising 631,766,000 Shares.

The changes in our issued and paid-up share capital since the date of our incorporation up to 14 June 2013 are as follows:

Date of allotment	No. of shares allotted	Par value (RM)	Consideration	Cumulative issued and paid- up share capital (RM)
17 August 2012 14 June 2013	2 492,765,998	1.00 1.00	Cash Consideration for the acquisition of 100% equity interest in RWP	2.00 492,766,000
14 June 2013	139,000,000	1.00	Consideration for the acquisition of 30% equity interest in RUSB	631,766,000

Our issued and paid-up share capital will increase to RM961,766,000 comprising 961,766,000 Shares following the completion of the Public Issue.

As at the LPD, our Company does not have any outstanding warrants, options, convertible securities or uncalled capital.

6.2 Subsidiaries, jointly-controlled entities and associates

As at 14 June 2013, our Subsidiaries, jointly-controlled entities and associates are as follows:

Name	Date and country of incorporation	Business commencement date	lssued and paid-up share capital	Our effective equity interest (%)	Principal activities
Subsidiary of I	Ranhill				
RWP	16 March 2012 Malaysia	10 January 2013	RM10,000	100.00	Investment holding
Subsidiary of I	RWP				
RPSB	22 June 1972 Malaysia	22 June 1972	RM120,700,000	100.00	Investment holding and provision of management services to its subsidiaries
Subsidiaries o	f RPSB				
RUSB	30 August 2000 Malaysia	4 October 2000	RM294,500,002	100.00	Investment holding, provision of management consultancy and technical support services to the subsidiaries and consultancy services

	Date and	Business	Issued and	Our effective	
Name	country of incorporation	commencement date	paid-up share capital	equity interest	Principal activities
				(%)	
RPI	12 January 1995 Malaysia	27 July 1998	RM10,000,000	60.00	IPP
RPII	7 August 1995 Malaysia	6 March 2010	RM12,350,000	80.00	IPP
RPOM	21 January 1997 Malaysia	10 August 1998	RM500,000	60.00	O&M services for power plants
RPOMII	7 August 1995 Malaysia	1 August 2009	RM500,000	80.00	O&M services for power plants
RPS	17 May 1995 Malaysia	12 June 1996	RM500,000	100.00	Dormant company
RWorley	20 September 1995 Malaysia	1 February 2000	RM8,800,606	51.00	Provision of EPCM, supervision, ancillary services to its clients
RBV	21 January 1992 Malaysia	1 September 1995	RM10,300,000	100.00	Property investment holding
Associate of R	PSB				
RBSB	1 July 1981 Malaysia	1 July 1981	RM15,346,170	50% less one share	Provision of EPCM services and project management services
Subsidiaries o	f RUSB				
SAJH	5 February 1999 Malaysia	1 March 2000	RM100,000,000	⁽¹⁾ 80.00	Abstraction of raw water, treatment of water, distribution and sale of treated water to consumers in the State of Johor pursuant to its migration from services concession arrangement to operating service arrangement
RWSB	21 February 2005 Malaysia	20 April 2005	RM750,000	100.00	Providing and carrying on project management consultancy services relating to both domestic and overseas water-related projects
RUTL	8 December 2010 Thailand	_*	THB1,000,000	⁽²⁾ 48.98	Dormant company

Name	Date and country of incorporation	Business commencement date	lssued and paid-up share capital	Our effective equity interest (%)	Principal activities
RWT (Cayman)	12 November 2008 Cayman Islands	30 April 2009	USD32,900,000	⁽³⁾ 52.10	Investment holding activities and provision of consultancy services, project management, engineering, procurement, construction, supply of equipment, O&M services to both municipal and industrial water, sewerage and wastewater treatment plants
Associates of				(a)	
Haldia Water	12 June 2008 India	23 July 2008	Rs277,736,830	⁽⁴⁾ 40.00	Dormant company
SRAA	14 June 2009 Saudi Arabia	_*	SAR500,000	35.00	Dormant company
Subsidiaries o	of RWSB				
RAWSB	7 October 2011 Malaysia	_*	RM1,000	80.00	Providing and carrying on project management consultancy services relating to water related project
PWSB	8 March 2012 Malaysia	1 April 2012	RM250,000	60.00	Provision, operation, management, improvement and upgrading of the water advanced pressure management in relation to NRW related business or activities
Subsidiaries o	of RWT (Cayman)				
RWT	7 June 1994 Malaysia	1 October 1994	RM7,500,000	52.10	Investment holding activities and provision of consultancy services, project management, engineering, procurement, construction, supply of equipment, O&M services to both municipal and industrial water, sewerage and wastewater

Name	Date and country of incorporation	Business commencement date	Issued and paid-up share capital	Our effective equity interest (%)	Principal activities
RWHK Subsidiaries o	26 November 2008 Hong Kong	1 April 2013	HKD266,648,960	52.10	Undertaking investment holding activities and provision of consultancy, project management, O&M services relating to wastewater treatment plants
				(5)=0.40	
RWT (Thai)	6 March 2000 Thailand	23 August 2000	THB2,000,000	⁽⁵⁾ 52.10	Undertaking consultancy services, project management, engineering, supply construction and operation for potable and wastewater treatment plant
KWI (Guangzhou)	9 May 2001 China	_*	RMB513,893	26.57	Ceased operations
AnuRAK	1 September 2005 Thailand	29 September 2006	THB99,000,000	52.10	Undertaking potable water, wastewater and reclaimed water treatment services for domestic and industrial use
TZS	3 April 2007 Malaysia	1 August 2007	RM2	52.10	Undertaking construction, structural, civil, engineering, electrical and mechanical works to potable water and wastewater treatment plant
Subsidiaries o	of RWHK				
RWT (Shanghai)	5 February 2007 China	27 December 2007	USD200,000	52.10	Undertaking consultancy services on potable water, wastewater technologies and project management
Ranhill (Nanchang)	18 January 2007 China	1 March 2009	USD12,875,000	52.10	Undertaking wastewater treatment services for Xiaolan Economic Development Zone
Ranhill (Hefei)	30 July 2007 China	1 April 2011	USD7,520,000	52.10	Undertaking wastewater treatment services for Hefei Chemical Industrial Park

Name	Date and country of incorporation	Business commencement date	lssued and paid-up share capital	Our effective equity interest (%)	Principal activities		
Ranhill (Xinxiang)	22 January 2008 China	1 April 2013	USD6,120,000	52.10	Undertaking wastewater treatment services for Xinxiang Industrial Park		
Ranhill (Yingkou)	12 January 2009 China	_*	USD5,732,000	52.10	Undertaking wastewater treatment services for Yingkou Economic and Technology Development		
Ranhill International Trade	28 March 2012 Hong Kong	-*	HKD10,000	26.57	Undertaking investment holding activities and provision of consultancy, project management, O&M services relating to potable water treatment plants		
Jointly-contro	lled entity of RWI	łK					
PWL	25 June 2003 Federal Territory of Labuan, Malaysia	1 September 2006	USD100	19.28	Construction of water- infrastructure projects, water treatment, management and supply of treated water for government, industries, commercial and domestic consumers		
Jointly-contro	lled entity of RBS	B					
RBSL	28 May 2007 Saudi Arabia	28 May 2007	SAR500,000	25.00	Provision of EPCM and project management services		
Associate of F	RBSB						
PLT Asia	22 November 1993 Malaysia	1 April 1994	RM100,000	⁽⁶⁾ 15.00	Dormant (commenced liquidation)		
Jointly-controlled entity of RWorley							
Transfield Services	20 October 2009 Malaysia	1 January 2010	RM175,000	17.09	Provision of advisory and consultancy services and maintenance, procurement and project O&M services		
Subsidiary of	PWL						
Yichun Pinang	25 July 2003 China	1 September 2006	RMB38,000,000	19.28	Undertaking water treatment, management and supply of treated water		

Notes:

The company has yet to commence business and reason for the delay in the commencement of business as well as the estimated commencement date are as follows:

Name	Reason for delay	Estimated commencement date
RUTL	The company is established for the purpose of participating in a Thailand government tender which has been delayed	As at the LPD, there is no indication when the tender will be called
SRAA	The company is still pursuing low risk consultancy related projects.	1 st half of 2014
RAWSB	The company has not been able to secure any water related projects.	The company is in the process of being struck off.
KWI (Guangzhou)	Due to a disagreement on the business direction of the company between the shareholders.	The company is pending to be struck off.
Ranhill (Yingkou)	The wastewater treatment and reclamation plant of Ranhill (Yingkou) is still under construction. The business of Ranhill (Yingkou) will only commence after the completion of the construction of the plant and upon commencement of water treating process.	2nd half of 2013
Ranhill International Trade	The company has not secured any water treatment concession since its incorporation.	The company is currently exploring an opportunity in relation to a water treatment plant project in Hubei province of China. In the event the company manage to secure the water treatment concession, its business will commence upon commencement of the plant's water treating process.

- ⁽¹⁾ Pursuant to the Master Agreement, 20% of the ordinary shares in SAJH are deemed to have been transferred to the State Government of Johor.
- ⁽²⁾ Pursuant to Section 6A(6)(d) of the Act, RUTL is deemed a 99.98%-owned subsidiary of RUSB by virtue of a trust arrangement with Supasak Chirasavinuprap.
- ⁽³⁾ Upon completion of the Proposed RWT (Cayman) Acquisitions, RUSB will hold 100% of the issued and paid-up share capital of RWT (Cayman).
- ⁽⁴⁾ Includes the 1,092 ordinary shares jointly-held with AZJ and Faizal Othman.
- ⁽⁵⁾ Pursuant to Section 6A(6)(d) of the Act, RWT (Thai) is deemed a wholly-owned subsidiary of RWT by virtue of a trust arrangement with Lamom Sirisayunt, Prapoj Jirasathitpompong and Nataya Charuwanakul.
- ⁽⁶⁾ The 30% share in PLT Asia is held by Yap Yuen Thye, a nominee of RBSB.

The details of our Subsidiaries, associates and jointly-controlled entities as at the LPD are set out below:

6.2.1 Our Subsidiary

RWP (Company No. 982754-D)

(i) History and business

RWP was incorporated in Malaysia under the Act on 16 March 2012 as a public limited company under the name of RanhillWP Berhad. On 23 August 2012, RanhillWP Berhad was converted into a private limited company and changed its name to its present name. RWP is principally involved in investment holding, and commenced its business on 10 January 2013.

(ii) Share capital

As at the LPD, the authorised share capital of RWP is RM100,000 comprising 1,000,000 ordinary shares of RM0.10 each. The issued and paid-up share capital of RWP is RM10,000 comprising 100,000 ordinary shares of RM0.10 each.

Details of the changes to the issued and paid-up share capital of RWP since its incorporation are as follows:

Date of allotment/ sub-division	No. of shares allotted	Par value	Consideration	Cumulative issued and paid-up share capital
		(RM)		(RM)
16 March 2012	2	1.00	Cash	2
13 August 2012	20	0.10	Pursuant to the sub-division of	2
24 August 2012	99,980	0.10	shares Cash	10,000

(iii) Shareholder

RWP is our wholly-owned subsidiary.

(iv) Subsidiary and associate

As at the LPD, the direct subsidiary of RWP is RPSB, details of which are set out in Section 6.2.2 of this Prospectus. RWP does not have any direct associates as at the LPD.

6.2.2 Subsidiary of RWP

RPSB (Company No. 12351-K)

(i) History and business

RPSB was incorporated in Malaysia under the Act on 22 June 1972 as a private limited company under the name of Electrical Power Engineering (M) Sdn Bhd. On 27 December 1990, Electrical Power Engineering (M) Sdn Bhd changed its name to Time-EPE Sdn Bhd and subsequently changed its name to EPE Power Corporation Sdn Bhd on 8 July 1992. EPE Power Corporation Sdn Bhd was converted into a public limited company on 29 June 1993 and later changed its name to Ranhill Power Berhad on 12 May 2004.

RPSB was listed on the then Second Board of Kuala Lumpur Stock Exchange (now known as Main Market of Bursa Securities) on 17 February 1994. On 11 September 2007, RB undertook a voluntary take-over offer to acquire all the remaining shares in RPSB not owned by it for a cash offer price of RM2.15 for each RPSB share. RPSB was delisted on 6 December 2007.

On 28 February 2008, it was converted into a private limited company and assumed its present name.

RPSB is principally involved in investment holding and provision of management services to its subsidiaries, and commenced its business on 22 June 1972.

(ii) Share capital

As at the LPD, the authorised share capital of RPSB is RM500,000,000 comprising 500,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RPSB is RM120,700,000 comprising 120,700,000 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RPSB for the past 3 years preceding the LPD.

(iii) Shareholder

RPSB is a wholly-owned subsidiary of RWP.

(iv) Subsidiaries and associate

As at the LPD, the direct subsidiaries of RPSB are RUSB, RPI, RPII, RPOM, RPOMII, RPS, RWorley and RBV, details of which are set out in Section 6.2.3 of this Prospectus. The direct associate of RPSB as at the LPD is RBSB, details of which are set out in Section 6.2.4 of this Prospectus.

6.2.3 Subsidiaries of RPSB

6.2.3.1 RUSB (Company No. 525082-K)

(i) History and business

RUSB was incorporated in Malaysia under the Act on 30 August 2000 as a public limited company under the name of Insan Utiliti Berhad. On 25 January 2002, Insan Utiliti Berhad changed its name to Ranhill Utilities Berhad. Ranhill Utilities Berhad was listed on the Main Board of Kuala Lumpur Stock Exchange (now known as Main Market of Bursa Securities) on 27 June 2002.

On 6 June 2008, RB undertook a voluntary take-over offer to acquire all the remaining shares in RUSB not owned by it for a cash offer price of RM3.50 for each RUSB share. RUSB was delisted on 28 August 2008. On 2 July 2009, Ranhill Utilities Berhad was converted into a private limited company and assumed its present name.

RUSB is principally involved in investment holding, provision of management consultancy and technical support services to the subsidiaries and consultancy services, and commenced its business on 4 October 2000.

(ii) Share capital

As at the LPD, the authorised share capital of RUSB is RM1,000,000,000 comprising 1,000,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RUSB is RM294,500,002 comprising 294,500,002 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RUSB for the past 3 years preceding the LPD.

(iii) Shareholder

RUSB is a wholly-owned subsidiary of RPSB.

(iv) Subsidiaries and associates

As at the LPD, the direct subsidiaries of RUSB are SAJH, RWSB, RUTL and RWT (Cayman), details of which are set out in Section 6.2.5 of this Prospectus. The direct associates of RUSB as at the LPD are Haldia Water and SRAA, details of which are set out in Section 6.2.6 of this Prospectus.

6.2.3.2 RPI (Company No. 330342-K)

(i) History and business

RPI was incorporated in Malaysia under the Act on 12 January 1995 as a private limited company under the name of Powertron Resources Sdn Bhd. On 1 October 2004, Powertron Resources Sdn Bhd changed its name to its present name.

RPI is an IPP and commenced its business on 27 July 1998.

(ii) Share capital

As at the LPD, authorised share capital of RPI is RM50,000,000 comprising 50,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RPI is RM10,000,000 comprising 10,000,000 ordinary shares of RM1.00 each.

As at the LPD, RPI has, in issue, convertible unsecured loan stock ("CULS") amounting to RM29,000,000 comprising 29,000,000 CULS of RM1.00 in nominal value. The salient terms of the CULS are as follows:

Maturity date	:	30 June 2019
Interest rate	:	12.5% per annum calculated from the issue date on presentation and surrender of the CULS
Redemption	:	On the maturity date, the CULS certificate, if not earlier converted, will be redeemed for its full principal amount together with all unpaid accrued interest.
		Subject to the requirements (if any) of RPI's lenders, the CULS may be redeemed prior to the maturity date with all unpaid interest accrued up to the last anniversary of the issue date prior to the date of redemption, if so approved by a meeting of the holders of the CULS.
Conversion price	:	RM1.00 nominal value of CULS for one ordinary share of RM1.00 each in RPI issued as fully paid-up

Conversion period	:	Up to maturity date
Ranking and dividend entitlement	:	All converted shares will rank <i>pari passu</i> upon allotment but will not be entitled to dividends declared for the financial year preceding the year of conversion

There has been no change in the issued and paid-up share capital of RPI for the past 3 years preceding the LPD.

(iii) Shareholders and holders of CULS

As at the LPD, the shareholders of RPI and their shareholdings in RPI are as follows:

Name	No. of ordinary shares held	%
RPSB	6,000,000	60.00
SECSB	4,000,000	40.00

As at the LPD, the holders of the CULS and their holdings are as follows:

Name	No. of CULS held	%
RPSB	17,400,000	60.00
SECSB	11,600,000	40.00

(iv) Subsidiary and associate

As at the LPD, RPI does not have any subsidiary or associate.

6.2.3.3 RPII (Company No. 354304-U)

(i) History and business

RPII was incorporated in Malaysia under the Act on 7 August 1995 as a private limited company under the name of EPE Ventures Sdn Bhd. On 28 September 2004, EPE Ventures Sdn Bhd changed its name to Ranhill Power Ventures Sdn Bhd. On 7 December 2005, Ranhill Power Ventures Sdn Bhd changed its name to Ranhill Tuaran Sdn Bhd, and on 11 December 2006, Ranhill Tuaran Sdn Bhd changed its name.

RPII is an IPP and commenced its business on 6 March 2010.

(ii) Share capital

As at the LPD, authorised share capital of RPII is RM25,000,000 comprising 22,000,000 ordinary shares of RM1.00 each, and 300,000,000 redeemable convertible non-cumulative preference shares ("**RCNPS**") of RM0.01 each. The issued and paid-up share capital of RPII is RM12,350,000 comprising 10,000,000 ordinary shares of RM1.00 each and 235,000,000 RCNPS of RM0.01 each. The salient terms of the RCNPS are as follows:

Issue price : RM1.00 per RCNPS

Maturity date	:	the 5 ^ຫ	s otherwise extended by the parties, the date falling on ¹ anniversary of the date of issue of the RCNPS. The date of the RCNPS are as follows:	
		lssue d	ate	No. of RCNPS issued
		25 May 21 Aug	2009 ust 2009	170,000,000 65,000,000
Dividend rate	:	at its a		ctors of RPII, TSHM and/or AA, time to time payable in respect r
Conversion price	:	Each RM0.01 nominal value of RCNPS can be converted into one new ordinary share of RM1.00 each		
Conversion period	:	Up to maturity date. Unless otherwise agreed by the parties, all outstanding RCNPS shall be converted into new RPII ordinary shares on maturity date		
Ranking	:	pursua and iss ordinar shares distribu	nt to the conversion of t ue rank <i>pari passu</i> in a y shares in issue exc will not be entitled	M1.00 each in RPII to be issued he RCNPS shall upon allotment all respects with all the existing ept that the said new ordinary to any dividends or other nt date falls on or prior to the d new ordinary shares.
Voting rights	:	The RCNPS holders shall have the same rights as ordinary shareholders with respect to receiving notices, reports and audited accounts and attending general meetings of RPII.		
		The RCNPS shall not be entitled to a right to vote at any general meeting of RPII except with regards to:		
		(a)	a resolution to reduce	the capital of RPII;
		(b)		rease the capital of RPII by
		(c)	creation of further RC a resolution for the property, business an	disposal of the whole of RPII's
		(d)	any proposal that af RCNPS;	fects the rights attached to the
		(e)	a resolution to wind-u	ıp RPII;
		(f)	during the winding-up	o of RPII; and
		(g)	on a proposal for repa	ayment of capital
Status	:	(a)		s between the RCNPS holders <i>ssu</i> in all respects and without eference;
		(b)		PS shall have preference over classes of shares; and
		(c)		e return of capital and premium ave preference over all other

- Capital rights : The RCNPS shall not confer the holder thereof any right to participate in profits and on a return in excess of capital on liquidation or winding-up of RPII other than on redemption, up to the redemption price and any payment of accrued dividend as stated herein in priority to the ordinary shares of RM1.00 each in RPII. Save as aforesaid, the holder of the RCNPS shall not be entitled to participate in the capital distribution of RPII by way of bonus or otherwise.
- Redemption : RPII may at its absolute discretion redeem any unconverted RCNPS from time to time and at any time after the issue date subject to:
 - (a) availability of funds; and
 - (b) availability of profits.

The redemption price of each RCNPS shall be RM1.00. As between the RCNPS holders, early redemption shall be on a *pari passu* basis.

There has been no change in the issued and paid-up share capital of RPII for the past 3 years preceding the LPD.

(iii) Shareholders and holders of RCNPS

As at the LPD, the shareholders of RPII and their shareholdings in RPII are as follows:

Name	No. of ordinary shares held	%
RPSB	8,000,000	80.00
SECSB	2,000,000	20.00

As at the LPD, the holders of RCNPS and their holdings are as follows:

Name	No. of RCNPS held %		
RPSB	188,000,000	80.00	
SECSB	47,000,000	20.00	

(iv) Subsidiary and associate

As at the LPD, RPII does not have any subsidiary or associate.

6.2.3.4 RPOM (Company No. 417928-T)

(i) History and business

RPOM was incorporated in Malaysia under the Act on 21 January 1997 as a private limited company under the name of Reward Resources Sdn Bhd. On 1 October 2004, Reward Resources Sdn Bhd changed its name to its present name.

RPOM is principally involved in the provision of O&M services for power plants, and commenced its business on 10 August 1998.

(ii) Share capital

As at the LPD, the authorised share capital of RPOM is RM1,000,000 comprising 1,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RPOM is RM500,000 comprising 500,000 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RPOM for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of RPOM and their shareholdings in RPOM are as follows:

Name	No. of ordinary shares held	%
RPSB	300,000	60.00
SECSB	200,000	40.00

(iv) Subsidiary and associate

As at the LPD, RPOM does not have any subsidiary or associate.

6.2.3.5 RPOMII (Company No. 354306-D)

(i) History and business

RPOMII was incorporated in Malaysia under the Act on 7 August 1995 as a private limited company under the name of EPE Components Sdn Bhd. On 28 September 2004, EPE Components Sdn Bhd changed its name to Ranhill Power Components Sdn Bhd. On 7 December 2005, Ranhill Power Components Sdn Bhd changed its name to Ranhill Tuaran O&M Sdn Bhd and on 17 September 2009, Ranhill Tuaran O&M Sdn Bhd changed its name to its present name.

RPOMII is principally involved in the provision of O&M services for power plants, and commenced its business on 1 August 2009.

(ii) Share capital

As at the LPD, the authorised share capital of RPOMII is RM1,000,000 comprising 1,000,000 ordinary shares of RM1.00 each. The issued and paidup share capital of RPOMII is RM500,000 comprising 500,000 ordinary shares of RM1.00 each.

Details of the change to the issued and paid-up share capital of RPOMII for the past 3 years preceding the LPD are as follows:

Date of allotment	No. of shares allotted	Par value (RM)	Consideration	Cumulative issued and paid-up share capital (RM)
4 November 2010	499,998	1.00	Cash	500,000

(iii) Shareholders

As at the LPD, the shareholders of RPOMII and their shareholdings in RPOMII are as follows:

Name	No. of ordinary shares held	%
RPSB	400,000	80.00
SECSB	100,000	20.00

(iv) Subsidiary and associate

As at the LPD, RPOMII does not have any subsidiary or associate.

6.2.3.6 RPS (Company No. 343504-P)

(i) History and business

RPS was incorporated in Malaysia under the Act on 17 May 1995 as a private limited company under the name of Trans Bakti Sdn Bhd. On 28 September 2004, Trans Bakti Sdn Bhd changed its name to Ranhill Trans Bakti Sdn Bhd and on 5 April 2013, Ranhill Trans Bakti Sdn Bhd assumed its present name.

RPS is a dormant company but is expected to enter into a management services agreement with RPSB by 4th quarter of 2013 to provide management services to other power business related subsidiaries of RPSB.

(ii) Share capital

As at the LPD, the authorised share capital of RPS is RM1,000,000 comprising 1,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RPS is RM500,000 comprising 500,000 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RPS for the past 3 years preceding the LPD.

(iii) Shareholder

RPS is a wholly-owned subsidiary of RPSB.

(iv) Subsidiary and associate

As at the LPD, RPS does not have any subsidiary or associate.

6.2.3.7 RWorley (Company No. 360351-A)

(i) History and business

RWorley was incorporated in Malaysia under the Act on 20 September 1995 as a private limited company under the name of Gagasan Consultancy Sdn Bhd. On 29 November 1996, Gagasan Consultancy Sdn Bhd changed its name to Jacobs Construction Management (Malaysia) Sdn Bhd. On 11 March 2002, Jacobs Construction Management (Malaysia) Sdn Bhd changed its name to Ranhill Worley Sdn Bhd, and on 6 May 2005, Ranhill Worley Sdn Bhd assumed its present name. RWorley is principally involved in the provision of EPCM, supervision and ancillary services to its clients, and commenced its business on 1 February 2000.

(ii) Share capital

As at the LPD, the authorised share capital of RWorley is RM10,000,000 comprising 10,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RWorley is RM8,800,606 comprising 8,800,606 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RWorley for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of RWorley and their shareholdings in RWorley are as follows:

Name	No. of ordinary shares held	%
RPSB	4,488,309	51.00
WorleyParsons Engineering Pty Ltd	4,312,297	49.00

(iv) Subsidiary and associate

As at the LPD, RWorley does not have any subsidiary or associate. The direct jointly-controlled entity of RWorley as at the LPD is Transfield Services, details of which are set out in Section 6.2.14 of this Prospectus.

6.2.3.8 RBV (Company No. 232836-D)

(i) History and business

RBV was incorporated in Malaysia under the Act on 21 January 1992 as a private limited company under its present name.

RBV is principally involved in the business of property investment holding, and commenced its business on 1 September 1995.

(ii) Share capital

As at the LPD, the authorised share capital of RBV is RM25,000,000 comprising 25,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RBV is RM10,300,000 comprising 10,300,000 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RBV for the past 3 years preceding the LPD.

(iii) Shareholder

RBV is a wholly-owned subsidiary of RPSB.

(iv) Subsidiary and associate

As at the LPD, RBV does not have any subsidiary or associate.

6.2.4 Associate of RPSB

RBSB (Company No. 72416-T)

(i) History and business

RBSB was incorporated in Malaysia under the Act on 1 July 1981 as a private limited company under its present name.

RBSB is principally involved in the business of provision of EPCM services and project management services, and commenced its business on 1 July 1981. RBSB operates in the engineering services sector, providing its services to companies in the construction, water and power industries.

(ii) Share capital

As at the LPD, the authorised share capital of RBSB is RM25,000,000 comprising 25,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RBSB is RM15,346,170 comprising 15,346,170 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RBSB for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of RBSB and their shareholdings in RBSB are as follows:

Name	No. of ordinary shares held	%
RB	7,673,086	50.00
RPSB	7,673,084	50.00

(iv) Subsidiary and associates

As at the LPD, RBSB does not have any subsidiary. The direct jointlycontrolled entity of RBSB as at the LPD is RBSL details of which are set out in Section 6.2.12 of this Prospectus. The direct associate of RBSB as at the LPD is PLT Asia, details of which are set out in Section 6.2.13 of this Prospectus.

6.2.5 Subsidiaries of RUSB

6.2.5.1 SAJH (Company No. 476718-H)

(i) History and business

SAJH was incorporated in Malaysia under the Act on 5 February 1999 as a private limited company under the name of Sempurna Pelita Sdn Bhd. On 26 May 1999, Sempurna Pelita Sdn Bhd changed its name to its present name.

SAJH is principally involved in the abstraction of raw water, treatment of water, distribution and sale of treated water to consumers in the State of Johor pursuant to its migration from service concession arrangement to operating service arrangement, and commenced its business on 1 March 2000.

(ii) Share capital

As at the LPD, the authorised share capital of SAJH is RM165,000,000 comprising 149,999,999 ordinary shares of RM1.00 each, one special share of RM1.00 each and 150,000,000 preference shares of RM0.10 each. The issued and paid-up share capital of SAJH is RM100,000,000 comprising 100,000,000 ordinary shares of RM1.00 each. One special share of RM1.00 each was issued in the name of the Chief Minister of Johor on 26 May 1999. Subsequent to SAJH's migration to the licensing regime, the special share was redeemed on 31 October 2012.

Save for the redemption of the special share, there has been no change in the issued and paid-up share capital of SAJH for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of SAJH and their shareholdings in SAJH are as follows:

Name	No. of ordinary shares held	%	
RUSB	80,000,000	80.00	
State Government of Johor	*20,000,000	*20.00	

Note:

As at the LPD, RUSB is the registered owner of the entire issued and paid-up capital of SAJH. The beneficial ownership of 20% of the issued and paid-up share capital in SAJH is deemed transferred to the State Government of Johor, with effect from 1 March 2010, pursuant to the Master Agreement.

(iv) Subsidiary and associate

As at the LPD, SAJH does not have any subsidiary or associate.

6.2.5.2 RWSB (Company No. 681858-H)

(i) History and business

RWSB was incorporated in Malaysia under the Act on 21 February 2005 as a private limited company under its present name.

RWSB is principally involved in providing and carrying on project management consultancy services relating to both domestic and overseas water-related projects, and commenced its business on 20 April 2005.

(ii) Share capital

As at the LPD, the authorised share capital of RWSB is RM1,000,000 comprising 1,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RWSB is RM750,000 comprising 750,000 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of RWSB for the past 3 years preceding the LPD.

(iii) Shareholder

RWSB is a wholly-owned subsidiary of RUSB.

(iv) Subsidiaries and associate

As at the LPD, the direct subsidiaries of RWSB are RAWSB and PWSB, details of which are set out in Section 6.2.7 of this Prospectus. As at the LPD, RWSB does not have any associate.

6.2.5.3 RUTL (Registration No. 0105553150468)

(i) History and business

RUTL was incorporated in Thailand under the Civil and Commercial Code on 8 December 2010 as a private limited company under its present name.

RUTL is a dormant company. As at the LPD, RUTL has yet to commence its business.

(ii) Share capital

As at the LPD, the issued and paid-up share capital of RUTL is THB1,000,000 comprising 10,000 ordinary shares of THB100.00 each. RUTL does not have an authorised share capital.

There has been no change in the issued and paid-up share capital of RUTL since its incorporation.

(iii) Shareholders

As at the LPD, the shareholders of RUTL and their shareholdings in RUTL are as follows:

Name	No. of ordinary shares held	%
		//
Supasak Chirasavinuprapand	5,100	51.00
RUSB	4,898	⁽¹⁾ 48.98
AJZ	1	0.01
Faizal Othman	1	0.01

Note:

⁽¹⁾ Pursuant to Section 6A(6)(d) of the Act, RUTL is deemed a 99.98%-owned subsidiary of RUSB by virtue of a trust arrangement with Supasak Chirasavinuprap.

(iv) Subsidiary and associate

As at the LPD, RUTL does not have any subsidiary or associate.

6.2.5.4 RWT (Cayman) (Registration No. CT219678)

(i) History and business

RWT (Cayman) was incorporated in Cayman Islands under the laws of Cayman Islands on 12 November 2008 as an exempted company under its present name.

RWT (Cayman) is principally involved in investment holding activities and provision of consultancy services, project management, engineering, procurement, construction, supply of equipment, O&M services to both municipal and industrial water, sewerage and wastewater treatment plants, and commenced its business on 30 April 2009.

(ii) Share capital

As at the LPD, the authorised and issued and paid-up share capital of RWT (Cayman) is USD32,900,000 comprising 32,900,000 shares of USD1.00 each.

Details of the changes to the issued capital and paid-up capital of RWT (Cayman) for the past 3 years preceding the LPD are as follows:

Date of	No. of shares allotted	Par value (USD)	Consideration	Cumulative issued and paid-up share capital (USD)
12 January 2011	2,500,000	1.00	Cash	30,400,000
16 February 2011	2,500,000	1.00	Cash	32,900,000

(iii) Shareholders

As at the LPD, the shareholders of RWT (Cayman) and their shareholdings in RWT (Cayman) are as follows:

	No. of ordinary	
Name	shares held	%
RUSB	17,140,000	⁽¹⁾ 52.10
Robinson	14,880,000	45.23
Sierra Master (M) Sdn Bhd	412,000	1.25
AZJ	144,000	0.43
Koh Boon Sian	108,000	0.33
Faizal Othman	108,000	0.33
Soon Tet Heng	108,000	0.33

Note:

⁽¹⁾ Upon completion of the Proposed RWT (Cayman) Acquisitions, RUSB will hold 100.00% of the issued and paid-up share capital of RWT (Cayman).

(iv) Subsidiaries and associate

As at the LPD, the direct subsidiaries of RWT (Cayman) are RWT and RWHK, details of which are set out in Section 6.2.8 of this Prospectus. As at the LPD, RWT (Cayman) does not have any associate

6.2.6 Associates of RUSB

6.2.6.1 Haldia Water (Registration No. U74140WB2008PLC126534)

(i) History and business

Haldia Water was incorporated in India under the Companies Act 1956 (No. 1 of 1956) on 12 June 2008 as a private limited company under its present name.

Haldia Water is a dormant company and is expected to commence its voluntary winding up process by early 2014.

(ii) Share capital

As at the LPD, the authorised share capital of Haldia Water is Rs300,000,000 comprising 30,000,000 ordinary shares of Rs10.00 each. The issued and paid-up share capital of Haldia Water is Rs277,736,830 comprising 27,773,683 shares of Rs10.00 each.

Details of the changes to the issued and paid-up share capital of Haldia Water for the past 3 years preceding the LPD are as follows:

Date of allotment	No. of shares allotted	Par value (Rs)	Consideration	Cumulative issued and paid-up share capital (Rs)
20 April 2010	4,326,500	10.00	Cash	172,551,000
19 January 2011	7,670,000	10.00	Cash	249,251,000
22 February 2012	2,848,583	10.00	Cash	277,736,830

(iii) Shareholders

As at the LPD, the shareholders of Haldia Water and their shareholdings in Haldia Water are as follows:

Name	No. of ordinary shares held	%
Jamshedpur Utilities & Services Company Limited RUSB Manish Sharma Gouri Shankar Basu Ritu Raj Sinha Uma Mishra	16,664,210 11,109,473 30,858 30,858 30,858 30,858 30,858	⁽¹⁾ 60.00 ⁽²⁾ 40.00 ⁽³⁾ 0.11 ⁽³⁾ 0.11 ⁽³⁾ 0.11 ⁽³⁾ 0.11
AZJ Faizal Othman	546 546	(4)★ (4)★

Notes:

(1)

Includes the 123,432 ordinary shares jointly-held with Manish Sharma, Gouri Shankar Basu, Ritu Raj Sinha and Uma Mishra.

- ⁽²⁾ Includes the 1,092 ordinary shares jointly-held with AZJ and Faizal Othman.
- Jointly-held with PUSP
 (4) Initial with PUSP
- ⁽⁴⁾ Jointly-held with RUSB.
- Negligible.

(iv) Subsidiary and associate

As at the LPD, Haldia Water does not have any subsidiary or associate.

6.2.6.2 SRAA (Registration No. 1010269572)

(i) History and business

SRAA was incorporated in Saudi Arabia under the laws of Saudi Arabia on 14 June 2009 as a limited liability company under its present name.

SRAA is a dormant company. As at the LPD, SRAA has yet to commence its business.

(ii) Share capital

As at the LPD, the authorised and issued and paid-up share capital of SRAA is SAR500,000 comprising 50,000 shares of SAR10.00 each.

There has been no change in the issued and paid-up share capital of SRAA for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of SRAA and their shareholdings in SRAA are as follows:

Name	No. of ordinary shares held	%
RUSB	17,500	35.00
Arabian Company Water and Power Development	27,500	55.00
Yassin Saeed A Al Suroor	5,000	10.00

(iv) Subsidiary and associate

As at the LPD, SRAA does not have any subsidiary or associate.

6.2.7 Subsidiaries of RWSB

6.2.7.1 RAWSB (Company No. 963267-P)

(i) History and business

RAWSB was incorporated in Malaysia under the Act on 7 October 2011 as a private limited company under the name of Versatile Transform Sdn Bhd. On 20 November 2011, Versatile Transform Sdn Bhd changed its name to its present name.

RAWSB is principally involved in providing and carrying on project management consultancy services relating to water related project. As at the LPD, RAWSB is in the process of being struck off.

(ii) Share capital

As at the LPD, the authorised share capital of RAWSB is RM1,000,000 comprising 1,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RAWSB is RM1,000 comprising 1,000 ordinary shares of RM1.00 each.

Details of the changes to the issued and paid-up share capital of RAWSB since its incorporation are as follows:

Date of allotment	No. of shares allotted	Par value (RM)	Consideration	Cumulative issued and paid-up share capital (RM)
7 October 2011	2	1.00	Cash	2
21 November 2011	998	1.00	Cash	1,000

(iii) Shareholders

As at the LPD, the shareholders of RAWSB and their shareholdings in RAWSB are as follows:

Name	No. of ordinary shares held	%
RWSB	800	80.00
Mohamed Abdulredha Asad Bager	200	20.00

(iv) Subsidiary and associate

As at the LPD, RAWSB does not have any subsidiary or associate.

6.2.7.2 PWSB (Company No. 981411-V)

(i) History and business

PWSB was incorporated in Malaysia under the Act on 8 March 2012 as a private limited company under its present name.

PWSB is principally involved in the provision, operation, management, improvement and upgrading of the water advanced pressure management in relation to NRW related business or activities, and commenced its business on 1 April 2012.

(ii) Share capital

As at the LPD, the authorised share capital of PWSB is RM1,000,000 comprising 1,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of PWSB is RM250,000 comprising 250,000 ordinary shares of RM1.00 each.

Details of the changes to the issued and paid-up share capital of PWSB since its incorporation are as follows:

Date of allotment	No. of shares allotted	Par value (RM)	Consideration	Cumulative issued and paid-up share capital (RM)
8 March 2012	100	1.00	Cash	100
29 March 2012	49,900	1.00	Cash	50,000
28 June 2012	200,000	1.00	Cash	250,000

(iii) Shareholders

As at the LPD, the shareholders of PWSB and their shareholdings in PWSB are as follows:

Name	No. of ordinary shares held	%	
RWSB	150,000	60.00	
Premier Amalgamated Sdn Bhd	100,000	40.00	

(iv) Subsidiary and associate

As at the LPD, PWSB does not have any subsidiary or associate.

6.2.8 Subsidiaries of RWT (Cayman)

6.2.8.1 RWT (Company No. 303007-T)

(i) History and business

RWT was incorporated in Malaysia under the Act on 7 June 1994 as a private limited company under the name of Chemasia Engineering Sdn Bhd. On 5 January 1998, Chemasia Engineering Sdn Bhd changed its name to Krofta-Chemasia Sdn Bhd. Krofta-Chemasia Sdn Bhd subsequently changed its name into KWI Far East Sdn Bhd on 8 May 2000. KWI Far East Sdn Bhd then changed its name to Ranhill KWI Sdn Bhd on 9 April 2005. Ranhill KWI Sdn Bhd then changed its name to its present name on 23 May 2006.

RWT is principally involved in investment holding activities and provision of consultancy services, project management, engineering, procurement, construction, supply of equipment, O&M services to both municipal and industrial water, sewerage and wastewater, and commenced its business on 1 October 1994.

(ii) Share capital

As at the LPD, the authorised share capital of RWT is RM10,000,000 comprising 10,000,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of RWT is RM7,500,000 comprising 7,500,000 ordinary shares of RM1.00 each.

Details of the change to the issued and paid-up share capital of RWT for the past 3 years preceding the LPD are as follows:

Date of allotment	No. of shares allotted	Par value (RM)	Consideration	Cumulative issued and paid-up share capital (RM)
9 August 2012	3,000,000	1.00	Cash	7,500,000

(iii) Shareholder

RWT is a wholly-owned subsidiary of RWT (Cayman).

(iv) Subsidiaries and associate

As at the LPD, the direct subsidiaries of RWT are RWT (Thai), KWI (Guangzhou), AnuRAK and TZS, details of which are set out in Section 6.2.9 of this Prospectus. As at the LPD, RWT does not have any associate.

6.2.8.2 RWHK (Registration No. 1289802)

(i) History and business

RWHK was incorporated in Hong Kong under the Companies Ordinance on 26 November 2008 as a private limited company under its present name.

RWHK is principally involved in the business of undertaking investment holding activities and provision of consultancy, project management, O&M services relating to wastewater treatment plants, and commenced its business on 1 April 2013.

(ii) Share capital

As at the LPD, the authorised share capital of RWHK is HKD770,000,000 comprising 770,000,000 ordinary shares of HKD1.00 each. The issued and paid-up share capital of RWHK is HKD266,648,960 comprising 226,648,960 ordinary shares of HKD1.00 each.

Details of the change to the issued and paid-up share capital of RWHK for the past 3 years preceding the LPD are as follows:

Date of allotment	No. of shares allotted	Par value (HKD)	Consideration	Cumulative issued and paid-up share capital (HKD)
30 December 2011	78,048,960	1.00	Cash	266,648,960

(iii) Shareholder

RWHK is a wholly-owned subsidiary of RWT(Cayman).

(iv) Subsidiaries and associate

As at the LPD, the direct subsidiaries of RWHK are RWT (Shanghai), Ranhill (Nanchang), Ranhill (Hefei), Ranhill (Xinxiang), Ranhill (Yingkou) and Ranhill International Trade, details of which are set out in Section 6.2.10 of this Prospectus. The direct jointly-controlled entity of RWHK as at the LPD is PWL, details of which are set out in Section 6.2.11 of this Prospectus. As at the LPD, RWHK does not have any associate.

6.2.9 Subsidiaries of RWT

6.2.9.1 RWT (Thai) (Registration No. 0105543023170)

(i) History and business

RWT (Thai) was incorporated in Thailand under the laws of Thailand on 6 March 2000 as a private limited company under the name of KROFTA-CHEMASIA (Thai) Ltd. RWT (Thai) changed its name to KWI (Thai) Ltd on 1 October 2003 and subsequently assumed its present name on 1 June 2006.

RWT (Thai) is principally involved in the business of undertaking consultancy services, project management, engineering, supply construction and operation for potable and wastewater treatment plant, and commenced its business on 23 August 2000.

(ii) Share capital

As at the LPD, the issued and paid-up share capital of RWT (Thai) is THB2,000,000 comprising 20,000 ordinary shares of THB100.00 each. RWT (Thai) does not have an authorised share capital.

There has been no change in the issued and paid-up share capital of RWT (Thai) for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of RWT (Thai) and their shareholdings in RWT (Thai) are as follows:

Name	No. of ordinary shares held	%
RWT	9,800	⁽¹⁾ 49.00
Lamom Sirisayunt	4,190	20.95
Prapoj Jirasathitpornpong	2,010	10.05
Nataya Charuwanakul	4,000	20.00

Note:

(1) Pursuant to Section 6A(6)(d) of the Act, RWT (Thai) is deemed a whollyowned subsidiary of RWT by virtue of a trust arrangement with Lamom Sirisayunt, Prapoj Jirasathitpompong and Nataya Charuwanakul.

(iv) Subsidiary and associate

As at the LPD, RWT (Thai) does not have any subsidiary or associate.

6.2.9.2 KWI (Guangzhou) (Registration No. 006317)

(i) History and business

KWI (Guangzhou) was incorporated in China under the laws of PRC on 9 May 2001 as a limited liability company under its present name.

Due to a disagreement on business direction of KWI (Guangzhou) between the shareholders, KWI (Guangzhou) has ceased operations since 4 November 2005. Before it ceased operations, its principal activity was to develop technologies and facilities for environmental protection, to undertake purification engineering of sewerage and tap water, to assess the environmental influence of region and construction project and the advisory of environmental protection technology. Currently, KWI (Guangzhou) is pending liquidation to be struck off.

(ii) Share capital

As at the LPD, the registered capital of KWI (Guangzhou) is RMB1,000,000, of which RMB513,893 has been fully paid-in. KWI (Guangzhou) does not have an authorised share capital. KWI (Guangzhou) is not a share-issuing company, and its paid-in registered capital represents its equity interests.

There has been no change in the issued and paid-in registered capital of KWI (Guangzhou) for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of KWI (Guangzhou) and their shareholdings in KWI (Guangzhou) are as follows:

Name	Paid-in registered capital	%
	(RMB)	
RWT Guangzhou Zhongsui Environment Protection Engineer Co Ltd	262,086 205,557	51.00 40.00
Tan Soo Seng	46,250	9.00

(iv) Subsidiary and associate

As at the LPD, KWI (Guangzhou) does not have any subsidiary or associate.

6.2.9.3 AnuRAK (Registration No. 0105548114726)

(i) History and business

AnuRAK was incorporated in Thailand under the laws of Thailand on 1 September 2005 as a limited company under its present name.

AnuRAK is principally involved in the business of undertaking potable water, wastewater and reclaimed water treatment services for domestic and industrial use, and commenced its business on 29 September 2006.

(ii) Share capital

As at the LPD, the issued and paid-up share capital of AnuRAK is THB99,000,000, divided into 990,000 ordinary shares at the par value of THB100.00 each. AnuRAK does not have an authorised share capital.

Details of the change to the issued and paid-up share capital of AnuRAK for the past 3 years preceding the LPD are as follows:

Date of allotment	No. of shares allotted	Par value (THB)	Consideration	Cumulative issued and paid-up share capital (THB)
24 August 2012	280,000	100.00	Cash	99,000,000

(iii) Shareholders

As at the LPD, the shareholders of AnuRAK and their shareholdings in AnuRAK are as follows:

Name	No. of ordinary shares held	%
RWT	989,998	99.99
Nopadol Intralib	1	*
Khaisri Utaiwan	1	*

Note:

* Negligible.

(iv) Subsidiary and associate

As at the LPD, AnuRAK does not have any subsidiary or associate.

6.2.9.4 TZS (Company No. 768082-W)

(i) History and business

TZS was incorporated in Malaysia under the Act on 3 April 2007 as a private limited company under its present name.

TZS is principally involved in the business of undertaking construction, structural, civil, engineering, electrical and mechanical works to potable water and wastewater treatment plant.

(ii) Share capital

The authorised share capital of TZS is RM100,000 comprising 100,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of TZS is RM2 comprising 2 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of TZS for the past 3 years preceding the LPD.

(iii) Shareholder

TZS is a wholly-owned subsidiary of RWT.

(iv) Subsidiary and associate

As at the LPD, TZS does not have any subsidiary or associate.

6.2.10 Subsidiaries of RWHK

6.2.10.1 RWT (Shanghai) (Registration No. 310000400501419)

(i) History and business

RWT (Shanghai) was incorporated in China under the laws of PRC on 5 February 2007 as a limited liability company under its present name.

RWT (Shanghai) is principally involved in the business of undertaking consultancy services on potable water, wastewater technologies and project management, and commenced its business on 27 December 2007.

(ii) Share capital

The registered capital of RWT (Shanghai) is USD200,000, all of which has been fully paid-in. RWT (Shanghai) does not have an authorised share capital. RWT (Shanghai) is not a share-issuing company, and its paid-in registered capital represents its equity interests.

There has been no change in the paid-in registered capital of RWT (Shanghai) for the past 3 years preceding the LPD.

(iii) Shareholder

RWT (Shanghai) is a wholly-owned subsidiary of RWHK.

(iv) Subsidiary and associate

As at the LPD, RWT (Shanghai) does not have any subsidiary or associate.

6.2.10.2 Ranhill (Nanchang) (Registration No. 3601005100009641)

(i) History and business

Ranhill (Nanchang) was incorporated in China under the laws of PRC on 18 January 2007 as a limited liability company under its present name, and it is a wholly foreign-owned enterprise.

Ranhill (Nanchang) is principally involved in the business of undertaking wastewater treatment services for Xiaolan Economic Development Zone, and commenced its business on 1 March 2009.

(ii) Share capital

The registered capital of Ranhill (Nanchang) is USD12,875,000, all of which has been fully paid-in. Ranhill (Nanchang) does not have an authorised share capital. Ranhill (Nanchang) is not a share-issuing company, and its paid-in registered capital represents its equity interests.

Details of the changes to the paid-in registered capital of Ranhill (Nanchang) for the past 3 years preceding the LPD are as follows:

Date of allotment	Increase in paid-in registered capital (USD)	Consideration	Cumulative paid-in registered capital (USD)
1 December 2009	775,000	Cash	3,575,000
12 December 2011	9,300,000	Cash	12,875,000

(iii) Shareholder

Ranhill (Nanchang) is a wholly-owned subsidiary of RWHK.

(iv) Subsidiary and associate

As at the LPD, Ranhill (Nanchang) does not have any subsidiary or associate.

6.2.10.3 Ranhill (Hefei) (Registration No. 340100400003999)

(i) History and business

Ranhill (Hefei) was incorporated in China under the laws of PRC on 30 July 2007 as a limited liability company under its present name, and it is a wholly foreign-owned enterprise.

Ranhill (Hefei) is principally involved in the business of undertaking wastewater treatment services for Hefei Chemical Industrial Park, and commenced its business on 1 April 2011.

(ii) Share capital

The registered capital of Ranhill (Hefei) is USD7,520,000, all of which has been fully paid-in. Ranhill (Hefei) does not have an authorised share capital. Ranhill (Hefei) is not a share-issuing company, and its paid-in registered capital represents its equity interests.

Details of the change to the paid-in registered capital of Ranhill (Hefei) for the past 3 years preceding the LPD are as follows:

Date of allotment	Increase in paid-in registered capital (USD)	Consideration	Cumulative paid-in registered capital (USD)
30 November 2010	2,520,000	Cash	7,520,000

(iii) Shareholder

Ranhill (Hefei) is a wholly-owned subsidiary of RWHK.

(iv) Subsidiary and associate

As at the LPD, Ranhill (Hefei) does not have any subsidiary or associate.

6.2.10.4 Ranhill (Xinxiang) (Registration No. 410700400000614)

(i) History and business

Ranhill (Xinxiang) was incorporated in China under the laws of PRC on 22 January 2008 as a limited liability company under its present name, and it is a wholly foreign-owned enterprise.

Ranhill (Xinxiang) is principally involved in the business of undertaking wastewater treatment services for Xinxiang Industrial Park and commenced its business on 1 April 2013.

(ii) Share capital

The registered capital of Ranhill (Xinxiang) is USD6,120,000, all of which has been fully paid-in. Ranhill (Xinxiang) does not have an authorised share capital. Ranhill (Xinxiang) is not a share-issuing company, and its paid-in registered capital represents its equity interests.

Details of the change to the paid-in registered capital of Ranhill (Xinxiang) for the past 3 years preceding the LPD are as follows:

Date of allotment	Increase in paid-in registered capital (USD)	Consideration	Cumulative paid-in registered capital (USD)
9 December 2009	119,992	Cash	6,120,000

(iii) Shareholder

Ranhill (Xinxiang) is a wholly-owned subsidiary of RWHK.

(iv) Subsidiary and associate

As at the LPD, Ranhill (Xinxiang) does not have any subsidiary or associate.

6.2.10.5 Ranhill (Yingkou) (Registration No. 210800400022039)

(i) History and business

Ranhill (Yingkou) was incorporated in China under the laws of PRC on 12 January 2009 as a limited liability company under its present name, and it is a wholly foreign-owned enterprise.

Ranhill (Yingkou) is principally involved in the business of undertaking wastewater treatment services for Yingkou Economic and Technology Development. As at the LPD, Ranhill (Yingkou) has yet to commence its business.

(ii) Share capital

The registered capital of Ranhill (Yingkou) is USD5,732,000, all of which has been fully paid-in. As a company incorporated in China, Ranhill (Yingkou) does not have an authorised share capital. Ranhill (Yingkou) is not a share-issuing company, and its paid-in registered capital represents its equity interests.

There has been no change in the paid-in registered capital of Ranhill (Yingkou) for the past 3 years preceding the LPD.

(iii) Shareholder

Ranhill (Yingkou) is a wholly-owned subsidiary of RWHK.

(iv) Subsidiary and associate

As at the LPD, Ranhill (Yingkou) does not have any subsidiary or associate.

6.2.10.6 Ranhill International Trade (Registration No. 1720882)

(i) History and business

Ranhill International Trade was incorporated in Hong Kong under the Companies Ordinance (Chapter 32) on 28 March 2012 as a private limited company under its present name.

Ranhill International Trade is principally involved in the business of undertaking investment holding activities and provision of consultancy, project management, O&M services relating to potable water treatment plants. As at the LPD, Ranhill International Trade has yet to commence its business.

(ii) Share capital

As at the LPD, the authorised share capital of Ranhill International Trade is HKD1,000,000 comprising 1,000,000 ordinary shares of HKD1.00 each. The issued and paid-up share capital of Ranhill International Trade is HKD10,000 comprising 10,000 ordinary shares of HKD1.00 each.

There has been no change in the issued and paid-up share capital of Ranhill International Trade since its incorporation.

(iii) Shareholder

As at the LPD, the shareholders of Ranhill International Trade and their shareholdings in Ranhill International Trade are as follows:

Name	No. of ordinary shares held	%
RWHK Hubei International Trade Investment &	5,100 4.900	51.00 49.00
Development Co Ltd	4,900	49.00

(iv) Subsidiary and associate

As at the LPD, Ranhill International Trade does not have any subsidiary or associate.

6.2.11 Jointly-controlled entity of RWHK

PWL (Registration No. LL03802)

(i) History and business

PWL was incorporated in Federal Territory of Labuan, Malaysia on 25 June 2003 as a private limited company under its present name.

PWL is principally involved in the business of construction of waterinfrastructure projects, water treatment, management and supply of treated water for government, industries, commercial and domestic consumers, and commenced its business on 1 September 2006.

(ii) Share capital

The authorised share capital of PWL is USD13,000 comprising 13,000 ordinary shares of USD1.00 each. The issued and paid-up share capital of PWL is USD100 comprising 100 ordinary shares of USD1.00 each.

There has been no change in the issued and paid-up share capital of PWL for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of PWL and their shareholdings in PWL are as follows:

Name	No. of ordinary shares held	%
RWHK	37	37.00
YLI Holdings Berhad	37	37.00
PBA Holdings Berhad	26	26.00

(iv) Subsidiary and associate

As at the LPD, the direct subsidiary of PWL is Yichun Pinang, details of which are set out in Section 6.2.15 of this Prospectus. As at the LPD, PWL does not have any associate.

6.2.12 Jointly-controlled entity of RBSB

RBSL (Registration No. 00300650)

(i) History and business

RBSL was incorporated in Saudi Arabia under the Corporation Act issued by Royal Decree on 28 May 2007 as a limited liability corporation under its present name.

RBSL is principally involved in the business of provision of engineering, procurement and construction management services and project management services, and commenced its business on 28 May 2007.

(ii) Share capital

The authorised and issued and paid-up share capital of RBSL is SAR500,000 comprising 500 cash allocations of SAR1,000.00 each.

There has been no change in the issued and paid-up share capital of RBSL for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of RBSL and their shareholdings in RBSL are as follows:

Name	No. of cash allocations	%
RBSB	250	50.00
Tareq Mohammed Ali Khaled Al-Shawaf	250	50.00

(iv) Subsidiary and associate

As at the LPD, RBSL does not have any subsidiary or associate.

6.2.13 Associate of RBSB

PLT Asia (Company No. 282242-X)

(i) History and business

PLT Asia was incorporated in Malaysia under the Act on 22 November 1993 as a private limited company under the name of Cool Country Sdn Bhd. On 12 May 1994, it assumed its present name.

As at the LPD, PLT Asia is dormant and is currently in the process of voluntary winding up.

(ii) Share capital

The authorised and issued and paid-up share capital of PLT Asia is RM100,000 comprising 100,000 ordinary shares of RM1.00 each.

There has been no change in the issued and paid-up share capital of PLT Asia for the past 3 years preceding the LPD.

(iii) Shareholders

As at the LPD, the shareholders of PLT Asia and their shareholdings in PLT Asia are as follows:

Name	No. of ordinary shares held	%
Dato' Haji Esa Bin Mohamed RBSB	40,000 ⁽¹⁾ 30,000	40.00 30.00
Wong Sam Kow @ Wong Yoke Fai	30,000	30.00

Note:

⁽¹⁾ The 30% share in PLT Asia is held by Yap Yuen Thye, a nominee of RBSB.

(iv) Subsidiary and associate

As at the LPD, PLT Asia does not have any subsidiary or associate.

6.2.14 Jointly-controlled entity of RWorley

Transfield Services (Company No. 875816-V)

(i) History and business

Transfield Services was incorporated in Malaysia under the Act on 20 October 2009 as a private limited company under its present name.

Transfield Services is principally involved in the provision of advisory and consultancy services and maintenance, procurement, and project O&M services, and commenced its business on 1 January 2010.

(ii) Share capital

As at the LPD, the authorised share capital of Transfield Services is RM500,000 comprising 500,000 ordinary shares of RM1.00 each. The issued and paid-up share capital of Transfield Services is RM175,000 comprising 175,000 ordinary shares of RM1.00 each.

Details of the change to the issued and paid-up share capital of Transfield Services for the past 3 years preceding the LPD are as follows:

Date of allotment	No. of shares allotted	Par value (RM)	Consideration	Cumulative issued and paid-up share capital (RM)
8 April 2010	174,000	1.00	Cash	175,000

(iii) Shareholders

As at the LPD, the shareholders of Transfield Services and their shareholdings in Transfield Services are as follows:

Name	No. of ordinary shares held	%
Transfield Services (International) Pty Ltd	87,500	50.00
RWorley	58,625	33.50
WorleyParsons SEA Pty Ltd	28,875	16.50

(iv) Subsidiary and associate

As at the LPD, Transfield Services does not have any subsidiary or associate.

6.2.15 Subsidiary of PWL

Yichun Pinang (Registration No. 360900510000571)

(i) History and business

Yichun Pinang was incorporated in China under the laws of PRC on 25 July 2003 as a limited liability company under its present name, and it is a wholly foreign-owned enterprise.

Yichun Pinang is principally involved in the business of undertaking water treatment, management and supply of treated water, and commenced its business on 1 September 2006.

(ii) Share capital

The registered capital of Yichun Pinang is RMB38,000,000, all of which has been fully paid-in. Yichun Pinang does not have an authorised share capital. Yichun Pinang is not a share-issuing company, and its paid-in registered capital represents its equity interests.

There has been no change in the paid-in registered capital of Yichun Pinang for the past 3 years preceding the LPD.

(iii) Shareholder

Yichun Pinang is a wholly-owned subsidiary of PWL.

(iv) Subsidiary and associate

As at the LPD, Yichun Pinang does not have any subsidiary or associate.

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7.1 Overview

We are a Malaysian conglomerate with interests in 2 main sectors: energy and environment. In our energy sector, we have 2 main businesses: oil and gas, in which we provide engineering and related services, and power generation. In our environment sector, we provide water supply services, operate water and wastewater treatment plants, and provide specialised services in the management and optimisation of water utility assets. We conduct our operations and provide our services primarily in Malaysia, and our international operations are centered in Asian markets such as China, Thailand and South East Asia.

In our energy sector's oil and gas business, we provide multidisciplinary engineering services to onshore and offshore oil and gas, refinery and petrochemical industries. Our scope of services includes feasibility and concept studies (which we refer to as "SELECT"), front-end engineering design (which we refer to as "FEED"), and detailed engineering, procurement services, construction management (which we refer to as "EPCM"). We have successfully delivered projects ranging from the supply of concepts for full-field oil and gas developments to the provision of detailed designs for major offshore natural gas processing facilities (including support substructures and topsides supporting the facility) to the rejuvenation and revamping of major refineries. Our oil and gas business is a major service delivery hub for certain aspects of WorleyParsons' global operations for the hydrocarbons industry in South East Asia, the Middle East and Europe. Our clients include national and IOCs and major international EPC contractors, for whom we act as engineering subcontractors.

In our energy sector's power business, we own and operate two 190 MW CCGT power plants in Sabah, Malaysia via our subsidiaries, RPI and RPII, on a BOO and BOT basis, respectively. We have entered into PPAs with Sabah Electricity, a subsidiary of TNB, providing for the sale of up to 380 MW of electricity generating capacity and electricity production for a 21-year period, commencing on 25 October 2008 with respect to RPI, and commencing on 22 April 2011 with respect to RPII. We provide O&M services to our RPI and RPII power plants through RPOM and RPOMII, respectively.

In our environment sector, we have been granted an exclusive licence (on a 3-year term, renewable for successive 3-year terms on a rollover basis) by the Minister of Energy, Green Technology and Water, Malaysia to provide source-to-tap water supply services to end-customers in the entire State of Johor, the second most populous state in Malaysia, with a population of approximately 3.4 million people as at 2012 (*Source: Department of Statistics, Malaysia*). We have been providing these services since March 2000 and as at the LPD, we have 1,007,766 end-customers in Johor. We have consistently met the KPIs as agreed between SAJH and SPAN for our water supply business. For further details, refer to Section 7.5.2(i)(c) of this Prospectus. Outside of Malaysia, we have 10 water and wastewater concessions, on a BOT, BTO or TOT basis, in relation to water treatment plants and wastewater treatment plants, with an aggregate treatment capacity of 310 MLD. In addition, through our jointly-controlled entity, Yichun Pinang, we also operate a potable water treatment plant in Yichun City, China with a treatment capacity of 50 MLD.

The following table sets out selected data in respect of the principal assets owned/operated by our Subsidiaries and jointly-controlled entity, in each case, as at the LPD.

			Expiration of power purchase agreement/ licence/		
Description of asset owned/operated	Location	Туре	concession/ agreement	⁽¹⁾ Total capacity	Generating capacity
Power plants					
RPI power plant	Sabah, Mala y sia	CCGT	2029	190.0 MW	190.0 MW
RPII power plant	Sabah, Malaysia	CCGT	2032	190.0 MW	190.0 MW
Water related assets					
Water supply services	Johor, Mala y sia	Potable water	⁽²⁾ 2014	⁽³⁾ 1,986.0 MLD	1,507.0 MLD
Xiaolan wastewater treatment plant (Phase II) ⁽⁷⁾	Xiaolan, Jiangxi Province, China	Wastewater	2042	50.0 MLD	Under construction
Xinxiang wastewater treatment plant	Xinxiang, Henan Province, China	Wastewater	2041	50.0 MLD	46.9 MLD
Yichun water treatment plant	Yichun City, Jiangxi Province, China	Potable water	2035	50.0 MLD	40.0 MLD
Yingkou wastewater treatment and reclamation plant	Yingkou, Liaoning Province, China	Wastewater	2043	30.0 MLD	Under construction
	Ghina	Reclaim water	(4)_	30.0 MLD	Under construction
Xiaolan wastewater treatment plant (Phase I) ⁽⁷⁾	Xiaolan, Jiangxi Province, China	Wastewater	2038	30.0 MLD	28.8 MLD
Hefei wastewater treatment plant	Hefei, Anhui Province, China	Wastewater	2036	30.0 MLD	Equivalent to 34.8 MLD wastewater ⁽⁶⁾

7. BUSINESS OVERVIEW (cont'd)

Description of asset owned/operated Amata Nakorn concession ⁽⁸⁾	Location Amata Nakorn Industrial	Type Wastewater Potable water Reclaim water	Expiration of power purchase agreement/ licence/ concession/ agreement 2028 2028 2028	⁽¹⁾ Total capacity 24.0 MLD 10.5 MLD 8.0 MLD	Generating capacity 16.6 MLD 11.7 MLD 4.5 MLD
	Estate, Chonburi, Thailand ("Amata Nakorn")				
Amata Nakorn concession ⁽⁸⁾	Amata Nakorn	Potable water ⁽⁵⁾	2018	10.5 MLD	6.0 MLD
Amata City concession ⁽⁸⁾	Amata City	Wastewater ⁽⁵⁾	2017	10.0 MLD	6.8 MLD
	Industrial Estate, Rayong, Thailand (" Amata City ")		2017	10.5 MLD	7.3 MLD
Amata City potable water treatment plant ⁽⁸⁾	Amata City	Potable	2032	15.0 MLD	7.1 MLD
Asian Institute of Technology	Pathumthani Province, Thailand	Wastewater	2020	1.5 MLD	1.3 MLD

Notes:

⁽¹⁾ MW indicates contractual capacity for electric power generation, and MLD indicates contractual capacity for water production, water treatment, wastewater treatment or water reclamation, as applicable.

⁽²⁾ Licence is granted for a 3-year term, renewable for successive 3-year terms on a rollover basis.

- ⁽³⁾ Based on the design capacity of all the water treatment plants in the State of Johor.
- ⁽⁴⁾ Yingkou's 30 MLD reclamation plant is operated pursuant to an agreement with a customer within the industrial park. For avoidance of doubt, it is not operated under the same concession awarded to Yingkou's 30 MLD wastewater treatment plant.
- ⁽⁵⁾ Operated on a BTO basis.
- ⁽⁶⁾ Currently, the plant is treating leachate waste.
- (7) The Xiaolan wastewater treatment plants Phase I and Phase II are located next to each other on Jinsha Road 1, Xiaolan Economy and Development Zone, Nanchang, Jiangxi Province of China. The Xiaolan wastewater treatment plant Phase I commenced its business in 2009 at a wastewater treatment capacity of 30 MLD. However, due to the increase in demand for wastewater treatment capacity in the Xiaolan Industrial Park. Ranhill (Nanchang) subsequently entered into another concession agreement with the local authority which resulted in the increase of its total wastewater treatment capacity to 80 MLD.
- (8) In summary, there are 2 potable water treatment plants, one wastewater treatment plant and one reclaim water treatment plant located at Amata Nakorn whilst there are 2 potable treatment plants and one wastewater treatment plant located at Amata City. Each of these water/wastewater/reclaim water plants are being operated on a standalone basis within Amata City and/or Amata Nakorn.

We also provide EPC and consultancy services to clients in relation to various water-related projects, as well as specialised services in the management and optimisation of water utility assets.

The following table sets forth our revenue amounts by each of our businesses and as a percentage of total revenue for the periods indicated:

Business	Year ended 3	0 June	18 months end Decembe		Year ender Decemb	
	2010	2010		2011		2012
	(RM)	(%)	(RM)	(%)	(RM)	(%)
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Energy		·		• •		
Oil and gas	385.4	28.6	834.2	34.0	758.4	38.2
Power	226.8	16.9	462.2	18.8	355.7	17.9
Environment Other	729.5	54.2	1,150.8	46.9	866.8	43.7
businesses ⁽¹⁾	4.6	0.3	6.9	0.3	4.3	0.2
Total	1,346.3	100.0	2,454.1	100.0	1,985.2	100.0

Note:

(1)

Includes real estate services rendered by RBV to our associate, RBSB and other related and external parties (after netting off inter-business sales with our Group).

Based on our Combined Financial Statements, our revenue was RM1,985.2 million for the year ended 31 December 2012, RM2,454.1 million for the 18 months ended 31 December 2011 and RM1,346.3 million for the year ended 30 June 2010 whilst our PAT was RM282.2 million for the year ended 31 December 2012, RM301.9 million for the 18 months ended 31 December 2011 and RM1,527.8 million for the year ended 30 June 2010. As at 31 December 2012, our total assets were RM4,815.5 million and our shareholders' funds was RM1,204.7 million.

7.2 Competitive strengths

We believe that we are in a position to deliver growth as a result of the following competitive strengths:

7.2.1 Comprehensive engineering expertise and cost effective skilled workforce in the oil and gas business in partnership with WorleyParsons

Through RWorley, we provide engineering services and project management solutions to onshore and offshore oil and gas, refinery and petrochemical industries operating in Malaysia, South East Asia, the Middle East and Europe. We have also carried out projects in India, Australia, New Zealand, China and the United States. The range of services includes SELECT, FEED, detailed engineering, EPCM and project management consultancy services. These multi-disciplinary engineering services are offered to upstream, midstream, downstream refining and chemicals sectors of our client's businesses. Our project management capabilities enable us to handle projects of all sizes from minor trouble-shooting exercises to EPCM services for new facilities and upgrading of existing assets.

WorleyParsons is listed on the Australia Stock Exchange and it operates out of 163 offices across 41 countries. Our relationship with WorleyParsons provides us access to its worldwide business opportunities and resources, including over 40,000 personnel (*Source: WorleyParsons' annual report for the year ended 30 June 2012*), and its engineering management and project management delivery tools, which are also used by WorleyParsons' offices worldwide. Our partnership with WorleyParsons Engineering Pty Ltd, a subsidiary of WorleyParsons, has bolstered our position within Malaysia's oil and gas production sector. RWorley has offices in Malaysia which provide cost-effective solutions to tier one oil and gas companies such as the PETRONAS Group and the Shell Malaysia group of companies.

RWorley's operations have been growing, coupled with an increase in staff strength from approximately 600 employees in 2004 to 984 employees as at the LPD, with strong capabilities to provide various engineering services to RWorley's customers. RWorley is one of the major WorleyParsons global upstream hydrocarbons project execution and delivery hubs, taking advantage of a stable workforce made up of approximately 87.2% Malaysian and 12.8% foreigners. This mix provides a delivery workforce that is recognised for performance as well as quality that are comparable to other international engineering companies. As part of RWorley's cost management exercise, RWorley has changed its human resource policy involving the shifting of the employment of permanent/contract employees to a workshare plan with WorleyParsons. The workshare plan allows RWorley to utilise WorleyParsons' personnel who are based in various countries such as Hyderabad and Mumbai in India for detailed engineering projects or China for global procurement support, as and when the need arises. Such arrangement is expected to lower our overall labour costs as we are effectively only incurring personnel costs as and when such services are required which is more cost effective. Therefore, we possess the competitive advantage of a cost-effective delivery hub for major projects, especially while working with other WorleyParsons offices around the world on international projects. We are one of 2 WorleyParsons "global hubs" for services relating to mega decks (those more than 25,000 MT), floating production facilities, floating production storage and offloading facilities, and floating LNG facilities.

We use the latest technology and innovations to deliver cost-effective solutions for early production to our customers by taking into consideration the economically marginal nature of isolated and stranded oil and gas reserves. Such innovations include engineering and design of light-weight structures and drilling/production topsides facilities that can be installed without engaging a heavy lift offshore barge, translating into significant cost savings in field development. These innovations have been proven in the development of blocks SK 309 and SK 310 off the coast of Sarawak for Murphy Sarawak Oil Co. Ltd.

7.2.2 Exclusive water operator in Johor and largest IPP in Sabah with strong operational capabilities and proven track record

Environment sector

We hold an exclusive licence from the Minister of Energy, Green Technology and Water, Malaysia to provide source-to-tap water supply services to end-customers in the entire State of Johor, the second most populous state in Malaysia. Our licence covers the complete cycle of potable water supply services, from sourcing of raw water, treatment and distribution of treated water to consumers, including treated water sourced from third parties, management and maintenance of the water supply system to a full range of customer services including billing and collection services. Our "asset-light" business model allows us to focus on continuous improvement in operational efficiencies.

As at the LPD, the water supply system in the State of Johor, which we operate, has an aggregate treatment design capacity of 1,986 MLD and produced 1,507 MLD in the month of May 2013. It also includes a distribution network of 20,430 km of pipelines (including 146 km of raw water mains, 3,112 km of distribution mains and 17,172 km of reticulation mains (the pipes connecting our distribution mains to endcustomers)), as well as 597 active storage and service reservoirs as at the LPD.

Our operational capability is reflected in us meeting the KPIs as agreed and monitored by SPAN, including full water supply coverage in urban areas in the State of Johor as well as compliance with the treated water quality targets as agreed with SPAN.

We have also reduced state-wide NRW from above 40.0% in 1999 (being the year the previous SAJH concession agreement was entered into) to 27.0% as at the LPD. In order to maintain the quality of treated water according to the Standard Drinking Water Guidelines, we have established 850 water sampling points in the State of Johor, as well as a programme to clean over 550 storage and service reservoirs in the state.

We also operate water concession assets on a BOT, BTO and TOT basis in China (4 wastewater treatment plants with capacities ranging from 30 MLD to 80 MLD and a 30 MLD reclamation plant) and in Thailand (comprising 4 water treatment plants with capacities ranging from 10 MLD to 15 MLD, 3 wastewater treatment plants with capacities ranging from 1.5 MLD to 24 MLD and a 8 MLD reclamation plant). In addition, through our jointly-controlled entity, Yichun Pinang, we also operate a potable water treatment plant in Yichun City, China with a treatment capacity of 50 MLD.

Our operational capability in China and Thailand is reflected in our achievement of the meeting requirements and standards as agreed with our customers including, inter alia, full compliance with the agreed treated water quality targets.

We offer cost-effective solutions through our modular "Fit-to-Need" system. This design innovation enables our customers to increase the capacity of and customise their water treatment plants to cater to their needs as and when needed.

Power business

Through our 60%-owned subsidiary RPI and 80%-owned subsidiary RPII, we operate and maintain two 190 MW CCGT power plants in the Kota Kinabalu Industrial Park in Sabah, Malaysia. The aggregate 380 MW capacity represents approximately 57.6% of the combined installed capacity of all the IPPs in Sabah, making us the largest IPP in Sabah according to Frost & Sullivan.

By leveraging on our engineering expertise, we increased the efficiency of the RPI power plant by converting its mode of operation from open-cycle to combined-cycle, thereby expanding the power generating capacity of the plant from 120 MW to 190 MW. As a result of this successful conversion, the concession for the plant has been extended to 2029.

7.2.3 Proven record in securing contracts/concessions

Through our Subsidiaries and jointly-controlled entity, we have a proven track record in securing long-term contracts in Malaysia, China and Thailand. Refer to Section 7.1 of this Prospectus for details on the principal water related assets owned and/or operated by us. Our international success in obtaining contracts stems from our determination to seek and develop working relationship with local authorities looking to explore opportunities to improve their water and wastewater infrastructures. Further, we have acquired numerous EPC and consultancy services contracts relating to various water-related projects with numerous state governments in Malaysia, namely Melaka, Kedah and Johor, and the Department of Sewerage Services under Ministry of Energy, Green Technology and Water, Malaysia.

We have also established longstanding customer relationships with national oil companies such as the PETRONAS Group and Petro Vietnam Exploration & Production Corporation and international oil companies such as Sarawak Shell Bhd, EMEMPI, Murphy Sarawak Oil Co. Ltd and Talisman Malaysia Ltd. As we provide oil and gas engineering services that are cost-effective and compliant with international standards, we believe that we are well-positioned to garner long-term recurring business from our customers.

7.2.4 Presence in high growth markets and well-positioned to capitalise on China's water and wastewater sector

Our success in the water and wastewater treatment business in Malaysia has enabled us to expand our environment business overseas through RWT (Cayman) in countries such as China and Thailand which we believe are highly attractive growth markets. Given the growth prospects of the Chinese economy, where treated water demand is projected to reach 2,280,274 MLD by 2050, according to Frost & Sullivan, and the anticipated scarcity in water supply, we expect opportunities for RWT (Cayman) to offer its services and solutions to potential customers to achieve a sustainable water supply and combat water resources pollution.

In addition, our experienced team of engineers in Malaysia has developed competitive and cost-effective applications which have been used to increase the efficiency of treatment plants. Our water treatment plants are termed as compact treatment plants which provide several advantages as opposed to other treatment plants that are termed as conventional treatment plants. One of the advantages is the throughput that is more than double as compared to conventional treatment plant, resulting in up to 50% smaller plant footprint required for our treatment plants as compared to conventional water treatment plant with equal treatment capacity. The smaller land requirement and investment in civil work requirements for our treatment plants, results in lower capital expenditures.

In addition, our treatment plants also offer other edges including being modular which allows our treatment plants to be built according to the desired capacity. The modular system is flexible enough to allow further upgrades in tandem with future rising demand. Compact treatment plants utilise greater use of pre-fabricated components that are fabricated off site which result in shorter construction period. This is due to works being concurrently carried out at the site and at the fabrication facilities off the site. In China, we have harnessed our in-house solutions to focus on a niche market for industrial water treatment, which we believe can yield higher returns. Moving forward, the track record of SAJH will be a key reference for water concessions in China. We believe this will also create opportunities for us to provide NRW management and project management services in China.

We participate in the water, wastewater and reclamation water treatment projects in China through BOT and TOT projects. To date, we have expanded our reach in China through the operation of 5 BOTs and one TOT with a total aggregate capacity of 270 MLD, of which 50 MLD is operated through our jointly-controlled entity.

Our efforts and success have been recognised by the local authority of Nanchang in respect of the Xiaolan Economic Development Zone in Nanchang, Jiangxi Province, China where we currently operate a 30 MLD wastewater plant which will be upgraded to 80 MLD by 3rd quarter of 2013. This was demonstrated through multiple awards for environmental conservation by the Jiangxi Provincial Government in 2009 and by the Nanchang City Government from 2008 to 2011, which recognises the Xiaolan Economic Development Zone as one of the industrial parks in the Jiangxi Province which complies with the authority's standard of treated wastewater. Through the application of our in-house solutions and engineering expertise, we are able to consistently meet the standards of treated wastewater as set by the local authority of China notwithstanding that it has been revised numerous times.

We also operate 3 BOT and 2 BTO concessions with total treatment capacity of 90 MLD in Thailand where we provide water treatment, wastewater treatment and reclamation water treatment services to 2 industrial parks and a university.

7.2.5 Stable cash flows from long-term contracts and concessions

Our Group's cash flows are underpinned by our environment business, both locally and outside Malaysia, as well as the power business which is based on long-term contracts and/or licences.

SAJH's licence for the provision of treated water in the State of Johor is renewable every successive 3-year term on a rollover basis under the terms stipulated in the Water Services Industry Act. SAJH has renewed its licence to December 2014. SAJH's consistent performance over the past 13 years has demonstrated its ability to continuously deliver a high standard of service to its end-customers.

In addition, our operations in China are conducted on a BOT and TOT basis, with tenures ranging from 25 to 29 years, being the longest concession tenure allowable in China, while the tenures of our concession for the water and wastewater treatment plants in Thailand are between 8 years and 20 years. We are also currently expanding the treatment capacity of our wastewater treatment plant in Xiaolan Economy Development Zone by another 50 MLD from the current capacity of 30 MLD to accommodate a higher volume of wastewater treatment due to an increase in economic activities in the industrial park.

In respect of our power business, the respective PPAs with Sabah Electricity are for a 21-year period commencing 25 October 2008 and 22 April 2011 for RPI and RPII, respectively.

With stable cash flows, we expect to be able to meet all our financial and debt obligations. In addition, we also believe that we are well-positioned to fund our capital expenditures and investments to undertake future expansion opportunities.

7.2.6 Strength and depth in leadership and talent

With our experienced management team leading our Group, we have been able to grow and expand both our oil and gas engineering services and environment businesses. Our Group is led and managed by TSHM and AA, who have over 31 years and over 20 years respectively of relevant industry experience. Our key management comprises talents with both local and international experience, which underlines our capabilities across multiple sectors.

Our oil and gas engineering services, environment and power businesses are headed by RA (who has over 31 years of relevant industry experience), AZJ (who has over 25 years of relevant industry experience) and NAR (who has over 27 years of relevant industry experience) respectively.

We will continue to tap on their extensive knowledge network and leverage on their expertise to drive our Group's business growth.

We also believe that our multicultural organisation is capable of attracting and pooling talents worldwide to operate our multiple businesses across multiple countries. As at the LPD, our Group's workforce comprises 3,823 employees, of which 984, 2,639 and 200 employees are employed for our oil and gas, environment and power businesses, respectively, and within which 517 employees are engineers who serve all sectors of our operations. In addition, our relationship with WorleyParsons provides us access to its worldwide resources, including over 40,000 personnel and their expertise. We also focus on talent retention and succession planning to ensure that we have suitable and competent staff to handle our projects in order to meet and, where possible, exceed our customers' expectations and improve operational efficiency.

7.3 Business strategies and future plans

Our business strategies and future plans are as follows:

7.3.1 Energy sector

(i) Opportunities in the rejuvenation of oil and gas infrastructure

PETRONAS has taken an aggressive approach to rejuvenate mature fields in collaboration with the Shell Malaysia group of companies. According to Frost & Sullivan, a total of RM36.0 billion is expected to be spent over a span of 30 years on EOR projects and development of new fields to sustain production. The EOR projects offshore Sarawak and Sabah are expected to provide opportunities for domestic service providers to build technical capabilities in this important sector.

The current oil and gas infrastructure for offshore upstream activities, in particular those located in the Baram Delta fields, offshore Sarawak, Malaysia operated by PETRONAS Carigali have been in operation for over 30 years. Existing brownfield infrastructures include topsides, jackets, and subsea pipelines, which are subject to upgrading or replacement for asset life extension. As part of our strategy to expand our engineering services in the oil and gas upstream activities, we intend to provide rejuvenation services for such oil and gas infrastructures. These services include assessment of the technical integrity of the facilities, work scoping, engineering, procurement services, execution and shutdown planning, construction and logistics management and commissioning, and start-up services. These rejuvenation programmes will be integrated into the EOR planned projects, to maintain or increase production levels in the country.

We have successfully completed a 5-year rejuvenation programme for the Shell Malaysia group of companies involving their facilities in the Sarawak and Sabah waters. Currently, we are the EPCM contractor for EMEPMI in Malaysia for the rejuvenation of their offshore facilities with an extended scope of procurement and program management besides engineering and design. We have completed similar projects in the past for Occidental Petroleum of Qatar Ltd and BG Exploration & Production India Ltd in India, and we intend to increase our efforts for overseas projects in this area.

By leveraging on our experience and expertise as well as our cost advantage, we believe that we are well-positioned to secure rejuvenation contracts both locally and globally.

(ii) Global expansion through potential collaboration with international EPC contractors

The oil and gas industry in Malaysia is currently experiencing a phase of revival and growth after recovering from a period of subdued economic growth in 2009 to 2010, which had temporarily steered the industry into a slowdown. The Government played a central role in turning the industry around through its initiatives to promote and encourage investment in this sector. In addition, the favorable outlook for the Malaysia oil and gas sector also stems from PETRONAS' continued commitment to domestic capital expenditure spending.

The major driver for engineering services and EPC contracts in the near to long-term is expected to be the development of refining and petrochemical hubs, deepwater projects, marginal fields, EOR projects, LNG regasification terminals and PETRONAS' investments in such segments, which are expected to result in more opportunities for engineering services providers and EPCM contractors in the Malaysia market.

According to Frost & Sullivan, total EPC opportunity available for the period from 2012 to 2016 is estimated to be USD55.6 billion, which is equivalent to approximately RM172.1 billion (based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from BNM's website). Of this, the engineering services opportunity available is estimated to be USD4.1 billion, which is equivalent to approximately RM12.7 billion (based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from a set to be USD4.1 billion, which is equivalent to approximately RM12.7 billion (based on the exchange rate of RM3.096/USD1, being the closing rate as at the LPD as extracted from BNM's website).

We believe that our engineering expertise in, inter alia, field development, SELECT, FEED and detailed designing for both greenfield and brownfield projects as well as our competitive cost structure positions us well to be a strategic partner for EPC contractors to offer one-stop turnkey solutions within the region and globally.

To date, we have successfully collaborated with Hyundai Heavy Industries Co Ltd on projects in Abu Dhabi, Qatar and the Joint Development Area in Malaysian/Thailand waters, and with SMOE Pte Ltd, Singapore on the Zawtika field development in Myanmar. We have also recently completed the B193 detailed engineering for Sime Engineering Sdn Bhd in India. Our clients take into consideration nominated engineering partners in deciding who the contract should be awarded to. Our track record on value added propositions, timely delivery and cost savings while maintaining the quality of our services were essential criteria for the award of the aforementioned contracts. We will seek to capitalise on and cultivate these relationships in bidding for international projects as we move forward in our global expansion in the oil and gas sector.

(iii) Expanding scope of work into procurement

Going forward, we intend to expand our focus on procurement of materials, equipment and/or services on behalf of clients for the entire supply chain. We foresee this as a core strategy for our oil and gas services business as it offers wider business prospects, which we believe will allow us to increase our revenue, and therefore increase overall profitability. We believe that we have the expertise to grow in this area.

As a natural extension to our engineering business, we will venture into the supply of engineered and skid items. Our ability to engineer and design process packages and process units that could be fabricated as modules has been repeatedly demonstrated over the last few years. As a one-stop provider, we strongly believe this will add value to our clients. This will require collaboration with fabricators who possess the necessary facilities to build these packages, and with suppliers of various engineering components for our engineering and design business.

(iv) Maximising value through linkages in the energy production chain

In the long-term, we intend to continue building on our engineering prowess and execution capabilities to provide our clients start-to-end energy development projects, from the upstream portion of exploration and production of resources to the downstream portion of refining, processing, transportation and to the generation of electricity in gas-fired power plants. As we currently possess the engineering and design expertise across the entire value chain and know-how in power generation through our CCGT power plants in Sabah, we are in a strong position to extend our reach into intensifying exploration activities, collaborating with joint-venture partners in constructing LNG regasification terminals and managing the transportation/ storage of resources. We are principally involved in both ends of the energy production value chain, from development of the regasification terminals for the supply of gas to the operation of 2 CCGT power plants. We seek to leverage our technical know-how on both ends to bid competitively for oil and job contracts and/or power generation concessions in the future, while exploring to build our portfolio across businesses within the value chain. Our recent experience in leading a consortium in alliance with PETRONAS Gas for the development of the country's first LNG regasification terminal in Melaka provides valuable lessons to improve this method of contracting in the oil and gas industry in Malaysia. We plan to secure such further contracts based on our track record such as the Zawtika Development Project in Myanmar and the alliance contract for Melaka LNG Regas Unit. We will also seek to leverage on our experience and relationships to undertake long-term contracts with our clients. This is particularly relevant in the area of brownfield rejuvenation works, where definitive scope of work is not available upon the award of the contract and the scope of work has to be jointly developed between the contractor and the customer. We believe that this approach will be equally applicable to new greenfield and brownfield projects, and we believe there is a growing demand for this mode of contracting.

(v) Capitalising on ETP across the oil and gas and power businesses

Under the ETP, many mega infrastructure projects have been introduced in recent years to lift Malaysia to greater heights of economic development and improve the quality of life. As set out in the ETP Annual Report 2011 which was issued by the Prime Minister's Department, the oil and gas and energy industries have been classified as National Key Economic Areas, in which there are 12 entry point projects that are expected to deliver gross national income of RM131.4 billion and create an additional 52,300 jobs by 2020. Further, under the Tenth Malaysia Plan, the Government has allocated RM230 billion for development expenditure, with particular focus on improving, inter alia, the country's infrastructure facilities including electricity generation and distribution facilities throughout Malaysia.

Being one of the key players in the Malaysian oil and gas engineering services industry (Source: Executive Summary of the IMR Report), we believe that we are well-positioned to participate in ETP projects within the oil and gas sector, such as rejuvenating existing fields through EOR and marginal field development. We also believe that we are well-positioned to benefit from PETRONAS' downstream, refining and petrochemical projects such as the Refinery and Petrochemical Integrated Development (RAPID) project in Johor, construction of LNG regasification facilities in Peninsular Malaysia and upgrading and revamping PETRONAS' refineries in Melaka and Port Dickson. We expect to collaborate with several top engineering consultancy companies in Malaysia to participate in the ETP projects.

We aim to secure power generation projects via unsolicited bid which generally gives higher returns. Unsolicited bid allows us to conduct direct negotiation with the counterparty, and in view of this, returns for such projects are typically higher as compared to projects which are secured via open tender basis. We will also seek to expand our power business with emphasis on 200 MW to 300 MW CCGT power plants. We intend to explore power business opportunities in West Malaysia and Sabah and to continue to optimise the operations of RPI and RPII.

7.3.2 Environment sector

(i) Expanding our regional operations

We intend to capitalise on our 13 years of experience in the water supply business in the State of Johor and in fact, have expanded into China since 2003. We believe that China, with its population of 1.3 billion in 2011 and GDP growth at a compounded annual growth rate of 16.8%, from 2005 to 2010, according to Frost & Sullivan, provides an extensive platform for us to expand our water treatment operations. Our current focus is principally on cities and provinces with potential for accelerated industrial growth as reflected by their GDP growth rates.

As our current presence in China mainly involves wastewater treatment projects for industrial use, our strategy is to leverage on such experience when bidding for new contracts. In addition, we expect to seek opportunities for treatment plants to recycle water for factory processes, cleaning usage or other non-drinking purposes. We also expect to carry out build and transfer projects, which potentially enables us to tap into reclaimed water and wastewater projects. In conjunction with such projects, we intend to promote reclaimed water supply to factories for non-potable usage and we expect that we will be competing with other water providers to provide our services at lower rates in areas where water supply is scarce. In addition, capitalising on our expertise and experience with source-to-tap services in the State of Johor, we also intend to pursue opportunities to secure concessions in China structured in the same manner.

With our extensive engineering experience in deploying such projects as well as our business approach of being involved in the project prior to and during inception to introduce our water treatment process, and deployment of innovative systems such as our modular "Fit-to-Need" system which is customised to suit our clients' requirements, we believe we are wellpositioned to secure additional contracts in our target markets.

Over the next 3 years, we intend to increase our business presence in the China market by increasing our water treatment capacity to up to 1,000 MLD. The initial expansion in the China water business will be funded through the proceeds from our IPO and bank borrowings. We will continue to invest with a long-term view of establishing new treatment plants in provinces such as those located in Western China where water is scarce as well as for industrial parks and emerging cities which have low wastewater treatment coverage and where local governments have allocated sufficient budgets for environmental projects. In the course of our expansion, we will also look into the provision of leachate treatment to treat toxic wastewater such that it meets environmental standards before it is discharged into the designated channel, with our target customers being the industrial parks. We also aim to explore strategic partnerships with investors to jointly invest in the China water business. Such strategic partnerships would be aimed at providing us with access to potential clients and target markets to secure water concessions in second and third tier cities in China. To this end, we will seek to leverage on SAJH's experience to secure water concessions in our target markets.

In addition, by leveraging on our existing expertise and technology, we intend to explore BOT projects to prolong as well as enhance the asset life of the water treatment plants to our existing and potential customers in China.

(ii) Commercialising our NRW management system

Our NRW reduction programme is a very important programme that we have implemented in the State of Johor since the inception of SAJH. In Malaysia as well as other countries, NRW reduction has become a key focus for cost optimisation. The loss of water through leakages and faulty delivery systems is a burgeoning issue for all water companies, and we believe we are wellpositioned to offer our expertise in this area. We are capitalising on our experience and knowledge in NRW reduction in the State of Johor and expanding the NRW management system.

We have developed the Aqua SMART technology to monitor water leakages in a more efficient manner, whereby the system is able to detect leakages within the delivery system within one to 2 hours, thus improving our efficiency in managing and/or reducing NRW. This system has been successfully implemented in the states of Johor, Melaka and Kedah, and we are currently in the process of applying for a patent for the system, thereby allowing us to commercialise it. Since the privatisation of the water supply services in Johor in 1999, we have reduced state-wide NRW from above 40.0% in 1999 to 27.0% as at the LPD. We have also reduced the NRW in Melaka from 33% in 2008 to 26% in 2012 and in Sungai Petani, Kedah from 50% in 2008 to 21% in 2010.

We are also currently pursuing a nationwide NRW reduction programme under the High Performing Bumiputera (TeraS) programme managed by Unit Peneraju Agenda Bumiputera or Teraju (a unit under the Prime Minister's Department to promote Bumiputera participation under the National Transformation Programme). The programme aims to reduce the NRW level in Malaysia, to develop standardised methodologies for long-term NRW success and enhance skills and knowhow in NRW management. We are globally recognised by the World Bank as an NRW service provider.

We can be considered as one of the leading companies in Malaysia in the NRW management and reduction programme. By capitalising on our experience in NRW reduction projects in the States of Johor, Melaka and Kedah, we intend to deploy the Aqua SMART technology throughout Malaysia and regionally. We are currently working closely with the respective state water operators to pursue NRW reduction projects.

There are high barriers to entry for the water supply business in Malaysia as it is difficult to obtain a permit to supply water in Malaysia. However, most of the state water operators typically have to engage third parties for the water plant maintenance and other operational works. We anticipate that the absence of an O&M element in the value chain of the other state water operators will give rise to opportunities for us to expand our O&M service offering.

(iii) Capitalising on Government's initiatives in the environment sector

Under the Tenth Malaysia Plan, the Government has allocated RM230 billion for development expenditure with particular focus on improving, inter alia, Malaysia's infrastructure facilities such as improving access to, and the supply of, clean water.

The ETP represents one of the Government's initiatives to lift Malaysia to greater heights of economic development and to improve the quality of life of the citizens. As stated in the 2013 budget issued by the Minister of Finance Incorporated, the Government has allocated RM500 million for the River of Life program for the beautification of the Klang river for 2013 and RM300 million for the improvement of the water supply and sewage system in Malaysia for 2013.

Under the ETP River of Life programme, wastewater treatment and rehabilitation works will be tendered out by the Department of Sewerage Services while water treatment infrastructures will be tendered out by PAAB.

Under the Tenth Malaysia Plan, a total of 63 water supply projects have been approved. In the sewerage sector, the works that are currently being implemented and to be implemented comprises construction of centralised sewage treatment facilities, laying of new sewer pipelines, rationalisation of non-performing sewage treatment plants and dedicated centralised sewage treatment facilities. The budget allocated for sewerage sector under the Tenth Malaysia Plan is RM375.6 million.

We were awarded a contract with a contract value of RM74 million in 2012 to provide sewer rehabilitation and improvement works under the Government's River of Life programme. We are also actively pursuing other opportunities in the wastewater businesses and believe that we are well-positioned to benefit from such developments.

7.4 History and milestones

Our Group's venture into the energy and environment sector stems largely from the history of RBSB, which was initially established by Rankine & Hill under the name of Ranhill Bersekutu Partnership to provide a full range of mechanical and electrical engineering design services. Subsequently, in 1981, RBSB was incorporated as a private limited company in Malaysia under its current name. Building on its engineering strength across various disciplines including oil and gas and water supply system, TSHM, then the Chief Executive Officer of RBSB, subsequently ventured into the oil and gas engineering business through RWorley and the environment business through RUSB.

Currently an associate of our Group, RBSB provides project management and engineering consultancy services including but not limited to feasibility studies, concept/schematic design, detailed design, procurement, construction administration and supervision, commissioning and programme management and it has participated in landmark projects, notably the construction of Kuala Lumpur International Airport, Kuala Lumpur International Airport II, Senai-Pasir Gudang-Desaru Expressway, the PETRONAS Towers and Suria Shopping Complex and the Kulim Hi-Tech Industrial Park Power Plant Project.

7.4.1 Energy

Our working relationship with WorleyParsons began in 1995 through our promoter, TSHM, when he fostered joint venture arrangement with Worley Engineering International Limited to perform engineering consultancy services, EPCM services and project management consultancy services in the oil and gas industry. This lead to the strategic acquisition of Jacobs Construction Management (Malaysia) Sdn Bhd in 2001 by RB and Worley Engineering Pty Ltd (now known as WorleyParsons Engineering Pty Ltd). The acquired entity was subsequently renamed Ranhill Worley Sdn Bhd which then assumed its present name on 6 May 2005. This joint arrangement allowed us to expand our oil and gas engineering business to provide a support base for RWorley's domestic and international initiatives, transforming its Kuala Lumpur office into a major service delivery hub for certain aspects of WorleyParsons' global operations. We have entered into the PRWSB Service Agreement with PRWSB, which holds the PETRONAS-issued licence required to be able to bid for contracts by the PETRONAS Group and all other activities undertaken by production sharing contractors in the upstream sector of the oil and gas industry. Pursuant to the PRWSB Service Agreement, PRWSB has exclusively appointed RWorley to perform the EPCM services in respect of all the projects awarded to PRWSB in Malaysia.

PRWSB was incorporated in Malaysia under the Act on 18 July 1985 as a private limited company under the name of KTA – Global Engineering Sdn Bhd. KTA – Global Engineering changed its name to Shapadu – ABB Global Engineering Sdn Bhd on 15 June 1993. On 2 September 1996, Shapadu – ABB Global Engineering Sdn Bhd changed its name to PRWSB. PRWSB commenced business during the financial period ended 31 December 1986.

PRWSB is principally involved the business of provision of engineering and design services of oil and gas facilities. As at the LPD, the authorised share capital of PRWSB is RM10,000,000 comprising 10,000,000 ordinary shares of RM1.00 each ("**PRWSB Shares**"). The issued and paid-up share capital of PRWSB is RM5,100,000 comprising 5,100,000 PRWSB Shares.

As at the LPD, TSHM and Kamarulzaman Omar are the substantial shareholders of PRWSB and they hold 4,589,998 and 510,000 PRWSB Shares representing 89.99% and 10.0% equity interest in PRWSB respectively. In addition, Mohd Ishak bin Salikin and Daud bin Abas hold one PRWSB Share each. Refer to Section 7.16.7 of this Prospectus for further details on the PRWSB Service Agreement.

EPE Power Corporation Berhad ("EPE"), the predecessor to RPSB, through its subsidiary RPI operated a 120 MW electricity capacity open-cycle gas turbine power plant at Teluk Salut, Kota Kinabalu, Sabah pursuant to a power purchase agreement dated February 1997 entered into with Lembaga Letrik Sabah (now known as Sabah Electricity) which commenced full operations in August 1998. On 25 February 2004, RB became a shareholder of EPE pursuant to the disposal of Powertron Resources Sdn Bhd to EPE. EPE subsequently changed its name to Ranhill Power Berhad (now known as RPSB). RPI's power plant was subsequently upgraded to a total generating capacity of 190 MW using a combined-cycle configuration and commenced full operations on 25 October 2008.

On 24 January 2006, the Economic Planning Unit of the Prime Minister's Department awarded Ranhill Tuaran Sdn Bhd (now known as RPII), an 80%-owned subsidiary of RPSB with a concession on a BOT basis for a 190 MW CCGT power plant in Sabah. The RPII power plant commenced full operations on 22 April 2011.

7.4.2 Environment

RUSB, through which we conduct the business of our environment sector, was incorporated in Malaysia under the Act in June 2000 as a public limited company under the name of Insan Utiliti Berhad and assumed the name of Ranhill Utilities Berhad in January 2002. The incorporation of Ranhill Utilities Berhad was primarily to facilitate SAJH's listing on the Main Board of Kuala Lumpur Stock Exchange (now known as Main Market of Bursa Securities). SAJH was formed to carry out the water supply services in Johor for 30 years commencing from 1 March 2000. Pursuant to its delisting on 28 August 2008, Ranhill Utilities Berhad subsequently assumed the name of RUSB on 2 July 2009.

Pursuant to a vesting order made in 1994 by the Menteri Besar Johor under the Water Supply Enactment 1993, all assets, rights, liabilities and staff of the State Government of Johor with respect to the water supply services were transferred to and vested in SAJSB, a company owned by the State Government of Johor. The water supply services business in Johor was subsequently privatised to SAJH as part of the State Government of Johor. In April 1999, SAJH, together with LOSB, entered into a concession agreement with the State Government of Johor and SAJSB to provide water supply services to the entire State of Johor. However, on 1 September 2009, SAJH migrated to the licensing regime under the Water Services Industry Act and the concession agreement was terminated upon SAJH's migration to the new licensing regime.

On 18 February 2005, RUSB acquired a 70% equity stake in RWT, which enabled the company to expand into wastewater and sewerage technology business, particularly in the areas of potable water treatment, wastewater and sewerage treatment as well as process water systems. At the point of acquisition, RWT had a track record of completing water and wastewater treatment projects throughout Asia, notably Malaysia, Thailand and China. Subsequently in 2008, RUSB formed RWT (Cayman) via a joint-venture arrangement with Robinson, a unit of Aqua Resources Fund Limited, through which various water concessions in China previously held under RUSB Group were subsequently held under RWT(Cayman) pursuant to an internal reorganisation. Refer to Section 7.5.2(ii) of this Prospectus for further details on these concessions. In order to enhance our position as well as reap higher benefits from our potential ventures in China, we have on 11 January 2013, also entered into conditional sale and purchase agreements for the Proposed RWT (Cayman) Acquisitions which will allow us to hold 100% equity interest in RWT (Cayman) after the completion of the Proposed RWT (Cayman) Acquisitions.

We had established our subsidiary, RWSB to offer specialised operational support and services to water companies in the management and optimisation of water utility assets.

All of the companies within our Group were part of the RB Group. Refer to Section 6.1.1 of this Prospectus for further details on the Pre-IPO Reorganisation.

Year	Key milestones
1998	RPI's 120 MW open-cycle power plant commenced operations in its original open-cycle configuration
1999	SAJH entered into a concession agreement with LOSB, the State Government of Johor and SAJSB to provide water supply services to the entire State of Johor
2005	RWT undertook the BOT for a 10.6 MLD potable water treatment plant, a 9.6 MLD wastewater treatment plant and a 8 MLD reclamation plant, each covering a period of 20 years in Amata Nakorn Industrial Park in Thailand and 50 MLD potable water treatment plant for 29 years in Yichun City, Jiangxi Province, China
2008	The capacity of RPI power plant increased to 190 MW pursuant to the commencement of its combined-cycle operations
2009	RWorley, through PRWSB, was awarded an EPCM contract by EMEPMI for their brownfield projects, a project requiring 2,160,000 man-hours
	SAJH terminated its concession agreement with the State Government of Johor and migrated to the licensing regime under the Water Services Industry Act
2010	RWorley, through WorleyParsons Petrol Vietnam Engineering JSC, was awarded a FEED and detailed engineering contract by WorleyParsons Petro Vietnam Engineering JSC for Bien Dong 1 Project, a project requiring 277,500 man-hours
2011	RPII's 190 MW combined-cycle power plant commenced operations, making RPSB the largest IPP in Sabah in terms of total installed capacity that is not state-owned
	RWorley, through PRWSB was awarded an EPCM contract by PETRONAS Carigali to provide for EPCIC alliance and EPCM contract for the Melaka LNG Regas Unit, a project requiring 782,300 man-hours
	RWorley was awarded an engineering contract by SMOE Pte Ltd to provide detailed engineering for Zawtika Development Project, a project requiring 301,100 man-hours
2012	RUSB Group entered into several MOUs and/or investment agreements to carry out investment evaluation and feasibility studies on several water and wastewater treatment projects in China
2013	RWorley entered into a MOA with Samsung to co-develop and pursue mutually beneficial business dealings, namely for the tender of engineering, procurement, construction and installation projects worldwide and also for the provision of engineering services by RWorley to the engineering, procurement, construction and installation projects secured by Samsung

Certain key milestones for our Group are as follows:

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7.5 Products and services

7.5.1 Energy sector

(i) Oil and gas business

(a) Engineering services

We conduct our oil and gas business through RWorley where we are principally involved in the provision of engineering, procurement, project and construction management, supervision and ancillary services to clients in relation to upstream oil and gas projects; onshore and offshore pipelines; downstream oil and gas including refineries, LNG plants and gas processing plants; and terminals, product pipelines, integrated service contracts and maintenance engineering. The services that we provide encompass a full range of engineering services, including process, civil, structural, mechanical, electrical, instrumentation, pipeline, safety and environmental, subsea and marine engineering. We handle projects of all sizes from minor troubleshooting exercises to EPCM services for new facilities and the upgrading of existing assets.

We deliver services primarily to the upstream portion of the oil and gas industry, with particular emphasis on field development, concept development and detail design for both greenfield and brownfield projects. We offer conceptual development, FEED, EPCM and procurement services relating to topsides and jackets for fixed offshore facilities, float-overs and minimal/unmanned offshore facilities, as well as onshore facilities, floating facilities and refining facilities. We are one of 2 WorleyParsons "global hubs" for services relating to mega decks (those more than 25,000 MT), floating production facilities, floating production storage and offloading facilities and floating LNG facilities. We have substantial topside and jacket design capability and experience, and we also provide services in respect of minimal facilities, wellheads, central processing platforms and living quarters, including jack-up installed, heavy lift and float-over installations.

RWorley's joint venture agreement, which was entered into with WorleyParsons on 26 December 2001 ("**RWorley JV Agreement**") provides that RWorley will be the exclusive vehicle through which we and WorleyParsons and/or our subsidiaries or associates and WorleyParsons will undertake engineering works in Malaysia and overseas for Malaysian clients, and also for other overseas clients who prefer to have the works performed in Malaysia. Pursuant to the RWorley JV Agreement, we have access to WorleyParsons' business opportunities and worldwide resources, including over 40,000 personnel, and we employ WorleyParsons' engineering management and project management delivery tools which are also used by WorleyParsons' offices worldwide. RWorley has also on 12 April 2013 entered into a MOA with Samsung where both parties have agreed to co-develop and pursue mutually beneficial business dealings, namely for the tender of engineering, procurement, construction and installation projects worldwide and also for the provision of engineering services by RWorley to the engineering, procurement, construction and installation projects secured by Samsung. Pursuant to the MOA, a joint steering committee and working committee will be formed to jointly target mutually beneficial project opportunities and to jointly cooperate on an exclusive basis for such project opportunities that is selected by the joint steering working committee. The MOA is effective for a period of 3 years from 12 April 2013 or such earlier date as agreed between the parties or by other agreement that supersedes the MOA. To date, RWorley and Samsung have not made a bid for any engineering, procurement, construction and installation projects.

As explained in Section 7.4.1 of this Prospectus, we have entered into the PRWSB Service Agreement with PRWSB, where PRWSB has exclusively appointed RWorley to perform the EPCM services in respect of all the projects awarded to PRWSB in Malaysia. PRWSB is a company registered with the Board of Engineers Malaysia and will bid for contracts tendered by the PETRONAS Group and other PETRONAS' production sharing contractors. Refer to Section 7.16.7 of this Prospectus for further details on the PRWSB Service Agreement.

All the PETRONAS Group's projects are secured by PRWSB and subsequently subcontracted to RWorley. Save for the subcontracting arrangement with PRWSB, we would normally undertake the following steps for purposes of identifying and bidding for oil and gas projects:

Step	Process	Description of process	
1	Identification of opportunity	RWorley identifies, records, tracks and evaluates future opportunities through market reports, in-house research and contacts within the oil and gas industry, including WorleyParsons. Once a possible project has been identified, RWorley will express its interest to the potential client.	
2	Bid screening	Once invited to bid on the new project, proposal manager will review the project risk profile, potential return, and whether such project aligns with its business strategy before deciding whether to submit a bid.	
3	Tender bid preparation	Appropriate personnel from various departments will prepare relevant sections of the bid submission. A tender bid proposal comprises technical proposal as well as commercial proposal in which the proposal manager has to ensure the bid proposal is technically comprehensive, compliant and compelling yet addresses all areas of significant commercial risk. The bid proposal will then be presented to the potential client.	

Step	Process	Description of process
4	Negotiation and award	After the bid pack is submitted, the proposal manager will communicate with the potential client and provides assistance on clarifications required and/or queries raised. During the negotiation process, the proposal manager will ensure that contract scope, rates, prices, and terms and conditions are fully agreed and documented between both parties and do not compromise RWorley's position, particularly with regard to risk, liabilities and profit.
5	Handover and close- out	Once the contract is awarded to RWorley, a handover meeting will be held to ensure a smooth handover process from the proposal manager to the project manager. The proposal manager will then close out the proposal by conducting a review on the bid process to seek ways to improve its future

In Malaysia, we operate through 7 offices located in Kuala Lumpur, Bintulu, Miri, Kota Kinabalu, Kerteh, Kuantan and Melaka. We believe that, through our 7 locations in Malaysia, we have created a major service delivery hub for EPCM services for the oil and gas industry in South East Asia, the Middle East and Europe. We believe that we offer our clients project delivery quality on par with what is offered by our counterparts based in Europe, Australia and the United States, but with the advantage of a more competitive cost structure for our clients.

bids.

Our Malaysian offices have backbone network equipment consisting primarily of Cisco products that help to ensure stability, quality and reliability. We also maintain a disaster recovery programme centralised at our Kuala Lumpur office.

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(b) Phases of our engineering services

The following diagram illustrates the phases typically involved in projects that we carry out for our clients.

Identify	Evaluate	Define	Execute	Operate
Customer Goals				
Establish preliminary scope and business strategies	Establish development options and execution strategies	Finalise scope and execution plan	Detail and construct asset	Operate, maintain and improve asset
	SELEC	T concept San	ction Sta	rt-up
Our services				
 Concept studies Opportunity assessment and selection of alternatives Business model development 	 Options evaluation Establishment of single development option Cost estimation Contract planning 	 FEED Scope development Preliminary design Cost estimation Execution planning 	 Detailed engineering EPCM Project management consultancy EPC alliance 	 Brownfield projects Portfolio delivery Asset management Business improvement Operations and maintenance support

Our Business Lines

SELECT	Deliver	Improve
Brings real world experience into the front-	Converts the highest potential value options	Supports and
end, value adding phases to maximise	identified at the SELECT phase, into fully defined	improves customers'
investment return and underlying confidence	and successfully executed projects	assets throughout
		operating lifecycle

Identify

The "Identify" phase of a business/development opportunity is the initial phase of a project where we provide our customers with a sound framework for managing uncertainty in prospect/project evaluation and is based on a multi-disciplinary team approach. We provide technical assistance in establishing subsurface development options and for each subsurface option model we predict reservoir fluid dynamics, evaluate subsurface development options and quantify technically recoverable volumes. This dynamic modelling plays a dominant role in determining the number of wells, their locations and types.

Evaluate

For each development concept, life cycle cost estimates (capital and operations costs) for the facilities are derived under this phase of project development. This will provide the necessary input and determine the robustness of each option and their internal rates of return. The optimum option will then be selected for further development.

Through the "Identify" and "Evaluate" phases or collectively known as SELECT, we bring real world experience to the front-end value adding phases to assist customer in maximising their investment returns.

Define

Under this phase, we assist our customers in finalising the scope of the project and execution plan. The services we offer under this phase includes inter-alia, scope development, preliminary engineering design, FEED, cost estimation and execution planning.

Execute

Under this phase, we help customers to execute their project successfully via our detailed engineering and provision of EPCM and project management consultancy services.

Through the "Define" and "Execute" phases, we aim to convert the highest potential value options identified at the SELECT phase into fully defined and successfully executed projects.

Through EPC alliance, we are able to expand our scope of engineering services to cover the entire oil and gas value chain. EPC alliance gives us the flexibility to subcontract work not undertaken by us through open tenders to the lowest bidder to manage the project cost. Recent developments in alliance contracting which deviate from traditional methods promoted by PETRONAS suggest the willingness by customers to work in partnership with contractors in a consortium to derive mutual benefit. The benefits of the alliance contracts are set out as follows:

- Profit-sharing with project owners;
- More efficient and cost effective manner of contracting with joint participation of project owner in the entire EPC process;
- Limited penalty risks as penalties are capped; and
- No liquidated damages risk to the parties in alliance.

Operate

Under this phase, we assist customers in evaluating their asset's performance against design specifications and business cases. This would involve a complete review of their operations and maintenance regimes and procedures, cataloguing of their assets and recording of their conditions and formulation of an optimised asset plan to ensure safe operations and minimal unplanned shutdowns. Detailed engineering on the improvements to the facilities to meet the latest codes and standards and available technology are offered to our clients, together with our services in procurement and execution (project and construction) management.

(c) Major projects

The table below provides selected information on major projects that have contributed substantially to the financial results of our oil and gas business since 1 July 2008:

End-customer ⁽¹⁾	Project name	<u>Man-hours</u> ('000)	Commencement date	Contract ⁽²⁾ period (months)
EMEPMI	EMEPMI Brownfield Projects - Engineering, Procurement and Construction Management	2,160.0	July 2009	72
Sarawak Shell Bhd	Provision of Maintenance Engineering Services (MESC) for Technical Integrity Restoration and Engineering Services Support	1,328.0	Oct 2007	72
PETRONAS Gas	EPCIC Alliance for Melaka LNG Regas Facilities Project	782.3	January 2011	28
Lynas Malaysia Sdn Bhd	Lynas Advanced Material Project - Engineering, Procurement, and Construction Management	532.0	August 2007	21
SMOE Pte Ltd	Zawtika Development Project - Detailed Engineering Design	301.1	June 2011	19
WorleyParsons Petro Vietnam Engineering JSC	Bien Dong 1 project - Detailed Design	277.5	March 2010	13
PETRONAS Carigali	Kumang Cluster Development Project - Front End Engineering Design	275.6	March 2007	18
Sime Darby Engineering Sdn Bhd	B-193 Process Platform Project - Front End Engineering Design and Detailed Design	266.4	June 2010	24
EMEPMI	Tapis Brownfield Provision of Detailed Design	208.6	January 2011	6
Hyundai Heavy Industries Co., Ltd	Barzan Offshore Project - Detailed Design	193.1	January 2011	12
Hyundai Heavy Industries Co., Ltd	Booster Compression Project – Detailed Design	192.8	July 2012	12

Notes:

(1) Pursuant to the PRWSB Service Agreement, all contracts with our endcustomers are entered into by our affiliate PRWSB and subsequently subcontracted to us.

(2)

Contract periods are based on contractual dates, updated in certain cases based on agreements with customers to extend the contract period.

We typically work on 80 to 90 concurrent projects at any given time, including an average of 4 major projects, each requiring a total of over 150,000 manhours. In 2012, on a man-hour basis, FEED and detail design projects together accounted for approximately 89% of our work by man-hours revenue. The current chargeable man-hour of our oil and gas business is approximately 2.6 million man-hours per year.

(d) End-customers

Our client base includes both local and international corporations. For this purpose, we consider "local" end-customers to be those that have operating bases in Malaysia, while "international" end-customers are those operating outside of Malaysia that contract with us out of their respective offices outside of Malaysia to take advantage of our cost-effective engineering centres capable of delivering services that meet international standards.

Our local end-customers include the Malaysian operations of IOCs such as Sarawak Shell Berhad, EMEPMI, Murphy Sarawak Oil Co. Ltd and Talisman Malaysia Limited, as well as PETRONAS Carigali and Malaysia Marine and Heavy Engineering Holdings Berhad; and our international clients include the IOCs that we have as local end-customers, as well as other IOCs such as BG Exploration & Production India Ltd, ConocoPhillips (East Malavsia) Ltd, BP Chemical (Malaysia) Sdn Bhd, and BP PETRONAS Acetyls Sdn Bhd, national oil companies such as Petro Vietnam Exploration & Production Company, Abu Dhabi Marine Operating Company and Oil & Natural Gas Corporation Ltd. and international EPC contractors such as Hyundai Heavy Industries Co. Ltd, SMOE Pte Ltd, SapuraKencana Petroleum Berhad, Brooke Dockyard & Engineering Works Corporation and Sime Darby Engineering Sdn Bhd. For the year ended 31 December 2012, approximately 85% of our oil and gas business revenue was derived from our local endcustomers, while approximately 15% of our oil and gas business revenue was derived from our international clients.

A significant portion of the revenue from our oil and gas business is derived, through our affiliate PRWSB, from projects secured from the PETRONAS Group. For the year ended 30 June 2010, 18 months ended 31 December 2011 and year ended 31 December 2012, the PETRONAS Group accounted for 1.7%, 8.1% and 16.6%, respectively, of our total revenue. We are dependent on projects secured from the PETRONAS Group in our oil and gas business.

(e) Suppliers

In our oil and gas business, we are not dependent on any one supplier.

(f) Competition

Competition in the Malaysian oil and gas engineering services business is intense, as we and other companies dedicated to offering only engineering and related services must compete with many EPC companies that offer a broad range of services, including engineering services. Our primary competitors in our oil and gas engineering services business are Technip Malaysia, Aker Engineering Malaysia Sdn Bhd, Petrofac Engineering Services (Malaysia) Sdn Bhd and MMC Oil & Gas Engineering Sdn Bhd, all of which we believe are licensed to provide services to the PETRONAS Group. We believe that Technip Malaysia is our closest competitor due to the range of services it provides, international experience and size.

(ii) Power business

(a) Background, generation capacity and O&M

In our power business, through our subsidiaries, RPI and RPII, we operate and maintain two 190 MW CCGT power plants in Kota Kinabalu Industrial Park in Sabah. The aggregate 380 MW capacity of the RPI and RPII power plants represents approximately 57.6% of the combined installed capacity of all the IPPs in Sabah, making us the largest IPP in Sabah according to Frost & Sullivan.

We constantly assess the electricity output required to meet the anticipated growth in demand for electricity in the state of Sabah. In the event there is a need to increase the electricity output in Sabah, we, via RPSB, will propose to Sabah Electricity for IPP projects which are required to meet the anticipated growth in demand. Sabah Electricity will subsequently evaluate our proposal, before allowing us to enter into direct negotiation, on the technical and commercial terms to be included as the salient terms of the PPA, to be entered into with Sabah Electricity.

After securing an IPP project, the EPC contractors will be appointed to construct the power plant. Upon completion of the construction of the power plant, the O&M contractor will be appointed to operate and maintain the power plant.

RPI was initially formed to construct a 120 MW open-cycle power plant, and the COD of the RPI power plant in that configuration was February 1999. The RPI power plant was subsequently converted to its current 190 MW combined-cycle configuration, and the COD of the power plant in this configuration was 25 October 2008. On the other hand, the RPII power plant's initial COD in a single gas turbine open-cycle 65 MW configuration was 6 March 2010, its COD as a 2 gas turbine open-cycle 130 MW facility was 9 July 2010 and its COD as a 190 MW combined-cycle configuration was 22 April 2011. The RPI power plant comprises four 30 MW gas turbine generators, four vertical heat-recovery steam generators and two 35 MW steam generators. The gas turbines use the Frame 6B technology model supplied by General Electric Company, and the heat recovery steam generators and steam turbines were manufactured by Mitsubishi Heavy Industries Ltd. The RPI power plant uses a 2-block configuration, with each block consisting of two 30 MW gas turbines, a heat-recovery steam generator and a 35 MW steam turbine. The RPII power plant comprises two 65 MW gas turbine generators, two horizontal heat-recovery steam generators and a 60 MW steam generator. The gas turbine generators use the Frame 6FA technology model supplied by General Electric Company, the heat recovery steam generators were manufactured by Hangzhou Boilers Company and the steam generator was manufactured by the Harbin Turbine Company Limited (China). The RPII power plant uses a single block configuration.

We conduct routine maintenance on both the RPI and RPII power plants through our own subsidiaries. We own a 60% equity interest in RPI and RPOM, respectively, which provides O&M services to the RPI power plant, and we own 80% equity interest in RPII and in RPOMII, which provides O&M services to the RPII power plant. The remaining equity interests in RPI, RPII, RPOM and RPOMII are owned by SECSB. For scheduled maintenance throughout the tenures of our PPAs, we have entered into contractual service agreements with GE Energy Parts, Inc. and GE Power Systems (Malaysia) Sdn Bhd.

(b) Power offtake

We have entered into PPAs with Sabah Electricity providing for the sale of up to 380 MW of electricity generating capacity and the electricity production of RPI and RPII for a 21-year period commencing on 25 October 2008, with respect to the RPI power plant, and commencing on 22 April 2011, with respect to the RPII power plant. In 2012, RPI and RPII collectively sold approximately 2,484 GWh of electricity to Sabah Electricity.

The PPAs provide that the power despatched and the operational requirements in terms of start-up, shutdown and increase or decrease of load from the respective power plant are determined solely by Sabah Electricity, subject to Sabah Electricity's obligation to compensate us if shutdowns of the respective plant exceed 52 occurrences per year. Sabah Electricity is obligated to make capacity payments and energy payments to us pursuant to formulas and conditions stipulated in the PPAs. The principal factors involved in the calculation of the capacity payment for any period include the dependable capacity for that period. The principal factors involved in the calculation of the energy payment for any period include the net electricity output of the plants, also known as load factor, and the average cost of fuel. Since the amount of the energy payment takes into account the cost of the fuel we use to produce the electricity, we are not exposed to natural gas or diesel price volatility.

(c) Fuel supply

In order to secure the necessary fuel for the operations of RPI and RPII, we have entered into natural gas supply agreements, with PETRONAS and PETRONAS Carigali (collectively, "**Fuel Suppliers**") to supply natural gas to the power plants until the end of the tenure of the PPAs.

However, under our natural gas supply agreement relating to RPII, the Fuel Suppliers have warranted that there will be a supply of natural gas on a firm basis through the year 2020, but for the remaining contract years thereafter through to 2031 (the "Availability Period"), the supply commitment of the Fuel Suppliers is on an availability basis, depending on whether the Fuel Suppliers, in their reasonable opinion, have sufficient natural gas to be supplied to us. The Fuel Suppliers are required to notify us, not later than 2017 whether they have available natural gas for delivery during the Availability Period is to be mutually agreed by the parties, but further provides that if the parties fail to reach mutual agreement by 30 June 2020, the Fuel Suppliers will have the right to determine the quantity to be delivered during the Availability Period in accordance with good industrial practice and in accordance with the principle that it is economically viable for the Fuel Suppliers to deliver that quantity.

The natural gas provided to us under these agreements is sourced from the Erb West and Kinarut gas fields, which are located 60 km off the shore of Sabah. The gas supply agreements specify the volumes of natural gas that PETRONAS is required to make available during each year of the contract and provide that we are obligated to purchase and take delivery of at least 75% of the specified volume in each year.

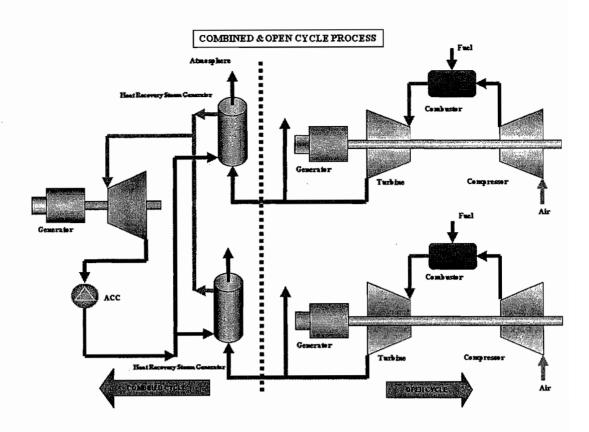
Pursuant to the gas supply agreements, if we pay for any quantity of natural gas based on the "take-or-pay" requirement but do not take delivery of that quantity, we may take delivery of that quantity within one contract year thereafter. The price of natural gas under the agreements is based on market price and is passed through to Sabah Electricity as an element of the energy payment due under our PPAs.

We also have entered into diesel fuel supply agreements with Shell Timur Sdn Bhd to supply diesel to the power plants as backup fuel sufficient for up to 7 days of full-load operation. Each diesel fuel supply agreement has a duration of 21 years commencing from the COD of the relevant power plants. Like natural gas, the price of diesel under the agreements is passed through to Sabah Electricity as an element of the energy payment due under our PPAs.

For a summary of terms of our PPAs, refer to Sections 7.16.4 and 7.16.5 of this Prospectus.

(d) **Production process**

The diagram below illustrates the production process for electricity production in our RPI and RPII power plants, with the process divided between the open-cycle and combined-cycle process.



Combined-cycle power plants feature both gas and steam turbines. The gas turbine generates electricity using natural gas or diesel fuel, while the steam turbine generates electricity using waste heat from the gas turbine. The process is extremely efficient since exhaust heat that would otherwise be lost through the exhaust stack is re-used to create additional electricity. In an open-cycle configuration, only the gas turbine is used to produce electricity, and no electrical energy is derived from the waste heat of the gas turbine, and therefore the open-cycle process has lower thermal efficiency than the combined-cycle process.

In the gas turbine portion of the process, a gas turbine compresses air and mixes it with fuel, either natural gas or diesel. The fuel is burned and the resultant hot air-fuel mixture is expanded through turbine blades, making them spin about a shaft. The spinning turbine drives a generator that converts the spinning energy into electricity. The working principle is essentially the same for both the RPI and the RPII power plants as follows:

- Fuel is burned in a combustor;
- The resulting energy in the gas turbine turns the generator drive shaft;
- Exhaust heat from the gas turbine is sent to a heat recovery steam generator ("HRSG");
- The HRSG creates steam using the gas turbine exhaust heat and delivers it to the steam turbine;
- The steam turbine delivers additional energy to the generator drive shaft; and

The generator converts the energy into electricity.

(e) Operations review

The table below provides a summary of operating statistics of the RPI power plant for the periods indicated.

_	Year ended 30 June	18 months ended 31 December	Year ended 31 December
-	2010	2011	2012
Actual energy generated (GWh)	1,427	1,875	1,310
Electricity sold (GWh)	1,388	1,820	1,271
Average net dependable capacity (MW)	190	190	190
Thermal efficiency (%)	38.9	36.9	37.5
Equivalent availability factor (%)	93.0	84.6	91.8
Heat rate (kJ/Kwh)	9,253	9,795	9,644

The table below provides a summary of operating statistics the RPII power plant for the periods indicated.

-	Year ended 30 June 2010	18 months ended 31 December 2011	Year ended 31 December 2012
Actual energy generated (GWh)	155	1,552	1,254
Electricity sold (GWh)	154	1,511	1,213
Average net dependable capacity (MW)	65	190	190
Thermal efficiency (%)	27.9	35.8	43.3
Equivalent availability factor (%)	۸	96	96.7
Heat rate (kJ/Kwh)	12,054	10,591	9,810

Note:

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Equivalent availability factor only calculated after achieved COD on 22 April 2011

(f) Customer

Our revenue from our power business is derived solely from Sabah Electricity as we are obligated under our PPAs to sell all our electricity capacity to Sabah Electricity. For the year ended 30 June 2010, 18 months ended 31 December 2011 and year ended 31 December 2012, Sabah Electricity accounted for 16.5%, 18.4% and 17.9%, respectively, of our total revenue. Accordingly, we are dependent on Sabah Electricity to purchase all of the power produced in our power business.

(g) Supplier

PETRONAS Group is the only supplier of our power business that accounts for 10% or more of our cost of sales. For the year ended 30 June 2010, 18 months ended 31 December 2011 and year ended 31 December 2012, purchases of natural gas from the PETRONAS Group accounted for 10.0%, 11.6% and 10.2%, respectively, of our total cost of sales.

Accordingly, we are dependent on the PETRONAS Group for the supply of natural gas used by our power plants. However, if there were a disruption in the supply of natural gas, we expect that we would be able to run our power plants on diesel fuel for an extended period of time, being the duration of the gas supply disruption period.

(h) Competition

According to Frost & Sullivan, there are a total of 7 IPPs operating in Sabah, including RPI and RPII, with a combined installed capacity of 660 MW. The electricity supply industry in Malaysia is in the growth stage of the lifecycle. While this industry is highly regulated and competition is relatively low, growth in the industry is driven by the growth in population and the demand from the commercial and industrial sectors.

However, we expect competition to increase when the 300 MW combined cycle gas fired plant under Kimanis Power Sdn Bhd commence operations in 2013 or 2014.

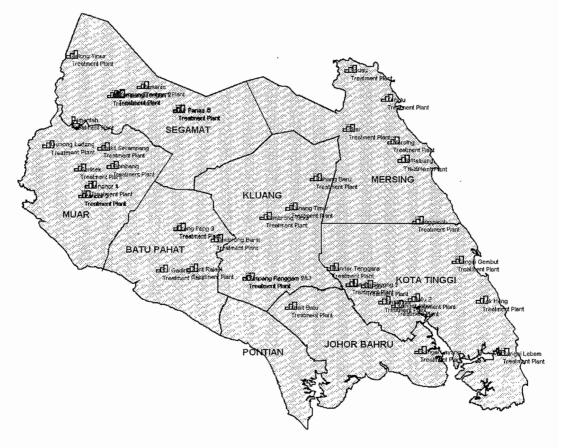
7.5.2 Environment sector

(i) Utilities management and water supply services

We hold an exclusive licence from the Minister of Energy, Green Technology and Water, Malaysia to provide source-to-tap water supply services to endcustomers in the entire State of Johor, Malaysia. Johor is the fifth largest state in Malaysia by area, with a land area of approximately 19,210 km², and is the second most populous state in Malaysia, with a population of approximately 3.4 million people as at 2012 (*Source: Department of Statistics, Malaysia*). We provide a wide range of water supply services in Johor, from sourcing of raw water, treatment and distribution of treated water to consumers through billing and collection. As at the LPD, we had 1,007,766 customers in Johor, of which 875,554 were residential customers, 129,817 were trade and industrial customers and 2,395 were institutional customers, such as government office buildings, army camps, government hospitals, prison complexes and statutory governmental authorities. The table below provides the breakdown of revenue and volume of water delivered by the types of customers for the year ended 31 December 2012:

Type of customers	Revenue (%)	Volume of water (%)
Residential	45.0	66.0
Industrial	50.0	31.0
Institutional	5.0	3.0
Total	100.0	100.0

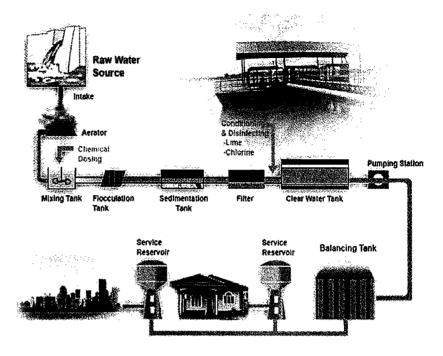
As at the LPD, the water supply system operated by us comprises 44 water treatment plants, which have an aggregate treatment design capacity of 1,986 MLD and which produced 1,507 MLD for the month of May 2013. The following map indicates the locations of these water treatment plants:



The water supply system also includes a distribution network of 20,430 km of pipelines (including 146 km of raw water mains, 3,112 km of distribution mains and 17,172 km of reticulation mains (the pipes connecting our distribution mains to end-customers)), as well as 597 active storage and service reservoirs as at the LPD.

(a) Process flow

The following chart illustrates our water treatment and water distribution process:



Sourcing of raw water

We obtain our raw water from catchment areas under the management of the State Government of Johor. Catchment areas are areas designated by the State Government of Johor from time to time as sources of raw water pursuant to applicable legislations. The Water Supply Agreement contains a list of current and designated future catchment areas.

Treatment and distribution of raw water

The main objective of treating water intended for the public water supply is to produce a supply of water that is chemically and bacteriologically safe for human consumption. The supply must also be aesthetically acceptable, free from apparent turbidity, objectionable taste and odour. The treatment and distribution of raw water involve the following:

Raw water intake

Coarse and fine screens first strain raw water that enters into the river-based intake structure. Floating debris such as twigs and leaves, aquatic plants and small debris are removed. After screening, the denser suspended matters are removed by allowing water to pass slowly through chambers where they settle down to the bottom. Raw water is then pumped to the water treatment plant for treatment.

Aerator

Raw water passes through an aerator where water is mixed with air. The aeration process provides oxygen from the atmosphere for the oxidation of dissolved iron and manganese to their insoluble form, thus enabling their removal, and to liberate carbon dioxide and hydrogen sulphide, reducing corrosiveness and removing colour.

Flocculation tank

The aerated water then passes through a mixing chamber where coagulants are added, either by hydraulic or mechanical means, to obtain a rapid and uniform dispersion of chemicals to improve the formation of floc. When the coagulants are mixed into the water, complex chemical and physicochemical reactions occur leading to the formation of microscopic particles, a process called coagulation. This is followed by more gentle agitation of water, either by hydraulic or mechanical means, causing the microscopic particles to agglomerate or be flocculated into settleable floc. Lime may be added to adjust pH if the raw water is low in pH.

Sedimentation tank

Water with settleable floc is allowed to flow through the sedimentation tank as uniformly as possible for a period long enough to permit the maximum practicable amount of floc to be settled before the water reaches the outlet at the end of the tank. Besides removing suspended and colloidal matters, this sedimentation process also removes bacteria and viruses absorbed on floc. The sludge in the sedimentation tank is periodically removed.

Filtration

From the sedimentation tank, the settled water passes through a battery of filters. This filtration processes not only strains out suspended particles larger than pores between the filter media but also remove colloidal clay, colouring matter and bacteria that are smaller than pores. The filters are backwashed regularly through a combination of agitation by air and water to ensure efficient operations.

Fluoridation

Fluoridation in the water treatment process is used to raise the amount of fluoride in the water supply to a level of about 0.4 mg/litre to 0.6 mg/litre. Filtered water is disinfected to destroy microorganisms that still remain in the water after filtration. Gaseous chlorine or chlorine compounds are generally used in the disinfections. The chlorine dose must be sufficient to react with the organic substances, ammonia, iron, manganese and other reduced substances in water and at the same time leave sufficient free chlorine in the reticulation system.

pH Adjustment

The last process in water treatment is conditioning to adjust the pH of treated water to prevent corrosion and to prevent leaching of lime from cement linings of pipes and fittings. Lime or soda ash is used in this process.

Distribution

Treated water is pumped to a balancing reservoir of sufficient height to facilitate distribution by gravity to service reservoirs in various demand centres. The capacity of the balancing reservoir must be sufficient to balance the inflows and outflows of water. As a general rule, a storage capacity of 4 to 6 hours is sufficient. Service reservoirs supplying water to various demand centres must have a storage capacity of 24 hours. In areas where water is unable to be supplied by gravity, booster pumping systems are used.

We also distribute treated water sourced from third parties to endconsumers. In the first half of 2012, we produced approximately 30% of our treated water, purchased approximately 65% of our treated water from bulk water suppliers and purchased the remaining 5% of our treated water from PUB. Beginning 1 July 2012, we have increased our own production of treated water as a result of us having taken over the operation of 2 water treatment plants from one of our bulk water suppliers following expiration of a legacy bulk water supply concession from that supplier on 30 June 2012. We currently produce approximately 70% of our treated water and purchase approximately 25% from a bulk water supplier and approximately 5% from the PUB. Starting from 1 July 2014, upon expiration of our remaining legacy bulk water supplier's concession, we will operate all water treatment plants that are currently operated by the bulk water supplier and expect to produce approximately 95% of our treated water.

(b) Restructuring of the water services industry

As part of the Government's restructuring of the water services industry, the Water Services Industry Act was enacted in 2006, establishing a new regulatory framework for the Malaysian water supply industry. The Water Services Industry Act outlines the water policy, licensing and regulatory framework for all of the states in Peninsular Malaysia and the Federal Territories of Putrajaya and Labuan as well as the powers and functions of SPAN, the Malaysian National Water Services Commission.

As part of this restructuring, a water asset management company known as PAAB, a wholly-owned subsidiary of the Minister of Finance Incorporated, was established in May 2006 to acquire the existing water infrastructure (e.g., water treatment plants, reservoirs, pumping stations, distribution networks, etc.) and/or build new water assets that will be leased to water service operators, and to obtain competitive financing for the development of the nation's water assets. Pursuant to the Water Services Industry Act, no new water services concessions will be granted and existing water operators are given an option either to migrate from the old concession-based system to a new licensing regime, under which licences are granted by the Minister of Energy, Green Technology and Water, Malaysia upon the recommendation of SPAN, or to remain as concession holders.

Prior to the restructuring of the water services industry, in April 1999, SAJH was granted a concession from the State Government of Johor to provide source-to-tap water supply services to end-customers under the previous regulatory regime. SAJH's 30-year concession took effect in March 2000. Under the concession terms, SAJH was required to continuously invest in water assets to meet the continuous demand for treated water, achieve the agreed service levels and reduce NRW.

With the implementation of the Water Services Industry Act, we chose to migrate to the new licensing regime, and in March 2009, SAJH and RUSB entered into a Master Agreement with the Federal Government of Malaysia, the State Government of Johor, SAJSB and PAAB, and a Facility Agreement entered into by SAJH with PAAB. Accordingly, SAJH's scope of work under the licensing regime is essentially the same as it was under the previous concession, except that PAAB now owns all existing water infrastructure assets in the State of Johor and has assumed all liabilities relating to the water infrastructure assets, and PAAB is now responsible for building and financing all new water infrastructure assets as and when detailed in a business plan submitted by SAJH and approved by SPAN.

SAJH terminated its concession with the State Government of Johor. transferred all of its water infrastructure assets, together with the corresponding liabilities, to PAAB and obtained the exclusive operating licence to continue providing water supply services to the entire State of Johor. SAJH's licence was renewed on 1 July 2012, and it is currently operating in the second operating period to provide water supply services until 31 December 2014. The duration of the existing license is less than 36 months pursuant to a request by SPAN that SAJH agrees to a shorter licence period for the current operating period in order to standardise the cut-off date for all water companies' licences to 31 December.

Pursuant to the Facility Agreement, SAJH has been granted the right to lease each of the existing and new water infrastructure assets from PAAB for a period of 30 years beginning 1 September 2009. Pursuant to the Water Supply Agreement, SAJH purchases raw water supply from the State Government of Johor which in turn has contracted to purchase the treated water from a bulk water supplier. and SAJH treats the raw water, distributes treated water to customers and also provides billing and collection services from customers for the water supplied. SAJH also continues to obtain treated water from one bulk water supplier, pursuant to an agreement that will expire in June 2014. Upon the expiration of the bulk water supplier's concession in June 2014, PAAB will take over the bulk water supplier's water treatment plants. Pursuant to the Water Services Industry Act and our Facility Agreement with PAAB, these water treatment plants will then be leased to SAJH.

For further information on the Master Agreement and the Facility Agreement, refer to Sections 7.16.1 and 7.16.2 of this Prospectus, respectively.

(c)

KPIs and performance of our water supply business

Pursuant to the terms of the licence, SAJH is required to submit a new business plan to SPAN every 3 years, detailing the targets that SAJH is required to meet with respect to certain KPIs monitored by SPAN as well as the projected cost of meeting those targets. Each business plan will also set out any new water infrastructure assets required to meet the anticipated growth in demand, as well as the scheduled capital expenditures that are expected to be incurred in order for SAJH to meet the applicable KPI requirements. The business plan will also set out proposed tariff increases, taking into consideration expected growth in demand for water and anticipated cost escalations, as necessary, to ensure that the business plan allows for the profit margin agreed upon between SAJH and the Government pursuant to the Master Agreement. SPAN will subsequently evaluate the business plan, including any proposed tariff increase, before approving the business plan.

We have complied with, inter alia, the following KPIs which had been agreed with SPAN for our first operating period from 1 July 2009 to 30 June 2012:

No.	KPI	Target
1.	Supply coverage	100.0% urban, 99.5% rural
2.	Treated water quality compliance	95.0% to 99.9%
3.	Residual water pressure	99.5%
4.	Water supply complaints response within 5 working days	97.0%
5.	Telephone complaints are answered within 30 seconds	92.0%
6.	Customer billing complaint received are responded to within working 3 days	97.0%
7.	Collection efficiency	99.5%
8.	Water loss (NRW)	29.0%

We have submitted our business plan to SPAN, which has yet to be approved for our second operating period from 1 July 2012 to 31 December 2014. Notwithstanding this, for the period from 1 January 2012 up to the LPD, we have achieved, inter-alia, the following results of operations:

- 100% water supply coverage in urban areas and 99.5% water supply coverage in rural areas in the State of Johor;
- 99.8% to 99.9% treated water quality compliance rate, compared to first operating period targets of between 95.0% to 99.0%;
- 99.6% of the time (measured based on not less than 8 hours a day), residual water pressure at any point in the reticulation system were maintained at greater than or equal to 10 metres, compared to first operating period target of 99.5%;
- 99.9% of water supply complaints were responded to within 5 working days, compared to the first operating period target of 97.0%;
- 100.0% of calls placed to our customer service hotline were answered within 30 seconds compared to first operating period target of 92.0%;
- 99.1% of customer billing complaint received were responded within 3 working days, compared to the first operating period target of 97.0%; and

99.4% collection efficiency, compared to the first operating period target of 99.5%.

In addition, reducing water that has been produced but is lost before it reaches the customer (which we refer to as "**NRW**") is one of our most significant operating goals. Since the privatisation of the water supply for Johor in 1999, we have reduced statewide NRW from above 40% in 1999 to 27.0% as at the LPD. We have taken a wide variety of measures to reduce NRW, including GIS mapping of pipes and network modelling, setting up DMAs to identify the areas within the network that have the highest rates of leakage, web-based DMA monitoring and analysis or Aqua SMART system, advance pressure management and control, network operation and maintenance, customer service and operation centre, identifying and eliminating pilferage, and replacing aged pipes and water meters.

To maintain the quality of treated water according to the Standard Drinking Water Guidelines, we have established 850 water sampling points in Johor, as well as a programme to clean over 550 storage and service reservoirs in the State of Johor.

(ii) Water concession assets abroad

Outside Malaysia, through the RWT (Cayman) Group, we operate various types of water treatment plants. Our strategy for our environment business outside Malaysia, notably China and Thailand, is purely asset ownership of the water, wastewater and reclaimed water treatment plants as we focus on project development and implementation in order to grow our water treatment capacity.

For purposes of our water business in China, we normally will enter into a MOU/investment agreement with the local authority or industrial park management council. The MOU/investment agreement will allow the RWT (Cayman) Group to undertake an investment evaluation and feasibility study on these projects which in turn would allow the special purpose company to participate in the tender to bid for the project competitively during the bidding process.

In the event that we are successful in our bid, we will enter into a concession agreement with the local authority or industrial park management council. Typically, we will tender for concessions involving asset ownership and operations of water, wastewater and reclaim water treatment plants on a BOT basis. We then will build the water treatment plants prior to the commencement of the concession, being water treating process. In respect of water treatment plants which are on TOT basis, the construction of the water treatment plants will be done by the local authority or government prior to transferring the asset for it to be operated and maintained by us.

At the end of the concession period, the water treatment plants will be transferred to the local authority or industrial park management council. As at the LPD, we or our jointly-controlled entity, Yichun Pinang, operate the following water concession assets in China:

- a 50 MLD water treatment plant in Yichun City, Jiangxi Province ("Yichun Plant") which commenced operations in 2006 on a BOT basis for a 29-year period;
- a 30 MLD wastewater treatment plant in Xiaolan, Jiangxi Province ("Xiaolan Phase I Plant") which commenced operations in 2009 on a BOT basis for a 29-year period;
- a 50 MLD wastewater treatment plant in Xiaolan, Jiangxi Province to commence operations in 3rd quarter of 2013 on a BOT basis for a 29year period;
- a 30 MLD wastewater treatment plant in Hefei, Anhui Province ("Hefei Plant") which commenced operations in 2011 on a BOT basis for a 25-year period;
- a 30 MLD wastewater treatment plant pursuant to a concession agreement entered into in 2009 on a BOT basis for a 30-year period and a 30 MLD reclamation plant, which is operated pursuant to an agreement with a customer within the industrial park in Yingkou, Liaoning Province. These plants are expected to commence operations in 4th guarter of 2013; and
- a 50 MLD wastewater treatment plant in Xinxiang, Henan Province ("Xinxiang Plant") which commenced operations in April 2013 on a TOT basis for a 28-year period.

We either operate and maintain our wastewater treatment plants by ourselves or subcontract the day-to-day operations and maintenance of our wastewater treatment plants in China to a third party, with the ownership to the wastewater treatment plants still reside with us. The subcontracting arrangement also allows us to comply with the requirement such as the Qualification for Operating Environmental Pollution Treatment Facilities ("Qualification") required prior to commencement of operations. We have outsourced the operations of the Xiaolan Phase I Plant, Hefei Plant and Xinxiang Plant such that these plants are currently jointly operated by us and Shenzhen Fumei Environmental Technology Co. Ltd ("Fumei") via joint operation agreements where both our Company and Fumei are responsible for the day-to-day operations of these treatment plants and such arrangement has enabled these plants to be able to comply with the said Qualification.

We also believe that it is more efficient and cost effective to outsource the day-to-day operations of these plants to a third party that is able to comply with the Qualification such as Fumei, instead of rectifying these non-compliances as we focus on being a project developer as opposed to dealing with day-to-day operational and maintenance matters, in line with our business strategy. Furthermore, we do not expect the cost of outsourcing to be higher than the cost that we would normally incur had we operate these plants on our own.

In view of the benefits of such subcontracting arrangement, we intend to fully subcontract the day-to-day operations of all our wastewater treatment plants in China but will continue to solely manage our potable water treatment plants in China since the operation of such plants is more straightforward and does not require the Qualification. We will also continue to solely manage all our water treatment plants in Thailand as we already have an established operation and maintenance team in Thailand since 2000 and we are able to comply with the requirements of the local authorities.

Since June 2012, RUSB and its subsidiaries have entered into the following MOUs and/or investment agreements in relation to several water and/or wastewater treatment projects in China:

- (i) MOU dated 5 July 2012 between RWHK and Xinxiang City Land Development Co Ltd with respect to the BOT concession of 30 years for 50 MLD wastewater treatment plant, and 100 MLD potable water treatment plant as well as the construction of 8.5 million cubic meter reservoir in Xinxiang Industrial Park, Henan Province, China;
- (ii) MOU dated 26 June 2012 between RUSB and Ningxia Zhong Wei City People Government with respect to the TOT and BOT concessions of no longer than 30 years for 60 MLD and 40 MLD potable water treatment plants respectively in Zhong Wei City, Ningxia Province, China;
- (iii) Investment agreement dated 18 June 2012 between RWT and Anhui Lujiang Longqiao Industrial Park Management Council with respect to the BOT concession of 30 years for 30 MLD potable water treatment plant and 20 MLD wastewater treatment plant in Lujiang Longqiao Industrial Park, Anhui Province, China;
- (iv) Investment agreement dated 11 September 2012 between RWT and Changfeng County of Key Project Construction Authority with respect to the BOT concession of 28 years for 20 MLD wastewater treatment plant and construction of a pumping station and 10 km wastewater pipeline in Changfeng Xia Tang Heavy Industrial Park, Anhui Province, China;
- (v) MOU dated 23 September 2012 between RWT and Bengbu Tonglin Modern Industrial Park with respect to the BOT concession of 29 years for 30 MLD potable water treatment plant in Bengbu Tonglin Modern Industrial Park, Anhui Province, China;
- (vi) Investment agreement dated 29 January 2013 between RWT and Jiangsu Province Funing Economic Development Management Council with respect to the 29 years BOT concession for 20 MLD wastewater treatment plant in Gaoxin Industrial Park, Jiangsu Province, China;
- (vii) Investment agreement dated 28 February 2013 between RWT and Jiangxi Yihuang Industrial Park Management Council with respect to the BOT concession of 29 years for 5 MLD waste water treatment plant in Yihuang Industrial Park, Jiangxi Province, China;

- (viii) Investment agreement dated 11 April 2013 between RWT and Guizhou Province Songtao Miao Autonomous County People's Government with respect to the BOT concession of 30 years for 40 MLD wastewater treatment plant in Songtao Miao Autonomous County Chengbei Industrial Park, Guizhou Province, China; and
- (ix) Investment agreement dated 16 May 2013 between RWT and Ningxia Qingtongxia City People Government with respect to the BOT concession of 25 years for 20 MLD wastewater treatment plant in Qingtongxia New Material Base Industrial Park, Ningxia Province, China.

Pursuant to these MOUs and/or investment agreements, we, via the RUSB Group, are given the opportunity to carry out investment evaluation and feasibility study on these projects in China which in turn would allow the RUSB Group to bid for these projects competitively. Typically 2 or 3 of our competitors will participate in each bid comprising a mix of both local and foreign companies, depending on the nature and size of project. A concession agreement is expected to be entered into with the local council or government within a period of 3 to 6 months from the time the successful bidder is identified.

In respect of item (i) above, RWHK has assigned Ranhill (Xinxiang) to undertake the 50 MLD wastewater treatment plant since Ranhill (Xinxiang) has also been granted the exclusive rights on any extension project of the Xinxiang Plant pursuant to the concession agreement entered into in 2009. In view of this, there will be no bidding process for the said project and the concession agreement is expected to be entered into with Henan Xinxiang Industrial Park Management Committee by 2nd half of 2013.

The commencement date of the bidding process for the other MOUs and/or investment agreements are as follows:

investment agreement	Counterparty	Details	Status
5 July 2012	Xinxiang City Land Development Co Ltd	100 MLD potable water treatment plant on BOT basis	As at the tender closing date, RWHK was the only company that submitted the tender documents to the local authority. In view of this,
		8.5 million cubic meter reservoir	RWHK will enter into direct negotiations with the local authority.
26 June 2012	Ningxia Zhong Wei City People Government	 60 MLD potable water treatment plant on TOT basis 	Bidding process is expected to commence in 4 th quarter of 2013.
		 40 MLD potable water treatment plant on BOT basis 	

Date of MOU/

Date of MOU/ investment	• • •		
agreement	Counterparty	Details	Status
18 June 2012	Anhui Lujiang Longqiao Industrial Park Management Council	 30 MLD potable water treatment plant on BOT basis 20 MLD wastewater 	Bidding process is expected to commence in 4 th quarter of 2013.
		treatment plant on BOT basis	
11 September 2012	Changfeng County of Key Project	 20 MLD wastewater treatment plant 	RWHK was awarded the tender on 28 March 2013. As at the LPD, the terms of the BOT agreement are
·	Construction Authority	 Construction of a pumping station and 10 km wastewater pipeline 	being negotiated with the local authority. A special purpose vehicle which will be wholly-owned by RWHK is expected to be incorporated by end July 2013 to enter into the concession agreement in relation to 20 MLD wastewater treatment plant and construction of a pumping station. However, the construction of 10 km wastewater pipeline will be not undertaken by RWT.
23 September 2012	Bengbu Tonglin Modern Industrial park	 30 MLD potable water treatment plant on BOT basis 	Bidding process is expected to commence in 4 th quarter of 2013.
29 January 2013	Jiangsu Province Funing Economic Development Management Council	 20 MLD wastewater treatment plant on BOT basis 	As advised by the local authority, there is no bidding process required for this project. As at the LPD, the terms of the BOT agreement are being negotiated with the local authority. A special purpose vehicle which will be wholly-owned by RWHK is expected to be incorporated by end July 2013 to enter into the concession agreement.
28 February 2013	Jiangxi Yihuang Industrial Park Management Council	• 5 MLD wastewater treatment plant on BOT basis	As advised by the local authority, there is no bidding process required for this project. As at the LPD, the terms of the BOT agreement are being negotiated with the local authority. A special purpose vehicle which will be wholly-owned by RWHK is expected to be incorporated by end July 2013 to enter into the concession agreement.

Date of MOU/ investment agreement	Counterparty	Details	Status
11 April 2013	Guizhou Province Songtao Miao Autonomous County People's Government	 40 MLD wastewater treatment plant on BOT basis 	As advised by the local authority, there is no bidding process required for this project. As at the LPD, the terms of the BOT agreement are being negotiated with the local authority.
16 May 2013	Ningxia Qingtongxia City People Government	20 MLD wastewater treatment plant on BOT basis	As advised by the local authority, there is no bidding process required for this project. As at the LPD, the terms of the BOT agreement are being negotiated with the local authority.

We believe that our competitive and cost-effective applications which have been used to increase the efficiency of our water treatment plants, as explained in Section 7.2.4 of this Prospectus, provides us with a competitive edge over other bidders. In the event we fail to secure the abovementioned water and/or wastewater treatment projects, we will aggressively look for other opportunities in China, capitalising on the rising demand for water treatment capacity in China on the back of increased emphasis by the PRC Government on environment protection.

As at the LPD, we also operate the following water concession assets in Thailand:

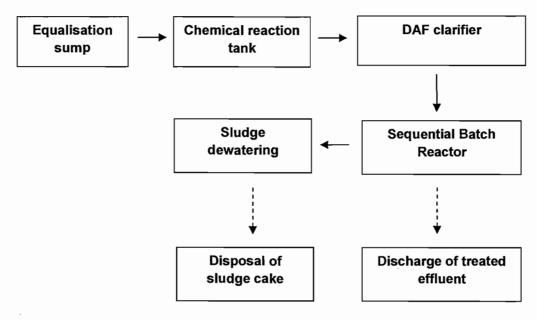
- A BOT concession for a 10.5 MLD water treatment plant, a 24 MLD wastewater treatment plant and an 8 MLD reclamation plant in Amata Nakorn, which commenced operations in 2008 for a 20-year period;
- A BOT concession for a 15 MLD water treatment plant in Amata City, which commenced concession in 2012 for a 20-year period;
- A BOT concession for a 1.5 MLD wastewater treatment plant at the Asian Institute of Technology, Pathumthani Province, which commenced operations in 2012 for a 8-year period;
- A BTO concession for a 10.5 MLD water treatment plant and a 10 MLD wastewater treatment plant in Amata City, which commenced operations in 2002 for a 15-year period; and
- A BTO concession for a 10.5 MLD water treatment plant in Amata Nakorn, which commenced operations in 2003 for a 15-year period.

The following is a description of our wastewater and potable water treatment process:

(aa) Wastewater treatment process

In our wastewater treatment operations, we treat industrial wastewater released within an industrial park. We utilise a range of physical, biological and chemical processes in our treatment facilities for the removal of suspended solids, biodegradable organics, bacteria and nutrients in order to discharge the pre-agreed quality-compliant effluent back to the environment.

The process flow of our water treatment plants is as follows:



Equalisation sump

The equalisation sump harmonises large variations in characteristics of incoming wastewater, aiding in the performance of the downstream treatment processes.

Chemical reaction tank

In the chemical reaction tank, processes related to the pH adjustment (for effective physiochemical treatment processes), and coagulation and flocculation prepare the water for easement of sedimentation and filtration. These processes are conducted by mixing the water with coagulant chemicals, which cause microscopic suspended pollutants to come together to form larger flocs.

Dissolved Air Floatation ("DAF") clarifier

Utilising floatation technology, flocculated wastewater combines with the dissolved air generated from the air generator, releasing surfacing micro-bubbles to carry suspended solids to the top for removal.

Sequential Batch Reactor ("SBR")

Specific bacteria are cultured to dissolve organic matters in the SBR system, which is made up of the following 5 sequential processes:

- Fill From the DAF clarifier, wastewater flows in to fill the tank at between 20-30% of the total tank volume
- React and aerate Air is supplied for aeration, and continues until complete biodegradation of organic matters is achieved. Once the substrate is fully consumed, famine occurs, resulting in elimination of microorganisms.
- Settle Once the preset dissolved oxygen concentration is reached, the settling period begins, whereby solid separation takes place, leaving clear, treated effluent above the sludge blanket.
- Decant The discharge valve opens and the clear effluent at the top of the tank is withdrawn without disturbing the settled sludge.
- Idle The reactor stays idle, until influent is again fed into the tank and the cycle is repeated. Accumulated sludge in the tank is removed as required.

Sludge dewatering

Untreated sludge is dewatered, using either a filter press or centrifugal decanter to increase its solid concentration, forming sludge cake, prior to disposal.

(bb) Reclaimed water treatment process

Our reclaimed water treatment operations include an additional stage of treatment of treated effluent following the wastewater treatment process described above, turning it into water fit for industrial use. Instead of channelling the treated effluent back to the environment, the treated effluent undergoes processes including fine clarification treatment, water polishing treatment, DAF clarification, ultrafiltration, reverse osmosis and disinfection to further remove suspended solids, biodegradable organics and pathogens not already removed during the wastewater treatment process. The treated reclaimed water is then recycled back to the industrial users for various usages in their operations.

(cc) Potable water treatment process

Our potable water treatment operations include the purification of raw water to remove suspended solids, chemicals, biological entities, microorganisms and pathogens to produce water fit for human consumption. Our potable water treatment processes include inclined plate clarification, DAF clarification, sand media filtration and disinfection.

(iii) Other water-related businesses

We also provide EPC and consultancy services to clients in relation to various water-related projects. Representative projects are as follows:

Client	Nature of project	Location	Commencement date	
State Economic Planning Unit of the Johor	Provision of design, construction, supply, delivery, installation, integration and testing for a project to supply raw water	Tanjung Langsat Industrial Area, Johor	March 2010	
Lynas (M) Sdn Bhd	Provision of EPC services for a 12 MLD wastewater treatment plant	Gebeng, Pahang	July 2010	
PT Rekayasa Industri	Provision of EPC services for a wastewater treatment plant at Sabah Ammonia Urea Project	Sipitang Sabah	July 2012	
Hartalega Bhd	Provision of EPC services for water and wastewater treatment systems of various sizes	Bestan Jaya	May 2011	

We also provide specialised services in the management and optimisation of water utility assets through our wholly-owned subsidiary, RWS. These include services related to NRW reduction, asset maintenance, billing systems, production management, water quality management, GIS and network modelling, network management, and customer service and operation centres for clients in Malaysia and abroad, including the state water operators in the State of Johor, Melaka and Kedah, the National Water Company of Saudi Arabia (in relation to projects in Riyadh and Madinah) and the World Bank (in relation to a project in Surabaya, Indonesia).

(iv) Customers

A substantial majority of the revenue of our environment sector is derived from our operations in the State of Johor. For the year ended 31 December 2012 and 18 months ended 31 December 2011, our water supply business in Johor accounted for approximately 38.5% and 40.9%, respectively, of our total revenue.

No single customer of our environment sector has accounted for 10% or more of our total revenue for the year ended 31 December 2012, 18 months ended 31 December 2011 and year ended 30 June 2010. We believe we are not dependent on any single customer in our environment sector.

(v) Suppliers

The following table sets forth the percentage of our total cost of sales accounted for by PAAB and the State Government of Johor, respectively, for the periods indicated:

	Year ended 30 June	18 months ended 31 December	Year ended 31 December	
Supplier	2010	2011	2012	
	Percentage (%) of total cost of sales			
PAAB	9.5	14.6	15.2	
State Government of Johor ⁽¹⁾	12.2	8.1	7.4	

Note:

In our environment sector, with the exception of the State Government of Johor and PAAB, whom we are dependent on, we are not dependent on any other supplier.

(vi) Competition

In our environment sector, we face competition in 3 key categories: contracts for new concessions for water-related assets outside of Malaysia, EPC contracts and contracts for water management services (such as NRW reduction related services) within and outside of Malaysia.

Our key competitors for concession-related business outside Malaysia are Veolia Environnement S.A., Suez S.A., Salcon Berhad and Biwater Holdings Ltd., and, particularly in China, Qinghua Ziguang Company (清华紫光公司), Singapore Waterworks (新加坡水务), Guozhen Company (国珍公司), Liaoning Environmental Company (辽宁省环保公司), Tianjin Water Company (天津水务公司); and Shanghai Tongji University Environmental Company (上海同济大学环保公司).

Our key competitors for EPC-related works are Salcon Berhad, WWE Holdings Berhad (a subsidiary of Puncak Niaga Holdings Berhad) and George Kent (Malaysia) Berhad for works within Malaysia, and Veolia Environnement S.A. and Suez S.A. for works outside of Malaysia, as well as local players located in the relevant jurisdiction. Our key competitors in respect of water management services (being mainly NRW reduction related services) are Hati Muda Sdn Bhd, Jalur Cahaya Sdn Bhd and Salcon Berhad for works within Malaysia, and Veolia Environnement S.A., Suez S.A. and Salcon Berhad for works outside of Malaysia. Our assessment of these players as our key competitors in each relevant category is based on the participation of such parties in local and international tender processes for contracts within and outside of Malaysia over the past 10 years.

⁽¹⁾ Refer to Section 7.5.2(i)(b) of this Prospectus for further details on the Water Supply Agreement.

7. BUSINESS OVERVIEW (cont'd)

7.6 Sales and marketing

In our oil and gas business, we seek to build awareness of our capabilities primarily through our existing end-customers and by capitalising on our partnership with WorleyParsons Engineering Pty Ltd as well as references from WorleyParsons. As our power business has only one customer, it does not actively market its services at present. In our environment sector, we seek to market our services through a variety of measures, including: (i) arranging for visits by the media and clients/potential clients to some of our operational sites for them to see our capabilities first-hand; (ii) working closely with the Malaysian Water Association; (iii) identifying and developing strategic partnerships to pursue projects in other countries; and (iv) implementing an appropriate media communications strategy.

7.7 Business interruptions

The RPII power plant was running at half capacity of 95 MW for 79 days from 5 December 2012 to 21 February 2013 due to the failure of one of its gas turbine generators as a result of damage to its compressor blades and stator vanes. A new compressor rotor was delivered to the RPII power plant on 29 December 2012, which was followed by retrofit work, re-balancing and shop tests on the new compressor rotor before it was assembled. The RPII power plant was restored to full combined-cycle configuration on 21 February 2013 and has been operating at full capacity since.

On 18 January 2013, RPII had submitted the initial insurance claim based on the estimated cost of replacing the damaged compressor rotor and estimated loss of revenue arising from the said failure is approximately RM30.3 million of which approximately RM19.5 million for machinery repair cost and loss of revenue is claimable pursuant to the insurance policy maintained by RPII.

The root cause analysis investigation report has been made available by the supplier of the gas turbine generator on 23 May 2012 and RPII has on 5 June 2013 submitted the final insurance claim of RM19.6 million, the claimable portion out of the total cost of replacing the damaged compressor rotor and the estimated loss of revenue arising from the said failure of approximately RM31.2 million.

Even if our claim is fully reimbursed, the said failure will still have a material adverse effect on our financial position and results of operations which is estimated to reduce both the revenue of our power generation business and PATAMI of our Group by approximately RM15.5 million and RM7.88 million respectively.

Save for the above, there has not been any material interruption to our business activities during the past 12 months.

7.8 Quality control and certification and recognition

We give high priority to quality control. Our businesses have received a variety of certifications in relation to their operations.

7.8.1 Power business

RPOM has received ISO 9001:2008 certification from SIRIM QAS International Sdn Bhd.

7.8.2 Environment business

SAJH has received numerous MS ISO 9001-2000 certifications relating to production of treated water from SIRIM QAS International Sdn Bhd and a number of MS ISO/IEC 17025 certificates of accreditation from Akreditasi SAMM Malaysia relating to field of testing (chemical). RWSB and RWT have received ISO 9001:2008 certifications for Quality Management Systems.

7.9 Occupational safety and health and environment matters

We have comprehensive health, safety and environmental management policies and systems covering environmental protection and conservation, people safety, health and asset protection.

7.9.1 Occupational safety and health

The occupational safety and health of our employees, as well as safety and health of our customers, are of critical importance to us. We are required to comply with a range of health and safety laws and regulation that are designed to protect workers, customers and consumers of our business. To comply with these regulations, we have developed specific operating and maintenance procedures and are required to maintain records and report data on a timely basis.

In the oil and gas business of our energy sector, we have implemented the WorleyParsons Ready Response and Recovery System ("**R3 System**") to manage our exposure to incidents that might threaten the safety and security of our people and imperil the viability of our business. The R3 system is an integrated business resilience and critical incident management system comprising our approach to crisis, emergency, business continuity and security management. It is a risk-based system and encompasses the key phases of effective business resilience and critical incident management: Ready (prevention, mitigation and preparedness), Response and Recovery.

In the power business of our energy sector, our operations are subject to inspections by government authorities such as Department of Safety and Health, Department of Environment, EC, the Malaysian Fire and Rescue Department, SIRIM and Sabah Electricity. Our ongoing training programs apply to all shifts of our power generation processes to ensure safe and clean conditions for our power generation facilities. We hold regular safety awareness meetings, and we conduct walk-through inspections to verify safety conditions and employee activities.

In our environment sector, we seek to ensure that employees, customers and contractors are able to deliver services in line with international safety standards. Our safety management system was awarded an OHSAS 18001:2007 certificate by SIRIM International in 2010.

7.9.2 Environmental compliance

We are subject to extensive and changing laws and regulations designed to protect and preserve the environment, including laws and regulations that relate to air, soil, and water, hazardous waste management, limitations on the discharge of pollutants and standards for the treatment, storage and disposal of toxic and hazardous wastes. From time to time, there may be incidents of violations of such regulations. Refer to Section 5.1.2(vii) of this Prospectus. In Malaysia, the EQA and the PSMA are the principal regulations for the prevention, abatement and control of pollution and the protection of the environment. Under the EQA, we are required to carry out an EIA and obtain approval of the results of the EIA from the Department of Environment prior to commencing any major projects.

We are also subject to environmental laws and regulations in China in respect of our operations in several provinces of China. The major environmental laws and regulations applicable include the Environmental Impact Assessment Law, the Environmental Protection Law and the Water Pollution Prevention Law. Under the aforesaid laws, construction projects can only be put into operation after the environmental protection authority has examined and approved the pollution prevention facilities. We are also required to adopt effective measures to avoid and control the pollution and damage caused to the environment.

The design and construction of the treatment facilities belonging to our Subsidiaries had taken into account applicable requirements pertaining to environmental pollution treatment facilities, pollutant discharge, safety conditions in relation to the construction of chlorine chambers, and occupational diseases. Accordingly, the features of our plants already incorporate the requirements that the treatment facilities would have to comply with. In addition, 2 of our Subsidiaries in China had also passed the inspection and acceptance of the Environmental Protection Bureau which is required to commence operations, given that these companies comply with various environmental requirements for the entire water treatment process.

Save for the disclosure in Section 5.1.2(vii) of this Prospectus, our Directors are not aware of any other breaches of any such regulations by our Company or our Subsidiaries that would have a material adverse effect on us.

7.10 Insurance and risk management

There are a number of risks associated with the operation of our business, including mechanical failure, third party liabilities, property loss or damage and business interruption. Through our insurance coverage we aim to preserve our assets and operations against risks in conducting our business.

In our oil and gas business, we purchase insurance that is relevant to the project and that is required by law at levels that are acceptable to us based on the size and type of services required by the client. In our contracts we typically include provisions for liquidated damages for delay that are capped at acceptable percentages and use fixed warranty periods, but exclude consequential losses relating to any claims against us. Our insurance cover for this business typically includes: comprehensive general liability; professional indemnity; directors and officers indemnity; fire; fire consequential loss; all-risks; electronic equipment employers liability; fidelity guarantee; and public liability, among others.

In our power business, we maintain a comprehensive insurance programme covering our assets comprising all of our real and personal properties including buildings and other permanent fixtures, plant, machinery, equipment and inventories. The coverage is on an all-risks basis and provides for full replacement cost in the event of loss or damage, subject to the applicable standard policy conditions and exclusions. The coverage is for one year duration and is subject to annual renewal. We also maintain various other insurance policies including public liabilities, workmen's compensation, employee benefits, coverage for loss of revenue resulting from damage to assets and other coverage.

7. BUSINESS OVERVIEW (cont'd)

In our environment sector, we have procured comprehensive insurance coverage to safeguard our assets, including buildings and structures, pipes, dams, reservoirs, water treatment plants, office equipment, lab equipment, recording instruments, telephone systems, furniture, fixtures and fittings, mobile equipment and inventories, as well as business interruption insurance. We also maintain various other insurance policies including industrial all risk, public liabilities and other coverage.

For the year ended 31 December 2012, 18 months ended 31 December 2011 and year ended 30 June 2010, we paid an aggregate of RM7.1 million, RM9.5 million and RM6.0 million respectively, in insurance policy premiums.

7.11 Employees

The following table sets forth the total number of our employees as at the dates indicated.

Category of employees	As at <u>30 June</u> 2010	As at 31 December 2011	As at 31 December 2012	As at the LPD 2013
Executive directors and senior management	30	36	35	43
Managerial and professional	107	133	144	157
Executive	1,137	1,444	1,323	997
Non-executive	2,335	2,605	2,766	2,626
Total	3,609	4,218	4,268	3,823

The increase in our employees from 3,609 as at 30 June 2010 to 4,218 as at 31 December 2011 is mainly due to the recruitment of additional engineers and technicians to undertake the EPCIC alliance and EPCM contracts for the Melaka LNG Regas Unit.

The decline in our employees from 4,268 as at 31 December 2012 to 3,823 as at the LPD was mainly due to right sizing as part of RWorley's cost management exercise which had entailed RWorley changing its human resource policy involving the shifting of the employment of permanent/contract employees to a workshare plan with WorleyParsons as explained in Section 7.2.1 of this Prospectus.

The following table provides a breakdown of the number of employees by business as at the dates indicated.

	As at 30 June	As at 31 December	As at 31 December	As at the LPD
Business	2010	2011	2012	2013
Energy: Oil and gas Power	1,159 114	1,620 125	1,568 130	984 200
Environment	2,336	2,473	2,570	2,639
Total	3,609	4,218	4,268	3,823

Geographical	As at 30 June 2010	As at 31 December 2011	As at 31 December 2012	As at the LPD 2013
Malaysia	3,164	3,693	3,825	3,534
Overseas ⁽¹⁾	445	525	443	289
Total	3,609	4,218	4,268	3,823

The following table provides a breakdown of the number employees by geographical areas as at the dates indicated.

Note:

⁽¹⁾ Principally, China and Thailand.

As at the LPD, we employed a total of 2,890 permanent staff and 933 contract staff. Permanent staff generally includes executive directors, senior management, executives and non-executives, while our contract staff generally includes consultants, specialist project managers and site supervision staff.

Malaysian employment regulations require employers and employees to contribute to the EPF to provide for the retirement and other needs of employees. Under present regulations, employees contribute 11% of their monthly salary to the EPF via payroll deductions. Employers are required to contribute a minimum amount equivalent to 12% of an employee's monthly salary to the EPF. Under employment contracts and collective agreements entered into by us, we contribute 12% of the employees' salaries to the EPF (or 13% after 31 December 2011 with respect to employees earning less than RM5,000 per month).

In our environment sector, we have a defined benefit retirement scheme for employees hired before April 1999. Our total provision for retirement benefits as at 31 December 2012 with respect to this scheme was RM58.7 million. For further information concerning this scheme, refer to Note 5.4.28 of the Accountants' Report as set out in Section 11 of this Prospectus.

Other than our contributions to the EPF and the employee retirement benefit scheme of our environment sector, we do not maintain any other retirement, pension or severance plans or have any unfunded pension liabilities, nor do we owe any amounts to any present or former employees not in the ordinary course of business operations.

As at the LPD, approximately 33.2% of our employees were unionised, all of whom are employees of SAJH, and SAJH has entered into a collective bargaining agreement with the labour union of SAJH (namely Kesatuan Pekerja-Pekerja SAJH) representing its employees which will be in effect from 1 January 2013 through 31 December 2015. The terms of this agreement will govern the relationship between the union and SAJH. Under this agreement, the union is recognised as the sole representative body for the non-executive employees of SAJH, and reserves the right to raise any issues relating directly to the terms of employment of such employees, such as wages and other terms and conditions. The agreement also sets out, among others, the terms and conditions relating to matters such as criteria for employment, basis for promotion, increments, working hours and overtime, the provision of accommodation to employees and leave. SAJH is also required to form a committee relating to industry, health and environment to ensure that the levels of industrial safety are maintained. We have not experienced any strikes or work stoppages in the past, and we also have not experienced any significant problems with employee labour unions. We believe that our relations with these labour unions are cordial.

7. BUSINESS OVERVIEW (cont'd)

7.12 Research and development

We have not undertaken any proprietary basic research and development in the last 3 years. However, we maintain a close working relationship with our suppliers of technology.

7.13 Technology

(i) Oil and gas business

RWorley as an integrated engineering and project management services provider employs various engineering disciplines and technologies in our oil and gas business integrated under a common operating platform to ensure quality of delivery while harnessing the benefits of new-generation engineering delivery and project information technology.

In order to deliver projects efficiently and effectively, RWorley, through WorleyParsons, employs a standard build and flexible portfolio of engineering design system. These engineering design systems facilitate rapid roll-out of projects, eliminate duplicate maintenance and development costs of the said systems which in turn manage to capture institutional knowledge by rules and automation and provide the consistency required for Workshare, which refers to the packaging of a portion of project scopes by one party for execution by another party.

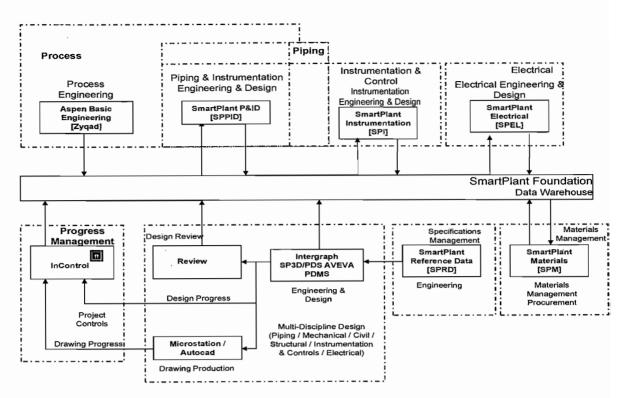
The integration of various engineering design systems is supported by processes and essential procedures in order to maintain a high level of engineering integrity and quality for a consistent delivery.

The existing sets of project delivery systems related to the engineering function have built in the flexibility to meet specific requirements of various projects. These standard builds serve to:

- Reduce set-up time on projects get working faster;
- Eliminate duplicate development and maintenance costs;
- Provide our locations with a consistent basis of Workshare;
- Capture of global institutional knowledge in a single location;
- Provide a sound basis for project delivery work process improvements; and
- Enforce a consistent data model to facilitate integration.

The standard builds can be configured as an integrated project delivery environment using SmartPlant Foundation ("**SPF**") as the central document and data warehouse. The primary drivers for systems integration is to reduce costs, shorter schedules and improved quality of the work. The integration of the various systems is illustrated in the following chart.

7. BUSINESS OVERVIEW (cont'd)



The integration of the engineering disciplines using the SPF as the backbone is detailed as follows:

- SPF manages the availability, integrity and accuracy of engineering information for engineering projects and operating plants.
- Provides for a phased total project deliver/implementation by engineering, procurement, fabricators (EPC contractors) and plant owner.
- A comprehensive electronic library for a facility which results in a facility information asset that helps support real time business decisions.
- Reduce cost, improve quality and reliability, shortens project schedules and plant shutdowns.

We have licenses for software utilised in our engineering design and calculations, and the design tools commonly used in our work include but are not limited to the following:

Design tool	Purpose	
Compress & PVElite	Pressure Vessel Design and Analysis	
HYSIS	Process Simulation	
Aspen B-JAC	Heat Exchanger Design	
Coade Tank	Design of Storage Tank	
STAAD III	Civil/Structural Design Analysis (Offshore Structures) and Engineering Dynamic SACS	
Caps	Structural Frames	

Design tool	Purpose			
SACS	Advance Structural Analysis (Static/Dynamics, Spectral & Deterministic)			
Pipesim	Pipeline Steady State Simulator for Multiphase Lines			
OLGA	Dynamic Simulation			
PDMS – V12.Sp5	3-D Plant Design Management System			
PDS	3-D Plant De s ign Management System			
SP	SPPID, SPI, SPEL, SP Marine, SPM, SPRD			
Autoplant	 3-D Plant Design PID Cable Scheduler I Datasheet 			
E-Marian	Procurement and Engineering Database Suite			
BOCAD	3-D Structural Detailing Package			
X-Steel	3-D Structural Detailing Package			
In-tools	Instrumentation Design			
Microstation 2D	PID			
CEASAR II	Advanced Dynamic/Static Pipe Stress Analysis			
EDSA	Powerful Electrical Software for Short Circuit and Network Analysis			
Hyena	Firewater Network Analysis			
OSCAR	Lauch/Transportation Analysis			
Office Network	Novell and Group wise on Windows			

(ii) Power business

The generation process uses mechanical energy to rotate the power generator turbines. Refer to Section 7.5.2(ii) of this Prospectus for further details on the electricity production process.

(iii) Environment business

For water business, there are several methods and technologies that are available and are used worldwide for treating raw water into drinking quality or industrial wastewater. Refer to Sections 7.5.2(i)(a) and 7.5.2(ii)(aa) of this Prospectus for further details on the application of the methods applied by our Group for water and wastewater treatment process.

In addition, Aqua SMART system is a web-base application system developed as an operational tool and has become an integral component of the NRW reduction strategy. This system performs as data storage management plan for data capture, input, handling and monitoring of DMA's field data for the any given project.

7. BUSINESS OVERVIEW (cont'd)

The system links all of the DMA's raw data collected (from any software) and creates reports at the click of a button. It is a simple and useful tool for DMA monitoring, either for a long term or on a daily basis, which would save data analyst a significant amount of time.

7.14 Corporate social responsibility

We are committed to fulfilling our corporate social responsibility. In the oil and gas business of our energy sector, we support a number of educational, community support and career development activities in Malaysia, by organizing events and through contributions.

In the power business of our energy sector, we pursue all of our business activities in accordance with the following principles: providing safe and stable products and services; protecting the environment; contributing to the society and local communities; and creating good workplace environments. We continue to create and participate in community related projects that enable us to share our insights, knowledge and technologies. In our effort to improve the life and living standard of the under-privileged, especially those from the surrounding community, we have provided internships to more than 20 local students annually from the surrounding technical institutions (i.e. polytechnics and universities), which have led some to be permanently employed in our power plants.

On 10 October 2012, we completed a corporate social responsibility involving a micro-hydro project at Kampung Babalitan, Pensiangan, Sabah to provide for 5 kW of electric power generation for the indigenous people of Murut tribe consisting of about 45 families. The village is remotely situated about 7 hours by car from Kota Kinabalu city centre and is only accessible via river and road. Prior to this corporate project, the villagers were dependent on portable diesel generators which are costly and not environmentally friendly. The micro-hydro project uses water as fuel and consists of a turbine generator set, control panel and ancillary equipment including water storage tanks. The micro-hydro project can supply continuous reliable electricity to the villagers of Kampung Babalitan.

In our environment sector, as an international corporate citizen, we pursue our business activities in line with the principles of the United Nations Global Compact, to which we became a signatory in August 2008. Since becoming a signatory, we have taken leadership roles in the pursuit of such principles by being elected to the Steering Committee of the Global Compact Network Malaysia and the Chief Executive Officer Water Mandate. In this endeavour, we have collaborated with regional utilities through partnerships with the World Bank and Environmental Cooperation Asia, pursuant to which we share our experiences and best practices, as well as help implement measures to improve water service delivery, with the aim of contributing to the realization of the Millennium Development Goal No. 7: halving the proportion of the population without sustainable access to safe drinking water by 2015.

We have executed 8 twinning programmes with utilities from India, the Philippines, Vietnam, Thailand and Indonesia. In addition, SAJH is one of the founding members of the Bonn Network, an international group of water suppliers under the purview of International Water Association, committed to providing good, safe drinking water.

In our operations in Johor, SAJH carries out elements of operational efficiency such as monitoring of energy consumption, continuous monitoring of water quality as well as detecting pollution and providing sludge treatment for plants larger than 5 Mgd. These sludge treatment facilities ensure minimisation of pollutant discharged to the environment.

In the State of Johor, we provide free installation and supply of water for low income residents. As at the LPD, we have supplied free water to 823 households within the State of Johor.

7. BUSINESS OVERVIEW (cont'd)

We carry out the School Education Programme pursuant to which we provide briefings to schools (20 schools annually) to teach school children about the water treatment process and inform them of water conservation tips, aid natural disaster victims via among other things, donations in kind, volunteering, 24-hour standby at relief centres, deployment of water tankers and potable water treatment plants during droughts.

Within the congenial working environment, we have achieved success through the implementation of knowledge management programmes to capture tacit knowledge from experienced employees, and these are kept as manuals on our web portal i-water.com.my. We have also set up the Water Academy, the first of its kind in Malaysia, which currently employs 19 qualified trainers providing internal and external technical training at its training centre in Sungai Layang, Johor.

7.15 Seasonality

Our business is not subject to seasonal fluctuations.

7.16 Highly dependent contracts

As at the LPD, save as disclosed below, there are no material contracts, agreements, arrangements or other matters which had been entered into by us which we are highly dependent on:

7.16.1 Master Agreement

The Master Agreement was entered into between the Government, the State Government of Johor, SAJSB, RUSB, PAAB and SAJH on 11 March 2009. This Master Agreement was entered into for the purposes of restructuring the water assets and liabilities in the State of Johor arising from the enactment of the Water Services Industry Act.

Arising from the Master Agreement, SAJH terminated the concession agreement and the water supply agreement with the State Government of Johor, all the existing water assets were reverted to the State Government of Johor and SAJH novated all its rights and obligations under its debt relating to the water assets and the capital works to PAAB. In consideration of this, amongst others, SAJH was granted the licence to provide water supply services throughout the State of Johor.

The Master Agreement also provides for SAJH to enjoy a reasonable return at an average profit after tax margin of 9% for the first 3 years commencing from the date of completion of the Migration and thereafter at a reasonable return as may be approved by the Government, subject to SAJH complying with the agreed KPI. In the event SAJH fails to achieve reasonable return due to the Government's failure to increase the water tariff as projected in the approved business plan or any increase in the unit price of electricity exceeding 15%, then the Government shall assist SAJH to recover such losses.

Other matters set out in the Master Agreement include:

 an obligation on SAJH to allocate 20% of its issued share capital at par value to the State Government of Johor with an option to further increase the State Government of Johor's shareholding;

- (ii) an obligation on the State Government of Johor and SAJSB to transfer all assets relating to the water supply services in the State of Johor, save for those owned or operated by the independent bulk water supplier to PAAB and to grant unlimited access;
- (iii) an obligation on the State Government of Johor to grant access and use of all land relating to the water assets to PAAB; and
- (iv) an obligation on the State Government of Johor to maintain the watercourse and ensure the uninterrupted supply of raw water to SAJH.

Any dispute which may arise under the Master Agreement is to be settled amicably between the parties, failing which such dispute shall be referred to a Dispute Resolution Committee. If the Dispute Resolution Committee fails to resolve the dispute or any party concerned is not satisfied with the decision made by the Dispute Resolution Committee, then any such party shall have the right to exercise all or any of the remedies available whether by Master Agreement or by statute or otherwise.

There is no expiry date or term / duration for the Master Agreement. However, the Master Agreement may be terminated due to a breach by any of the parties or due to the occurrence of a force majeure event and subject to the mutual agreement of all parties.

7.16.2 Facility Agreement

The Facility Agreement was entered into between PAAB and SAJH on 11 March 2009. Pursuant to the Facility Agreement, PAAB is obliged to grant to SAJH the right of use over all water assets and new water assets owned by PAAB in the State of Johor (the "**Right of Use**") for a period of 30 years, subject to renewal on terms to be mutually agreed by the parties. In respect of each new water assets, PAAB and SAJH will enter into a supplemental agreement to the Facility Agreement, setting out the description of the new assets and the rental payable in relation thereto.

In consideration of the Right of Use granted to SAJH, it will pay to PAAB rental based on the total investment outlay of the water assets, at an annual charge rate of 6%, escalating at 2.5% per annum for 30 years. Save for the rental provided for by the supplemental facility agreement dated 6 November 2009, of which the rental is calculated based on the total investment outlay of the water assets at an annual charge rate of 3% per annum for 33 years, the rental payable for new water assets shall also be calculated at the same annual charge rate as aforesaid, but subject to review by SPAN at any time SPAN shall deem fit.

The rental is payable by SAJH to PAAB on a monthly basis. An account has been opened such that all monies collected from the consumers will be deposited. This account is assigned to PAAB as security for the payment of the rental. Notwithstanding this, SAJH is permitted to withdraw any monies from the account so long as it is not in default of the Facility Agreement.

The Facility Agreement provides for PAAB to construct, upgrade and refurbish water assets and new water assets as may be required by SAJH so as to enable it to perform all its obligations and duties under the license.

If either party defaults under the Facility Agreement, then the non-defaulting party may, subject to it giving 14 days' notice, terminate the Facility Agreement and thereafter it shall have the right to exercise all or any of the remedies available whether by the Facility Agreement or by statute or otherwise to claim for all losses and damages suffered by the non-defaulting party as a result of such breach.

7.16.3 Water Supply Agreement

The Water Supply Agreement was entered into on 9 July 2009, between the State Government of Johor, SAJSB, RUSB and SAJH. The Water Supply Agreement became effective on the completion of the migration under the Master Agreement.

Pursuant to the Water Supply Agreement, SAJH has agreed to purchase treated water from the State Government of Johor and SAJSB which are generated from the existing bulk water supplier and PUB on a back-to-back basis (collectively the "Bulk Water Suppliers"). The treated water purchased by SAJH shall be as required by SAJH provided that such quantity is not more or less than the quantity that SAJSB and the State Government is obligated to purchase from the Bulk Water Suppliers.

The quality of treated water supplied to SAJH must comply with the mandatory standards based on the National Standard for Drinking Water Quality issued by the Ministry of Health or such other guidelines as may be issued by the said ministry or other governmental agencies or other relevant authorities, provided that the chlorine residual level at each delivery point shall be in the range of 1.5 mg/l and 2.0 mg/l. SAJH has the right to request that the State Government of Johor increase the chlorine level at any water treatment facilities in case of emergency, at SAJH's costs.

If the treated water supplied to SAJH is suspended or is not in compliance with the agreed water quality standards, SAJH may take action to overcome or alleviate any resulting water shortage in which event SAJH shall be reimbursed for all costs incurred by SAJH in taking such actions. Such costs incurred may be recoverable by SAJH by deducting the same from any money or moneys due or become due to the State Government of Johor under the Water Supply Agreement.

SAJH is obligated to pay the State Government of Johor and SAJSB for the purchase of treated water, calculated based on the bulk sale rate payable by the State Government of Johor or SAJSB to the Bulk Water Suppliers.

Further, the Water Supply Agreement requires the State Government of Johor to grant to SAJH the right to abstract and draw water from the catchment areas so long as SAJH remains a service licensee under the Water Services Industry Act. The total quantity of raw water abstracted by SAJH for each month shall be equivalent to the quantity of treated water produced by SAJH plus 7.0% as in-plant usage and the price payable by SAJH for the raw water shall be at the rate of 5.0 sen/per cubic meter for the first 10 years commencing from the commencement date and thereafter escalated annually at consumer price index.

The State Government of Johor shall, at its own costs, retain, manage and preserve all catchment areas and ensure that there shall be sufficient supply of raw water and the quality of raw water supplied is in accordance with the Desirable Raw Water Standard as set out in the Water Supply Agreement. The State Government of Johor is required to take all steps or actions to overcome any shortfall or deterioration of raw water due to pollution or contamination beyond the control of SAJH, failing which it shall be obliged to compensate SAJH. In the event of a breach by any party under the Water Supply Agreement, the nondefaulting party may terminate the Water Supply Agreement and thereafter may exercise all or any of the remedies available to it whether by the Water Supply Agreement or by statute or otherwise and to claim for all losses and damages suffered by the non-defaulting party as a result of such breach by the defaulting party.

There is no expiry date or term / duration for the Water Supply Agreement. However, the Water Supply Agreement may be terminated due to a breach by any of the parties or due to the occurrence of a force majeure event.

7.16.4 RPI PPA

The RPI PPA was entered into between RPI and Sabah Electricity for the sale of generating capacity and electrical energy from the power plant located in Kota Kinabalu Sabah on 9 December 2004. The RPI PPA provides that RPI is to convert the electricity generating facility (the "**RPI Facility**") which was initially operated on an open cycle mode with a dependable capacity of 120 MW by the design, construction, integration into the existing facility and commissioning of 4 heat recovery steam generators and 2 steam turbine generators so as to enable the said RPI Facility to operate on a combined cycle mode with a dependable capacity of 190 MW (the "**Combined Cycle Facility**").

The RPI PPA provides for an initial term period to become effective on the date of the RPI PPA and expires on the 21st anniversary of the second block COD, of the Combined Cycle Facility, the date on which all the conditions precedent have been fulfilled (the "**RPI Term**"). The RPI Term may be extended at the request of either party, subject to the parties agreeing to the extension not later than one year prior to the expiry of the RPI Term.

The principal sale and purchase obligations of both RPI and Sabah Electricity are as follows:

- RPI shall not, without prior consent of Sabah Electricity and the EC, sell any electrical energy or capacity from the Combined Cycle Facility to any party other than Sabah Electricity;
- (ii) RPI shall deliver and Sabah Electricity shall purchase a level of dependable capacity up to 190 MW; and
- (iii) in situations where the safety or security of Sabah Electricity's system is threatened, RPI shall use its reasonable efforts to provide electrical energy or capacity consistent with prudent utility practices and/or to delay or to bring forward any scheduled outage, maintenance outage and major overhaul outage of the Combined Cycle Facility.

Notwithstanding the above, Sabah Electricity is entitled not to accept electrical energy from RPI due the following circumstances:

- the occurrence of a situation which presents a physical threat or danger to life, health or property or could cause a significant disruption on Sabah Electricity's system;
- during the period where Sabah Electricity conducts maintenance of the interconnection facilities, metering equipment and adjacent transmission or distribution facilities; or

(iii) RPI fails to produce electrical energy which meets the agreed specification.

The RPI PPA provides for Sabah Electricity to pay RPI the following:

- test energy payment for the electrical energy despatched during the test period;
- (ii) capacity payment for the dependable capacity made available to Sabah Electricity; and
- (iii) in respect of the supply of electrical energy generated from each block, the energy payment. Energy payments received in respect of the sale of electrical energy are determined by the net energy output generated from each block delivered to the interconnection point during the billing period, RPI's fuel cost and the variable operating rate. RPI will absorb any additional fuel costs incurred in the event the heat rate exceeds certain permitted rate.

All payments made by Sabah Electricity to RPI are determined based on formula set out in the RPI PPA, subject to variation of certain factors such as the operating rate, the indexable fixed charge and maintenance charges.

In the event of force majeure, the parties shall only be able to excuse their obligations under the RPI PPA that occurs or is in effect after the second block COD. No obligations of the parties that are required to be completely performed prior to the occurrence of a force majeure event shall be excused as a result of such occurrence and the obligation of the parties to pay money which is due prior to such occurrence or during the continuance of such force majeure event shall not be excused.

In the event of default and if the operation of the Combined Cycle Facility is not assumed by its financiers, Sabah Electricity shall have the right to assume the operational obligations of RPI in relation to the Combined Cycle Facility.

In the event of default, the non-defaulting party may terminate the RPI PPA by giving 60 days' notice to the defaulting party and thereafter, either party may claim against the other party and exercise any rights or remedies available to them at law or equity for the breach of the RPI PPA by the other party, save for any indirect, incidental consequential or punitive damages as a result of non-performance of any party, including failure to deliver or purchase electrical energy under the RPI PPA.

The RPI PPA further provides that Sabah Electricity has an option to purchase the Combined Cycle Facility from RPI prior to the expiry of the RPI Term or after the early termination of the RPI PPA. Upon the receipt of the notice, the parties shall negotiate the terms of the purchase pursuant to an agreed procedure and the purchase price shall be at the fair market value of the Combined Cycle Facility.

7.16.5 RPII PPA

A power purchase agreement was entered into between RPII and Sabah Electricity on 30 June 2006, as amended by a supplemental agreement dated 16 July 2008 for the sale of generating capacity and electrical energy from the power plant located in Kota Kinabalu Industrial Park, Sabah by RPII to Sabah Electricity. The RPII PPA provides that RPII is to design, own, operate and maintain an electricity generating facility with a nominal capacity of 190 MW, located at Kota Kinabalu Industrial Park, Sepangar Bay, Kota Kinabalu, Sabah ("**RPII Facility**") and to generate and deliver electrical energy and make generating capacity available to Sabah Electricity in accordance with the terms and conditions contained in the RPII PPA.

7. BUSINESS OVERVIEW (cont'd)

The RPII PPA becomes effective on the date all the conditions precedent are fulfilled and shall expire on the 21st anniversary of the COD of the RPII Facility (the "**RPII Term**"). The RPII Term may be extended at the request of either party, subject to the party giving the other written notice of such request of not less than 3 years, but not more than 4 years prior to the expiry of the RPII Term. If the parties fail to agree on the conditions and extension of the RPII Term, at the request of Sabah Electricity, then, RPII shall, at a consideration of RM10.00, transfer the RPII Facility and any other structures and facilities in relation thereto, including the site, to Sabah Electricity.

The principal sale and purchase obligations of both RPII and Sabah Electricity are as follows:

- (i) all test energy generated during the period beginning from the date on which net electrical output is first generated and delivered to the grid system;
- (ii) the net electrical output which is generated by the RPII Facility during the period beginning from the COD of the first unit and continuing throughout the RPII Term; and
- (iii) the daily available capacity of the RPII Facility during the period beginning from the COD of the RPII Facility and continuing throughout the RPII Term.

In situations where the safety or security of the grid system is threatened, RPII is obliged, at the request of Sabah Electricity, to provide electrical energy or generating capacity above the declared daily available capacity and shall, if so requested by Sabah Electricity, reschedule any scheduled outage, maintenance outage and major overhaul outage of the RPII Facility.

Notwithstanding the above, Sabah Electricity is entitled not to accept the net electrical output energy from RPII due the following circumstances:

- the occurrence of an emergency condition as a result of which the grid system is unable to accept the net electrical output;
- (ii) during the period where Sabah Electricity conducts maintenance of interconnection facilities, metering equipment or the grid system; or
- (iii) where RPII fails to produce net electrical output which meet the agreed specification or electrical characteristic.

The RPII PPA provides for Sabah Electricity to pay RPII the following:

- (i) test energy payment;
- (ii) energy payments for the supply of net electrical output available to Sabah Electricity from the RPII Facility, starting from the COD for the first unit. Further energy payments received in respect of the sale of electrical energy are determined by the net energy output delivered to the interconnection point during the billing period. The energy payment consists of fuel cost and variable operating costs. RPII will absorb any additional fuel costs incurred in the event the heat rate exceeds certain guaranteed rate. Conversely, RPII will have to share any fuel cost savings with Sabah Electricity if the power plant operates below the guaranteed heat rates;
- (iii) fixed operating payment, starting from the COD for the first unit;

- (iv) available capacity payment in respect of the daily available capacity, starting from the COD of the RPII Facility; and
- (v) a start-ups of the RPII Facility, starting from the COD.

Notwithstanding the above, RPII is required to pay to Sabah Electricity the costs saving it may receive as a result of reduction in the EPC contract price, O&M contract price and taxes. This amount shall be placed in an escrow account in the name of Sabah Electricity and in the event RPII incurs any additional cost in the O&M of the RPII Facility, it may draw such amount in the escrow account to address the additional cost in the O&M of the RPII Facility.

Amongst others, any one of the following shall constitute an event of default by RPII:

- (i) it fails to comply with any of its obligations under the RPII PPA;
- (ii) it applies for or consent to the appointment of receiver, custodian, trustee or liquidators of all or substantial part of its property;
- (iii) the licence is revoked, terminated or suspended; or
- (iv) any of the following events occur prior to the 7th anniversary of the COD of the RPII Facility without the prior written approval of the Government:
 - (a) it sells, conveys, transfers or otherwise disposes of the project or any material part or any interest in it to any other person or enters into an agreement to do so; or
 - (b) any shareholder of RPII sells, transfers or otherwise disposes of any share of RPII or RPSB (including for this purpose the assignment of the beneficial interest therein the creation of any charge or other security interest over, such share or the renunciation or assignment of any right to receive or to subscribe for such share) or any interest in such share or enters into any agreement to do so; or
 - (c) there is a change in control of RPII.

If an event of default occurs and is continuing, the non-defaulting party may terminate the RPII PPA by giving written notice of such breach and the non-defaulting party's intention to terminate the RPII PPA to the defaulting party. Sabah Electricity also has the step-in-right by written notice to assume operational responsibility for the power plant upon the occurrence and continuance of an event of default. Sabah Electricity's decision to operate the power plant shall not be seen as a transfer of title or RPII's obligations as owner.

If the RPII PPA is terminated due to RPII's default, then Sabah Electricity shall have the option to purchase the project from RPII at a price to be mutually agreed. On the other hand, if RPII terminates the RPII PPA due to Sabah Electricity's default, then RPII shall have the option to sell the project to Sabah Electricity at a price to be mutually agreed.

If there is a change in law which requires RPII to make any material capital improvement or other material modification to the RPII Facility, RPII and SESB shall discuss in good faith.

Further, in the event the present structure of the electricity industry in Malaysia is revamped due to a setting up of other market system, the parties shall within 6 months negotiate in good faith the amendments to the RPII PPA to enable full participation by RPII in such restructured market, failing which Sabah Electricity shall be entitled to terminate the RPII PPA and purchase the project from RPII for an agreed price.

7.16.6 Site lease agreement for RPII

The agreement is entered into between RPII and Sabah Electricity on 18 December 2008 for the lease of 2 pieces of land known as (i) Lot 35, located within the Industrial Zone 4 (IZ4) at the Kota Kinabalu Industrial Park, Kota Kinabalu, Sabah measuring approximately 8.586 acres and (ii) Country Lease No. 015601653 and bearing Land Application No. 2007010138 for the lease period of 23 years commencing from the date the RPII PPA becomes effective. In the event the term for the RPII PPA is extended, then the lease period shall be extended accordingly, but subject to the review of the rental to be mutually agreed by the parties.

The rental payable by RPII to Sabah Electricity for the lease shall be RM10 only throughout the duration of the lease.

7.16.7 PRWSB Service Agreement

On 12 July 2002, RWorley (then known as Ranhill Worley Sdn Bhd) entered into a service agreement with PRWSB, as amended by a supplemental agreement dated 7 August 2003, whereby PRWSB agreed to exclusively appoint RWorley for services in respect of all projects awarded to PRWSB in Malaysia which include, but are not limited to, the provision of design and engineering technical services and knowhow which RWorley deems necessary and/or useful to PRWSB ("**Services**"). The PRWSB Service Agreement requires PRWSB to seek the approval of RWorley prior to entering into any contracts, agreements or undertakings.

In consideration of RWorley providing and performing the Services as requested by PRWSB, PRWSB shall effect payment on account of RWorley for the Services rendered at a sum to be mutually agreed upon. RWorley shall, on the other hand, pay PRWSB a commission charge which shall include all costs and expenses incurred by PRWSB in procuring the projects excluding staff related costs and 1% of the costs and expenses excluding the staff related costs. Staff related costs shall include, amongst others, the salary remuneration, medical benefits, insurance and contribution to EPF.

If PRWSB commits a breach or it goes into liquidation or a bankruptcy action is instituted against any of the shareholders or directors of PRWSB or PRWSB fails to meet its financial obligations or PRWSB no longer has a licence to perform engineering services for its clients, then RWorley may terminate the PRWSB Service Agreement.

7.17 Summary of material properties

Details of material properties owned, leased or occupied by our Group are set out in Annexure A of this Prospectus.

7. BUSINESS OVERVIEW (cont'd)

7.18 Major licences and permits

Details of major licences and permits held by our Group are set out in Annexure B of this Prospectus.

7.19 Relevant laws and regulations governing our business

Details of the relevant laws and regulations governing our business are set out in Annexure C of this Prospectus.

7.20 Intellectual property

As at the LPD, we do not have any brand names, patents, trademarks, technical assistance agreements, franchises and other intellectual property rights.

7.21 Training and development programmes

We provide our employees with continuous training and development to enhance their skills and knowledge, with recommended courses, conferences, seminars and other training programmes. Some of the training programmes include teambuilding courses, management courses, industrial, safety and health programme and human capital development programme.

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The Board of Directors Ranhill Energy and Resources Berhad Level 15, Wisma PERKESO No. 155, Jalan Tun Razak 50400 Kuala Lumpur Malaysia

Dear Sirs,

Executive Summary of the Independent Market Research Report on the Engineering Services for the Oil and Gas Industry, Power Generation Industry and Water Supply Services Industry for Ranhill Energy and Resources Berhad ("Ranhill" or "Company")

We, Frost & Sullivan Malaysia Sdn Bhd ("Frost & Sullivan"), have prepared the Executive Summary of the Independent Market Research report on the Independent Market Research report on the Engineering Services for the Oil and Gas Industry, Power Generation Industry and Water Supply Services Industry ("Report") for inclusion in Ranhill's Prospectus dated

0.4 JUL 2013 ("Prospectus") in relation to the initial public offering and the listing of and quotation for the entire issued and paid-up share capital of Ranhill on the Main Market of Bursa Malaysia Securities Berhad.

We are aware that this Report will be included in the Prospectus and we further confirm that we are aware of our responsibilities under section 214 of the Capital Market and Services Act, 2007.

This research is undertaken with the purpose of providing an overview of the Engineering Services for the Oil and Gas Industry, Power Generation Industry and Water Supply Services Industry.

We acknowledge that if we are aware of any significant changes affecting the content of this Report between the date hereof and the issue date of the Prospectus, we have an on-going obligation to either cause this Report to be updated for the changes and, where applicable, cause Ranhill to issue a supplementary prospectus, or withdraw our consent to the inclusion of this Report in the Prospectus

Frost & Sullivan has prepared this Report in an independent and objective manner and has taken adequate care to ensure the accuracy and completeness of the Report. We believe that this Report presents a true and fair view of the industry within the limitations of, among others, secondary statistics and primary research, and does not purport to be exhaustive. Our research has been conducted with an "overall industry" perspective and may not necessarily reflect the performance of individual companies in the industry. Frost & Sullivan shall not be held responsible for the decisions and/or actions of the readers of this Report. This Report should also not be considered as a recommendation to buy or not to buy the shares of any company or companies as mentioned in this Report or otherwise.

For and on behalf of Frost & Sullivan Malaysia Sdn Bhd:

June'Liano

Director

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8. INDUSTRY OVERVIEW (cont'd)

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The market research process for this study has been undertaken through secondary or desktop research, as well as detailed primary research, which involves discussing the status of the industry with leading industry participants and industry experts. The research methodology used is the *Expert Opinion Consensus Methodology*. Quantitative market information could be sourced from interviews by way of primary research and therefore, the information is subject to fluctuations due to possible changes in the business and industry climate.

This market research was completed in May 2013.

This report is prepared for inclusion in the Prospectus of Ranhill in relation to an initial public offering in connection with its listing on the Main Market of Bursa Malaysia Securities Berhad.

Save for the inclusion of this study in the prospectus issued by the company (reviewed by Frost & Sullivan) in relation to the listing, no part of this research service may be otherwise given, lent, resold, or disclosed to non-customers without our written permission, and no part of this report may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without our permission.

Frost & Sullivan has prepared this report in an independent and objective manner and has taken adequate care to ensure the accuracy and completeness of the report. We believe that this report presents a true and fair view of the industry within the limitations of, among others, secondary statistics and primary research, and does not purport to be exhaustive. Our research has been conducted with an "overall industry" perspective and may not necessarily reflect the performance of individual companies in the industry. Frost & Sullivan shall not be held responsible for the decisions and/or actions of the readers of this report. This report should also not be considered as a recommendation to buy or not to buy the shares of any company or companies as mentioned in this report or otherwise.

For further information, please contact: Frost & Sullivan Malaysia Sdn Bhd Suite E-08-15, Block E, Plaza Mont' Kiara 2, Jalan Kiara, Mont' Kiara 50480 Kuala Lumpur

1 Economic Outlook

(Extracted from Bank Negara Malaysia Annual Report 2012)

The Malaysian economy is expected to remain on a steady growth path, with an expansion of 5-6% in 2013. Economic activity will be anchored by the continued resilience of domestic demand, and supported by a gradual improvement in the external sector. Private investment is expected to remain robust, driven by capacity expansion by the domestic-oriented firms and the continued implementation of projects with long gestation periods. Investments by the external-oriented businesses is also expected to be higher amid the gradual improvement in external demand, while private consumption is projected to grow at a more moderate rate in the second half of the year, although it will continue to be well supported by sustained income growth and positive labour market conditions. Government spending is expected to record a lower growth given the ongoing consolidation of the Government's fiscal position and as the role of the private sector gains greater significance. In line with the more favourable external sector, gross exports are projected to record a higher growth in 2013 supported by the export of manufactured products. Gross imports are expected to moderate, in tandem with the projected trend in domestic demand. Overall, this is expected to result in a lower negative contribution to real GDP from net exports. As import growth continues to outpace export growth amid the continued deficit in the income account and in current transfers, the current account surplus, while still remaining significant is expected to narrow further in 2013.

On the supply side, all major economic sectors are expected to record continued expansion in 2013. The services and manufacturing sectors are expected to be the key contributors to overall growth, driven by the continued resilience of domestic demand and supported by higher international trade activity. In the commodities sector, the growth of agriculture is expected to improve due to the higher output of crude palm oil and food commodities while the mining sector is expected to strengthen following the higher production of natural gas, crude oil and condensates. Growth in the construction sector is projected to remain strong, supported by the implementation of major infrastructure projects.

Overall, the growth prospects of the Malaysian economy will continue to be underpinned by the strength of its fundamentals. Of importance, labour market conditions will remain favourable, with the unemployment rate projected to remain low at 3.1% of the labour force in 2013.

Given the challenging external environment, there, however, remain risks to the economic outlook. The potential re-emergence of instability in the euro area and slower growth in Malaysia's major trading partners would affect the Malaysian economy. While pressures from global commodity prices have receded, upside risks from non-fundamental factors, such as adverse weather conditions and geopolitical developments, could push commodity prices higher and adversely affect the growth prospects of economies that are major trading partners of Malaysia. Potential upside to the domestic economy could emerge if the recovery in the advanced economies turns out to be better than expected.

Regional Economic Development

The economic performance in Asia is likely to improve in 2013, driven mainly by resilient domestic demand and a modest strengthening in export demand, particularly from the region. Government-led infrastructure investment will likely underpin the strength in domestic demand, particularly in the ASEAN economies. These initiatives include private-public partnerships in the Philippines, major infrastructure projects in Indonesia and rail transport network expansion programmes in Thailand and Singapore. Consumption growth will continue to be buttressed by income growth amid favourable labour market conditions, continued access to financing and government policy support, such as the implementation of, and increases in, minimum wages in several of the regional economies. In the more open economies, growth will be lifted by the gradual increase in global demand as the external environment improves. The economic expansion in PR China is expected to remain robust, with domestic economic activity set to become stronger during the year. While the Chinese government remains committed to restructuring the economy through efforts to boost consumption, targeted investments, particularly in infrastructure projects, will continue to be a key contributor to growth in the near term.

8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

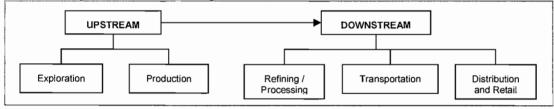
2 Engineering Services in the Oil and Gas Industry

2.1 Industry Definitions

2.1.1 Oil and Gas Industry Value Chain

The Oil and Gas ("O&G") industry refers to the scope of industries that revolve around the exploration, production, refining, processing, transporting, distribution and retail of petroleum and natural gas. O&G fields may be found inland (onshore) or on seabeds (offshore).

O&G Industry Value Chain and Segmentation



The engineering services sector forms the backbone of the O&G industry, providing essential design and support that enable the functioning and integration of the entire industry operations. Fully integrated companies within the O&G industry have interests in both the upstream and downstream segment, while others may concentrate on either the upstream or downstream segment. In 2011, the revenue from providing engineering services to the O&G sector in Malaysia was estimated to be US\$700.0 million¹ (RM2,185.8 million).

In 2011, global O&G consumption was 87.8 million barrel per day $(b/d)^2$. The global demand for O&G is driven by the high energy consumption in the developed countries such as the United States, Western Europe and Japan, whereas China, India, and Saudi Arabia have emerged as the new major energy consumers due to their rapid industrialization over the last decade.

In general, the transportation and power generation sectors are key end user industries driving the global demand for oil and gas. Approximately 60.0% of the demand for oil in the United States is generated from the transportation sector alone. For the power generation industry, natural gas is emerging as the preferred fuel options for many. In Southeast Asia (SEA), natural gas is the major fuel used for generating electricity in Thailand³, Malaysia⁴ and Singapore⁵.

The need to produce and supply oil and gas to the market involves a continuous activity in the exploration for new O&G fields, drilling of new production wells, improvement in the oil recovery technologies for mature wells or marginal fields, expansion of distribution channels and piping, and capacity building of refineries and processing facilities, all of which involves significant engineering services support. Furthermore, most of the world's shallow water oilfields are in the mature phase due to decades of production, and O&G companies are compelled to venture into deeper waters to discover oil and gas resources. Deepwater production facilities are expensive and entail additional engineering challenges. In Malaysia, deepwater definition ranges from depth of 200 meters to 1,200 meters. Beyond 1,200 meters is considered as ultra-deepwater.

2.1.2 Engineering Services Value Chain and Segmentation

A typical development project in the O&G industry, either upstream or downstream consists of the following stages: Engineering, procurement, construction, installation and commissioning ("EPCIC"). The end user of the engineering services in the O&G sector will be the oil field operators, pipelines operators, refinery operators, natural gas transmission and distribution companies, and project execution contractors. The engineering services value chain and the scope of work for the engineering stage are shown in the following diagram.

Source: Frost & Sullivan

² Source: OPEC Annual Statistical Bulletin 2012

³ In Thailand, natural gas as a power generation fuel contributed towards 67.0% of electricity generated in 2011 (Source: Electricity Generation Authority of Thailand)

 ⁴ In 2010, 17,000 ktoe of natural gas was consumed by the electricity industry in Malaysia, generating approximately 55.5% of electricity. (Source: Energy Commission of Malaysia)
 ⁵ In 2009, 6,133.5 kilotonne oil equivalent (ktoe) of natural gas was consumed by the electricity industry in Singapore, generating

⁵ In 2009, 6,133.5 kilotonne oil equivalent (ktoe) of natural gas was consumed by the electricity industry in Singapore, generating approximately 82.1% of electricity. (Source: Singapore Energy Statistics 2011).

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Engineering Services Value Chain

ngineering Procuren	nent Construction	Installation	Commissioning	END USER
 Preliminary engineerstudies Concept developmenerstudion Site identification & Project & scope dei Cost estimating & sidevelopment Identification & inversibility 	ent & alternatives	Detail Engin Purchasing suppor main and bulk Thermal rating of h Development of pij instrument diagran construction. Development of de drawings, including stress calculations Development of de related to instrume electrical facilities a Management of ve Cost and schedule Start-up procedure	t of equipment, beat exchangers bing and ns released for etailed piping g isometrics and etailed drawings intation, and civil works modor drawings control	

Source: Frost & Sullivan

- The engineering stage comprises of front end engineering design ("FEED") and detail engineering.
- The procurement phase involves purchase of items required for the project.
- Construction involves fabrication of structures.
- Installation would involve transport of project materials and items to the site and installing them.
- Commissioning would include operational start-up of major equipment and systems.

The service providers who undertake all the services from engineering to commissioning are termed EPCIC contractors or 'EPC contractors' in short. EPC contractors typically operate on a 'single point of responsibility' contracting model, whereby the EPC contractor is wholly responsible for the management and execution of the entire project from initiation to commissioning, including in the appointment of third-party contractors, vendors and suppliers. The EPC contractor bear all risks associated with project financing, quality of delivery and project timeline that may impact the overall project cost.

While EPC contractors provide engineering services, pure play engineering services companies also exist in the market. Pure play engineering services company refer to companies that only provide professional engineering services and are not involved in the procurement and construction phases (as in EPC). Pure-play engineering services companies revenue stream are mainly derived from technical and consultation fees.

2.1.3 EPC Management ("EPCM")

Project owners may award EPC management contracts to EPCM contractors. EPCM contracts are solely services contracts. EPCM contractors' role is that of design, management and administration of construction contracts by third party contractors. Key aspects of the role include managing the list of vendors, development of contracting strategy, logistics, coordinating the execution of the project, control finances and payment of vendors/contractors on behalf of the client and monitor project progress.

EPCM contractors act on behalf of the client-project owner and directly involve the client organisation in making major decisions throughout the project and also work closely with the client project management office (PMO. Contrary to the EPC contracting method whereby the nature of which is based on a 'single point of responsibility', the main advantage of an EPCM contract is that it provides the project owner with higher control of the project, choice of individual EPC contractors and flexibility to modify scope. Nevertheless, this also transfers the cost risk to the project owner. Any cost savings or cost overrun will be at the project owner's account.

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2.2 Global O&G Trends and Development

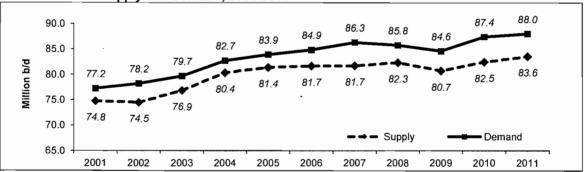
2.2.1 Global Oil Supply and Demand

The Organization of the Petroleum Exporting Countries (OPEC) is an organization of oil producing countries that manages the oil production in its 12 member countries by setting production quotas. In 2011, OPEC reported their member countries to have produced approximately 30.1 million barrels per day (b/d)⁶ which is equivalent to 42.8% of the world's crude oil production. Saudi Arabia alone, being the largest producer of crude oil in the Middle East, produced 9.3 million b/d in 2011. Nevertheless, the largest crude oil producer in the world was Russia, which produced 9.4 million b/d in the same year. United States and China stands as the third and fourth largest crude oil producer at 5.7 b/d and 4.1 b/d respectively. In terms of global trade, OPEC member countries accounted for approximately 45.2% of the total crude oil and petroleum products traded in the international markets in the same year, with an export revenue of US\$1,078.0 billion (RM3,366.1 billion).

The Organization of Economic Cooperation and Development (OECD), has a membership of 34 countries, including the United States, much of Europe and other advanced countries.

In terms of global consumption, the OECD countries collectively have a larger consumption ratio as compared to other countries, accounting for 52.7% of the world oil consumption in 2011 (World oil consumption in 2011: 87.8 million b/d)⁷. Nevertheless, OECD oil consumption has been on a down trend in the past years. In 2011, OECD consumption of oil was 46.3 million b/d, decreased from 50.0 million b/d in 2007 at a compounded annual growth rate ("CAGR") of -1.9%. The non-OECD countries have seen a large increase in oil consumption in recent years. In 2011, the non-OECD countries oil consumption was 41.5 million b/d, increased from 36.5 million b/d in 2007 at a CAGR of 3.2%. Growth of oil consumption in the non-OECD countries was mainly driven by China, Russia, Brazil, and Saudi Arabia. In 2011, China consumed approximately 9.4 million b/d of oil, which was the second largest consumption in the world after the United States (2011: 19.2 million b/d)⁸.

Owing to the weak economic outlook, the oil demand is forecast to be subdued. Both OPEC and the US International Energy Agency (EIA)⁹ have forecast weak growth in the global oil demand for 2012 and 2013. The following graph shows the world crude oil supply and demand trend between 2001 and 2011.



World Crude Oil Supply and Demand, 2001-2011

Sources: BP Statistical Review of World Energy 2012

⁶ Source: OPEC

⁷ Source: OPEC

Source:OPEC

⁹ The EIA projects the world oil consumption growth to be 0.8 million b/d in 2012 and 1.0 million b/d in 2013

[©] Frost & Sullivan

2.2.2 Global O&G Reserves

At the end of 2011, global petroleum reserves totalled 1,652.6 billion barrels, an increase of 60.8% from 1,027.5 billion barrels in 1990, with increases in proven reserves in South and Central America and Africa accounting for much of the increase. The Middle East has the largest oil reserves in the world accounting for 48.1% of the global reserves.

Proven Petroleum Reserves by Region

	Petroleum Reserves (Billion barrels)			
Region	1990	2000	2010	2011
Middle East	659.6	696.7	765.6	795.0
South & Central America	71.5	97.9	324.7	325.4
Europe & Eurasia	75.9	97.7	139.5	141.1
Africa	58.7	93.4	132.7	132.4
North America	125.4	232.1	217.8	217.5
Asia Pacific	36.3	40.1	41.7	41.3
Total	1,027.5	1,257.9	1,622.0	1,652.7

Source: BP Statistical Review of World Energy 2012

Proven natural gas reserves have increased by 65.8% over the last three decades, from 125.7 trillion cubic metre in 1990 to 208.4 trillion cubic metre in 2011, with the Middle East and Europe & Eurasia accounting for 72.6% of global reserves. Natural gas reserves by OPEC member countries comprise the largest share of 45.6% (95.0 trillion cubic metres¹⁰). Outside of OPEC, the largest natural gas reserve was held by Russia which accounted for 22.1% (46.0 trillion cubic metres¹¹) of the global reserves.

Pagion	Natural Gas Reserves (Trillion cubic metres)			
Region	1990	2000	2010	2011
Middle East	38.0	59.1	79.4	80.0
Europe & Eurasia	54.5	55.9	68.0	78.7
Asia Pacific	9.9	12.3	16.5	16.8
Africa	8.6	12.5	14.5	14.5
North America	9.5	7.5	10.3	10.8
South & Central America	5.2	6.9	7.5	7.6
Total	125.7,	154.3	196.2	208.4

Proven Natural Gas Reserves by Region

Source: BP Statistical Review of World Energy

2.2.3 Crude Oil Prices

The main influencers of crude oil prices are the supply and demand balance. This may be due to changes in production and demand as a result of market forces, or the disruption of supply due to political events, weather or refinery outages.

In general, reduced oil production against a strong demand will drive the oil prices upwards, encouraging inventory build-up and vice-versa. In 2007-2008, oil prices spiked as a result of increased demand, particularly from the major emerging countries (BRIC – Brazil, Russia, India and China), against OPEC controlled production. The dominating presence of OPEC (which controls approximately 42.8% of global crude oil production in 2011) makes it the single most influential body in the industry. Subsequently, any decision by OPEC to increase or reduce oil production quota will also impact the global oil prices. The non-OPEC oil producers respond to the changes in the oil prices by managing their production. Similarly, during a tough financial market condition such as in 2009, a reduction in the global oil demand will result in excess production hence driving the crude oil prices down.

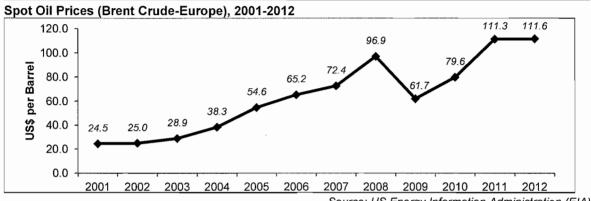
¹⁰ Source: OPEC

¹¹ Source: OPEC

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8. INDUSTRY OVERVIEW (cont'd)

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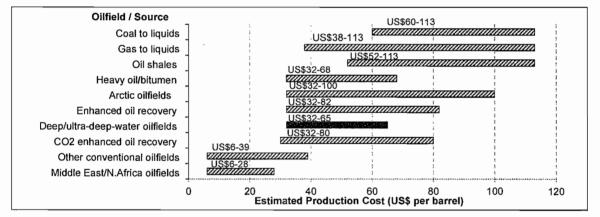


Source: US Energy Information Administration (EIA)

The O&G prices has an overbearing impact on the industry as it will determine which methods or technologies may be used in the development of the upstream activities as the cost of producing the O&G differ between the locations and geological deposit. In general, oilfields will only be developed if the cost of production is below the current O&G prices. Complex oilfields will entail higher development and production cost.

The IEA has indicated the following estimates for the all-in costs of producing oil from various types of hydrocarbons in different parts of the world:

IEA Oil Production Cost Estimates, 2008



Source: IEA World Energy Outlook 2008

Oilfields in the Middle East/North Africa are the cheapest to extract oil from. Deepwater and ultra deepwater fields would entail a cost of US\$32 (RM99.9) to US\$65 (RM203.0) to bring the oil to the surface. This would mean that deepwater and ultra deepwater projects would be economically viable only if oil prices are above US\$65 (RM203.0).

2.2.4 Emerging O&G Development Regions

Vietnam

The ascension of Vietnam into the World Trade Organisation (WTO) in 2006 was the catalyst that attracted major foreign investment in the O&G sector. In 2011, Vietnam's proven oil reserve was 4.4 billion barrels¹², which was the second highest in SEA, after Malaysia (5.8 billion barrels). Vietnam's natural gas production areas are located in the Cuu Long, Nam Con Son, and the Malay Basin. The largest natural gas producing field in Vietnam is on the North of the Malay basin which is the PM-3 Joint-Commercial Arrangement Area between Malaysia and Vietnam. In 2011, Vietnam's proven natural gas reserves stood at 288.0 billion cubic metres.

¹² Source: OPEC

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Myanmar

Myanmar is emerging as an attractive O&G development region mainly due to being relatively underexplored. Myanmar began opening the O&G upstream industry to foreign investors upon the enactment of its foreign investment legislation in 1998. Prior to this, the country operated a close-door policy to foreign investors and the O&G sector was developed by the national oil company, Myanmar Oil and Gas Enterprise (MOGE). In 2011, Myanmar's proven crude oil and gas reserve stood at 3.2 billion barrels and 334.1 billion cubic meter respectively¹³, located offshore and onshore. A major boost to the country is upon its political reform by the installation of a democratic Government in March 2011 ending a fifty-year military rule. This change was seen as a positive sign towards political stability in the country. The Government has announced their plans to offer onshore and offshore blocks for exploration and development.

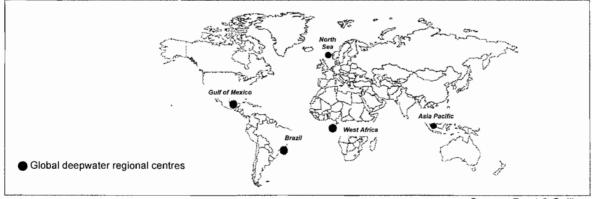
The South China Sea Dispute

There is an ongoing territorial dispute over the uninhibited islands in the South China Sea and the waters around it between The Philippines, China, Vietnam, Taiwan, Malaysia and Brunei. The South China Sea is thought to hold large reserves of O&G. China, as the second largest consumer of O&G in the world have actively pursued its claims on these territories in recent years by deploying naval ships in the territories, causing friction with Vietnam and the Philippines. The ongoing dispute may inhibit any near future O&G exploration and production activities in these areas.

2.2.5 Global O&G Deepwater Development

The oil and gas industry has seen about 30 years of deepwater exploration and around 15 years of deepwater production. As onshore and near-offshore reserves deplete, exploration is moving increasingly to deepwater. As of end 2012, deepwater fields account for about 15.0% of total offshore oil production. Deep water fields are expected to contribute to more than 20.0% over the next few years, producing about 30.0 million barrels of oil per day.

Global Map of Deepwater Regional Centres



Source: Frost & Sullivan

The regional deepwater O&G hotspots are highlighted as follows:

- Africa has emerged as the world's most significant deepwater region. A large number of worldclass development projects are underway or planned in the African region. A notable mention is the Agbami oil field project, Nigeria's largest deepwater development that started production since 2008.
- The Gulf of Mexico and Brazil has some of the world's largest deepwater fields and has been successful attracting investment for its deepwater resources. Brazil's National Company, Petrobras has successfully developed several large deep water fields by deploying floating production vessels.
- The North Sea is a mature basin that has witnessed deep water developments for over 30 years. The major deepwater developments are in Norway and the United Kingdom.
- The Asian deep water market is relatively small compared to Africa, North Sea, Gulf of Mexico and Brazil. Production in Asian waters until recently had been restricted to shallow water fields,

¹³ Source: Ministry of Energy, Myanmar

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but there are now a number of deepwater projects underway or producing in South China Sea and the Indian Basin. SEA is considered an under-explored and growing market for deepwater.

Engineering Services Opportunities

O&G development entails the following opportunities to engineering services companies:

- 1. Drilling and completion of subsea development wells
- 2. Pipelines design and development
- 3. Production solutions Platforms/floating production systems

Production solutions that are specific for deepwater development is summarized as follows:

Tension Leg Platform ("TLP") consists of a floating structure held in place by vertical, tensioned tendons connected to the sea floor by pile-secured templates. Tensioned tendons provide for the use of a TLP in a broad water depth range with limited vertical motion. The larger TLP's have been successfully deployed in water depths approaching 4,000 feet.

SPAR Platform ("SPAR") consists of a large diameter single vertical cylinder supporting a deck. It has a typical fixed platform topside (surface deck with drilling and production equipment), three types of risers (production, drilling, and export), and a hull which is moored using a taut caternary system of six to twenty lines anchored into the seafloor. SPAR's are presently used in water depths up to 3,000 feet, although existing technology can extend its use to water depths as great as 7,500 feet.

Floating Production System ("FPS") consists of a semi-submersible unit which is equipped with drilling and production equipment. It is anchored in place with wire rope and chain, or can be dynamically positioned using rotating thrusters. Production from subsea wells is transported to the surface deck through production risers designed to accommodate platform motion. The FPS can be used in ultra deep water.

Floating Production, Storage & Offloading System ("FPSO") consists of a large tanker type vessel moored to the seafloor. An FPSO is a floating production system that receives produced fluids from the subsurface reservoir into a floating storage facility. Topside facilities separate the fluid into oil, gas and water, and then store the crude oil in the vessel's tanks. The crude oil is periodically offloaded to shuttle tankers. The shuttle tankers transport the oil to an onshore facility for further processing.

2.2.6 Technology Advances

Other than the cost considerations, technology advances are also enablers for the development of deepwater oilfields and marginal fields as well as revival of abandoned and matured oilfields.

- Improvement in the scanning and imaging techniques are leading to better visualization of the sub-surface geological layers and profiles, thereby improving the ability to identify new oilfields and accurately pinpoint oil-rich deposits.
- Deepwater and marginal field development entails complex engineering challenges. More sophisticated engineering design software and computers with superior processing power are being used to simulate complex environments further allowing for the design of innovative and cost-effective engineering solutions.
- The advances in the remote-operated vehicle ("ROV") technology and subsea equipment and devices have also made the development of deepwater oilfields to be safer.
- Cost effective solutions such as mobile offshore production units ("MOPU"), small FPSO vessels have made exploitation of marginal fields attractive for small O&G companies. The FPSO is an increasingly attractive alternative to conventional fixed platform field development. It combines full production facilities - process equipment, control equipment for remote wellheads, crew accommodations and crude storage capacity into one floating facility. The FPSO has evolved from being a technology for marginal fields to one for larger discoveries. Over the last ten years, FPSOs have become the primary choice for field development in many areas of the world.
- New technology such as hydraulic fracturing has led to a renewed interest in aging oilfields. Hydraulic fracturing involves pumping a mixture of sand, water and chemicals underground at high temperature to release oil from hydrocarbons. This technique, initially was developed to enable the extraction of shale oil and gas that was previously inaccessible. Recently it has been discovered that with some adaptations, this technique is also able to boost production from mature oilfields.

[©] Frost & Sullivan

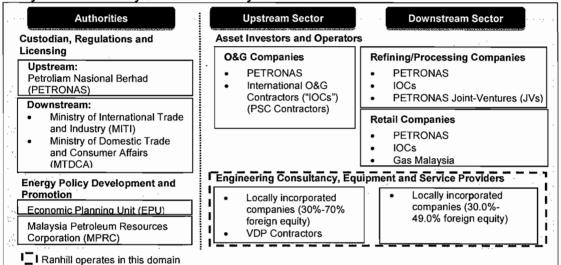
8. **INDUSTRY OVERVIEW** (cont'd)

EXECUTIVE SUMMARY

Analysis of the Engineering Services for the O&G Industry in Malaysia 2.3

Background of the O&G Industry in Malaysia 2.3.1

The O&G industry in Malaysia began in 1909 by the discovery of petroleum off the coast of Miri, Sarawak by the Royal Dutch Shell. Since then, petroleum and natural gas deposits have been discovered off the coast of Sarawak, Sabah, Labuan and Peninsular Malaysia. In 2011, Malaysia's total O&G reserves stood at 20.9 billion barrels of oil equivalent ("boe") ¹⁴. The reserve life for Malaysia at the current rate of production is an average of 22 years for oil and 36 years for natural gas¹⁵. The industry was estimated to be worth US\$56.0 billion¹⁶ (RM174.9 billion) in 2011. The foreign direct investment ("FDI") in this sector in Malaysia amounted to 9.1% of the total gross FDI of RM98.9 billion¹⁷ in 2011. The O&G industry structure and key stakeholders is illustrated in the following diagram.



Malaysia O&G Industry Structure and Key Stakeholder

2.3.2 **Key Supply Conditions**

Historical Industry Size in Malaysia 2.3.2.1

The engineering services industry size in Malaysia is captured from the capital expenditure ("CAPEX") of the national O&G infrastructure development, as published by PETRONAS. This in turn refer to the spending incurred on all upstream development projects, marginal field development projects, pipelines, gas liquefaction and liquid natural gas ("LNG") regasification facilities, refineries, processing plants and shutdown maintenance. Engineering spending is a subset of the development expenditure, and comprise of the conceptual design, FEED and detail engineering costs of the project.

In 2011, capital spending in the O&G industry in Malaysia was US\$6.2 billion (RM18.9 billion), improved slightly from US\$5.9 billion (RM19.0 billion) in the previous year. Meanwhile, Frost & Sullivan estimate the engineering services spending in 2011 at US\$0.7 billion (RM2.1 billion), increased from US\$0.6 billion (RM1.9 billion) in 2010. Nevertheless, engineering services sector contribution by percentage continued to grow despite the reduced capital spending. In 2011, engineering services contributed an estimated 11.3% to the total O&G development spending, increased from 8.3% in 2008.

The following graph and table shows the engineering services industry size in Malaysia and the contribution out of the national O&G industry CAPEX between 2008 and 2011.

Sources: PETRONAS, EPU and Frost & Sullivan

¹⁴ Source: PETRONAS

¹⁵ Source: BP Statistical Review of World Energy

¹⁶ The O&G industry contributes approximately 20.0% of the Malaysian GDP, which in 2011 was estimated by the World Bank to be US\$278.6 billion ¹⁷ Source: Bank Negara Malaysia

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Malaysia O&G Industry CAPEX and Engineering Services Spending, 2008-2011 12.0 \$10.6 2 Others Engineering 10.0 \$8.7 billion 8.0 \$6.2 \$5.9 6.0 91 7% US\$ | 91.% 4.0 88.7% 89.8% 2.0 0.0 2009 2010 2011 2008 Percentage Others Percentage **Engineering Services** Total of CAPEX of CAPEX Year **USD** billion **RM** billion **USD** billion **RM** billion **USD** billion **RM** billion (%) (%) 2008 0.9 97 32.3 29 8.3 91.7 10.6 35.2 2009 0.8 2.6 8.6 8.0 29.1 91.4 30.7 8.7 2010 0.6 1.9 10.2 5.3 17.1 89.8 5.9 19.0 2011 0.7 2.1 11.3 5.5 16.7 88.7 6.2 18.9

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Currency conversion rates (Sourced from www.oanda.com)

2008: USD1 = RM3.3319, 2009: USD1=RM3.5234, 2010: USD1:RM3.2207, and 2011: USD1:RM3.0583 Note: Any discrepancy is the result of rounding off.

Sources: PETRONAS and Frost & Sullivan

Between 2008 and 2010, the O&G industry development expenditure in Malaysia contracted from US\$10.6 billion (RM35.2 billion) to US\$5.9 billion (RM19.0 billion). Similarly, the engineering services expenditure was estimated to have reduced from US\$0.9 billion (RM2.9 billion) in 2008 to US\$0.6 billion (RM1.9 billion) in 2010. Weak oil demand during the global economic downturn 2008-09 had influenced a general slowdown in the development of the industry worldwide. During this period of uncertainty, key stakeholders preferred to employ a wait and see strategy until a positive turnaround could be seen in the economy. Mostly, the fear of a repeat of the 1980s oil glut during which crude oil prices had dropped below the production efficiency level had prompted many O&G companies to conduct pro-active measures such as postponement of high-risk upstream development projects (i.e. deepwater, marginal field and brownfield development) and downstream capacity building, as well as conducting operational restructuring to reduce expenditure¹⁸. Nevertheless, crude oil prices continued to progress in an uptrend, remaining robust throughout the crisis period, and the fear for the worst subsided. Moreover, the announcement of the Entry Point Projects ("EPP") under the New Key Economic Area ("NKEA") which is expected to bring in an investment of RM64.0 billion provided the much needed confidence to the O&G industry to resume its development activities.

2.3.2.2 Government Initiatives to Promote the O&G Industry in Malaysia

The Economic Transformation Programme ("ETP") announced by the Government of Malaysia in 2010 has identified the O&G sector as one of the NKEAs for development. The ETP is expected to elevate Malaysia as the leading hub for oilfield services and transform Malaysia into a global integrated trading hub for O&G by increasing the domestic O&G production, enhancing the downstream growth of the O&G sector and building capabilities in the O&G services. The sector development is realised by the execution and implementation of EPPs over a 10-year time frame. The EPPs target the strategic development of the sector's services industry and infrastructure to ensure its sustainability in meeting future needs and demand. In 2012, approximately RM60.0 billion of investment in various projects in this sector has already been implemented¹⁹.

¹⁸ According to industry sources, deepwater extraction of oil is viable when oil prices exceed US\$70 per barrel.

¹⁹ Source: 2013 Budget announcement by the Prime Minister of Malaysia

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EPPs Specific to the O&G Sector

	Entry Point Projects	Objective		
1	Rejuvenating existing fields through enhanced oil recovery ("EOR")	Increasing domestic O&G production		
2	Developing small fields through innovative solutions	Increasing domestic O&G production		
3	Intensifying exploration activities	Increasing domestic O&G production		
4	Building a regional oil storage and trading hub	Growing the downstream O&G sectors		
5	Unlocking latent gas demand through LNG imports	Growing the downstream O&G sectors		
6	Attracting multi-national companies ("MNCs") to bring their global oil field service and equipment operations to Malaysia	Malaysia as the leading Asian hub for O&G services		
7	Consolidating the domestic fabricators	Malaysia as the leading Asian hub for O&G services		
8	Developing engineering, procurement and installation capabilities and capacity through strategic partnerships and joint ventures	Malaysia as the leading Asian hub for O&G services		

Source: Performance Management and Delivery Unit (PEMANDU)

Out of the 8 EPPs specific to the O&G Sector, 5 of the EPPs involve infrastructure development and will provide significant engineering services and EPCM opportunities. Commentary on the 5 EPPs are provided as follows:

EPP1: Rejuvenating Existing Fields through EOR

EOR projects are designed to extend the lifetime of mature O&G fields and sustain production levels. The implementation of EOR projects will enable the amount of oil recovered from underground reservoir to increase from a range of 20.0%-35.0% (industry norms) to 30.0%-50.0% which translates to an estimated additional 166,000 b/d of oil production in 2020²⁰. PETRONAS has taken an aggressive approach to rejuvenate mature fields collaborating with Shell Malaysia. A total of RM36.0 billion is to be spent over a span of 30 years on EOR projects and development of new fields to sustain production. The EOR projects offshore Sarawak and Sabah will provide opportunities for domestic service providers to build technical capabilities in this important segment.

EPP2: Developing Small Fields through Innovative Solution

Malaysia has around 105 small/marginal fields mainly located in peninsular Malaysia²¹. Development of marginal fields has been announced as one of the strategic objectives of PETRONAS. Generally, O&G bearing fields with reserves less than 30.0 million boe that may not produce enough net income if developed by deploying conventional infrastructure and solutions is called a marginal field. The development of marginal fields is via the award of a Risk Service Contracts ("RSC") to service contractors. Each RSC is estimated to cost between US\$500.0 million (RM1,561.3 million) and US\$1.0 billion (RM 3.1 billion).

EPP3: Intensifying Exploration Activities

The gradual depletion of shallow water oilfields in Malaysia has compelled the industry to venture into deeper waters for exploration of petroleum and natural gas. The two main drivers of deepwater development specific to Malaysia are:

- Capability development and local participation The Government of Malaysia intends to develop local capabilities in deepwater projects and increase local companies' participation
- Goal to grow competency to be deepwater regional hub and global player The Government has aspirations to grow the Malaysian competency in deepwater and make Malaysia a deepwater regional hub and a global player.

²⁰ PEMANDU, *"ETP - A Roadmap for Malaysia"*

²¹ Source: PETRONAS

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PETRONAS has identified 9 deepwater fields for development. The first deepwater field in Malaysia, was Kikeh, which started production in 2007. The upcoming deepwater development, Gamusut-Kakap field which is located off Sabah, is expected to go online by second half of 2013. The main consideration for the development of deepwater fields is still economics. Due to the engineering complexity, the cost of developing such fields is high, estimated at more than US\$1.0 billion (RM 3.1 billion). Deepwater production is expected to contribute 30.0% of oil production in 2020. Around 15.0% would be from new additions in deepwater²².

EPP4: Building a Regional Oil Storage and Trading Hub

The Malaysian government intends to strengthen the downstream sector to make the O&G industry in Malaysia sustainable in the long term, through supporting the development of the chain of refining, storage and trading. To achieve this objective, several flagship projects have been announced by the Government to spearhead the development.

Pengerang Integrated Petrochemical Complex (PIPC), Johor

PIPC is a mega O&G development project that will house oil refineries, naphtha crackers, petrochemical plants as well as a LNG import terminal and regasification plant in an area of land covering 22,000 acres, with a total investment potential of at least RM170.0 billion. The PIPC consists of EPC projects worth a potential total of US\$45.0 billion (RM139.2 billion) to be tendered during the 2012-2016 timeframe. As of June 2012, two major initiatives have been announced to catalyse the development of PIPC:

- The RM5.0 billion Pengerang Independent Deepwater Petroleum Terminal ("PIDPT") is a joint venture between DIALOG Group Berhad, Royal Vopak of Netherlands and Johor State Secretary Inc.(SSI). The total storage capacity available at PIDPT is planned for five million cubic metres by the year 2020. Phase 1 expected to be commissioned in 2014.
- The RM60.0 billion Refinery and Petrochemical Integrated Development ("RAPID") project, which consists of a refinery with capacity of 300,000 b/d and petrochemicals plants, is targeted to be commissioned by 2016.

Sabah-Sarawak Integrated O&G Project ("SSIOGP")

PETRONAS announced that it has committed to a capital expenditure of RM45.0 billion to implement the SSIOGP which involved the development of upstream O&G fields in Sabah, and downstream projects which include the Sabah O&G Terminal ("SOGT"), and the Sabah-Sarawak Gas Pipeline ("SSGP").

- The SOGT, currently under construction, will provide the necessary infrastructure for receiving, processing and storing and transporting of crude oil and natural gas produced from the Gumusut/Kakap, Kinabalu Deep and East, Kebabangan, and Malikai fields. The SOGT is a RM3.8 billion project developed by Petronas Carigali Sdn Bhd, located in Kimanis, Sabah. Phase 1 of the development is scheduled for completion in 2013²³.
- The SSGP which began construction in 2008 is expected to be completed in the first quarter of 2013. The SSGP will transport gas from the SOGT to the PETRONAS LNG Complex in Bintulu.

EPP5: Unlocking Latent Gas Demand through LNG Imports

LNG re-gasification terminals will increase the availability of natural gas in Malaysia. The availability of gas will unlock the latent demand such as driving a higher usage of LNG-powered vehicles, the building of more gas-fired power plants to serve the electrification needs of the domestic energy market, as well as in the manufacture of liquid ammonia and urea as fertilizers to serve the domestic and regional agriculture industry. Moreover, the import of LNG will result in the market subsidies being removed progressively and finally the gas prices are expected to be market driven. Consequently, this will be a major incentive for PETRONAS to increase investments in gas

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²² Source: PETRONAS

²³ Source: PETRONAS

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exploration as the gas prices will be much higher than the current levels. The first LNG regasification terminal in Peninsular Malaysia already commissioned is located in Sungai Udang, Melaka and to receive its first cargo starting 2013.

Sipitang O&G Industrial Park ("SOGIP"), Sabah

The SOGIP consists of petrochemicals plants for manufacturing finished products from gas feedstock, as well as bulking facilities. The first initiative announced under SOGIP is the Sabah Ammonia-Urea ("SAMUR") Project for the building of an ammonia plant capable of producing 2,100 metric tonnes per day of liquid ammonia, and an urea plant capable of producing 3,500 MTPD of granulated urea, with integrated jetty facilities. The SAMUR project is targeted to be commissioned in 2015.

2.3.3 New O&G Development Projects

The following major O&G projects that have already been announced and open for tender application are expected to be deployed and completed within the 2012-2016 timeframe.

Type of Project	Location	Project Owners	Status
Upstream deepwater development projects	Kebabangan, Kamunsu, Ubah Crest (Block G), Pisangan (Block J), Jangas (Block J), North Siakap Petai, Malikai (Block G).	Various, including PETRONAS, ConocoPhilips, Murphy Oil, Shell and Kebabangan Petroleum Operating Company (KPOC)	Several contracts have already been awarded and projects ongoing.
Marginal field development projects	Berantai, Balai Cluster, North Malay Basin, Cenang and Tembikai, Desaru, Jambu, and other marginal fields	PETRONAS	In 2011, PETRONAS awarded 2 RSCs for the development of the Berantai and Balai clusters with a total development cost of US\$1.7 billion. In July 2012, PETRONAS awarded third RSC contract worth between US\$800 million and US\$1 billion.
EOR Projects	Tapis and other brownfields in offshore Sabah and Sarawak	PETRONAS, Shell, Exxon- Mobil	Several contracts have already been awarded and projects ongoing.
LNG receiving and regasification terminals – new development projects	PIPC-RAPID, Johor	PETRONAS	A LNG regasification terminal is under consideration to be built in PIPC and expected to be commissioned in 2016.
	Lahad Datu, Sabah	Petronas Gas	The new regasification terminal will be able to have a send out capacity of 760,000 tonnes per annum, and expected to be commissioned in 2015. Project awarded to Flour.
LNG plant capacity expansion projects	PETRONAS LNG Train 9 Complex in Bintulu	PETRONAS	US\$2 billion contract awarded to JGC Corp in March 2013
Petrochemicals and polymer plants - new development projects	PIPC, Johor	Various	Masterplan and FEED studies ongoing
Oil refineries - new development projects	PIPC-RAPID, Johor	Various, include PETRONAS, Gulf Company, CPC Corporation	Masterplan and FEED studies ongoing
Oil refineries -upgrade and expansion projects	Port Dickson, Negeri Sembilan	Petron Corporation, PETRONAS	Still at planning stage. Details of project and contracts has yet to be announced.

Key O&G Development Projects in Malaysia, 2012-2016

Source: PETRONAS and Frost & Sullivan

Several of these project contractors have already been appointed and are ongoing, while several more are at the evaluation stage. All of these projects provide significant engineering services and EPCM opportunities. Frost & Sullivan estimates the total EPC opportunities from the above listed projects to be US\$55.6 billion (RM173.6 billion) during the period 2012 to 2016. Of this, the engineering services opportunity available is estimated to be US\$4.1 billion (RM12.8 billion).

2.3.4 Relevant Laws and Regulations

PETRONAS regulates the upstream industry. Issuance of PETRONAS License is based on the Petroleum Development Act and Petroleum Regulations 1974. Based on this Act, an entity that wishes to provide goods/services to the upstream sector in the O&G industry in Malaysia must have a valid license issued by PETRONAS. All engineering service providers and EPC companies catering to the upstream industry in Malaysia must be licensed by PETRONAS

General requirements for application of PETRONAS license are:

- Applying company must be registered with PETRONAS
- Company must be registered with the Registrar of Companies
- Meet the paid-up capital requirements
- Have a stable financial standing
- The company must meet the Bumiputera participation requirement for equity, Board of Directors, management and employee based on the Standardised Work and Equipment Categories ("SWEC") applied (i.e. SWEC with a minimum Bumiputera requirement of 30.0%, 51.0% or 100.0%)

PETRONAS has made a policy that requires an entity to register with PETRONAS before participating in tender and activities in the downstream sector in order to monitor the development activities in this sector.

Globally, and in Malaysia, offshore O&G sector regulation is very strict after the Gulf of Mexico and Macondo incidents. This increases the compliance issues for O&G companies and contractors working on offshore O&G projects.

MITI is responsible for the issuance of licences for the processing and refining of petroleum and the manufacture of petrochemical products, whilst MDTCA issues licences for the marketing and distribution of petroleum products.

2.3.5 Competitive Landscape

The O&G industry in Malaysia is highly regulated hence industry players must be registered and licensed by PETRONAS in order to be able to provide their services in Malaysia. There are around 30 to 50 companies with the capability to provide engineering services catering to the O&G industry in Malaysia. They are pure-play engineering service companies as well as EPC companies with the capabilities to deliver engineering services. Majority of the engineering service companies in Malaysia are locally incorporated MNCs or local JVs with MNCs, with a smaller number of local companies (less than 10), either home-bred or have acquired the competency through the acquisition of a foreign engineering services company.

The following lists the key engineering service providers (which may also include EPCs) currently active in the O&G industry in Malaysia.

- Aker Engineering Malaysia Sdn Bhd
- Chiyoda Corporation
- Dialog Group Berhad
- JGC (Malaysia) Sdn Bhd
- Berlian McDermott Sdn Bhd
- MMC-AMEC Sdn Bhd
- MMC Oil & Gas Engineering Sdn Bhd (Subsidiary of MMC Corporation Berhad)
- Petrofac Engineering Services (Malaysia) Sdn Bhd
- Ranhil-Worley Parson
- Saipem (M) Sdn Bhd
- Technip Malaysia

Notes: The list is non-exclusive and not limited to these players. The companies listed are in no particular order.

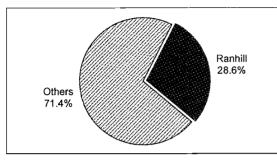
Source: Frost & Sullivan

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2.3.6 Market Share and Ranking

In 2011, Frost & Sullivan's estimated market size for the engineering services in the O&G sector in Malaysia was RM2,130.1 million. Ranhill's engineering services revenue was RM609.5 million, equivalent to 28.6% of the total market size.

Ranhill's Market Share, 2011



Sources: Ranhill, PETRONAS and Frost & Sullivan

2.3.7 Barriers to Entry

PETRONAS Licensing Requirement

All engineering service providers to the upstream O&G industry must be licensed by PETRONAS. The general criteria (which has been mentioned in section 2.3.4 Relevant Laws and Regulations) includes that the company must meet the Bumiputera participation requirement for its personnel. This condition essentially means that the companies that apply for licenses typically need to be Malaysian owned or have substantial operations set-up in Malaysia. The number of licenses awarding in a particular category is monitored by PETRONAS and this can make licensing difficult for new applicants. In certain categories, licenses are strictly limited to only a few suppliers thus blocking the market entry for new participants. If for certain reasons the company is disqualified from holding the PETRONAS license, then that company can no longer bid for upstream projects in Malaysia.

Intense Competition amongst EPC Companies for Engineering Projects

Malaysia has the presence of many EPC companies with the capability and competency to provide engineering services. Pure-play engineering services companies have to compete with these companies when bidding for contracts. The intense competition amongst the EPCs is a major barrier for new entrants seeking opportunities in the Malaysian market.

Industry Credentials and Project Track Record

O&G development projects are generally large-scale and complex, requiring high levels of technical know-how and competency in the concept design, FEED and detail engineering. Successful execution and commissioning of such projects require exceptional project management skills by the ability to coordinate multiple stakeholders which include client, consultants, regulators, vendors, suppliers, and other engineering services companies and at the same time ensuring project milestones and deliveries are met within the designated timing and costs constraints. New entrants lacking in industry credentials such as having none or a limited track record, and proven technology competency will be at a disadvantage when competing with established industry players with longstanding track record and industry-wide reputation.

Difficulty to Recruit and Retain Experienced and Skilled Engineers in Offshore O&G Engineering Design

Due to the competition from the Middle East market, there exists a brain-drain situation in Malaysia. The Middle East O&G market is one of the largest in the world, and the O&G upstream activities are also conducted offshore. In 2011, the petroleum reserves in the Middle East account for more than 50.0% of the global reserves (2011 Global: 1,383 billion barrels) and natural gas reserve account for approximately 40.0% of the global reserves (2011 Global: 187 trillion cubic metres)²⁴. Engineers skilled in the offshore O&G engineering design with more than 5 years of experience are in high demand by the O&G major companies. As a strategy in the ETP, the Government of Malaysia has been extending

²⁴ Source: BP

[©] Frost & Sullivan

invitations to multinational EPC companies to invest in Malaysia and expand their operations for a mutually beneficial long term association through JVs or partnerships with local EPC companies. It is hoped that this association²⁵ will create a conducive environment for knowledge transfer, building the local competency and bridging this skill gap.

2.3.8 Industry Risks and Challenges

Susceptibility to Policy Changes by PETRONAS

Any policy changes may result in a positive or negative impact to domestic and foreign investors. Policy changes may be driven by various factors such as economic and political conditions. In 2011, PETRONAS revised the foreign equity allowed for engineering companies in the upstream O&G sector from 49.0% to 70.0% to encourage foreign investments in this sector due to the lack of suitably qualified local companies in this area. PETRONAS may at any time revise its policies to accommodate the changing environments and to ensure that the national interests are protected.

Risk associated with Fluctuating Oil Prices

The O&G is a cyclical industry, periodically witnessing boom or bust scenarios. Investment in the O&G industry is linked to oil prices. An increase in crude oil prices spurs investment into the exploration and production sector. In contrast, when oil prices decline, investment into the O&G industry correspondingly reduces. During periods of low investment, projects could be delayed or even cancelled. This would lead to reduction in opportunities available for engineering service providers or EPC contractors. During periods of high investment, demand for services from the O&G sector picks up.

Susceptibility to Project Delays and Cost Overruns

Engineering services companies are committed to contract deadlines and are at risk of liquidated damages should there occur a delay in the commissioning of EPC projects. In a typical EPC process workflow where detail engineering activities are conducted in concurrent with the procurement and installation processes, delays may stem from procurement delays or changes to the designs due to having encountered new challenges, and other external factors.

Increasing Project Complexity and Higher Technology Risks in Deepwater Projects

Deepwater projects are amongst the world's most complex engineering undertakings and pose project management challenges. This includes managing the technology and manpower. Technological challenges include subsea flow assurance and remote operations. Specific management challenges would include manpower planning, health and safety requirements, and overall project control and logistics management.

Engineering complexity is generally amplified for offshore structures due to additional environmental considerations. Offshore structures are designed to withstand harsh sea conditions, or instability of the seabed as a result continental plate movements. Furthermore, for deepwater structures, the risk associated with technology complexity often is related to safety and cost of development. The risk of failure is higher for complex projects due to the unforeseen challenges.

2.3.9 Services Substitutes

The engineering services sector is a supporting service industry hence there is no substitute for the services provided in this sector. The major service differentiations are:

- The service packaged being offered by each companies
- The scope of work capabilities depending on the company size and equipment portfolio, comprising small part of services in sub-contractor level to turnkey project in main contractor level
- Level of equipment technology being used in the service

Project owners may prefer the all-in EPC contracting method in contrary to the EPCM contract. The trade-off in entering into an EPC contract is the generally higher project cost and the loss of control in the project flexibility and choice of vendors, but at the same time all financial risks are transferred to the EPC contractor.

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²⁵ Source: Economic Transformation Programme; EPP8

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2.3.10 Reliance and Vulnerability to Imports

The industry is not reliant or vulnerable to imports. Despite of many foreign companies with the capability to provide engineering services to the O&G industry in Malaysia, these companies are limited by PETRONAS's vendor licensing requirements.

2.3.11 Industry Prospects and Outlook

The O&G industry development in Malaysia is currently observing a phase of revival and growth after recovering from a subdued economic growth in 2009-2010 which had momentarily steered the industry into a slowdown. The Government played central role in turning the industry around in its initiatives to promote and encourage investment in this sector.

The favorable outlook for the Malaysia O&G sector is mainly driven by PETRONAS' continued commitment to domestic CAPEX spending.

The major themes evolving in the near to long term driving opportunities for engineering services and EPC contracts are the following:

- Development of refining and petrochemical hub
- Deepwater projects
- Marginal fields
- EOR projects
- LNG regasification terminals
- PETRONAS' investments in the above segments will result in more opportunities for the engineering services providers and EPCM contractors in the Malaysia market.

The total EPC opportunity available for the period 2012 to 2016 is estimated to be US\$55.6 billion (RM173.6 billion). Of this, the engineering services opportunity available is estimated to be US\$4.1 billion (RM12.8 billion).

3 The Power Generation Industry

3.1 Introduction

3.1.1 Industry Background

The electricity supply industry in Malaysia is a large industry serving a combined consumer base from the residential, commercial, industrial and other sectors. In 2011, this industry's consumer base exceeded 8.6 million consumers, which consumed 101,753 Gigawatts per hour (GWh) of electricity throughout the year.

Distribution & Billing Power Authorities Transmission Generation Regulatory, Governance Federal / State Government-Owned and Implementation **Public Utility Companies** Energy Commission TNB, SESB, SEB/SESCO KeTTHA EPU Private Players IPPs /SREPs Other electricity Energy Information distributors Bureau Self-Generators State Government Co-generators UKAS Ranhill operates in this domain

Electricity Supply Industry Structure in Malaysia, 2012

Source: Frost & Sullivan

The Government of Malaysia monitors and closely regulates the electricity supply industry through the various Government of Malaysia agencies such as the Economic Planning Unit (EPU) (Energy Unit),

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8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

Ministry of Energy, Green Technology and Water (KeTTHA), Energy Information Bureau and the Energy Commission, whereas the Public-Private Partnership Unit (UKAS) under the Prime Minister Department, is responsible in facilitating the implementation of public-private partnerships ("PPPs") and privatization policies. (The roles and responsibilities of these respective Government of Malaysia agencies are included in Section 3.3.9 Relevant Laws and Regulations). The Federal Government participates in this industry via the national electric company, Tenaga National Berhad (TNB) in Peninsular Malaysia, and 1Malaysia Development Berhad (1MDB). In Sabah, their participation is via TNB as the controlling shareholders of Sabah Electricity Sdn Bhd (SESB), an entity under the Sabah State Government. In Sarawak, the electricity supply industry is under the full mandate of the Sarawak State Government's state-owned corporation, Sarawak Energy Berhad (SEB). SEB and its operating subsidiaries are in control of the entire electricity supply value chain in Sarawak, which includes power generation, transmission and distribution to consumers.

The Government of Malaysia's involvement in this industry is driven by its need to ensure the welfare of all levels of the population and ensuring they have access to affordable electricity. Electricity is generated in power plants which may be public or private operated. The electricity generated is transmitted throughout the country via the National Grid or the respective state grids. Electricity flows through these transmission lines at high voltages. TNB, SESB and SEB play integral roles in distributing and ensuring the continuity in the supply of electricity to these consumers in their respective regions. Apart from these utility companies, there are also other licensed electricity distributors such a NUR Distribution Sdn Bhd²⁶.

The electricity supply industry in Malaysia is in the growth stage of the lifecycle. While this industry is highly regulated and competition is relatively low, growth in the industry is driven by the growth in population and the demand from the commercial and industrial sectors. This is expected to increase in the coming years as Malaysia's economy continues to grow and consequently leads to higher electricity requirements. The electricity supply industry will have to strive to meet this demand by generating additional capacities of electricity. High amounts of investment will be required not only to erect more power plants, but also on transmission lines, substations and other corresponding equipment that distribute electricity to homes and businesses that depend on it.

3.1.2 IPP Value Chain

In general, power generation facilities that are dedicated to produce electricity for the national distribution are operated by the public utility companies, and complemented by Independent Power Producers("IPPs") and Small Renewable Energy Producers ("SREPs").,It is also common for public utility companies or the federal/state government to have minority interest in the private power producing companies. IPPs and SREPs sell electricity to the utility companies to be sold to end users. Other private operators namely self-generators and co-generators generate electricity for their own consumption, and may sell excess electricity to the utility companies or on a need only basis.

IPPs are private entities which have been licensed to develop, finance, build, own and operate power plants. In Peninsular Malaysia and Sabah, each IPP will have a long term Power Purchase Agreement ("PPA)" in place with a utility company, governing the sale or off-take of generated electricity between these two parties. In Sarawak, IPPs enter a PPA with the Sarawak State Government. IPPs are not licensed by the Government to transmit or distribute electricity to the population at large.

IPP Value Chain

Fuel Supply –		·· · · · · · · · · · ·	
natural gas, coal, diesel, etc. Technology & Equipment Suppliers	generation	Utility Companies – Transmission, — distribution and billing	Consumers – residential, commercial, industrial, others.

Source: Frost & Sullivan

Fuel is a key raw material in the generation of electricity. Malaysia utilises a wide range of fuel options such as LNG, diesel, coal, hydro and biomass for the generation of electricity (Refer to Section 3.4.2 Supply Conditions for more information on fuel supply). IPPs are highly dependent on the continuous

²⁶ NUR is the dedicated electricity distribution company for the Kulim High Technology Park in Kedah.

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8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

supply of fuel in order to operate the power plants, as well as technology and equipment suppliers to ensure the power generators are well maintained and always operational.

The electricity consumers may be segmented into residential, commercial, industrial and other sectors. The number of electricity consumers is based on the registered payee as recorded by the public utility companies. For the residential sector, the number of consumers may reflect the number of households with electricity connection.

Segmentation of End User

Sector	Types of End Users
Residential	Households in urban and rural areas and private residential areas
Commercial	Offices, shopping complexes, restaurants, shop lots
Industrial	Factories and construction sites
Others	Public lighting, mining and agriculture

Sources: Energy Commission and Frost & Sullivan

3.2 Industry Development in Malaysia

Industry Development in Peninsular Malaysia

The National Economic Policy ("NEP") was Malaysia's socio-economic restructuring affirmative action plan aimed at achieving equal distribution of the country's wealth in the need to strengthen political unity and stability. In privatising the National Electricity Board (NEB), the Government took actions to maintain the welfare of end consumers by passing two legislations to replace the then Electricity Act. In 1990, TNB was established to replace NEB. TNB, at that time, was a private company, wholly owned by the Government of Malaysia.

Industry Development in Sabah

Electricity transmission and distribution grids in Sabah and Sarawak are independent from the electricity grids in Peninsular Malaysia.

Electricity generation in Sabah began in 1910 and was supplied by three different organisations. These three organisations later merged to become the North Borneo Electricity Board. When Sabah and Sarawak joined the Federation of Malaya to form Malaysia in 1963, North Borneo Electricity Board was renamed to Sabah Electricity Board. Sabah Electricity Board was later privatised and renamed as SESB. SESB is currently 20.0% owned by the State Government of Malaysia of Sabah and the remaining 80.0% stake is owned by TNB. SESB is responsible for generating, transmitting and distributing electricity as well as developing the electricity infrastructure for the entire state of Sabah and the Federal Territory of Labuan.

Private Participation in the Power Generation Industry in Peninsular Malaysia and Sabah

In 1983, the Federal Government introduced the Malaysia Incorporated Policy as a strategy to encourage higher private sector involvement in the national's economic development, via a PPP.

In 1992, following a nationwide power blackout and a series of interruptions, the Government of Malaysia opened the electricity generation sector to private participants. Private participants were awarded with the IPP license which allows them to build and operate power plants and sell the electricity generated to the national electric company in accordance with a long term PPA. The first generation of gas fired power plants began commercial operations in 1993 and 1994. The second generation power plants began commercial operations between 1998 and 2001. These plants have each been in operation for at least 10 years. The third generation power plants have each been in commercial operations for less than 10 years.

Ranhill Powertron Sdn Bhd and Ranhill Powetron II Sdn Bhd are second and third generation IPPs respectively.

3.3 Power Generation Technology

The basic principle in the generation of electricity is the need for a mechanical energy to rotate the power generator turbines. The rotational movement will cause changes of magnetic flux in the generator and this will produce electricity. This mechanical energy may be harnessed from high pressured steam, thermal combustion or flowing water to move the turbine. Power plants house equipment such as boilers, turbines and generators, which are critical equipment in the production of electricity. The types of large-scale power plants in Malaysia include fuel-powered (i.e. coal, diesel and gas) and hydroelectric.

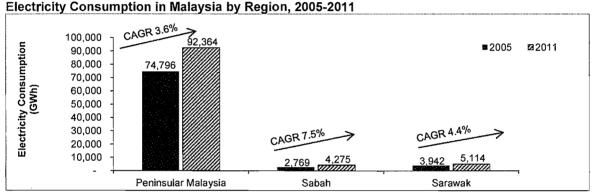
Analysis of the Power Generation Industry 3.4

3.4.1 **Demand Conditions**

3.4.1.1 Electricity Consumption in Malaysia

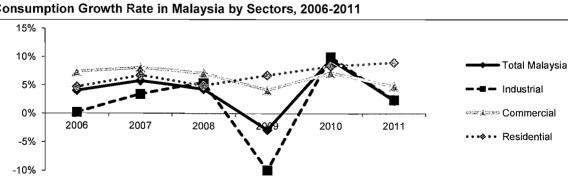
Peninsular Malaysia remains as the primary consumer of electricity in Malaysia. This region consumed approximately 92,365 GWh in 2011, which was more than 90.0% of total electricity consumed nationwide (Malavsia 2011: 101.753 GWh). Peninsular Malavsia is entering into the maturing phase of the industry lifecycle as depicted by the high electricity consumption, large customer base and slower CAGR when compared with Sabah and Sarawak. This region had a consumer base exceeding 7.6 million consumers in 2011. Sabah and Sarawak, on the other hand, each had a customer base of approximately 464,100 and 528,600 respectively.

While electricity consumption in Sarawak was marginally higher than Sabah (Sarawak 2011: 5,114 GWh, Sabah 2011: 4,275 GWh), Sabah depicted a faster growth in electricity consumption between 2005 and 2011, at a CAGR of 7.5% compared to Sarawak which was 4.4%. Meanwhile, Peninsular Malaysia showed a CAGR of 3.6% during the same period.



Sources: Energy Commission and Frost & Sullivan

Although the residential sector dominates the electricity industry in terms of the number of customers. electricity consumption is generally much higher in the industrial and commercial sectors. This is as expected as these industries utilise high level of electricity in their daily operations such as to run lighting and air conditioning in offices and the manufacturing equipment and heavy machineries in factories. Hence, it is also not surprising that the dip in electricity consumption recorded in 2009 during the prolonged financial crisis, was mainly attributable to the reduced consumption from the industrial sector. Industrial consumers utilised less electricity during the crisis as many of the industries were operating at a lower production level due to the reduced market demand. Nevertheless, it should be noted that electricity consumption from the residential and commercial sectors had continued to grow. This indicates that the adverse economic condition is not a restraining factor for growth in these sectors.



Consumption Growth Rate in Malaysia by Sectors, 2006-2011

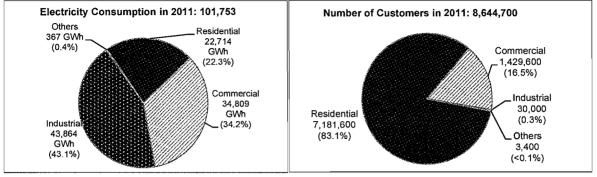
Sources: Energy Commission and Frost & Sullivan

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8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

Electricity consumption in the industrial sector was 43,864 GWh in 2011, The commercial sector emerged as the second largest consumer of electricity, with its consumption of 34,809 GWh whereas the residential sector, despite its much larger consumer base, consumed only 22,714 GWh of electricity in 2011.



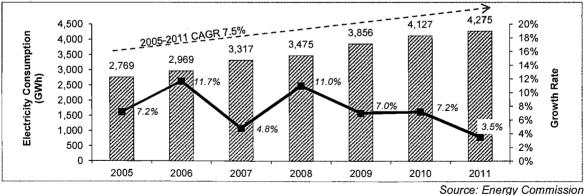
Electricity Consumption in Malaysia and Number of Customers by Sectors, 2011

Sources: Energy Commission and Frost & Sullivan

3.4.1.2 Electricity Consumption in Sabah

Sabah is the second largest state in Malaysia with a land area of 72,500 square kilometre and located North of Borneo. In has a population of 3.2 million with a low urbanization rate of 54.0% in 2010. The current gross domestic product ("GDP") per capita in 2010 was RM17,242, lower than the national average of RM27,113²⁷. The economy is highly dependent on the export of its three main commodities namely petroleum, palm oil and cocoa products. Sabah in general has an underdeveloped industrial sector.

Electricity consumption in Sabah increased from 2,769 GWh in 2005 to 4,275 GWh in 2011 at a CAGR of 7.5%, which was faster than Peninsular Malaysia and Sarawak comparatively. Consumption growth in Sabah continued to be affected by the economic slowdown as can be seen by the moderated annual growth rates in 2010 and 2011. The following chart shows the historical trend of the electricity consumption in Sabah between 2005 and 2011 and the year-on-year growth rate.

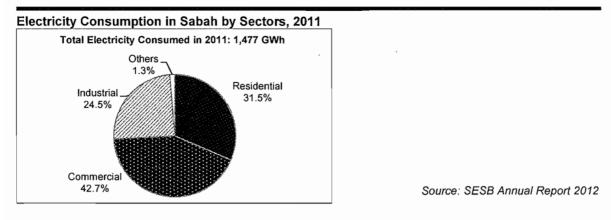


Electricity Consumption in Sabah, 2005 – 2011

Unlike Peninsular Malaysia, the electricity generated in Sabah was mostly distributed to the domestic and commercial sectors. In 2011, 42.7% of the electricity consumed in Sabah was from the commercial sector, followed by domestic (31.5%) and industrial (24.5%). The remaining 1.3% was for public lighting.

²⁷ Source: Department of Statistics, Malaysia (DOS)

[©] Frost & Sullivan



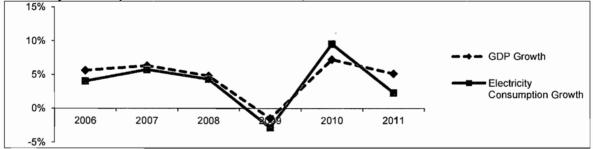
3.4.1.3 Demand Drivers

Government Initiatives to Drive Economic Growth

The growth in the electricity industry correlates positively with the economic growth and pace of which a country develops. As a country develops, more electricity would be required for new residential and commercial property developments, increasing industrial activities as well as other public amenities such as public lighting and electric rail. Hence, growth in Malaysia's GDP reflects the growth in the consumption of electricity trend.

Malaysia's present economy is driven by knowledge and capital-intensive industries, and technology. The following graph shows the electricity consumption growth rate against the GDP growth rate in Malaysia for the last five consecutive years.

Electricity Consumption Growth and GDP Growth, 2006-2011



Sources: DOS, Energy Commission and Frost & Sullivan

Further growth in the economy is outlined in the 10th Malaysia Plan ("10MP"), which strives to transform Malaysia into a high income nation by 2020 by focusing on 12 NKEAs. Among the identified NKEAs are wholesale and retail, financial services, tourism, electronics and electrical, education and greater Kuala Lumpur. The Government of Malaysia has also committed to the establishment of 5 economic growth corridors to promote free trade. These corridors are the Iskandar Development Region in South Johor ("Iskandar Malaysia"), Northern Corridor Economic Region ("NCER"), East Coast Economic Region ("ECER"), Sabah Development Corridor ("SDC") and Sarawak Corridor of Renewable Energy ("SCORE"). Furthermore, the development of the Tun Razak Exchange ("TRX") is also expected to bring in an investment of RM26.0 billion to the country. The electricity supply industry in Malaysia is expected to experience growth in the coming years, as a direct result of economic growth within the country.

Increasing Usage of Electrical and Electronic Consumer Products

Electricity has become one of the basic necessities for the modern living to power light, drive industries, operate public facilities such as the water supply system, communication system and public transportation system, and most importantly the national security systems. The increase in the wealth of the nation is expected to bring about an increase in the disposable income amongst the population which will drive the retail of consumer electrical and electronic products. The electricity consumption per capita in Malaysia is on an increasing trend having grown from 626 kWh in 1980 to 3,746 kWh in 2011.

Development of Rural Infrastructure

In the 2013 Budget, the Government has identified rural development as part of Malaysia's plan to reduce the disparity between urban and rural areas. In 2013, a sum of RM4.5 billion will be allocated to implement various rural infrastructure development projects. From this sum, RM1.6 billion will be apportioned for rural utility infrastructure which involves water supply to 24,000 houses and electricity supply to 19,000 houses in the rural areas and "orang asli" (aboriginies) community. Going forward, this will further increase the demand and consumption of electricity in the country.

3.4.1.4 Demand Restraints

Effects of the Global Economic Recession

The industrial and commercial sectors are the largest consumers of electricity. Electricity is required in the mining and construction activities, and to operate factories, refineries, manufacturing facilities and commercial / business centres and retail outlets. The economic slowdown has impacted these sectors as consumers reduce their spending resulting in the drop in demand for products and raw materials. Reduced construction, mining and industrial activities mean that the energy requirement from these sectors will also reduce.

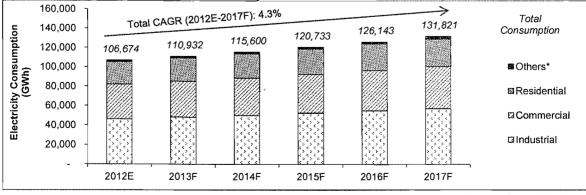
Slower Development of the Transmission and Distribution Infrastructure in East Malaysia

Demand restraints for electricity may exist in rural areas, mainly due to the lack of infrastructure, less industrial activities and the generally lower income per household by which electricity bills may be a burden. East Malaysia, namely Sabah and Sarawak, have less economic activities as compared to Peninsular Malaysia and thus, resulting in lower development in a lot of areas within states. As a result many areas in East Malaysia remain rural, the transmission and distribution infrastructure or grid has not been properly developed. Hence due to inadequate transmission and distribution infrastructure, both of these states are faced with shortages in electricity generation capacity.

3.4.1.5 Electricity Demand Forecast

The consumption of electricity is a key driver for the electricity supply industry. This industry is expected to grow at a healthy pace from 2012 to 2017 as a result of future economic growth, supporting Government of Malaysia policies, population growth, consumption per capita and consumer preferences. Economic growth in Malaysia, measured by GDP growth, is expected to increase at a CAGR of 4.9% between 2012 and 2017. Electricity consumption is projected to grow from an estimated 106,674 GWh in 2012 to 131,821 GWh in 2017 at a CAGR of 4.3%. The electricity supply industry will need to plan and make its move in meeting this anticipated increase in electricity consumption in the coming years.

The industrial segment is expected to remain as the main consumer of electricity as compared to residential and commercial segments. Electricity consumption in the industrial sector is projected to grow from 46,011 GWh in 2012 to 57,432 GWh in 2017 at a CAGR of 4.5%. As the second largest consumer of electricity, consumption in the commercial sector is anticipated to increase from 35,844 GWh in 2012 to 43,268 GWh in 2017 at a CAGR of 3.9%. Meanwhile, the consumption in the residential sector is expected to witness a slightly higher CAGR of 4.2%, from 23,259 GWh in 2012 to 28,595 GWh in 2017.



Projected Electricity Consumption in Malaysia, 2012E – 2017F

Note: *Include public lighting, mining and agriculture.

Source: Frost & Sullivan

3.4.2 Supply Conditions

3.4.2.1 Fuel Consumption in the Power Supply Industry

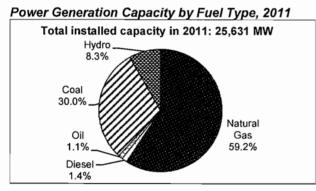
Fossil fuels (i.e. natural gas, coal, diesel and oil) are the main sources of fuel used in the power generation industry in Malaysia. The cumulative consumption of fossil fuels exceeded 90.0% of total fuel consumption annually.

Natural gas generally formed the largest percentage of consumed fossil fuels, forming more than half of the total fuel consumption from 2007 to 2010. In 2011, natural gas consumption dropped by more than 30.0% mainly due to gas curtailment by PETRONAS. In December 2010, a fire incident occurred on the Bekok C platform off Kerteh causing severe damage and disruption of gas supply to Peninsular Malaysia. Subsequently this had prompted PETRONAS to halt production in several of its gas platforms to review the safety and conduct a full-scale maintenance. During this time (April – June 2011), electricity production was ramped up in several other non-gas power plants to compensate for the loss of production in the gas-fired power plants.

In 2011, the fuel consumption for coal was 13,418 ktoe (46.0%) followed by natural gas at 11,788 ktoe (40.5%). Diesel, fuel oil and hydro made up the remaining 13.5% of fuel consumed in the power generating industry in Malaysia.

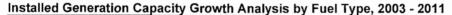
3.4.2.2 Power Generation Installed Capacity in Malaysia

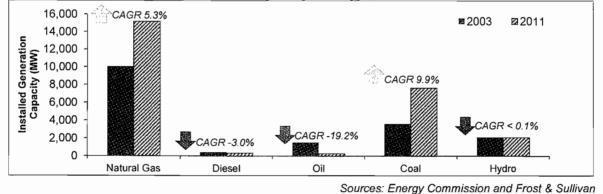
The total installed power generation capacity in Malaysia has grown from 17,823 MW in 2003 to 25,631 MW in 2011 at a CAGR of 4.6%. In 2011, the power generation facilities in Malaysia, based on installed capacity, were predominantly gas-fired (59.2%), followed by coal (30.0%), hydro (8.3%), diesel (1.4%) and oil (1.1%). The chart shows the breakdown of installed power generation capacity in Malaysia by fuel type in 2011.



Source: Energy Commission

It is noted that as the Government of Malaysia strives to diversify the fuel consumption in this industry, coal is emerging as a significant source of fuel as Malaysia begun investing in coal-fired power plants. Between 2003 and 2011, the national installed capacity of coal-fired power plants grew at a CAGR of 9.9%, faster than the gas-fired power plants at 5.3%. During the time, the Government had approved two major power plant projects in Peninsular Malaysia, located in Tanjung Bin, Johor and Port Dickson, Negeri Sembilan, with a combined installed capacity of 2,500 MW.

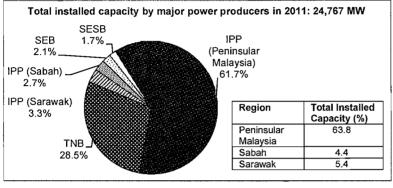




3.4.2.3 Power Generation Installed Capacity by Major Power Producers in Malaysia

In 2011, the combined installed capacity by major power producers in Malaysia stood at 24,767 MW. The major power producers are the utility companies such as TNB, SESB, SEB, and the IPPs, and exclude self-generators and co-generators. TNB, as the national electric company, has a combined power generation capacity at 28.5% and holds the largest number of power generation assets in Malaysia. Meanwhile, the combined power generation capacity of IPPs in Malaysia amount to 67.7% of the total installed capacity by major power producers in Malaysia. (Refer to Section 3.4.8 for the competitive landscape of the IPPs).

Installed Capacity by Major Power Producers in Malaysia, 2011



Notes:

- The installed capacity by major power producers in the above chart excludes generation capacities of cogenerators and self-generators.
- The installed capacity of TNB, SESB and SESCO in the above chart exclude generation capacities from their IPP subsidiaries and/or affiliates.

Sources: Energy Commission, TNB, SESB and SEB

3.4.2.4 Availability of Major Fuel for Power Generation in Malaysia

Natural Gas

Based on the latest available data, 74.3% of natural gas consumption in 2010 was used for power generation.

Sectors	Consumption (million standard cubic feet)					
	Peninsular Malaysia	Sabah	Sarawak	Malaysia		
Residential	17	-	211	228		
Commercial	871	-	274	1,145		
Industry	156,072	6,928	1,377	164,377		
Non-energy	36,304	7,594	19,139	63,037		
Transport	9,409	-	-	9,409		
Power Stations	624,004	27,145	36,543	687,692		
Total	826,677	41,667	57,544	925,888		

Consumption of Natural Gas in Malaysia, 2010

Sources: National Energy Balance 2010, KeTTHA and Energy Commission

Malaysia is a natural gas producer, and the Government of Malaysia's accompanying subsidies on natural gas makes it the cheapest fuel source for power generation, hence it is the preferred fuel of choice for power plants. The price of natural gas has been pegged against MFO prices, whereby the subsidised price of natural gas is calculated by multiplying the MFO price by a factor of 1.04 and then discounted to RM10.70 per mmbtu (prior to 1 June 2011) if sold to the power sector. On 30 May 2011, the Government of Malaysia announced a revision in regulated natural gas tariff for electricity and industrial sectors, whereby it will be increased by RM3.00 per million metric British thermal units (mmbtu) every six months from 1 June 2011 to 1 December 2015. As such, effective 1 June 2011, the price of natural gas was increased to RM13.70 per mmbtu when sold to the power sector and the price had not been revised since then.

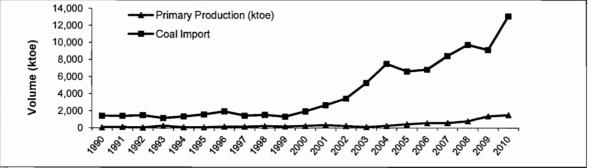
Natural gas supply issues currently affecting Peninsular Malaysia is mainly due to logistic challenges which is causing a supply bottleneck to this region. Natural gas is piped directly from the producing gas fields offshore Terengganu via subsea pipes to onshore gas terminal in Kerteh. The current capacity at the Kerteh gas receiving terminal is unable to cater for the high rate of demand. Other means of transporting natural gas will require the fuel to be compressed into LNG before transporting in sea tankers. In order to accommodate LNG imports, Peninsular Malaysia would then have to equip itself with several LNG regasification terminals to allow for the vaporisation of the imported LNG into natural gas before it can be used. The first LNG regasification terminal in Peninsular Malaysia was built at Sungai Udang, Melaka and expected to start commercial operation by mid-2013, operated by PETRONAS. A second regasification terminal is currently under consideration to be built in Pengerang.

Coal

Coal is an easily available fuel source and mined worldwide. Malaysia has a large coal reserve, estimated at 1,938.4 billion tonne, predominantly in Sarawak (80.0%) and Sabah (19.0%), while the remaining in Perlis, Perak and Selangor²⁸. Majority of coal produced in Malaysia are from mines in Sarawak. Although the coal reserves in Sabah have not been commercially exploited, Sabah is in proximity to producing coal mines in the Kalimantan area.

Malaysia has an under-developed coal-mining industry and instead mainly import coal from countries with larger coal reserves and more established coal industries such as Indonesia, Australia and China. In 2010, Malaysia imported 19.9 million tonnes of coal at an import value of RM5.2 billion, The following graph illustrates coal production and import in Malaysia for the duration 1990-2010.

Malaysia Coal Production and Import, 1990-2010



Source: Energy Commission

In 2010, Malaysia's total consumption of coal in the power sector was 14,522 ktoe, of which approximately 90.0% was imported. This dependency on imported coal is expected to increase over the short term, as the Energy Commission estimated an increase in the consumption of coal for electricity generation in Peninsular Malaysia from approximately 35.0% in 2009 to an estimated 55.0% in 2012.

0	Consumption in 2010 (metric tonnes)					
Sectors	Peninsular Malaysia	Sabah	Sarawak	Malaysia		
Industrial	2,700,459	-	398,213	3,098,672		
Power Stations	18,482,339	-	2,018,688	20,501,027		
Total	21,182,798	-	2,416,901	23,599,699		

Consumption of Coal in Malaysia, 2010

Sources: National Energy Balance 2010, KeTTHA and Energy Commission

Although coal will undoubtedly remain as a major fuel source in the power generation industry in Peninsular Malaysia, plans to build coal-fired power plants in Sabah is generally not well-received by many parties, particularly environmentalist groups and the local community due to the reported adverse environmental impact associated with emission from coal burning. Unlike Peninsular Malaysia, Sabah is not affected by natural gas supply shortage. The plan to construct a coal power plant in Lahad Datu was put on-hold indefinitely due to environmental concerns. The plans to commercially exploit the coal reserves in Maliau and Danum Valley, Sabah hold several challenges as the Ministry of Environment has rejected the environmental impact assessment conducted. Furthermore, the deposits are located in heritage forest reserves that are legally protected under the Cultural Heritage Conservation Enactment 1977.

²⁸ Source: National Energy Balance 2010, KeTTHA and Energy Commission

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3.4.3 Government Initiatives

3.4.3.1 Improving Generation Capacity

In the 10MP, the Government of Malaysia has announced initiatives to improve the generation capacity of electricity. In improving the generation capacity of electricity, the Government of Malaysia is looking towards:

- Diversifying alternative fuel sources, particularly hydro and the importation of coal and LNG by 2015 to ensure stability in fuel supply
- To further explore investments in coal technology to reduce emission from this source of fuel
- To consider nuclear energy as a source of energy. In 2010, the Government of Malaysia announced its plan of building the nation's first nuclear power plant in the country by 2021. The investment cost for the construction of a 1,000 MW nuclear power plant is expected to range between approximately RM7.7 billion (USD2.4 billion) and RM12.2 (USD3.8 billion).

The Government of Malaysia has further announced specific initiatives to increase electricity generation capacity in Malaysia. This includes:

- The Government has approved to increase the capacity of TNB Janamanjung coal-fired power plant by 1,000 MW, which is expected to be completed by end 2014. In June 2011, the Government of Malaysia has approved the capacity expansion of the Tanjung Bin coal-fired power plant by another 1,000 MW.
- The commissioning of LNG fired power plants in Lahad Datu, Sabah;
- The commissioning of the Ulu Jelai and Hulu Terengganu hydroelectric plants with a combined capacity of 622 MW during the Plan period, targeted to complete in 2015;
- The Energy Commission has floated 2 open tender for the development of coal-fired power plants with capacity of 1,000MW and 2,000MW respectively. The 1,000MW power plant is planned as a fast-track development and for commissioning in October 2017 whereas the 2,000MW will be a greenfield development and expected to be commissioned in 2018/19. Both of these tenders are currently at the bidding stage.

In Sarawak, the State Government has invested in a new 944MW hydroelectric power plant at Murum, which is expected to go onstream by end of 2013, while talks to buy over the 2,000MW Bakun dam project from the Federal Government is still ongoing.

Alongside increasing the generation capacity in Malaysia, the Government of Malaysia also intends to strengthen and expand transmission lines and improve reliability in the supply of electricity. TNB has carried out a feasibility study to evaluate the possibilities of linking the National Grid in Peninsular Malaysia to Sumatera, Indonesia. This grid linkage project is likely to be rolled out in 2015. This grid linkage project is also in line with realizing the ASEAN Power Grid (APG) program and the Indonesia – Malaysia – Thailand Growth Triangle (IMT – GT), whereby this grid project to Sumatera is a potential energy project connecting these three countries.

These initiatives by the Government of Malaysia will further serve to strengthen the performance and reliability of the electricity supply industry in Malaysia.

3.4.3.2 Restructuring of the Electricity Supply Industry

The 10MP highlights several measures to be taken to restructure the industry which include:

- revise gas price every six months to reflect market rates
- To introduce performance based regulation
- To renegotiate PPAs for the first generation of IPPs
- To create separate accounting for generation, transmission and distribution activities

In September 2010, MyPower was formed which has been tasked to plan and implement the restructuring of the industry alongside KeTTHA. Through the restructuring, it is envisioned that the electricity supply industry in Malaysia will be more competitive, equitable, liberalised and provide a level playing field for its stakeholders.

It is clearly noted that the Government of Malaysia takes seriously its role of providing sufficient electricity to meet the anticipated increase in electricity consumption over the long term, with considerations in place for short term fulfilment as well. The Government of Malaysia has also, in the past, intervened through policy formulation and the revision of electricity tariffs to ensure that all levels of the population have access to affordable electricity. This trend is expected to continue in the coming years.

[©] Frost & Sullivan

3.4.4 Barriers to Entry

Strict Licensing Requirement

The electricity supply industry in Malaysia is highly regulated by the Government of Malaysia. All private power producers are required to obtain the Electricity Supply Licence from the Energy Commission in order to operate. Furthermore, the Government imposes a strict criterion which the applicants must comply to in order to be succeed in their application.

Refer to Section 4.4.10.1 for the Electricity Supply Act 1990.

Availability of New Concessions

Entrance to the power generation sector is only possible through Government awarded concession. This is the ultimate barrier for new entrant to participate in the power generation industry. The Government will only issues new concessions on a need-to basis based on the existing national power generation capacity and the projected demand. Due to the high cost of building a power plant, PPAs signed with the Government are generally long term. The typical contract duration for a PPA is 21 years for a gas-based power plant and 25 years for coal-based power plant²⁹.

The first generation³⁰ PPAs signed during the 1990s will be expiring between 2015 and 2017 whereas the second and third generation PPAs will only expire post 2020. The Energy Commission has opened bids for 4,500 MW of new supply agreements by 2016. This will replace gradually expiring first generation PPAs and cater to the increasing demand for electricity in Malaysia. Players who wish to bid will have to achieve greater efficiency to result in lower input prices for the supply of power in order to offer competitive pricing to TNB. Existing IPPs will have better advantages in terms of operational experience as well as readily available facilities and land for expansion. Thus, the possibility of existing IPPs being awarded new PPAs is higher, thus, limiting the chances of entry for new players.

In October 2012, the Energy Commission have awarded 2 of the first generation IPPs, Segari Energy Ventures and Genting Sanyen, with a new PPA that will extend their current service period of selling electricity to TNB by an additional 10 years. The Energy Commission has also awarded TNB a contract to build and operate a RM3.0 billion 1,000 MW combined-cycle gas turbine power plant in Prai, Penang. In December 2012, the Energy Commission has floated 2 open-tenders for 2 power plants with combined capacity of 3,000MW which are currently still in the bidding process.

High Capital Investment Sustained by Industry Players

Existing IPPs have sustained high costs for the construction of power plants. The construction of an IPP will incur costs in the procurement of land, purchasing equipment from overseas, engagement of experienced plant turnkey contractors and licensing. For example, the total project cost for both of Ranhill's power plants with a combined generation capacity of 380 MW totalled approximately RM1.6 billion (approximately RM700.0 million for Ranhill Powertron I and approximately RM800.0 million for Ranhill Powertron II). This high capital investment may act as a barrier to entry to new industry players.

Environmental Concerns

Power plants are highly regulated by the Department of Environment (DOE). DOE will carry out detailed environmental impact studies to analyse the impact of erecting new coal and hydro power plants on the environment and surrounding community. Should the DOE's findings depict adverse impact on the environment and community, the agency has the authority to reject the project's detailed environmental impact assessment ("DEIA") report. Furthermore, should plants fail to comply to the standards set by the DOE, a plant inspection and audit will be carried out with recommendations for improvement to be implemented by the management of the plant. These power plants could also potentially incur penalties as imposed by the DOE.

²⁹ Source: KeTTHA, Basic Information on Electricity Generation, Independent Power Producers and Power Purchase Agreements, 22 June 2011.

³⁰ First generation IPPs are YTL Power, Segari Energy Venture, Genting Sanyen Berhad, Powertek Berhad and Port Dickson Power.

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3.4.5 Industry Risks and Challenges

Fluctuating Fuel Price

Fuel is a key raw material in generating electricity while the pricing of fossil fuel is subject to global price fluctuations. In Malaysia, natural gas is the cheapest source of fuel for power generation due to the Government subsidized price. Prior to July 2008, the Government of Malaysia had set the domestic price of natural gas at RM6.40 per mmbtu and this was revised to RM14.41 per mmbtu in July 2008 and RM10.70 per mmbtu in March 2009. Effective 1 June 2011, the Government of Malaysia announced a revision in domestic prices of natural gas, whereby it increased to RM13.70 per mmbtu. These revisions of natural gas tariffs reflect global price fluctuations. Coal is also imported and experiences price fluctuations. However, the natural gas price in Sabah is maintained at RM6.40 per mmbtu. Frost & Sullivan notes that fuel is a pass through cost to TNB and hence IPPs sustain minimal risk with regards to fluctuations in fuel.

Availability of Supply of Fuel

An uninterrupted supply of fuel is integral to electricity generation. Should there be a shortage or a lack in the supply of fuel, the generation of a continuous supply of electricity could potentially be affected. IPPs also have to ensure the long term supply and consistency in the quality of fuel. Frost & Sullivan notes that IPPs in Malaysia have a fuel supply agreement in place whereby these IPPs are reimbursed for fuel costs. TNB also executes the purchasing of fuel for its IPPs, in an effort to ensure the reliability of supply and quality. However, IPPs have the liberty to source for their own supply of fuel, should they receive inadequate supply, or should the quality of fuel differ from that which the plant requires to remain operational. In such event, the IPPs will pass on the cost of fuel to TNB.

High Operational Expenditure

Upon commissioning, power plants will incur regular overheads, operation and maintenance cost as well as capital expenditure to sustain or even improve plant's capacity. As the Government of Malaysia had opened this industry to private participation, players in this industry are expected to source for their finances to fund these expenses. The Government of Malaysia reciprocates by ensuring that IPPs will have a steady stream of income for the duration the PPA. It is also noted that generating licenses will only be issued to firms that have a PPA in place with the Government of Malaysia.

Environmental Concerns

The construction of power plants has led to environmental concerns among certain fractions of the society. These concerns are with regards to emission from the plant's operations.

Power plants are highly regulated by the DOE in terms of particulate matter, carbon dioxide, sulfur oxide, nitrogen oxide, noise levels, effluent discharge and smoke density. These plants are required to conduct analyses of emissions by third parties at every three months intervals and submit these findings to DOE on a regular basis. In the event that such plants failed to comply to the standards set by the DOE, a plant inspection and audit will be carried out with recommendations for improvement to be implemented by the management of the plant. These power plants could also potentially incur penalties as imposed by the DOE.

The 10MP focuses on developing clean technology for the use of coal in electricity generation. This move depicts the Government's commitment in maintaining a clean and safe habitable environment for the population at large. The Government is also moving towards commissioning a nuclear power plant in Malaysia, in an effort to curb emission and be environmentally friendly. However, this can only come into realisation if additional focuses are made by all parties in respect of the current typical maintenance culture, as safety aspects are paramount to the viability of adoption such technology.

3.4.6 Substitution to Products

Although there is no risk of substitution for the power generation activity, industry players are at risk of technology replacement of their power generation facilities. Due to the dependency of the power plant to specific fuel, in light of the gas curtailment issues and rising oil price, changes in the Government policies may result in the displacement of current facilities to make way for the installation of power generation facilities that uses alternative fuel sources such as coal or nuclear.

Nevertheless, the PPA signed by private players ensures they are not at risk until the end of term, by which cost recovery would have already been realised.

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3.4.7 Reliance and Vulnerability to Import

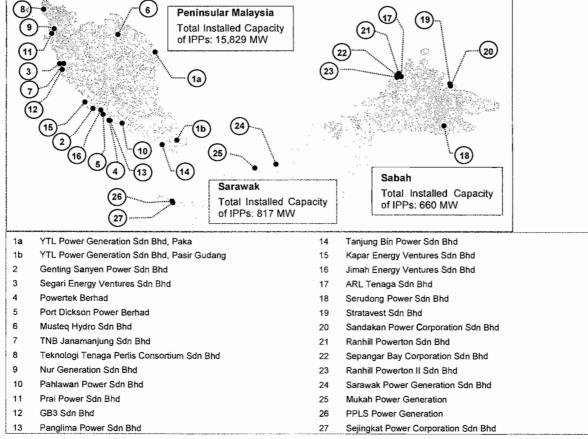
The electricity supply industry is relatively dependent on imports in terms of fuel supply and plant equipment and machinery. Malaysia is dependent on the import of coal which is largely imported from Australia, Indonesia and China. Increasingly, the natural gas production in Peninsular Malaysia is not able to support the growing demand for the fuel and Malaysia is expected to start importing LNG in 2013 (Refer to Section 3.4.7.1 for more information on the availability of natural gas in Malaysia).

Malaysia is also dependent on foreign equipment suppliers. It is noted that major power plant equipment such as boilers, turbines and transformers are imported from countries such as Japan and Europe due to their technical edge and quality. More recently, power plant operators are beginning to import their equipment from China as it is less costly. Foreign suppliers provide their customers with operational manuals and functional trainings prior to handing over plant operations to customers. Selected suppliers also provide long term services agreement which covers the provision of specialist manpower and spare parts supply throughout the plant operational period.

3.4.8 **IPPs Competitive Landscape and Structure**

The power generation industry in Malaysia has developed from one that was fully public-funded to one that presently comprises public utility companies (i.e. TNB, SESB, SEB) and private power producers. The industry depicts strong historical growth, stable prices and the absence of strong reforms since year 2000. The rapid economic growth experienced by the nation prompted the Government of Malaysia to invite private participation in the industry, via the formation of IPPs.

In 2011, there were 27 IPPs in Malaysia with a combined licensed capacity of 16,766 MW from the various gas, coal, combined cycle, and diesel power plants. Out of these, 17 IPPs with a combined licensed capacity of 15,289 MW were located in Peninsular Malaysia and 7 power plants with total licensed capacity of 660 MW were located in Sabah. Meanwhile, 4 IPPs with combined licensed capacity of 817 MW are located in Sarawak. The 4 IPPs in Sarawak are wholly owned by the state electricity company, SEB.



Location of IPPs in Malaysia, 2012

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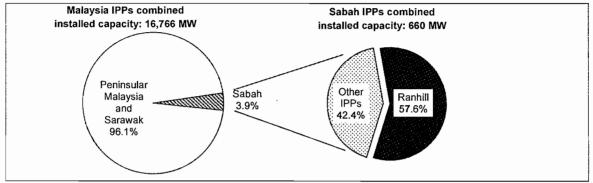
Sources: Energy Commission and Frost & Sullivan

3.4.9 Market Share and Ranking

3.4.9.1 Ranhill's Market Share by Installed Generation Capacity of IPPs

As at 2011, the combined installed capacity of the 27 IPPs in Malaysia was 16,766 MW. In Sabah, the combined installed capacity of the 7 IPPs was 660 MW. In 2010, Ranhill Powertron and Ranhill Powertron II combined installed capacity was 380 MW. Hence, Ranhill's market share in Malaysia by installed generation capacity was 2.2%, which was equivalent to 57.6% in Sabah.

Ranhill's Market Share in Malaysia by Installed Generation Capacity of IPPs, 2011

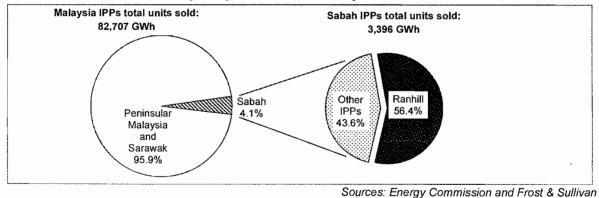


Sources: Energy Commission and Frost & Sullivan

3.4.9.2 Ranhill's Market Share by Actual Units Sold

As at 2010, the Energy Commission had reported a total of 82,707 GWh of sold units of electricity from the 27 IPPs in Malaysia. In Sabah, the actual units sold constituted 3,396 GWh, equivalent to 4.1% of the total units sold in Malaysia. In 2010, Ranhill Powertron and Ranhill Powertron II collectively sold approximately 1,914 GWh of electricity. Hence, Ranhill's market share in Malaysia by actual unit sold was 2.3%, which was equivalent to 56.4% in Sabah.

Ranhill's Market Share in Malaysia by Actual Units Sold by IPPs, 2010



3.4.10 Relevant Laws and Regulation

3.4.10.1 Regulations

Electricity Supply Act 1990

The Electricity Supply Act 1990 outlines the regulations of the electricity supply industry in Malaysia, the supply of electricity to consumers at a fair and reasonable rate, the licensing and control of electrical installations, electricity generating plants and equipment and the efficient use of electricity. The Act mandates the formation of the Energy Commission to carry out tasks such as:

- Issuing of licenses to electricity generating companies
- Promoting competition in the generation and supply of electricity and to ensure optimum supply of electricity at reasonable prices are available

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- Promoting the interest of consumers via pricing, supply continuity and quality of electricity supply services
- Promoting the efficient use of electricity
- Managing the electricity generation function of the value chain in light of the nation's economic development

The Guidelines on Electricity Supply License further highlights the criteria for electricity generation licenses. The criteria for consideration include:

- Applicant must have a paid up capital of at least 2.0% of the project cost or RM200,000 (whichever is higher)
- Foreign equity of no more than 30.0% and Bumiputera equity of no less than 30.0%
- A signed PPA with the utilities

The Malaysian Grid Code

The Malaysian Grid Code was launched in December 2010 and enforced in January 2011 to ensure the reliability of electricity supply in Peninsular Malaysia. The six critical functions governed by this document are the Planning Code, Connection Code, Operating Codes, Scheduling and Dispatch Codes, Data Registration Code, Metering Code. The Malaysian Grid Code essentially regulates the various functions across the value chain of the electricity supply industry. The parties that are regulated by this Code are:

- Electricity generators comprising both TNB and IPPs
- Network operators which operate networks and may import or export electricity to the National Grid
- TNB Transmission as the grid owner and single buyer of electricity
- Distributors connected to the National Grid that import electricity from the National Grid
- Directly connected large customers to the National Grid
- Grid system operator which operates the Peninsular Malaysia Grid System
- Interconnected parties outside Malaysia which are connected to the National Grid

The Malaysian Grid Code coordinates electricity supply activities between these parties. The Code is a technical specification document which outlines the parameters that power plants and the grid system network have to meet in order to ensure the electrical grid does not fail. It aims to ensure that operations at the distribution level are carried out in a timely and systematic manner. The Code sets regulations and technical requirements to be carried out by all involved parties in the planning, managing and maintenance of the National Grid and its distribution systems to ensure constant security, safety and reliability of electricity supply.

The Energy Commission will establish and maintain the Grid Code Committee to oversee the implementation of the Malaysian Grid Code. The committee shall comprise of representatives from all stakeholders across the electricity supply industry value chain, including TNB, SESB and IPPs.

3.4.10.2 Regulating Authorities

Malaysia's electricity supply industry has various stakeholders overseeing different aspects across the value chain of the industry. The Energy Commission is the main regulatory and planning body for the industry alongside KeTTHA and EPU. The roles and responsibilities of these respective Government of Malaysia agencies are:

- The Energy Commission is a statutory body which regulates the energy sector in Malaysia, and specifically the electricity supply industry and piped gas supply industry in Peninsular Malaysia and Sabah. The Energy Commission is responsible for ensuring the reliability and safety of electricity supply and piped gas to consumers at reasonable prices.
- KeTTHA acts as a policy formulator and service regulator for the energy, water and green technology sectors. The Ministry's main thrust is to facilitate and regulate the growth of industries in these sectors to ensure the availability of high quality, efficient and safe services at a reasonable price to consumers throughout the country.
- The Energy Unit of EPU formulates policies and strategies for the sustainable development of the energy sector. This agency strives to ensure adequate, secure, quality and cost effective supply of energy for all Malaysians. EPU also promotes the utilization of renewable energy and energy efficiency in the energy sector. This agency also provides allocation for energy related

development programs and evaluates the achievements from the implementation of these programs.

- The Ministry of Rural Development is tasked to draft policies governing the supply of electricity to rural areas throughout Malaysia.
- The Energy Information Bureau is responsible for energy policy and planning, reducing energy costs and environmental protection

In addition to this, the DOE also monitors power plants during its developmental and operational phase, in analyzing the impact of these plants on the environment and surrounding communities.

- During the development phase, the DOE mandates the appointment of Environmental Impact Assessment (EIA) consultants to carry out a DEIA studies. These studies aim to identify, predict, evaluate and communicate information about the impacts of a proposed project on the environment and to highlight mitigating measures prior to project approval and implementation. In doing so potential problems can be identified and addressed in the project planning and design phase.
- During the operational phase, the DOE regulates emission from the plant, in terms of particulate matter, carbon dioxide, sulfur oxide, nitrogen oxide, noise levels, effluent discharge and smoke density. Plants are required to schedule analyses of emissions at specific intervals. These findings need to be submitted to the DOE on a monthly basis.

UKAS is an agency under the Prime Minister Department, which has been given the responsibility to coordinate the privatisation and PPP projects. Its major role include

- As the secretariat to the Privatisation Committee,
- Plan, evaluate, coordinate, negotiate and monitor public-private partnership projects implementation;
- Managing and evaluating projects that requires facilitation fund based on stipulated criteria;
- Monitoring growth corridor projects development ;
- To consult on the public-private partnership project at Federal and state level; and
- · To negotiate and administer agreements on facilitation of funds

3.5 Industry Outlook

The consumption of electricity is a key driver for the electricity supply industry. The electricity consumption in Malaysia is forecast to grow at a CAGR of 4.3%, from an estimated 106,674 GWh in 2012 to 131,821 GWh in 2017. The industrial segment is expected to remain as the main consumer of electricity, followed by commercial and residential segments.

As the demand for electricity is anticipated to grow, the Government would also need to secure the required generation capacity to cater to the current and anticipated increase in electricity demand going forward, especially taking into consideration PPAs expiring during this period. The Energy Commission is also expected to continue awarding new power plant projects as well as PPA extensions via the competitive bidding process. This presents favourable growth opportunities for experienced electricity producers.

In Malaysia, the projected growth of the electricity supply industry is expected to be driven by a number of factors. Among them include:

- Government's initiatives to drive the economic growth in Malaysia. The economic growth and pace of a country's development correlates positively with the amount of energy and water utilized. As a country develops, more electricity and water would be required for industrial activities property developments as other public amenities.
- The growing population and increasing spending power are also expected to spur the growth in demand for electricity from the increasing usage of electrical and electronic consumer products, thereby driving production and consumption.

In the coming years, the electricity supply industry in Malaysia is expected to experience growth as a direct result of Malaysia's 10MP, which strives to transform the country into a high income nation by 2020 via the 12 NKEAs. Furthermore, the Government announced its intention to bring reforms to the electricity supply industry in 10MP, with the aim of ensuring continuous security of electricity supply within the country. The 10MP highlights several efforts to create a sustainable industry despite volatile global energy pricing and depleting gas resources especially in Peninsular Malaysia.

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4 The Water Supply Services Industry

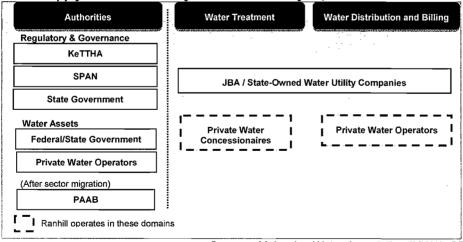
4.1 Introduction

Water is a basic necessity for sustenance and also an important source for agriculture and farming, as well as many commercial and industrial activities such as power generation, healthcare, semiconductors fabrication, manufacturing, construction and recreation. Water is essential for the daily domestic consumption such as cleaning and sanitation. In 2011, water services industry in Malaysia was worth RM4,240.5 million with approximately 94.4% of the population having access to piped water. On average, all states in Malaysia had a high percentage of population served of above 90.0%, except for Sabah and Kelantan at 80.0% and 57.3% respectively. The industry growth is highly driven by population and economic growth of the country.

In Malaysia, the water supply service industry is regulated by the National Water Services Commission ("SPAN"), a unit under the KeTTHA. KeTTHA is responsible for developing regulations and monitoring the development of water services industry and is assisted by its agency named Department of Water Supply ("JBA"). SPAN's main responsibility lies in the implementation and enforcement of the laws and regulations formulated by KeTTHA.

The industry is generally managed by State authorities through the state water department or stateowned utility water companies with funding from Federal Government (Peninsular Malaysia and Labuan) or State Government (Sabah and Sarawak). The State authorities are responsible for identifying water sources, managing supply of treated water, piping/distribution to consumers and billing. Increasingly, operations of water treatment facilities are outsourced to private concessionaires who may build, operate and manage the facilities. Under the Water Services Industry Act 2006, water assets of states that migrated to the new licensing regime are owned by the Water Asset Management Company ("PAAB"). PAAB is responsible for financing the construction, refurbishment and upgrading of water services infrastructure and all other assets in relation to the water systems, hence relieving private operators from the financial burden to construct water assets and allowing them to focus on providing services efficiently.

In Selangor (including Federal Territory Kuala Lumpur) and Johor, water supply services industry has undergone sector migration whereby the supply and distribution of water are fully managed by the private sector.



Water Supply Services Industry Structure in Malaysia, 2012

Sources: Malaysian Water Association (MWA), SPAN and Frost & Sullivan

4.2 Industry Development in Malaysia

Industry Transformation (Peninsular States and Federal Territories)

In the early 1990s, as Malaysia further progressed into a developing nation status, the Federal Government realised that in order to be more efficient, cost-effective as well as to keep up with the development of other sectors, a transformation was needed which will allow private participation in the water supply services sector with the ultimate objective of enabling the industry to sustain without the reliance of financial assistance from the Government. The first real initiative was seen in 1998 whereby the National Water Resource Council was set up to implement a more effective water management, including interstate water transfers. Through this initiative, private companies were able to participate in

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the industry as water concession holders with the local government. Under this PPP model the water treatment facility is built, owned, operated and maintained by the private company for the duration of the concession, while the treated water is sold to the local water authority at a take-or-pay arrangement.

In 2005, the water supply services sector transformation initiated in Peninsular Malaysia, and the Federal Territory of Labuan. Under the transformation, the state water supply authorities are expected to undergo a restructuring by way of a corporatisation exercise that will lead towards shift from public works department to corporatized entity. National Water Services Industry Restructuring Initiative was introduced under the transformation which outlined the following major targets:

- Establishment of a licensing framework for water asset owners and water operators
- The separation of responsibility between water asset owners and water operators
- · To corporatize the state water supply authorities to improve efficiency
- The monitoring of water operators through key performance indicators
- The setting of water tariff based on uniform principles and procedures

The direct outcome of the initiatives is the formation of the PAAB by the Ministry of Finance on 5 May 2006, and the National Water Services Commission Act 2006 ("SPAN Act") and Water Services Industry Act 2006 ("WASIA"). (Please refer to the Relevant Laws and Regulations section for details on licenses and permits)

Privatisation of the Water Supply Services Sector in Johor

The Johor water supply services sector underwent the transformation in 1994, by the corporatisation of its state water services entity. In 2000, the water supply entity was privatised by SAJ Holdings Sdn Bhd (SAJH), a subsidiary of Ranhill. SAJH was granted a 30-year water supply concession from the state government to perform a holistic water supply services including water treatment, water distribution, billing and collection in Johor. In 2009, SAJH migrated to the new licensing regime governed under the WASIA which PAAB took over the financing responsibilities of the water assets post the migration, SAJH focuses on the operation and maintenance activities of water supply services in Johor. In 2010, PAAB approved projects amounted to RM541.3 million in Johor. These projects include the refurbishment and renewal of existing water supply system as well as water supply networks construction purposes.³¹

Water services industry in Johor is monitored by a state regulatory body named Badan Kawal Selia Air Johor (BAKAJ) with its main responsibilities on raw water catchment area and raw water resources matters.

4.3 Water Treatment Technology

There are several methods and technologies that are available and being used worldwide for treating raw water into drinking quality. The methods that are most widely implemented are chemical coagulation, thermal distillation and reverse osmosis. The application of the type of method to be applied is highly dependent on the availability of water, existing quality of the raw water and economic considerations.

Chemical Coagulation

This is the most basic method whereby raw water sourced from rivers, dams or the ground is channelled into water treatment plants to be processed further to remove sediments and other contaminants using chemicals as well as to improve quality through disinfection, fluoridation and alkalinisation. This method is highly suitable when the raw water available is from inland sources (not seawater) and in abundance, as well as free from parasitic infestations and other serious contaminations such as from harmful chemicals, heavy metals and toxic wastes. It is also seen as the most economical water treatment method that is broadly implemented worldwide.

Thermal Distillation

This is a desalination method used to process seawater into drinkable water. The process requires heating the raw water until it evaporates leaving the minerals and contaminants behind, and condensing the steam into pure liquid. The process uses large amounts of energy for heating the water hence making the process costly. This may also be conducted in a low pressure vessel to allow water to evaporate below the boiling temperature, hence reducing the energy required. The method is mainly implemented in countries with limited availability of inland water such as Singapore or low rainfall such as in the Middle East and certain parts of Australia.

³¹ Source: PAAB,

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Reverse Osmosis

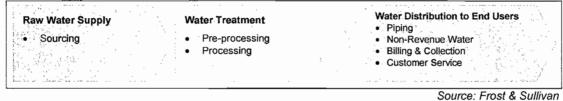
Water is pumped through a semi-permeable membrane to filter large molecule sediments, contaminants, bacteria and minerals. It is suitable for processing seawater, brackish water and wastewater into purified water. This method is more economical than thermal distillation. Countries that have implemented this method include China and Singapore. In China, raw water sources and rivers suffer from heavy contamination due to high industrial, agricultural and residential activities around it hence their water treatment facilities mainly adopt this method. For Singapore, the lack of inland water source required them to conduct desalination of seawater³² and to recycle their wastewater into industrial guality water. Despite these efforts, Singapore is still highly dependent on water supply from Johor to meet its local demand.

Industry Value Chain and Segmentation 4.4

4.4.1 Industry Value Chain

The water supply services industry value chain in Malaysia comprises three levels which are water supply, water treatment and water distribution to end users.

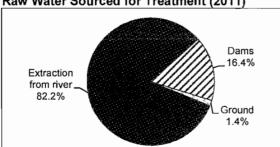
Water Supply Services Industry Value Chain



Raw Water Supply (i)

The primary and the most important stage of the raw water supply system is in identifying the natural water catchment areas in the highlands and suitable water sources. Malaysia is endowed with a geographical landscape with many highlands and having abundant rainfall all year round. to supply to, flowing rivers and natural springs which provide sufficient water for the nation's own usage.

Raw water sourced from rivers is either directly channelled to water treatment plant for further processing or collected at water dams and reservoirs prior to treatment. In Malaysia, the main raw water source is via direct extraction from rivers. In 2011, 82.2% or 12,746 million litres per day ("MLD") of the total raw water sourced for treatment was from direct extraction from rivers, whereas 16.4% (2,540 MLD) was sourced from dams. Other than rivers and storage dams, the country also source water from the ground but at a very minimum level of 1.4% (223 MLD) of the total raw water in 2011.



Raw Water Sourced for Treatment (2011)

Source: Malaysian Water Association (MWA)

Due to increasing industrial, agriculture and commercial activities, the water sources in Malaysia is susceptible to pollution from contaminants such as dioxins and other chemicals that are hazardous to human health and increased microbial activities. The State Government, under the supervision of the Department of Drainage and Irrigation (DID) and the DOE, is responsible to

³²Singapore has one water desalination plant, SingSpring plant located in Tuas. The second desalination plant, TuasSpring which is also located in Tuas, is expected to be operational in 2013. (Source: Public Utilities Board of Singapore (PUB))

[©] Frost & Sullivan

ensure that these activities are controlled and the health of rivers in the respective jurisdictions is maintained.

(ii) Water Treatment

The method of water treatment used in Malaysia is the conventional chemical coagulation method. The processes must comply with the National Standard of Drinking Water Quality 1982. In 2011, there were 461 water treatment plants in Malaysia (326 in Peninsular Malaysia, 84 in Sarawak and 51 in Sabah), and most are strategically located adjacent to major river sources. The conventional water treatment process is divided into pre-treatment and treatment processes as explained below.

Screening	Screening process ensures the removal of large substances in water such as leaves, rubbishes and rocks. Chemical named chloramines is also added in water to reduce the acidity of water.
Aeration	Raw water contains metals such as iron and gases, hydrogen sulfide and carbon dioxide. Aeration is essential to remove these contaminants by pumping air into the treatment tank in order to oxidize and dissolve metals and gases to insoluble form and remove them from water through sedimentation and filtration.
Treatment	<u> 2월 27일 1월 28일 1월 28일 1월 28일 1월 28일 1월 28일</u> 1월 28일
Coagulation and flocculation	Water that passed through aeration will be passed to flocculation tank where coagulation and flocculation happens. The objective of coagulant and flocculation is to prepare water for sedimentation and filtration. In coagulation process, chemicals such as aluminium sulphate or ferric sulphate is added in the water and undergo agitation to create chemical reaction that forms microscopic particles which will then be further agglomerated to become larger particles called flocs. Flocs can be either positively or negatively charged and those positively charged will eventually neutralize the negative flocs and thus, reduce turbidity in water. There are several factors that could affect the effect of coagulation and flocculation, including chemicals mixing into water, pH level of water, water turbidity and temperature Typically, chemical mixing is either performed through mechanical method that uses diffusion pumps of hydraulic method that uses turbulence in water to disperse chemicals.
Sedimentation	Sedimentation is the process to deposit flocs formed during flocculation to the bottom of sedimentation tank for removing out from water. Other than flocs, sedimentation is also able to precipitate viruses and bacteria.
Filtration	Filtration is the process of separating flocs and suspended particles from water through placing a filter media in between. Particularly, large impurities will not be able to pass through the media and kept a one side while water containing smaller impurities will be able to and become filtrate. Factors that determine the effectiveness of filtration include the size of the filter media, size of particles and speed of filtration.
Disinfection	Filtered water may still contain microorganisms which could pass through filter media. These microorganisms include pathogenic organisms that spread diseases such as gastroenteritis, typhoid hepatitis and cholera. Hence, disinfection is important in water treatment process to kill these organisms and ensure the safety of water consumption. Disinfection processes adopted in water treatment are chlorination, ozonation and ultraviolet irradiation.
Fluoridation	Fluoridation is the process of adding fluoride to water to enhance dental health protection and preven from tooth decay. In Malaysia, fluoride level of 0.7 parts per million is allowed in water treatment. ³³
pH Condition	Chlorine and fluoride added in water in the previous processes may increase the acidic level of water
Adjustment	and cause the corrosion of water piping. In order to adjust the pH level (a measure of acidity and alkalinity) of water, softening agents such as hydrated lime and soda ash which are alkaline are added in water.
	Sources: MWA and Frost & Sulliva

Conventional Water Treatment Process

(iii) Water Distribution

Treated water is distributed to end consumers through public main pipes and collected in water service tanks before reaching end users. The State Government, via its appointed agencies or private water service companies is predominantly responsible for ensuring that water is available to the residents and that the water distribution channels are maintained and in good condition to minimise the non-revenue water ("NRW"). NRW refer to the rate of loss of water that occur in the distribution channel, and is measured as the *difference between total input volume in the distribution system and the total metered billed consumption*³⁴. The main reasons for NRW are pipe leakages, water theft through illegally modified connections and meters giving inaccurate readings.

In 2011, the national NRW level was 36.4%. In a continuous effort to mitigate the loss of water, SPAN has set target for a national NRW level of 25.0% or less to be achieved by 2020. Mitigating NRW is an industry challenge and incur capital and operation investment. In addition to the economic factor, Malaysia has abundant source of raw water and excess water production capacity.

³³ Malaysian Dental Association

³⁴ MWA

[©] Frost & Sullivan

In 2011, the national average reserve margin for water treatment plants capacity was 16.4%. States with low water resource such as Melaka, Pahang and Selangor will benefit highly from NRW mitigation, in order for their water supply industry to be sustainable in the mid to long term. The mitigation of high NRW rejuvenates the water treatment reserve margin, hence this can delay the need to build additional water treatment capacity. In Singapore and countries in the Middle East where water is scarce and expensive to produce, NRW reduction has become a necessity and placed as high priority to ensure that sufficient water can be supplied to their population. For Malaysia, the major hurdle to allow for higher investment in NRW mitigation is the generally low

water tariff. The improvement of the water tariff to meet full cost recovery level will mean that reducing the NRW rate will make economic sense and become a higher priority, more so for the private water services companies in Malaysia as they operate on a profit-driven model. Johor is one of the states in Malaysia that emphasized on NRW reduction since privatized in 2000³⁵. (For more data on NRW, please refer to the Section 4.5.6 on Industry Risks and Challenges)

4.4.2 End User Segmentation

Generally, water consumers are segmented into domestic and non-domestic users.

Domestic users refer to residential and institutional users. Water consumption by this segment is mainly for drinking, cooking cleaning, sanitation and gardening.

Non-domestic users include industrial and commercial users. Water consumption by this segment is mainly for mechanical usage such as for driving steam turbines, as coolants, building materials, industrial cleaning or as ingredients in the production of consumer goods including food and beverages.

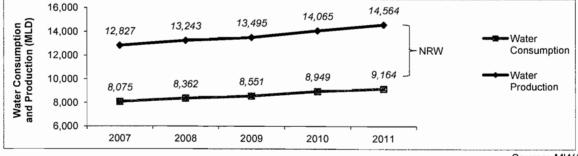
Billing tariffs for end users will differ between each segment of users as well each type of end users. Monthly water bills provide statements of the volume of water used by users and the payable amount is determined according to the water tariff approved by KeTTHA and SPAN (in the migrated States) or the State Government, which may also vary from state to state.

4.5 Analysis of the Water Services Industry in Malaysia

4.5.1 Historical Market Size and Growth Trends

4.5.1.1 Historical Water Consumption and Production

In 2011, Malaysia consumed on average 9,164 MLD of water which was approximately 62.9% of water produced daily. Between 2007 and 2011, the water production increased in tandem with the water consumption trend with a CAGR of 3.2%. The difference between the water production and water consumption indicated the NRW or loss of water that was not revenue generating. The growth of water consumption in Malaysia was mainly driven by the growth in population, and industrial and commercial activities.



Water Consumption and Production in Malaysia, 2007 to 2011

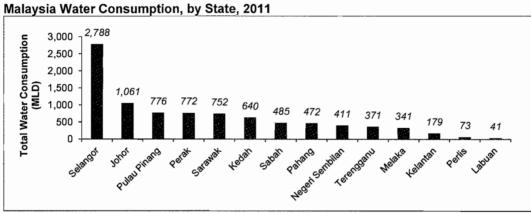
In 2011, the highest water consumption by state was Selangor, with consumption of 2,788 MLD, which was significantly higher than all other states in Malaysia. This was followed by Johor (1,061 MLD) and

Source: MWA

³⁵ In 2008, under the management of SAJH, Johor was the first State in Malaysia to have implemented an automated system that enables real-time monitoring of their water distribution network, hence reducing the time to locate and address incidents of pipe burst or curb attempts of illegal water tapping immediately. In 2011, the NRW rate for Johor was 29.2%, improved from 31.2% in 2007. (Source: SAJH)

[©] Frost & Sullivan

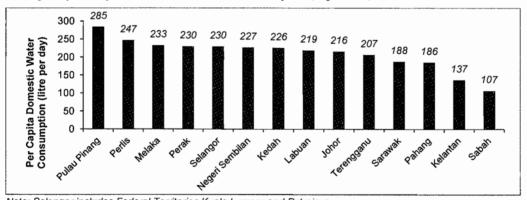
Pulau Pinang (776 MLD). Water consumption in Sabah experienced the highest growth rate from 2007 to 2011 at 43.7%, mainly as a result of the growth in the non-domestic consumption which may also be driven by the increased supply coverage. Between 2007 and 2011, the number of water treatment plants in Sabah increased by 27.5% whereas the water treatment plant design capacity increased by 40.3%.



Note: Selangor includes Federal Territories Kuala Lumpur and Putrajaya

Source: MWA

In 2011, per capita water consumption by domestic users was highest in Pulau Pinang at 285 litres per day. In general, water consumption by domestic users in all states in Malaysia was above 200 litres per day, except for Sarawak, Pahang, Kelantan and Sabah.



Malaysia per Capita Domestic Water Consumption, by State, 2011

Note: Selangor includes Federal Territories Kuala Lumpur and Putrajaya

Source: MWA

With affluence, population and economic growth, it can be expected that the per capita water consumption will rise in tandem. Brunei and Malaysia has high per capita water consumption at 450.0 and 385.2 litre per day respectively. Meanwhile, countries such as Laos, Vietnam and Cambodia have the lowest per capita consumption at 58.3, 38.4 and 19.2 litre per day.

Water consumed in the domestic and commercial sectors in Brunei Darussalam and Malaysia recorded the highest among other emerging SEA economies, mainly because of the existence of a more developed water infrastructure providing high accessibility to treated water as well as low water tariffs due to the abundant raw water resources. On the contrary, Singapore which has limited raw water resources, purchase raw water from Malaysia as well as harvest water from the sea and recycled wastewater. The high water tariff in Singapore acts as a "deterrent" in keeping the domestic water consumption low. Furthermore, the Government of Singapore is targeting to reduce the domestic consumption further to 147 litre per capita per day by 2020.

On the contrary, water consumption is low in countries with under-developed water supply infrastructure such as in Laos, Vietnam and Cambodia mainly due to the non-accessibility of clean water supply.

On this score, countries at the upper end of the water consumption scale (as depicted on the left of

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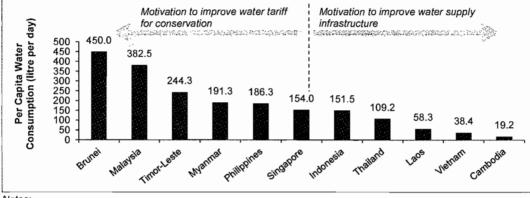
8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

Singapore in the chart above) may have a higher motivation to improve the water tariff for water conservation. Meanwhile, countries at the lower end of the consumption scale (as depicted on the right of Singapore in the chart above) will have a higher motivation to increase the investment in their water supply infrastructure development.

The comparison of per capita water consumption for countries in SEA are shown as follows:

SEA per Capita Water Consumption, 2011



Notes:

1) Data for Brunei Darussalam was obtained from the Public Works Department of Brunei and refer to domestic and commercial water consumption and excluded water used in the industrial sector.

- 2) Data for Singapore was obtained from the Ministry of Water Resources of Singapore (MEWR) and refer to domestic consumption, and exclude water used in the commercial and industrial sector.
- All other data was obtained from the World Bank and refer to domestic and commercial water usages and excluded water used in the industrial sector.

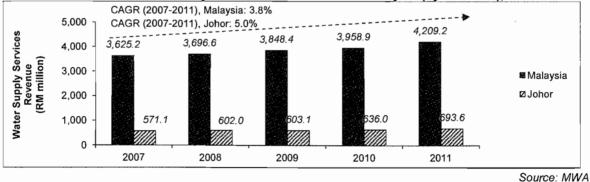
Sources: The World Bank and Government Data

4.5.1.2 Historical Market Size in Malaysia and Johor (by Revenue)

The water services market size was analysed based on the industry revenue. The industry revenue comprise tariff revenue and non-tariff revenue. Tariff revenue refers to the revenue from water bill collections, whereas non-tariff revenue generally refers to revenue generated from other activities such as, amongst others, charges to customers on the connection / reconnection, unscheduled water meters change, water works at the request of the customers and developers' contribution for the connection of main piping to their development area.

The water services industry market size in Malaysia had grown from RM3.6 billion in 2007 to RM4.2 billion in 2011, at a CAGR of 3.8%. In Johor, the market size in 2011 was RM693.6 million, having grown from RM571.1 million in 2007 at a CAGR of 5.0%. The higher growth rate in Johor was attributed to the continuous increase in water demand and water tariff hike which was implemented in November 2010.

Historical Water Services Industry Market Size in Johor and Malaysia (by Revenue), 2007-2011



4.5.2 Demand Conditions

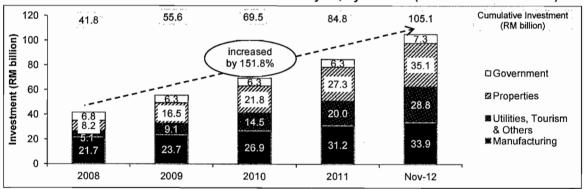
4.5.2.1 Drivers

Population Growth, Wealth of Nation and Industrial Development

In 2011, Malaysia's average population growth rate was 1.6%. Malaysia has a large productive population (aged between 15 and 64), which comprise 65.2% of the total population, and a high employed population of 12.0 million whose roles are central towards the development and growing wealth of the nation. In 2011, the GDP for Malaysia was RM881.1 billion, increased from RM642.0 billion in 2007.

The growth in population, coupled with a prospering economic conditions provide a suitable backdrop for a rapid industrial development and hence driving the domestic and non-domestic water demand in Malaysia. Population growth and increasing wealth will spur the rise in residential and commercial properties, which inadvertently translate towards higher connectivity for water supply, contributing towards the growth in the end user market further.

One of the examples that can be seen in Malaysia is the development of Iskandar Malaysia, in Southern Johor. The Malaysian Government plans to develop Iskandar Malaysia into a vibrant economic corridor for business, medical, tourism, logistics and distribution and high-tech manufacturing. Iskandar Malaysia is currently in the second phase of the 20-year project period and is expected to attract outsiders including foreign knowledge workers to reside in the area. Iskandar Malaysia is targeted to have a population of more than 3 million by 2025 with GDP growth of 8.0% annually up to 2025³⁶. The Government places a high priority on establishing comprehensive infrastructure in the region including water infrastructure in order to ensure there is sufficient water supply to cater to increasing population. As of November 2012, the cumulative committed investment in Iskandar Malaysia was RM105.1 billion, increased by 151.8% from RM41.8 billion in 2008.



Cumulative Committed Investment in Iskandar Malaysia, by Sectors (2008 - November 2012)

Sources: IRDA and Frost & Sullivan

Other initiatives by the Government to further develop the country include the PIPC-RAPID in Pengerang, Johor and the TRX that will transform Kuala Lumpur into an international hub for banking and finance.

4.5.2.2 Restraints

Water is an irreplaceable basic necessity and also an essential element that keeps organisms living. However, demand restraint of treated water may exist in certain rural areas in Eastern Malaysia or states with lower economic development in the Peninsular Malaysia such as Pahang, Terengganu and Kelantan. The lower domestic usage of treated water in these rural areas as compared to urban areas may be due to accessibility factors, usage factors or the availability of other sources of raw water.

Limited Access to Treated Water in Out-of-Bound Rural Areas

Water distribution via public pipes may not be available in some rural areas and instead treated water is delivered from the water treated plants by trucks and in limited quantities. This is especially true in serving native settlers in many out-of-bound rural areas of Sabah and Sarawak. Under the Government Transformation Programme, the Government has identified the rural basic infrastructure development as

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³⁶ Iskandar Regional Development Authority (IRDA)

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one of the NKRA. In 2011, the national access rate in rural areas, reached 90.1%, an improvement from 84.6% in 2007, and an addition of 12 new water treatment plants were built in Sabah and Sarawak in between 2007 and 2011.

Lesser Water-Consuming Activities by Rural Dwellers

The lack of sanitation facilities such as the installation of flushing toilets will result in lower household consumption of water in rural areas. In addition, other water consuming activities which are commonplace in urban dwellings such as washing cars and swimming pools are less predominant or non-existent in the rural areas. Furthemore, due to the hardship factor of the rural dweller, a general attitude towards water conservation may be more apparent as there is a higher appreciation of treated water.

Lesser Need for Treated Water

In some rural areas in which the raw water sources such as rivers, lakes and springs is near the settlement areas and not contaminated, the rural dwellers may utilize the untreated water for consumption, basic sanitation and irrigation purposes. Nevertheless, this phenomenon is very limited nowadays and with the Government's proper planning to develop the water supply system in the rural area, users would opt to use treated water for a safer consumption to reduce the risk of contracting water-borne diseases or parasites.

4.5.3 Supply Conditions

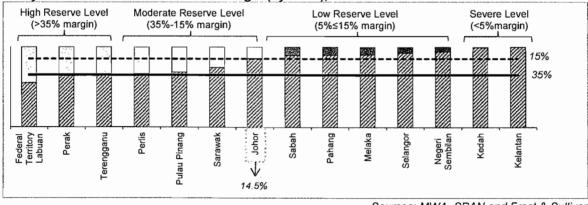
4.5.3.1 Availability of Raw Water Sources

The main raw water source in Malaysia is rivers. In 2011, more than 80.0% of the raw water was sourced from the rivers while the balance from dams and ground water. The accessibility to a large network of rivers in Malaysia is one of the important factors that ensure the sufficiency of water supply. The Malaysia Environmental Quality Report 2010 published by the DOE identified 144 river basins³⁷ in Malaysia.

4.5.3.2 Water Treatment Production Capacity and Access Rate

The national water treatment production in 2011 was 14,564 MLD, which consisted of approximately 83.6% of the total design capacity in Malaysia. Between 2007 and 2011, the national water production had increased at a CAGR of 3.2%, with the water reserve margin maintained between 15.0% and 19.0% during this period. Water reserve margin refer to the unutilized capacity of the total designed capacity of water treatment facilities in the country and is used to determine the ability to meet future demand for water.

When analysed by states, the Federal Territory of Labuan, Perak and Terengganu have the highest reserve margin of more than 35.0% and will be able to supply to states with lower water reserve margins such as Kelantan and Kedah should any water shortage occur. Meanwhile, the reserve margin in Johor was 14.5% in 2011.



Malaysia Water Production Reserve Margin (by State), 2011

Sources: MWA, SPAN and Frost & Sullivan

³⁷ A river basin is defined as the land between the water source and the point of entrance at the river. The land surface is drained by water from streams and creeks that would then flow into the river.

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8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

The Malaysia Five-Year Development Plans (1966-1970 and 1971-1975) main focus was on developing the national economy and increasing urbanization, therefore most of the water supply system and facilities were developed first in the central and urban areas. The development of the rural water supply system began after the Third Plan (1976 to 1980). In 2011, Melaka and Federal Territories were the only states that had achieved 100.0% of treated water access rate in both rural and urban areas. Johor, Kedah, Negeri Sembilan, Pulau Pinang, Pahang, Perak, Perlis and Selangor had 100.0% water access rate in the urban area and at least 96.0% of the rural areas were connected to the treated water supply. The lower access rates in rural Sabah (59.0%) and Sarawak (63.0%) was mainly due to the unavailability of distribution services to the out-of-bound rural areas that are difficult to reach, making it uneconomical to provide the services. On the contrary, the low access rate predominant in Kelantan was mainly due to the low water production capacity within the state, limiting the connection to water supply despite the availability of distribution pipes to the affected areas in the state.

In 2011, the top three states with the largest water treatment plants designed capacity was Selangor (4,477 MLD), followed by Johor (1,787 MLD) and Perak (1,740 MLD).

4.5.3.3 Water Tariff

The water tariff varies between states as approved by the State Government, or KeTTHA and SPAN (for the migrated States). In general, water tariffs takes into consideration the level of demand, water supply conditions, operating expenses (which include production and distribution costs and other related administrative cost in connection to the provision of water supply services), capital expenditures (past, present and foreseeable future) and economics.

The adjustment of water tariff is relevant to ensure the full cost recovery in the industry. All states have imposed an incremental water tariff for incremental water consumption tier, and a premium rate on commercial users, except for Sabah and Labuan which have a fixed water tariff for usage below 35 cubic metres for both domestic and commercial consumers.

In 2010, the water tariff in Kedah, Penang, Johor and Melaka was revised to allow for the cost recovery in these states, as well as to impose a punitive rate on high residential consumption. KeTTHA and SPAN determine that usage of above 35 cubic metre to be considered as excessive for domestic consumers. The adjustment was generally accepted with the expectation that a higher tariff would also allow for an improved water supply services.

	Ave	erage Water Tariff (RM per cubic n	netre)		
State	Domestic / Residential		Commercial / Industrial		The domestic water tariff in	
	First Tier	Second Tier	First Tier	Second Tier	Johor on average is higher	
Johor	0.60	1.05	2.80	2.96	than all other states in	
Kedah	0.50	0.67	1.40	1.40	Malaysia, whereas the	
Kelantan	0.40	0.55	1.25	1.25	commercial water tariff is	
Federal Territory Labuan	0.90	0.90	0.90	0.90	highest among all other states.	
Melaka	0.60	0.75	1.67	1.80		
Negeri Sembilan	0.55	0.68	1.56	1.59		
Pulau Pinang	0.22	0.31	0.96	1.19		
Pahang	0.41	0.57	1.45	1.45	Notes:	
Perak	0.50	0.73	1.60	1.60	1) Sarawak - Sibu, Kuching	
Perlis	0.48	0.57	1.30	1.30	Sri Aman, Limbang	
Sabah	0.90	0.90	0.90	0.90	Sarikei, Kapit, Miri	
Sarawak ⁽¹⁾	0.54	0.62	1.03	1.06	2) Sarawak – Bintulu	
Sarawak ⁽²⁾	0.61	0.61	1.21	1.21	3) Sarawak – Other parts o	
Sarawak ⁽³⁾	0.49	0.56	1.12	1.19	Sarawak	
Selangor ⁽⁴⁾	0.57	0.77	2.27	2.27	4) Selangor includes Federa	
Terengganu	0.42	0.52	1.15	1.15		
National Average	0.54	0.66	1.33	1.36	and Putrajaya	
				Source: MW	7A	

Average Water Tariff in Malaysian (by State) 2012

4.5.3.4 Availability of Supply Materials

Supply material used in the water treatment process include the chemicals used during the different stages of the water treatment process as well as other supply parts used for constructing the water piping system. These materials have to meet the requirements as set out in the approved plans, specifications and standards, for consumer protection purposes. Industry vendors and suppliers, must be registered with SPAN and comply with the industry rules and regulations. Water companies and operators are only allowed to purchase supply materials from these registered vendors and suppliers. A list of registered suppliers is searchable from the SPAN's website.

4.5.4 Services Substitutes

There is no substitute for water. In Malaysia, raw water needs to be treated to ensure it is safe for consumption. The treatment method adopted in Malaysia is the conventional chemical coagulation method due to the availability of abundant raw water and low level of pollution. However, should the source of raw water become increasingly contaminated, the treatment method will need to be replaced by a more advanced technology such as reverse osmosis or thermal distillation.

4.5.5 Barriers to Entry

Availability of New Concessions

Private sector participation in to the water services industry is only possible through Government awarded concession. This is the ultimate barrier to entry for new players hoping to participate in the industry. Furthermore, the Government has announced that there would not be new concession awarded to water operators and the existing water operators with concession can continue to operate until the end of the concessionary period³⁸.

Licensing Requirements

The water services industry in Malaysia is a regulated industry. Under the WASIA Act, water asset owners and water operators (public or private) are required to obtain an operating license from KeTTHA. License applicants will need to provide detailed documents such as the general company particulars, financial and management information, letter of approval from the State Government and details of service area. Private water operator applicants are also required to submit the water quality test report that complies with MOF standard requirements. This strict regulation may be a hindrance for new players to enter the industry given the documentation and technical preparations needed for the license applications.

Management / Technical Competency and Industry Reputation

The water services industry is a critical service operation. Efficient management and distribution of water is important to ensure the health of the population as well as contribution towards the growth of the economy. Concession bidders must be able to demonstrate sound management and possession of the right technical competency, as well as a proven track record to operate in this industry. This criterion for the award of a concession poses a major barrier to entry for newcomers with no significant track record in the industry.

Sufficient Capital

Under the transformation, financing of the water infrastructure is managed by PAAB. Nevertheless, water operators need to ensure that they possess sufficient capital to commence the operation, mainly for purchasing bulk quantities of the supply materials and working capital for operations (e.g. customer service, billing system, monitoring system, computer hardware and software, etc.) in advance. Private water operators do not receive funding from the Government and will need to amass funding themselves from bank loans or private investors.

4.5.6 Industry Risks and Challenges

Issues Related to Water Supply and Water Distribution System

Incidents that affect the quality of the raw water source such as floodings (that may increase the river water turbudity) and pollution (i.e. from industries, domestic waste or uncontrolled agricultural activities), drop in the water level as a result of a prolonged drought, disruption in the supply of chemicals due to unforeseen circumstances, and failure in the water distribution system (i.e. burst pipe or power disruption) may affect the water production and disrupt supply to end users leading to a crisis situation. Floods at the water treatment plant may destroy the water infrastructure and cause submerged water treatment plant, burst pipes or power disruption. The crisis situation may be mitigated by establishing a crisis management system to ensure the continuity of water supply to users such as by having a routing system to allow water from unaffected treatment plants to be distributed to the affected area and having the backup facilities for manual delivery of water by trucks and water tankers until the issues are resolved. In addition, a contact centre will be set up during the crisis to communicate and inform the public of the latest updates, as well as for receiving public reports or complaints.

³⁸ Source: PAAB

[©] Frost & Sullivan

Ageing distribution pipes require high capital outlay and result in hours of water disruption time to the public during the replacement works. In states where the water supply industry has migrated, namely Johor, Melaka, Negeri Sembilan, Pulau Pinang, Perak and Terengganu, the costs are borne by PAAB. In Johor, SAJH, prior to its migration to the licensing regime, has invested in the replacement of ageing pipes, installation of additional water pumps as well as setting up a geological information system (GIS) of its water distribution network that has enabled efficient operation by SAJH.

NRW

Malaysia is endowed with a large water catchment area and many rivers as the source of raw water that keeps the price of producing water fairly low. Hence, the mitigation of NRW may make greater economic sense only when the rate is sufficiently large (i.e. above 50.0%). Kelantan, Perlis, Pahang and Sabah are the States with NRW rate above 50.0%, whereas all other states have NRW rates at around 20.0%-48.0%. Due to the moderate priority of the matter, Malaysia is addressing the NRW issue at a slower pace compared to other countries.

Overall, a slight improvement to the average NRW rate for Malaysia was observed. NRW rate reduced slightly from 37.1% in 2007 to 36.7% in 2011. Amongst all other states in Malaysia, Pulau Pinang reported the lowest NRW rate of 18.4%. This was followed by the Federal Territory of Labuan and Melaka with the NRW rates at 21.9% and 25.1% respectively. In terms of performance improvement, the Federal Territory of Labuan and Negeri Sembilan displayed the most notable improvement, recording the NRW rate reduction by 14.0% and 9.2% over the same period respectively. The NRW rate in Johor was 29.2% in 2011, a slight improvement from 31.2% in 2007.

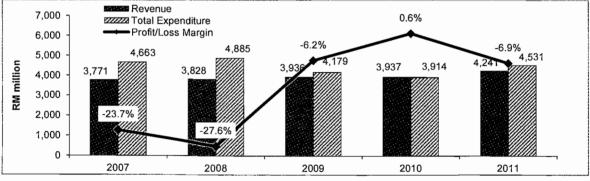
Under the 10MP, the Government had allocated approximately RM1.1 billion to increase the water quality and reduce water loss nationwide through the replacement of pipes and old meters, conducting a comprehensive leakage repair works, setting up district metering zones, proper water pressure control and the implementation of the Water Balance Formula created by the International Water Association. SPAN has set a target for a national new level of 25.0% or less to be achieved by 2020.

Full Cost Recovery

The cost of operating and maintaining the water infrastructure is high and is under the responsibility of water operators. The operating expenditure comprises water treatment and distribution costs, purchase of treated water, lease rental to PAAB, depreciation, amortization, finance cost, payment to purchase treated water from bulk water supplier and operational capital expenditure³⁹.

In general, the water services industry expenditure was almost always higher than the corresponding total revenue in the same year. The Government is implementing strategies in order to eventually realize a full cost recovery, which involved working with SPAN to conduct a study on tariff adjustments that will take into consideration user protection. For the purpose of this, all water operators are required to prepare and submit to SPAN a detailed 30-year business plans and a 3-year operational plan. These plans will form the basis for SPAN in advising KeTTHA on the appropriate tariff to be set. These plans will also allow PAAB to have a proper capital expenditure planning. Ultimately, the Government intends to enable water operators to fund for capital and operating cost independently without the subsidy from the Federal Government.

The following chart shows the trend of total expenditure against the revenue in the industry.



Water Supply Services Industry Revenue and Total Expenditure in Malaysia, 2007-2011

Sources: MWA and Frost & Sullivan

³⁹ MWA. Malaysian Water Industry Guide 2012,

In Johor, the domestic water tariff is on average higher than the other states in Malaysia, whereas the commercial water tariff is the highest among other states (Refer to Section 4.5.3.3 Water Tariff for the list of tariff by state). Hence Frost & Sullivan is in the opinion that Johor is more likely to achieve full cost recovery faster than the other states in Malaysia.

4.5.7 Relevant Laws and Regulations

4.5.7.1 Regulating Authorities

Authorities that are responsible for the water service industry in Malaysia and their roles are appended in the table below:

Authority	Role and Responsibility
KeTTHA	KeTTHA is the ministry that governs the water services industry. Its main responsibilities are:
	 To develop rules, regulations, standards and policies for the industry
	 To develop and adjust the mechanism for tariff setting, standards and quality of water supply in order to
	protect consumers
	• To assess and monitor projects for the industry development to ensure projects are on track and
	problems are solved properly
	• To work with the Ministry of Natural Resources and Environment and other governmental agencies in
	enforcing plans for the industry and ensuring plans are line with the Government's objectives
JBA	JBA is an agency formed in 2004 under KeTTHA that assists the ministry in following manners:
	To be a technical advisory providers to the ministry and other agencies in developing, planning,
	implementing and managing water supply programmes
	Involves in the development of water resources
	 Involves in monitoring the NRW programme and quality of raw water and treated water
	 Involves in planning and implementing the water supply infrastructure
	To be a committee member for the Standard and Industrial Research Institute of Malaysia and SPAN in
	identifying the list for approved water supply materials
SPAN	SPAN was established in February 2007 under the SPAN Act. It holds important roles in implementing
	National Water Services Industry Restructuring Initiatives, including:
	 Advising, implementing and enforcing laws and regulations formulated by KeTTHA in relation to water supply and soverage apprices laws
	 supply and sewerage services laws Ensuring the productivity of water supply and sewerage services in the country
	 Monitoring water operators if they are adhering to standards, policies, laws and regulations
	 Participating in the setting of tariff for water supply for consumer protection
	 Involving in programmes for NRW
	 Ensuring the continuity and quality of water supply in the nation
	 Ensuring the national objectives on water supply are achieved
PAAB	PAAB is an agency of Ministry of Finance and was set up in May 2006 to undertake the responsibility of
	constructing, refurbishing, upgrading, maintaining and repairing the infrastructure and all other assets of
	water services industry. It owns water assets in the industry and leases these assets to water operators in
	Peninsular Malaysia and Federal Territories of Putrajaya and Labuan for their operations and maintenance.
	In addition, PAAB also assists SPAN in restructuring the water service industry.
DID	DID was established in 1932 as an agency of Ministry of Natural Resources and Environment. Roles of DID
	in water services industry are mainly from the water resources management perspective include the
	development, operation and maintenance of the hydrological network, collation and analysis on hydrological
State	data and water resources assessment in the country.
Government	State government agencies that monitor and regulate the water services industry in each state of Malaysia (except Kuala Lumpur and Selangor) are listed below:
Agency	Perlis Public Works Department (Water Supply Department)
, gone)	Sarawak Public Works Department
	Federal Territory Labuan Water Supply Department
	Pahang Water Supply Department
	Sabah Water Department
	Perak Water Board
	Kuching Water Board
	Sibu Water Board
	• BAKAJ
	Kelantan Water Department
	Penang State Water Regulatory Body
	Terengganu Water Department
	Melaka State Water Regulatory Body
	Sources: MMA KOTTHA IRA SPAN PAAR DID and Frost & Sulliver

4.5.7.2 Acts

Relevant Acts and regulations that govern the water industry in Malaysia are presented in the table below:

Act	Details
SPAN Act	 SPAN Act was gazetted on 20 July 2006 and came into effective since 1 February 2007. The main authority of the Act is to establish a regulatory body named SPAN that holds the role of supervising and regulating water supply services and sewerage supply services and other related matters as well as enforcing laws for these services in Peninsular Malaysia, Federal Territories of Labuan and Putrajaya. The Act covers the following: Roles and authorities of SPAN and the appointment of SPAN workers as well as tasks of these workers
	 Functions of a fund set up under the Act to develop the governed services General provisions for prosecution of offences under the Act
WASIA Act	 WSIA Act was gazetted on 20 July 2006 and came into force on 1 January 2008. This Act provides for and regulates the water supply services and sewerage services and other related matters in Peninsular Malaysia, Federal Territories of Labuan and Putrajaya. The Act covers the following: Licensing and Permit Matters
	 Provisions in relation to water supply systems and services Provisions for consumer protection and resolutions of disputes Regulations on rates, charges and deposits for water supply services Functions of a fund set up under the Act to develop the governed services Provisions for general offences and penalties
National Standard for Drinking Water Quality	 The Standard was issued by the Ministry of Health ("MOH") to set parameters and limits in supplying water for human consumption. It covers guidelines on the following aspects: Source protection – provides a list of recommended criteria for microbiological, physical, chemical and radioactive constituents in raw water Drinking water standard - provides a list of recommended criteria for microbiological, physical, chemical and radioactive characteristics of drinking water Guidelines on how to have safe drinking water are appended in the Standard including protection of source, preventive measures, treatment tests, sanitary survey which includes treatment plant inspection and evaluation, monitoring steps and record keeping and periodically report submission to the Unit of Drinking Water Quality Surveillance under the MOH.
Waters Act 1920	The Act was first enacted in 1920 and revised in 1989. It provides control of rivers and streams and is applicable to Negeri Sembilan, Pahang, Perak, Selangor, Melaka, Penang and Federal Territories. The Act states that only person that obtained license from the State Authority is able to divert water from river or natural course of river by mean of ditch, drain, channel or pipe.
Environment al Quality Act 1974	This Act is enacted to prevent, abate, control pollution and enhance environment quality in the country. Environment is defined as the physical factors of the surroundings of human beings including inland waters. Parties that involved in the water services and supply industry including water system owners, water operators and water work permit holders are required under this Act not to cause pollution to inland waters.

Source: KeTTHA, JBA, SPAN and Frost & Sullivan

4.5.1 Reliance and Vulnerability to Imports

The industry is reliant on various types of chemicals for the water treatment activities, some of which are available locally and some imported. The major chemicals that are imported are alum (from Australia) and fluoride (from China and the United Kingdom).

4.5.2 Competitive Landscape and Structure

There were 14 water operators in Malaysia. The following table lists the water operators and their status as of September 2012. Five states – Johor, Melaka, Negeri Sembilan, Pulau Pinang and Perak - had migrated to the new licensing regime under the transformation.

State		Status as of September 2012			
	Water Operator	Corporatised	Migrated	Privatised	
Johor	SAJH	N/A	Yes	Semi-private (20% state-owned)	
Kedah	Syarikat Air Darul Aman Sdn Bhd	Yes	In progress	No	
Kelantan	Air Kelantan Sdn Bhd	Yes	No	No	
Federal Territory Labuan	Labuan Water Supply Division	In progress	In progress	No	
Melaka	Syarikat Air Melaka Berhad	Yes	Yes (in 2009)	No	
Negeri Sembilan	Syarikat Air Negeri Sembilan Sdn Bhd	Yes	Yes (in 2009)	No	
Pulau Pinang*	Perbadanan Bekalan Air Pulau Pinang Sdn Bhd	Yes	Yes (in 2011)	No	
Pahang	Pahang Water Supply Department, KeTTHA	In progress	In progress	No	
Perak	Perak Water Board, State Government of Perak	Yes	Yes (2012)	No	
Perlis	Syarikat Air Perlis Sdn Bhd	In progress	In progress	No	
Sarawak	Laku Management Sdn Bhd	Not included in the privatisation	e transformation for o	corporatisation and	
Sabah	Sabah State Water Department	Not included in the transformation for corporatisation and privatisation			
Selangor and Federal Territory Kuala Lumpur	Federal Territory		In progress	Yes (received concessionary in 2005)	
Terengganu	Syarikat Air Terengganu Sdn Bhd	Yes	In progress	No	

Water Services Industr	v Plavers	s in Malaysia	September 2012

Note: Perbadanan Bekalan Air Pulau Pinang Sdn Bhd - Its holding company is listed in Bursa Malaysia Berhad and Penang State Secretary is the controlling shareholder.

Sources: MWA, SPAN and Frost & Sullivan

4.5.3 Market Share and Ranking

4.5.3.1 Water Treatment Plant Design Capacity in Malaysia

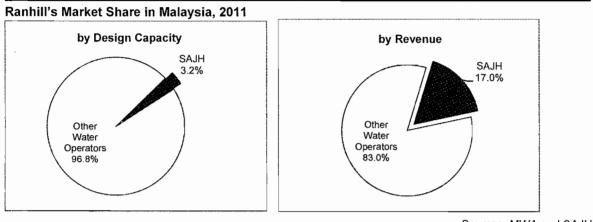
In 2011, the combined designed capacity of water treatment plants in Malaysia was 17,421 MLD. SAJH operate and maintain 28 of water treatment plants in Malaysia⁴⁰, all located in the state of Johor, with a collective designed capacity of 549.4 MLD. This contributes towards 3.2% of the total designed capacity of water treatment plants in Malaysia.

4.5.3.2 Water Supply Services Industry Revenue in Malaysia

In 2011, the total revenue (tariff and non-tariff revenue) for the water supply services industry in Malaysia was RM4,234.6 million. In the same year, SAJH achieved total revenue of RM719.1 million which translates to a market share of 17.0%.

⁴⁰ Effective November 2012, SAJH operate 44 water treatment plants in Johor

[©] Frost & Sullivan



Sources: MWA and SAJH

4.5.4 Industry Outlook

Since the first National Five Year Development Plan (1966-1970), the Government had placed great efforts in developing the water services industry to increase water quality and public accessibility. In the 10MP, the Government's strategy is to ensure the sustainability of the water supply industry through these main focus areas⁴¹.

• To develop a long-term strategy for water resource management to achieve water security

Water resource management is important to ensure the continuity of raw water supply for water treatment, distribution and consumption by the end users, especially in areas with rapid economic and population growths. The Ministry of Natural Resources and Environment is leading an initiative to develop a National Water Resources Policy ("NWRP"). The NWRP will lay out the measures that will streamline policies and regulations to ensure the efficiency and effectiveness of the water resource management.

In addition, a National Integrated Water Resources Management ("IWRM")⁴² System will also be developed with the objective of cultivating a close co-operation and partnership between stakeholders for a properly developed and managed water, land and related sources. Such stakeholders include Government, regulatory authorities, water operators, health and environmental agencies, land users, contractors, plumbers, manufacturers of water products as well as end users. Under the IWRM System, an Integrated Flood Management approach will be undertaken to reduce the risk of flood affecting the water supply. Government has allocated RM5.0 billion in implementing this approach.

• To continue restructuring the water services industry

Water operators are required to migrate into a new licensing regime and transfer the water asset ownership to PAAB in order to lighten their financial burden and enable them to focus on water operations. As of September 2012, five states in Malaysia had migrated into the new regime. The Government set the objective of having the rest of the states (except Sabah and Sarawak) to be migrated as well during the 10MP.

Other plans to be executed in order to achieve this objective include the full cost recovery in the industry, the integration of water and sewerage services as well as the NRW programme in which RM1.1 billion is allocated by the Government to mitigate the problem and improve the water quality.

• To protect rivers from pollution

More than 80.0% of the total raw water in Malaysia was sourced from rivers (2011: 82.2%). Hence, the prevention of rivers from pollution is relevant in order to ensure good water quality for consumption. According to the Environmental Quality Report 2010 issued by the Department of Environment, the number of polluted rivers increased from 54 in 2009 to 74 in 2010 whereas the

⁴¹ Source: 10MP, EPU

⁴² An important initiative suggested by Global Water Partnership to ensure the sustainability of water supply whilst not depleting the ecosystems.

[©] Frost & Sullivan

number of clean rivers dropped from 306 in 2009 to 293 in 2010. This was mainly the result of the increase in the number of polluting sources such as sewage treatment plants and waste from agricultural industries. Among the preventive measures that has been outlined include: strengthening the regulations on industrial effluents and sewage discharge; assessing the allowable discharge load into rivers; refining the Water Quality Index used as parameters for river pollution, developing the National Marine Water Quality Index and implementing awareness programmes among the society.

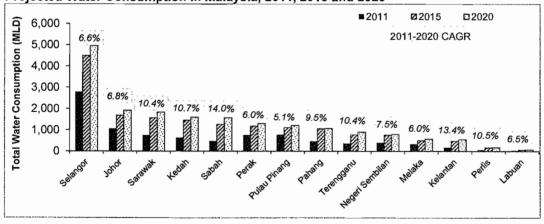
• Mitigation of NRW

The water supply services industry in Peninsular Malaysia is currently is in various states of migration, with the objective of transforming the sector from a wholly-public funded to be privately operated and market-driven. Mitigating NRW becomes viable in a for-profit business model whereby the rate of NRW is translated as the loss of revenue. When the loss from NRW outweigh the production and distribution cost, it is to the company's best interest to alleviate it. The increase in cost of sales is also apparent by any upward revision of the water tariff which is inevitable once the sector has transformed.

As at 30 June 2012, the NRW rate in Johor was 26.6%⁴³, improved from 31.2% in 2007. The mitigation of NRW which is a cost-incurring activity is expected to be more viable in other States in Malaysia in the medium to long term, or upon their sector migration.

The National Water Resources Study (2000-2050) forecast the water consumption in Malaysia to reach 16,548 MLD in 2015 and further increased to 18,549 MLD in 2020. Consumption and demand of treated water is expected to be driven by growths in population, national wealth and the industrial sector. States expected to experience high consumption growth rate between 2011 and 2020 of CAGR above 10.0% are Sabah, Kelantan, Kedah, Terengganu and Perlis.

The following chart shows the projected water consumption by state, for 2015 and 2020.



Projected Water Consumption in Malaysia, 2011, 2015 and 2020

Sources: EPU and Frost & Sullivan

4.6 Overview of the Water Supply Industry in China

4.6.1 Country Information

China is currently the most populous country and one of the fastest growing economics in the world. The population of China reached 1.3 billion in 2011, which was approximately one fifth of the total world population. The population density in China is high, with 140 people per km^2 in 2011. However, the population is unevenly distributed. The coastal areas in East China are the most densely populated areas, with a population density of more than 400 people per km^2 . In the sparsely populated plateau areas in the west, the population density is less than 10 people per km^2 .

China has shown strong economic growth with its GDP expanding at a CAGR of 16.8%, from RMB18,493.7 billion (RM8,865.9 billion) in 2005 to RMB40,120.0 billion (RM19,233.5 billion) in 2010.

⁴³ Information was supplied by SAJH

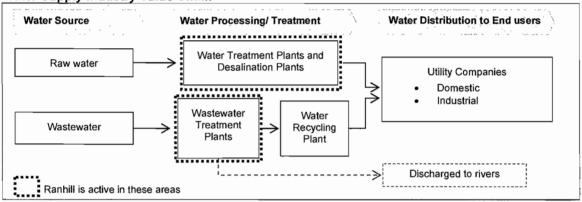
[©] Frost & Sullivan

During the same period, GDP per capita increased from RMB14,185 (RM6,800) to RMB29,992 (RM14,378) representing a CAGR of 16.2%.

4.6.2 Industry Background and Development

The water supply industry in China is a public managed sector. The Government fully took part in developing the sector given the importance of supplying treated water for safe public consumption. The industry is mainly dominated by public-owned entities however increasingly have seen higher private participation in the operations and maintenance of water treatment and wastewater treatment plants. In 2011, around 10.0%-20.0% of investment came from the private sector.

The industry encompass sourcing of water, processing of raw water, distribution to end users and the treatment of domestic and industrial wastewater as illustrated in the industry value chain.



Water Supply Industry Value Chain

Raw water sourced from rivers, dams, and groundwater is processed in conventional water treatment plants, whereas seawater will have to be processed in desalination plants to remove the high content of salt and make it potable⁴⁴. While raw water is processed and treated to make it safe for domestic consumption, wastewater treatment is necessary to ensure that wastewater discharged back to the environment is free from harmful pollutants that may contaminate the natural water sources. In the industrial sector, majority of treated wastewater is recycled back for industrial usage.

Treated wastewater may have the contaminants removed but it is not necessarily suitable for human consumption and must be further processed in recycling treatment plants in order to be distributed to the end users. Wastewater recycling is only apparent in urban areas where there is a high population density and the raw water resource availability is limited.

In 2008, the water supply and waste water treatment industries in China generated a total revenue of RMB67.2 billion (RM32.2 billion) and RMB7.9 billion (RM3.8 billion) respectively. For private companies, wastewater treatment is a bigger area for private participation as it is currently underdeveloped. According to the World Bank, between 1998 and 2008, more than 60.0% of the private water projects in China are for wastewater treatment, accounting for 183 of the total 291 projects⁴⁵.

Private Participation in the Water Industry

In 2002, The Government of China officially opened the water treatment industry to private operators. Foreign companies were also encouraged to participate and invest in the urban water supply systems (i.e. the construction and management of water treatment plant, wastewater treatment plants and water distribution projects). Typically, for water treatment projects of large capacity (100 MLD and above), foreign participation is conducted through collaboration with a local partner. Private participation in this industry was mainly through PPP models such as Transfer-Operate-Transfer ("TOT") and build-operate-transfer ("BOT"). In many cities, there are also private water treatment plant operators that are affiliated with the central government and local government. For wastewater treatment, the severity of the matter has compelled the Government to actively seek for local and foreign investors to participate in the building of new wastewater treatment plants throughout the country.

Source: Frost & Sullivan

⁴⁴ Suitable for drinking

⁴⁵ Source: World Bank

[©] Frost & Sullivan

For the distribution of treated water to domestic users, municipals and state-owned enterprises still dominate this area, including system design and construction and there is not much foreign participation in the development or operation of domestic water distribution networks.

4.6.3 Supply Conditions

4.6.3.1 Raw Water Source

Raw water for treatment is sourced from surface water (i.e. rivers, lakes and catchment areas), ground water and other sources (i.e. rain water). In 2010, 81.1% of the total treated water was extracted from surface water, 18.4% from groundwater and 0.5% from other water sources such as rainwater and seawater. China has uneven distribution of water, whereby the Southern areas have abundant sources and faces frequent floodings, whereas the Northern areas where water is relatively scarce, face severe shortages from over extraction due to the high and dense population. To mitigate this shortage, the Government has embarked on a 'South to North Water Transfer Project' whereby water channels are being constructed to divert water from the Chang river to the water-stricken regions in the North of China. The construction began in 2000 and expected to be fully completed by 2050⁴⁶. The rapid industrialization, uncontrolled agricultural activities and lack of regulatory enforcement had caused many of the rivers in China to be heavily contaminated with industrial wastes, fertilizers from the farming activities and other domestic and agricultural wastes making it unsuitable to be used as a water source. The less advanced water treatment method used in most of the water treatment plants in China is not able to completely remove these contaminants. As a result, tap water in China may contain various levels of arsenic, fluorine and sulphates.

In 2006, the Ministry of Health of China revised the treated water quality standards making it closer to international standards for drinking water. All of the water treatment plants were expected to comply with these standards by July 1st 2012 and ensure the treated water quality is of drinking standard. Since the introduction of the new standard, the quality of treated water has improved and approximately 83.0% of the treated water in China's urban areas complied with the quality standards. Nevertheless, there is still stress for further improvement of the water quality, through establishment of more water treatment plants equipped with advanced technology. In June 2012, the Government of China allocated RMB175.0 million (RM83.9 million) for the improvement of treated water to drinking water quality in rural areas and to be invested by the end of 2015.

4.6.3.2 Water Treatment Plants

According to the Ministry of Housing and Urban-Rural Development (MOHURD), in 2010, there were about 4,000 water treatment plants in China supplying approximately 1,649,863 MLD (602.2 trillion liters a year) of water. In 2010, the combined water treatment capacity for the urban areas (i.e. cities, towns) reached 385,423 MLD. As reported by EU SME Center in 2008, over half of water treatment plants in China were medium scale with a treatment capacity of 10MLD-100MLD in the first⁴⁷ and second tier⁴⁸ cities. Driven by rapid urbanization among other factors, China will upgrade approximately 2,000 water plants between 2011 and 2015, adding a combined water treatment capacity of about 64,000 MLD.

The plan is outlined by the country's 12th five-year-plan. In addition, China also aims to add another 2,358 plants with a combined daily treatment capacity at 40.0 billion liters to its current water treatment system.

Approximately 90.0%⁴⁹ of the water treatment plants are using the conventional water treatment method. Conventional method is a four-step water treatment process, "Coagulation - precipitation - filtration – disinfection", to eliminate pathogenic microorganism contained in raw water. However, due to the increasing pollution problems, the conventional water treatment technologies used in most of the current water treatment plants is not sufficient to produce quality treated water that can meet the national standard as announced in 2006.

China has committed to improve such situation. Between 2011 and 2015, RMB142.0 billion (RM68.1 billion) investment will be invested in the water treatment sector in China, whereby RMB140.5 billion (RM67.4 billion) is allocated for water treatment plant renovation and construction and RMB1.5 billion (RM0.7 billion) for water quality monitoring. This industry is expected to be opened to service providers

⁴⁶ Source: Food and Agriculture Organisation of the United Nations (FAO)

⁴⁷ First Tier cities: Refer to the major municipalities and provincial capital cities. These cities are the most populous, affluent (high GDP per capita) and economically competitive in China, such as Shanghai, Beijing, Shenzhen and Chonqing.

⁴⁸ Second tier cities: Refer to Secondary provincial capitals and major cities with population of 0.5million – 2.0 million.

⁴⁹ Sourced from the agricultural portal developed by Guandong's provincial government, www.gdcct.gov.ch

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with advanced water treatment technology, for example, ozone and granular activated carbon filtration as well as membrane technology (reverse osmosis).

4.6.3.3 Wastewater Treatment Plants

In 2010, the industrial and domestic sector in China produced approximately 65,061 MLD and 104,050 MLD of wastewater respectively. The wastewater treatment segment is still underdeveloped. Approximately 76.9% of the urban waste water was treated in 2011. In rural areas, only 29.1% of wastewater was treated by the end of 2009.

In 2010, around 2,496 municipal wastewater treatment plants were constructed in cities and towns across China. In 2010, approximately 93.0% of the total 607 cities in China have built wastewater treatment plants, whereas 63.0% of the 1,034 towns in China have built the wasterwater treatment plants.

In 2003, the Government of China enforced a new standard on the allowable pollutant levels in the discharged effluent of wastewater treatment plants. Since then, there has been a gradual adoption of more advanced processes in the wastewater treatment plants throughout the country as companies strive to meet the new requirements for water recycling and discharge. This included secondary and tertiary chemical processes to remove phosphorus and nitrogen, over the conventional method of removing settled floating materials. In 2010, only 20.7% of the waste-water treatment plants in China have complied with this standard.

The Government of China have allocated RMB430.0 billion (RM206.1 billion) to improve this segment targeting to increase the national wastewater treatment capacity from 124,760 MLD in 2010 to 208,050 MLD in 2015.

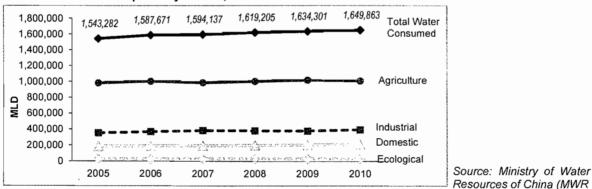
4.6.3.4 Treated Water Supply

Treated water is distributed to end users via public water pipes. An accelerated construction of water distribution infrastructure construction in China was seen in the past two decades. By the end of 2010, the length of water supply pipelines reached 539,778.3 km in cities, 159,900 km in towns, 335,800 km in townlets. With China's ongoing urbanization, China is planning to upgrade and build a total of 277,600 kilometres of water pipe in between 2011 and 2015. The access rate to tap water in Chinese cities increased from 48.0% in 1990 to 96.7% in 2010. In rural areas, the access rate to improved water sources increased from 56.0% in 1990 to 82.0% in 2008.

4.6.4 Demand Conditions

4.6.4.1 Water Supply / Consumption in China

The water supply industry in China has seen a moderate growth from 2005 to 2010. In 2010, the total water supply (consumed) was 1,649,862 MLD increased from 1,54,282 MLD in 2005 at a CAGR of 1.3%. Water consumed was largely used for irrigation and industrial purposes. In 2010, approximately 61.3% of water was for agricultural usage, 24.0% was for industrial usage and 12.7% was for domestic usage. The remaining 2.0% was used for ecological protection.



China Water Consumption by Sector, 2005 to 2010

The domestic water consumption per capita in China was approximately 156.5 litre per day.

4.6.4.2 Demand Drivers

Growth in Population and Rapid Urbanization

The population of China has grown from 1,308.0 million in 2005 to 1,347.0 million in 2011 at a CAGR of 0.5%.⁵⁰ Urban population has increased by 128.0 million, out of which 89.0 million are migrants from rural areas. During the same period, the urbanization rate has grown from 43.0% in 2005 to 51.3% in 2011.

According to the National Population and Family Planning Commission of China, the population of China is expected to continue growing and reaching 1.5 billion by 2020 with its annual growth rate stabilized at about 1.0 %. This will continue to drive up the demand for public utility infrastructure including water. At the same time, with increasing mobility of the population of China, as planned by the government to push forward urbanization in an active and stable manner. The Government of China is planning to raise its urbanization rate to 51.5% by the end of 2015 from 51.3% in 2011. In the next 20 to 30 years, China expects the population in urban areas will be reaching its largest scale. During that period, it is estimated 300 million people will migrate from rural China to urban China, many of which to eastern China.

The growth in the population of China will trigger an increase of water demand especially in the urban areas.

Rapid Growth of Water Intensive Industries

China is among the fastest growing economies in the world. Between 2006 and 2010, China's GDP almost doubled, growing from RMB21,631.4 billion (RM10,370.1 billion) to RMB40,120.2 billion (RM19,233.6 billion). During the same period, the GDP output from the industrial sector had grown from RMB9,131.1 billion (RM4,377.4 billion) to RMB16,086.7 billion (RM7,712.0 billion) registering a CAGR of 15.0%. The International Monetary Fund (IMF) forecasts that China's economy will reach RMB119.7 trillion (RM57.4 trillion) in 2016, to become the biggest economy in the world by surpassing the United States.

Rapid industrialization is expected to increase water consumption for industrial usage. China plans to invest in industries such as coal mining, power generation, pulp and paper which are water-intensive industries. For example, China plans to boost coal production in four of its Northern and Western provinces, with annual output of coal in those areas expected to reach 2.2 billion tonnes or 56.0% of the country's forecast total production of 3.9 billion tonnes by 2015. In addition, 16 large coal-fired power stations are also planned to be built in these provinces.

The Government of China is committed to ensure that there is sufficient water supply for the industrial usage by engaging more water industry players. This will catalyse a strong demand for water treatment, wastewater treatment and recycle water treatment.

Industrialisation of the Inland Provinces in China

The Rise of Central China Plan (中部崛起计划) was announced by Premier Wen Jiabao in 2006⁵¹ as part of China's overall strategy in promoting a coordinated development of the less developed inland regions of China. The Government of China is encouraging the migration of foreign investment in the labour-intensive industries from the coastal regions to the inland.⁵²

The six inland provinces are Shanxi, Anhui, Henan, Jiangxi, Hunan and Hubei. These provinces income are expected to grow at 10.0%-12.0% annual rates given the sizeable scale of government-led investment initiatives as they are positioned to become China's major grain production base, production base of raw materials and energy sources, new and high-tech industrial base, manufacturing base of modern equipment and comprehensive transportation hubs.

However, economic expansion in the central area is not limited to government planners who are developing cities in the central zone. Market forces such as rising cost of production and higher cost of living in the coastal regions have caused a paradigm shift to the inland where it is more cost-effective for businesses to operate.

It is clear that a combination of factors have contributed to the rising popularity of setting up industries and businesses in the inland region. With robust government support in driving growth in Central China, demand for industrial water supply and treatment facilities will inevitably increase as more industrial activities start to take-off.

⁵⁰ Source: National Bureau of Statistics of China

⁵¹ Source: "Wen Jiabao: Plan to Boost the Rise of Central Region", Invest in China, September 25, 2009.

⁵² Source: 2011 Foreign Investment Industrial Guidance Catalogue published by The National Development and Reform Commission (NDRC) and Ministry of Commerce (MOC)

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4.6.4.3 Supply and Demand Conditions in Selected Provinces

Jiangxi

The Jianxi province is located inland of Southern China, bordering the coastal provinces Shejian, Fujian and Guandong. Jianxi shares provincial borders with Hubei and Anhui to the North and Hunan to the west. The key economic activities in Jiangxi are automotive manufacturing, metallurgy, pharmaceuticals, information technology, foods industry, chemicals and building material. In 2010, the province's GDP contribution was RMB945.1 million (RM453.1million). The total population in Jiangzi province was 44.6 million and GDP per capita was RMB21,180 (RM10,154).

In 2010, the total water supply to the province was 65,684 MLD of which approximately 63.0% was supplied to the agricultural sector. The industrial and domestic sectors consumption was 23.9% and 11.5% respectively. The remaining was supplied to the environmental sector.

Liaoning

The Liaoning province, located in Northern China, has a population of 43.7 million in 2010. Its main economic activities include equipment manufacturing, metallurgy, petrochemicals and agriculture. The GDP contribution in 2010 was RMB1.8 billion (RM0.9 billion) and GDP per capita of RMB42,189 (RM20,225).

In 2010, the total water supply to the province was 39,362 MLD of which approximately 62.5% was consumed by the agricultural sector. The industrial and domestic sectors consumed 17.4% and 17.7% respectively.

Anhui

The Anhui province is located inland of Southern of China, neighbouring the coastal provices Shanding, Jiangsu and Zhejiang. It also share provincial borders with Henan on the North, Jiangxi to the south and Hubei on its west. Major economic activities there include automotive manufacturing, equipment manufacturing, information technology and agriculture. The GDP contribution in 2010 was RMB21.24 billion (RM10.2 billion). The province has a population of 59.6 million people, and GDP per capita was RMD20,479 (RM9,818).

In 2010, the total water supply to the province was 80,307 MLD of which approximately 56.9% was consumed by the agricultural sector. The industrial and domestic sectors consumed 32.1% and 10.3% respectively, while the remaining was for environmental usage.

Henan

The Henan province is located in the Central China, bordering the coastal provinces Heibei and Shandong. It also share provincial borders with Shangxi, Shaanxi, Anhui and Hubei. The GDP contribution in 2010 was RMB2.3 billion (RM1.1 billion) with major economic activities in agriculture, food industry and textile. It has a population of 94.1 million, and GDP per capita of RMB24,552 (RM11,770).

In 2010, the total water supply to the province was 61,536 MLD of which approximately 55.9% was supplied to the agricultural sector. The industrial consumption was 24.7% while the remaining 19.3% was consumed by the domestic and environmental sectors.

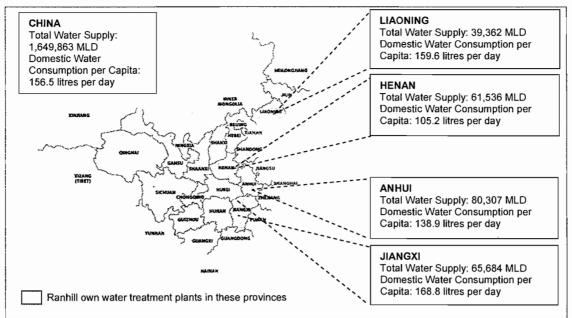
In 2010, all the aforementioned provinces have GDP growth rate above the national average. GDP change for Jiangxi, Liaoning, Anhui and Henan are compared against the national GDP growth between 2006 and 2010 is shown in the following table.

Province		G	DP Change (%		
	2006	2007	2008	2009	2010
Jiangxi	15.6	20.0	22.4	11.3	21.3
Liaoning	14.3	20.4	20.3	13.7	22.8
Anhui	18.8	20.3	20.2	9.8	23.5
Henan	16.8	21.4	20.0	8.1	18.5
CHINA	17.0	22.9	18.2	8.6	17.7

GDP Change in Selected Provinces in China, 2006-2010

Source: National Bureau of Statistics China

Water Supply and Domestic Water Consumption, 2010



Note: Water supply data is based on latest published provincial government data.

Sources: Provincial Government Data, National Bureau of Statistics and MWR

Water Supply and Target Treatment Capacity of Selected Provinces

Province	Total Water Supply in 2010 (MLD)	Target Water Treatment Capacity in 2015 (MLD)
Jiangxi	65,684	1,250
Liaoning	39,362	3,760
Anhui	80,307	2,990
Henan	61,536	5,160
CHINA	1,649,863	55,450

Sources: National Bureau of Statistics, MWR and MOHURD

China suffers from insufficient wastewater treatment capacity, and this situation is also observed in the provinces of interest - Jiangxi, Liaoning, Anhui and Henan. The Government has shown their commitment towards improving the wastewater treatment capacity and has set targets to achieve by 2015 as reflected in the table below.

Wastewater Discharged and Target Treatment Capacity in Selected Provinces

Province	Wastewater Discharged in 2010 (MLD)			Wastewater Treatment Capacity (MLD)		
	Total	Industrial	Municipal	2010	2015	CAGR (%)
Jiangxi	4,402	1,987	2,415	2,829	4,909	11.7
Liaoning	5,978	1,959	4,018	5,367	7,182	6.0
Anhui	5,060	1,944	3,116	4,470	6,740	8.6
Henan	9,827	4,121	5,706	6,659	8,562	5.2
CHINA	169,111	65,061	104,050	124, 760	170, 450	6.4

Sources: Provincial Government Data and National Bureau of Statistics

8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

4.6.5 Industry Risks and Challenges

China Facing Severe Water Shortages

Water shortages are affecting China's economic and social development. Industrial production lost as a direct consequence of water shortage is around RMB200.0 billion (RM95.9 billion) a year.

The World Bank has estimated that water shortage costs China approximately 1.3% of its annual economic output, with a further 1.0% lost due to water pollution. Increasing population, accelerated urbanization, rapidly growing economic and call for improved water quality indicates an immediate need to develop more efficient water treatment plants, distribution and wastewater treatment systems to resolve the shortage. According to the MWR, at least 60.0% of 663 cities, suffer from water shortage problem, with about 110 cities are classified as "severe". The ministry estimated the national water demand deficit to approximate 50,000 billion liters per year.

Poorly Constructed and Aging Pipelines

A major problem faced by the water distribution sector in China is high water loss from pipeline leakage that caused the sector to stay unprofitable. MOHURD reports the rate of water loss in cities and towns in 2010 was 15.3% and 10.8% respectively.

Water and wastewater connection networks in China are generally poorly constructed and maintained, which caused the leakage of substantial volumes. As revealed by a water distribution survey conducted by the Ministry of Housing and Urban-Rural Development in 2009, which covered 408 Chinese municipal water distribution systems, 21.5% of pipes had leakage problems and the annual leakage volume exceeding 10 trillion litres. The leakage problem in water distribution is the key causation for the unprofitability for the water industry.

Government subsidies play the main role in providing the maintenance operation cost to resolve the leakage problem. However, there is a lack of clarity in identifying which government agencies should be responsible on it. Despite the challenges, the effort in moving the industry towards privatization is expected to ease the problem as the efficiency in the industry is increasing.

Lack of Market-Oriented Water Pricing Mechanism

Water prices in China are not set according to the industry condition. The prices do not reflect the water scarcity issue and are significantly below the prices in countries with adequate water supply per capita. Low water pricing and growing construction cost of water treatment plants have discouraged companies from participating in the industry. Due to low water tariff, the wastewater treatment plants are granted limited flexibility in altering the prices of they charge for their customers, the reason being the consumers will tend to use treated water at a lower price than treated waste water.

Recognizing the issue, the Government of China has begun a new round of water price adjustments in 2009. In 2010, Shanghai and Tianjin raised water prices, causing many other cities to follow. The increase in water prices is an effort to promote water conservation and sustainable use of water resources. Additional correctional measurers are also on the way as China plans to steadily introduce a progressive pricing scheme for water use before 2015, according to a latest government water conservancy plan.

4.6.6 Government Initiatives to Promote the Water Industry

In 2008, the Government of China unveiled its RMB4.0 trillion (RM1.9 trillion) stimulus economic package to recover the economy from the negative impact of the global economic slowdown on China's domestic economy. The package allocated RMB20.0 billion (RM9.6 billion) to rural water conservation projects, aimed to reinforce water reservoirs, conserve key irrigation areas and improve drinking water safety. The package also allocated RMB370 billion (RM177.4 billion) for the development of rural infrastructure, including water supply system. A budget of RMB350.0 billion (RM167.8 billion) was allocated to environmental protection projects, including municipal water and wastewater treatment projects.

To further promote the water infrastructure in China, MOHURD and the National Development and Reform Commission announced a 5-year and long-term plan to reform the sector, *"Renovation and construction plan for urban water infrastructure for 2011-2015 and long-term vision till year 2020"*. The main target is to ensure the quality of water supplied to urban China meets the national standard. The plan will also focus on expanding access rate to tap water in towns and townlets to between 75.0%-85.0% by 2015. The plan target to minimise the problem of water leakage in its distribution system at 80.0% and 60.0% of its cities and towns respectively.

The Government of China plans to inject RMB410.0 billion (RM196.6 billion) into the national water industry to achieve the above mentioned targets, whereby RMB46.5 billion (RM22.3 billion) will be channelled towards the upgrading of existing water treatment plants, RMB83.5 billion(RM40.0 billion)

for the upgrading of existing water distribution system, RMB94 billion (RM45.0 billion) for capacity building of water treatment plants, RMB184.3 billion (RM88.4 billion) for building new water distribution systems, RMB1.5 billion (RM0.7 billion) for water quality monitoring, and RMB200.0 million (RM95.9 million) for emergency water supply capability.

4.6.7 Competitive Landscape in China

The water treatment industry in China is highly fragmented. Although there are many private operators involved, even the largest industry participants have a single digit market share in the overall national market. Below is a list of the key private players.

- Beijing Capital Co., Ltd
- Beijing Enterprises Water Group, Ltd.
- Sound Group
- Sino French Water Development Co. Ltd.
- Veolia Water China
- General Water of China Co., Ltd.
- China Water Investment Co, Ltd.
- Shenzhen Water Investment Co., Ltd.
- Tianjin Capital Environmental Protection Limited
- Golden State Environment Group Corporation

Notes: The list is non-exclusive and not limited to these players. The companies listed are in no particular order.

4.6.8 Industry Outlook in China

China has begun to recognize the importance of resolving their water shortage and pollution issues. Since then, China has taken various measurers to address these. Between 2006 and 2010, about RMB1.0 trillion (RM479.4 billion) was invested in the water management industry as laid out by 11th Financial Year Plan. Between 2011 and 2015, more investment is expected to be injected into the water segment. China is also actively using economic tools such as proper pricing mechanisms and modification of subsidies to support for the sustainable management of China's limited water resources. The efforts made by The Government of China have stimulated the national water industry and paved the way for a rapid expansion in the past few years.

The demand for treated water is expected to continue rising (mainly for domestic and industrial usage). China needs to manage its rapidly growing demand for treated water by upgrading its current treatment plants with advanced technology, employing high-efficiency pumps in its distribution system, improving water usage efficiency and increasing the recycling and reusing of treated wastewater. China's treated water demand is projected to reach 2,280,274 MLD by 2050.⁵³

The wastewater treatment sector in China is significantly underserved and presents great growth potential especially for foreign players who have the advanced technology and equipment. As per the 12th National Five-Year-Plan, the Government of China has allocated RMB430.0 billion (RM206.1 billion) for investments in this sector between 2011 and 2015.

4.7 Brief Overview of the Water Supply Industry in Thailand

4.7.1 Industry Background and Structure

Situated in Southeast Asia, Thailand has a land area of 510,890 square km, with a population of 6.9 million and a population density of 13.6 person per square km in 2011. As a developing economy, Thailand achieved a GDP of USD345.7 billion (RM1,079.5 billion) in 2011 increased from US\$247.0 billion (RM771.3 billion) in 2007. The per capita GDP for Thailand also had shown significant improvement from US\$3,643 (RM11,375) in 2007 to US\$4,972 (RM15,225) in 2011. Thailand's economy relies heavily on the manufacturing industry, which contributed towards 39.0% of the GDP in 2011 ⁵⁴. Other economic sectors include wholesale and retail trade, transport, storage and communication, agriculture, construction and mining, to name a few. According to the United Nations, Thailand's urban population was 34.1% in 2011.

⁵³ Source: Chinese Academy of Sciences

⁵⁴ Source: World Bank

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Thailand's water supply industry is matured with 100.0% of its population having access to treated water, and 89.0% with access to improved sanitation facilities in 2008. ⁵⁵ In 2009, there were 1,538 water treatment plants in Thailand operated by the water authorities and municipals, and a further 50,257 small water treatment facilities in the rural areas, much of which were aging and inefficient. The total operational capacity of water treatment plants in Thailand is underdeveloped with insufficient water treatment plant capacity throughout the country.

The central Government of Thailand via its related ministries is responsible for the development of policies related to the water industry, whereas the governance for the development of water supply infrastructure falls under provincial and local authorities' jurisdiction. Municipal water distribution in Thailand is mainly managed by the Provincial Waterworks Authority (PWA), whereas the Metropolitan Waterworks Authority (MWA) manages distribution to Bangkok, Nonthaburi and Samut Prakan provices. Its water supply service companies comprise public and private operators. Meanwhile, domestic wastewater treatment in Thailand is not centrally coordinated and managed by municipalities and local authorities.

Thailand's source of raw water for its water supply industry predominantly from rivers as it has a large network of rivers. Nevertheless, there is an increasing problem related to water quality as a result of frequent floods, pollution and salt-water intrusion, making the source of raw water not suitable to be treated in the conventional treatment facilities, worsened by the underdeveloped waste-water treatment industry. Heavy rain and frequent floods causes rivers to be highly silted increasing its turbidity, as well as salt water intrusion into major rivers and water catchment areas. The major pollutant to its raw water sources is the untreated domestic wastewater discharged back into the environment as well as chemicals from the agriculture industry that may run into rivers and groundwater as a result of heavy rain. In 2008, there were only 101 wastewater treatment plants in Thailand, mainly located in the urban areas and the Ministry of Natural Resources and Environment (MNRE) estimated that Thailand produced approximately 5,100 million cubic metre of wastewater, out of which less than 50.0% was treated. The Government, under its Water Policy and Vision, has set a national target to be able to supply sufficient and quality water to the whole country by 2025.

In 2011, Thailand's total water consumption was 6,164 MLD, increased from 5,531 MLD in 2007 at a CAGR of 2.8%. Meanwhile, the total water produced in 2011 was 8,479 MLD, increased from 7,811 MLD in 2007 at a CAGR of 2.1%. The growth in the water consumption in Thailand is outpacing the growth in the production of water.

Production and consumption growth was also observed to be fastest in provinces outside the metropolitan areas of Bangkok, Nonthaburi and Samut Prakan. Between 2007 and 2011, production CAGR by PWA was 5.5% compared to MWA at -0.3% as illustrated by the following table.

Year	Water Production (MLD)						
	2007	2008	2009	2010	2011	CAGR (%)	
PWA	3,045	3,275	3,470	3,689	3,778	5.5	
MWA	4,765	4,838	4,757	4,756	4,701	-0.3	
Total	7,811	8,112	8,227	8,445	8,479	2.1	

Thailand Water Production, 2007-2011

Sources: NSO, MWA and PWA

Similarly, between 2007 and 2011, PWA recorded a consumption CAGR of 5.1% which was faster than the consumption CAGR recorded by MWA at only 1.2%.

Thailand Water Consumption based on Sales, 2007-2011

Year	Water Consumption (MLD)							
	2007	2008	2009	2010	2011	CAGR (%)		
PWA	2,117	2,322	2,465	2,632	2,651	5.1		
MWA	3,353	3,426	3,425	3,512	3,513	1.2		
Total	5,531	5,748	5,891	6,144	6,164	2.8		

Sources: NSO, MWA and PWA

⁵⁵ Source: UNICEF

Despite of growth in water sales, MWA's water production has been reducing from 2009 to 2011. This was mainly due to the continuous effort in mitigating water loss or NRW. Since 2005, MWA started its water loss reduction initiative through planned replacement of damaged and aging pipelines and installing a real-time monitoring system over a mobile telecommunication network to manage its water distribution network⁵⁶. The initiative was a success as reflected by the reduction of NRW from 30.5% in 2005 to 28.0% in 2009⁵⁷.

4.7.2 Industry Prospects and Outlook

The Government of Thailand is facing increased pressure from the public due to water quality issues and the need to keep up with the rising water demand especially outside of the metropolitan areas. Under its National Water Policy, the Government has committed to develop its water supply industry, and key areas to improve include flood mitigation systems and domestic wastewater treatment infrastructure in order to control the pollution to the water sources. In addition, the aging water treatment facilities need to be upgraded with better technology that will be able to produce water that can meet the quality standards. Further investment in new water treatment facilities is also expected in order to ensure that the future demand for water will be met.

In the monsoon season of 2011, Thailand was afflicted by a major flooding crisis which had submerged several areas including parts of Bangkok. The flooding had a severe impact on the country, causing damages to factories, properties and public infrastructure, and resulted in the disruption of global supply chains to major industries such as electronics, hard disk and automotive for several months. Subsequently, Thailand's economy experienced a contraction of 9.0% in the 4th quarter of 2011. The Government has announced an allocation of THB150 billion (RM15.1 billion) to be disbursed towards the development of a comprehensive water management systems, which will see an integration between the management of water resources, irrigation, water supply and wastewater treatment under a central and regulated body. In addition, a further THB350 billion (RM35.1 billion) was also allocated for water management programmes. To expedite the plan, the Government is also actively seeking for foreign participation and investment into the country.

5 Prospects and Outlook for Ranhill

Prospects in Malaysia

The Malaysian Government is committed to the cause of national economic development and transforms Malaysia into a high income nation by 2020. The 10MP highlights several efforts by the Government to create a sustainable growth through the development of energy resources, namely the O&G sector, as well as the power and water industries as the basic amenities.

Under the ETP, the O&G sector was highlighted as one of the NKEA. The execution of the EPPs are expected to elevate Malaysia as the leading hub for oilfield services and transform Malaysia into a global integrated trading hub for O&G by increasing the domestic O&G production, enhancing the downstream growth of the O&G sector and building capabilities in the O&G services. Natural gas will continue to remain as the main source of fuel for the power generation industry in Malaysia and the expected increase in electricity consumption will be the major driver for the development of the upstream O&G supply and distribution infrastructure in the country.

To fastrack development in the electricity supply and water industries, the Government has initiated sector reformation with the intention of encouraging higher investment and participation by the private sector. The Government has also set targets to improve the operational and delivery performances in these areas which include capacity building of power generation and water treatment, plants, and expansion and improvement of the distribution infrastructure.

These initiatives are in line with the expected increase in demand in these areas as a result of economic and population growth as well as the higher propensity of consumption from an improved urban lifestyle. Population growth and increasing wealth will spur the rise in residential and commercial properties, which inadvertently translate towards higher connectivity for electricity and water supply.

⁵⁷Source: MWA, 2010

⁵⁶Source: Yokogawa 2006, "Real-time Management of Large Water Supply Network Using the STARDOM Network-based Control System"

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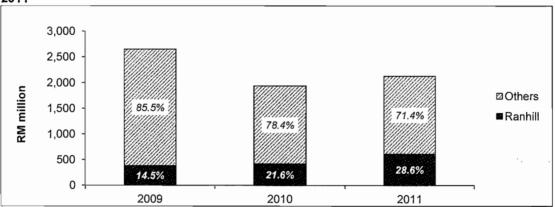
8. INDUSTRY OVERVIEW (cont'd)

EXECUTIVE SUMMARY

Ranhill's venture into the engineering services for O&G, power generation and water supply businesses enabled them to position themselves from a strategic advantage standpoint to leverage on the anticipated growth in these Government-supported industries in Malaysia.

 The Government's commitment in the O&G sector development is expected to attract total investment of at least RM64.0 billion to the country. Frost & Sullivan estimates the total EPC opportunities from the O&G development projects to be RM172.0 billion during the period 2012 to 2016. Ranhill-Worley Parson, as a major industry player with market share of 28.6% in the O&G engineering services in 2011, having grown from 14.5% in 2009, is poised to achieve a relative gain from the opportunities that exist in this industry.

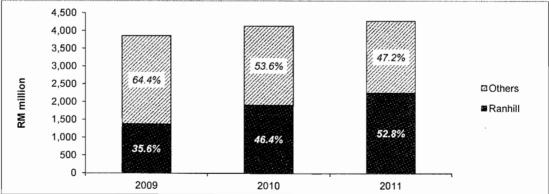
Ranhill's Market Share in the Engineering Services Market (Malaysia O&G Industry), 2009-2011



Sources: Ranhill, PETRONAS and Frost & Sullivan

Electricity consumption in Malaysia is forecast to increase at a CAGR of 4.3%, from an estimated 106,674 GWh in 2012 to 131,821 GWh in 2017F. The industrial segment is expected to remain as the main consumer of electricity, followed by commercial and residential segments. This presents favourable growth opportunities for experienced electricity producers such as Ranhill. In Sabah, the electricity consumption between 2005 and 2011 was growing at a CAGR of 7.5%, which was at a faster rate than Peninsular Malaysia and Sarawak, at 3.6% and 4.4% respectively. By virtue of the location of its power generation facilities, RPI and RPII, Ranhill's is in an advantageous position to capture the growing electricity market there. Ranhill is a major power producer in Sabah with a growing market share. In 2011, Ranhill supplied 52.8% of the electricity to the Sabah electricity supply market, increased from 35.6% in 2009.

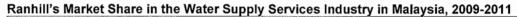
Ranhill's Market Share in Power Generation in Sabah, 2009-2011

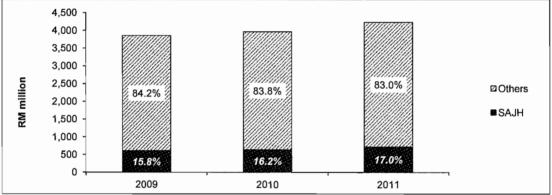


Sources: Ranhill, Energy Commission and Frost & Sullivan

 The National Water Resources Study (2000-2050) forecast the water consumption in Malaysia to reach 16,548 MLD in 2015 and further increased to 18,549 MLD in 2020. In

addition, an allocation of RM1.1 billion was announced for the deployment of programmes to improve service efficiency and water quality, such as NRW mitigation and the integration of water and sewerage services. Water demand in Johor is expected to be driven by the development in Iskandar Malaysia and RAPID-PIPC. As of November 2012, the cumulative committed investment in Iskandar Malaysia was RM105.1 billion, increased by 151.8% from RM41.8 billion in 2008. Meanwhile, the Government's motivation to improve the water tariffs sits favourably with SAJH, to enable better management of its water resources and realise the full cost recovery of its water supply services. SAJH's revenue share in the water supply services industry has shown to have increased from 15.8% in 2009 to 17.0%. Meanwhile, a progress in the mitigation of NRW was also observed. As at 30 June 2012, SAJH's NRW rate was 26.6%, a marked improvement from 31.2% in 2007.





Note: Others revenue share in the above chart was calculated from the total Malaysia revenue published by MWA, and adjusted to accommodate the audited revenue as supplied by SAJH.

Sources: SAJH, MWA and Frost & Sullivan

Regional Prospects

Ranhill's core strength as an engineering and technology provider serving the O&G and water industries in Malaysia provides it with the credibility, experience and competencies to compete on the global platform. For Ranhill, EPC opportunities are presented in the following areas:

- Vietnam's ascension into the WTO in 2006 and Myanmar's political reform since 2011 has contributed to the political and economic stability of these countries, increasing the attractiveness of these countries to foreign investors. As Vietnam and Myanmar focus on building their economic strength, the exploitation of its resources, in particular O&G has become mainstream in order to bring in the much needed revenue to the countries. In 2011, the proven crude oil reserves in Vietnam and Myanmar were 4.4 billion barrels and 3.2 billion barrels respectively. Vietnam and Myanmar is ramping up its exploration and production activities by encouraging foreign O&G companies to invest, which will in turn develop into EPC opportunities for the engineering companies such as Ranhill.
- The increasing global demand on top of the maturing oilfields and depleting resources has compelled the O&G industry to move towards deepwater development. Deepwater O&G hotspots are present in Africa, North Sea, Gulf of Mexico and Brazil, while SEA is considered an under-explored and a growing market for deepwater development. The complexity of deepwater development is expected to limit competition, and sits favourably with Ranhill as a known player and engineering expert in this area.
- In an emerging economy, as a catalyst to economic growth, the Government's motivation is to focus on infrastructure development and ensure the population has access to basic amenities such as electricity and water. In the Asian region, China and Thailand have a growing need for water sector development. The Governments of these countries are committed to the improvement of their water sector and are adopting the PPP model to fastrack development. Foreign companies, such as Ranhill, are encouraged to participate to provide the capital and technology required.