

Annual Report 2017

WHA Utilities and Power Public Company Limited



Your Ultimate Solution Partner in
UTILITIES & POWER
with Environmental Care



CONCEPT

... LEADING MANAGEMENT
... LEADING PRODUCT
... LEADING TECHNOLOGY

WE ARE **“THE CHAMPIONS”**

WE ARE **“WHA UTILITIES AND POWER”**

Leader in Utilities Services Provider in Thailand Industrial Estate and
Active Power Investor with Strategic Partnership Power Companies.

Your Ultimate Solution Partner in **Utilities & Power** with Environmental Care

VISION

To be Asia's leader in utilities and power businesses providing total solutions to partners with good corporate governance as well as environmentally and socially friendly operations.

MISSIONS

1. To develop world class utilities and power solutions fitting customers' needs.
2. To vertically integrate solutions in utilities and power businesses and expand other market segment to increase products and services in Thailand and other Southeast Asia Countries (CLMV Countries)
3. To continuously develop human resources competencies including encouraging workplace environment for employee career path and wellbeing
4. To nurture an innovative culture in the organization.
5. To add value to communities and the environment with good corporate governance and sustainable development strategies.

GOALS

The Company aims to be a leader in integrated utility and power businesses and to operate in compliance with the principles of good corporate governance with responsibility for the community, society and the environment. It also plans to expand its customer base in the segments of utilities and power services, both domestically and in the South East Asia countries particularly Cambodia, Laos, Myanmar and Vietnam (the CLMV countries) and expand to related businesses in order to widen its range of products and services.

STRATEGIES

- Developing utilities and power businesses that have predictable growing revenue and superior profit opportunities in order to optimize shareholders' value.
- Leveraging complementary management expertise, customer relationship, infrastructure and environmental competence to expand opportunities in utilities and power businesses.
- Utilizing sound human and financial resources selectively for competing investment opportunities.
- Contributing positively to neighbors, society and stakeholders with sustainable programs in education, community and environment.



WHAUP VISION

TO BE ASIA'S LEADER IN UTILITIES
AND POWER PROVIDING TOTAL SOLUTIONS
TO PARTNERS WITH GOOD CORPORATE GOVERNANCE
AS WELL AS ENVIRONMENTALLY AND
SOCIAALLY FRIENDLY OPERATIONS



CONTENTS

05	Definition and Abbreviation
06	Financial Highlight
08	Message from the Chairman
10	Message from the Chief Executive Officer
12	Details of Directors
15	Details of Management and Corporate Secretary
18	Overview of Business
44	Profile and Contact
48	Information on Securities and Shareholders
51	Management Structure
61	Corporate Governance
81	Corporate Social Responsibility (CSR)
84	Internal Control and Risk Management
86	Details Relating to Directors of the Company and Subsidiaries
89	Related Party Transactions
101	Management Discussion and Analysis (MD&A)
109	Report on Responsibilities of the Board of Directors Towards the Financial Report of the year 2017
110	Audit Committee Report
112	Independent Auditor's Report
117	Financial Statements

DEFINITION AND ABBREVIATION

Group of the Company or WHAUP Group	: WHA Utilities and Power Public Company Limited and its subsidiaries	WHA Gunkul 16	: WHA Gunkul 16 Green Solar Roof Company Limited
WHA	: WHA Corporation Public Company Limited	WHA Gunkul 17	: WHA Gunkul 17 Green Solar Roof Company Limited
WHA Group	: WHA Corporation Public Company Limited, subsidiaries and associated companies	HCIE	: Hemaraj Chonburi Industrial Estate
HRD or Hemaraj	: Hemaraj Land and Development Public Company Limited	HCIE2	: Hemaraj Chonburi 2 Industrial Estate
Hemaraj Group	: Hemaraj Land and Development Public Company Limited, subsidiaries and associated companies	HEIE	: Hemaraj Eastern Industrial Estate (Map Ta Phut)
WHAWT	: WHA Water Company Limited (previously named Hemaraj Water Company Limited)	ESIE	: Eastern Seaboard Industrial Estate (Rayong)
WHAEG	: WHA Energy Company Limited (previously named Hemaraj Energy Company Limited)	HESIE	: Hemaraj Eastern Seaboard Industrial Estate
WHAET	: WHA Energy 2 Company Limited (previously named Hemaraj Energy 2 Company Limited)	HESIE2	: Hemaraj Eastern Seaboard 2 Industrial Estate
WUPI	: WHAUP International Co., Ltd.	HESIE3	: Hemaraj Eastern Seaboard 3 Industrial Estate
WUPS1	: WHAUP (SG) 1 PTE. Limited	HESIE4	: Hemaraj Eastern Seaboard 4 Industrial Estate
WUPS2	: WHAUP (SG) 2 PTE. Limited	HR 36	: Hemaraj Rayong 36 Industrial Estate
WHA NGD2	: WHA Eastern Seaboard NGD2 Co., Ltd.	HRIL	: Hemaraj Rayong Industrial Land
WHA NGD4	: WHA Eastern Seaboard NGD4 Co., Ltd.	HSIL	: Hemaraj Saraburi Industrial Land
Gheco-I	: Gheco-I Company Limited	HLP 1	: Hemaraj Logistic Park 1
HHTC	: Houay Ho Thai Company Limited	Utilities business	: Water business and providing related utilities service e.g. gas distribution business or waste management business
HHPC	: Houay Ho Power Company Limited (a company incorporated in Lao People's Democratic Republic)	Water business	: Distribution of raw water, production and distribution of industrial water and wastewater treatment business
Glow IPP or GIPP	: Glow IPP Company Limited	Power business	: Generation and distribution of electricity business
GHW	: Glow Hemaraj Wind Company Limited	COD	: Commercial Operation Date
BGWHA-1	: B.Grimm Power (WHA) 1 Company Limited (previously named Bowin Clean Energy Company Limited)	SCOD	: Scheduled Commercial Operation Date
Gulf JP NLL	: Gulf JP NLL Company Limited	MW	: Megawatt
Gulf NLL 2	: Gulf NLL 2 Company Limited	TPH	: Ton per hour
Gulf TS 1	: Gulf TS 1 Company Limited	RT	: Ton of Refrigeration
Gulf TS 2	: Gulf TS 2 Company Limited	IPP	: Independent Power Producer
Gulf TS 3	: Gulf TS 3 Company Limited	SPP	: Small Power Producer
Gulf TS 4	: Gulf TS 4 Company Limited	VSPP	: Very Small Power Producer
Gulf VTP	: Gulf VTP Company Limited	IEAT	: Industrial Estate Authority of Thailand
Gulf Solar	: Gulf Solar Company Limited	ERC	: Energy Regulatory Commission
Gulf Solar BV	: Gulf Solar BV Company Limited	NEPO	: National Energy Policy Office
Gulf Solar TS 1	: Gulf Solar TS 1 Company Limited	EGAT	: Electricity Generating Authority of Thailand
Gulf Solar TS 2	: Gulf Solar TS 2 Company Limited	PEA	: Provincial Electric Authority
Gulf Solar KKS	: Gulf Solar KKS Company Limited	MEA	: Metropolitan Electric Authority
Gulf WHA MT	: Gulf WHA MT Natural Gas Distribution Co., Ltd.	PWA	: Provincial Waterworks Authority
ESCE	: Eastern Seaboard Clean Energy Company Limited	MWA	: Metropolitan Waterworks Authority
CCE	: Chonburi Clean Energy Company Limited	Office of the SEC	: Office of the Securities and Exchange Commission of Thailand
RCE	: Rayong Clean Energy Company Limited	SET	: Stock Exchange of Thailand
WHA Gunkul 1	: WHA Gunkul 1 Green Solar Roof Company Limited	BOI	: Board of Investment of Thailand
WHA Gunkul 2	: WHA Gunkul 2 Green Solar Roof Company Limited	EBITDA	: Earnings before interest, taxes, depreciation and amortization
WHA Gunkul 3	: WHA Gunkul 3 Green Solar Roof Company Limited	CAGR	: Cumulative Annual Growth Rate
WHA Gunkul 4	: WHA Gunkul 4 Green Solar Roof Company Limited	Glow Group	: Glow Energy Public Company Limited, subsidiaries and associated companies
WHA Gunkul 5	: WHA Gunkul 5 Green Solar Roof Company Limited	Gulf Group	: Gulf Energy development Company Limited, subsidiaries and associated companies
WHA Gunkul 6	: WHA Gunkul 6 Green Solar Roof Company Limited	B.Grimm Power Group	: B.Grimm Power Company Limited, subsidiaries and associated companies
WHA Gunkul 8	: WHA Gunkul 8 Green Solar Roof Company Limited	Gunkul Group	: Gunkul Engineering Public Company Limited, subsidiaries and associated companies
WHA Gunkul 9	: WHA Gunkul 9 Green Solar Roof Company Limited		
WHA Gunkul 10	: WHA Gunkul 10 Green Solar Roof Company Limited		

FINANCIAL HIGHLIGHT

Profit and Loss

(THB Million)

Profit and Loss	2016	2017
Revenue from sales and services	1,467.5	1,633.8
Cost of sales and services	(949.5)	(1,092.4)
Gross profit	518.0	541.4
Share of profit from investments in associates and joint ventures	962.5	1,936.1
Net profit attributable to owners of the parent	369.5	1,980.9
Earnings per share (Baht/share)	0.16	0.54

Balance Sheet

(THB Million)

Balance Sheet	2016	2017
Total Assets	18,652.1	21,378.2
Total Liabilities	11,232.6	8,801.2
Total Equity	7,419.5	12,577.0

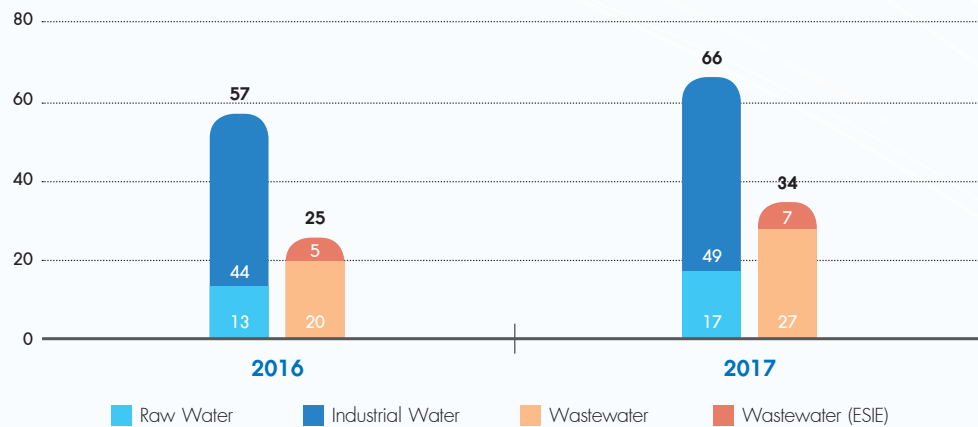
Financial Ratio

Financial Ratio	2016	2017
Gross Profit Margin	35.3%	33.1%
Net Profit Margin ¹	14.7%	53.5%
Return on Equity ²	4.2%	19.8%
Debt/Equity Ratio	1.51x	0.70x
Net Interest-bearing Debt/Equity Ratio	1.38x	0.58x

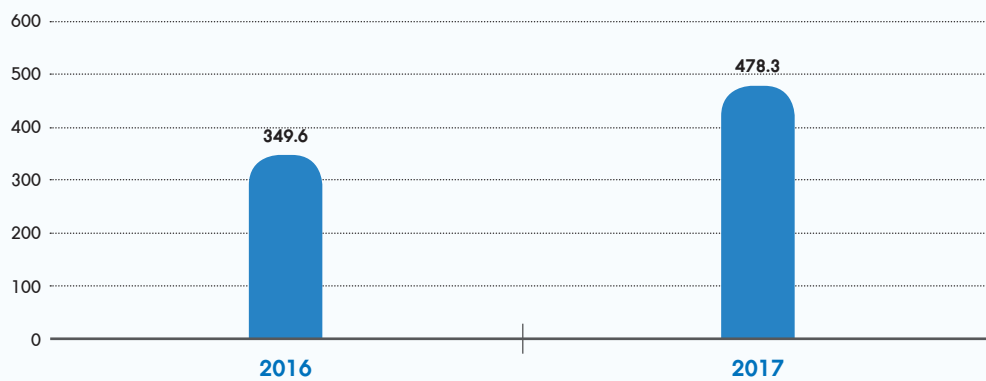
¹ Net profit margin is calculated by dividing the Net Profit attributable to Owners of the Parent by Revenue from Sales and Services and Share of Profit from Investments in Associates and Joint Ventures and other income

² Return on Equity is calculated by dividing the Net Profit attributable to Owners of the Parent by average total equity

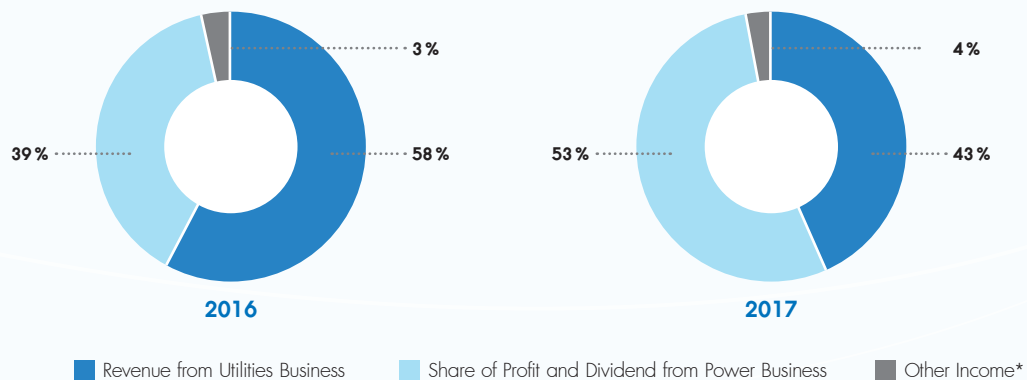
TOTAL SALE & MANAGEMENT VOLUME (million m3)



TOTAL EQUITY MW (MW)



REVENUE STRUCTURE



Note : * Other Income is interest income from loan to Gheco-I in proportion to the shareholding

MESSAGE FROM THE CHAIRMAN



MISS JAREEPORN JARUKORNSAKUL
CHAIRMAN OF THE BOARD OF DIRECTORS

2017 was an important year for WHA Utilities and Power PLC ("WHAUP", "the Company") from the successful listing of shares on the Stock Exchange of Thailand on April 10, 2017 with the registered capital totaling of THB 3,825 Million, enhancing business capabilities and to support growth for both utilities and power business. This is in accordance with the Company's vision in establishing WHAUP as the Group's flagship to provide the fully integrated utilities in Group; including raw water, process water, clarified water and wastewater treatment as well as the joint investment in power business to produce and supply electricity to industrial users, Electricity Generating Authority of Thailand, Provincial Electricity Authority and Metropolitan Electricity Authority. Furthermore, the Company had succeeded in the first time issuance and offering of THB 4,000 Million debenture to institutional and high net worth investors in August 2017 to refinance the existing bank loan and hence reducing the finance costs of the Company. As a result, in 2017 WHAUP had a strong performance with records of Revenues from Sales and Services of THB 1,633.8 Million, Share of Profit from Investment in power business of THB 1,936.1 Million and the Total Net Profit of THB 1,980.0 Million, or 436.1% increase from 2016.

Following the Company's strategy to be the leading provider for the fully integrated service to industrial users in power business, the Company which has obtained the right for the distribution and retail trade of natural gas (the NGD Project) in Hemaraj's industrial estates, had invested in the joint venture company with Gulf Development PLC, Mitsui & Co Co., Ltd. and Tokyo Gas Asia Co., Ltd. to develop the Natural Gas Distribution Network in Hemaraj Eastern Seaboard Industrial Estate 2 ("HESIE 2") and Hemaraj Eastern Seaboard Industrial Estate 4 ("HESIE 4"). The Company is also interested in the future investment of NGD Project in other four industrial estates under WHA Group located in Rayong, Chonburi and Saraburi to support the business expansion of the industrial users in these Eastern Economic Corridor ("EEC") area.

Also, the Company had established the subsidiary to carry out the utilities and power business in foreign countries to capture more opportunities especially in CLMV countries where the growth rate of GDP is high comparing with other countries in the region.

For power business, WHAUP has jointly invested in the generation and sales of Electricity with leading players in Thailand and in 2017, the Company has stepped into the investment in alternative energy i.e. the Solar Rooftop System to distribute the electricity to end users directly and Industrial Waste to Energy Project with its partners. By end of December 2017, the Company has the equity's ownership in the commercially operating power plants of 478.4 MW and in the power plants under construction of 64.5 MW which is expected to start commercial operation within Year 2019.

On behalf of the Board of Directors of WHAUP, I would like to extend my gratitude to all our shareholders and business partners for their continuing supports the Company and would also like to thank to the managements and staffs for their dedication that contributed to the Company's achievement in 2017. WHAUP commits to its business policy and practice by focusing on the mission to create a sustainable growth under the good corporate governance and social responsibilities towards our community and environment.



Note : Miss Jareeporn Jarukornsakul has been appointed as Chairman of the Board of Directors on 9 February 2018

MESSAGE FROM THE CHIEF EXECUTIVE OFFICER




MR. WISATE CHUNGWATANA
DIRECTOR AND CHIEF EXECUTIVE OFFICER

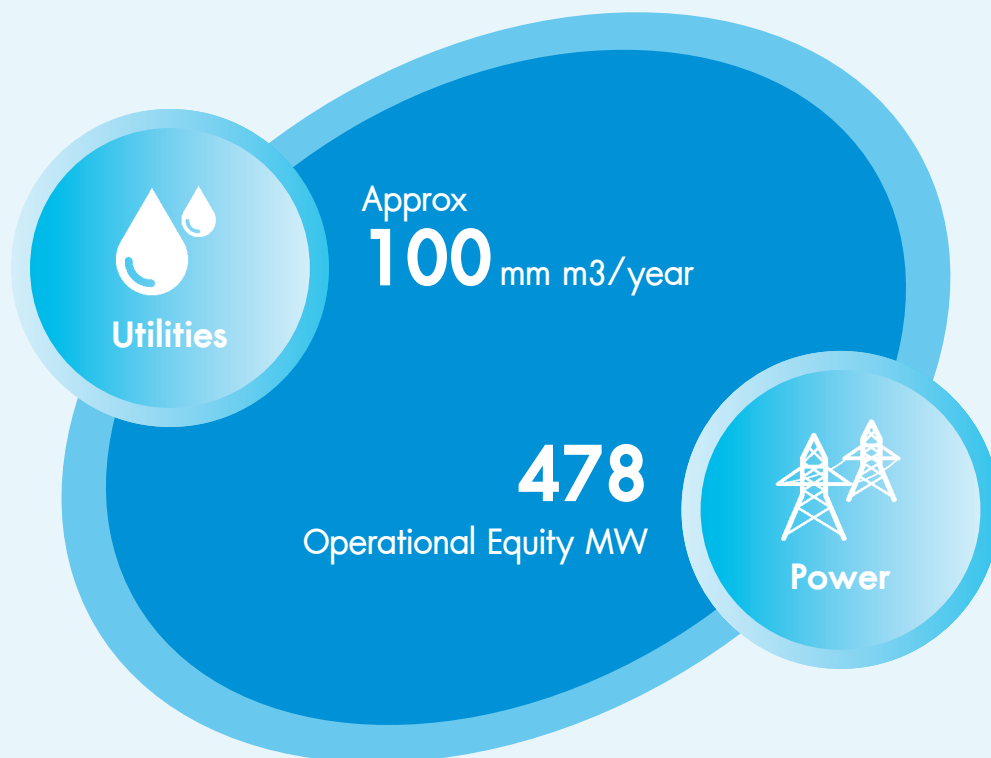
WHA Utilities and Power Public Company Limited (the "Company" or "WHAUP") is the sole operator of water utilities business in the WHA Group industrial estates. WHAUP supplies raw water, industrial water as well as provides wastewater treatment for the period of 50 years. At present, the Company services in 6 industrial estates and 2 industrial lands. In 2017, the Company started the construction of utilities infrastructure in the Hemaraj Eastern Seaboard Industrial Estate 4 with the target to commence the operation at year end 2018. Apart from that investment, WHAUP started the wastewater reclamation project to reduce the use of natural water in industrial sector. Such pilot project is scheduled to commercially operate in 2nd quarter of 2018. For the whole year 2017, the Company had supplied the total of 65.61 million cubic meters of raw water and industrial water and treated 27.51 million cubic meters of wastewater in all locations and provided operation and maintenance services of 6.63 million cubic meters at Eastern Seaboard Industrial Estate.

For power business, 4 SPP power projects achieved commercial operation as planned. As a result, the equity contracted capacity increased to 478.36 MW with 2 SPP power projects and 1 solar rooftop power project still under construction. For the contracted capacity of 6.90 MW Industrial Waste to Energy Project under a subsidiary company named Chonburi Clean Energy Co., Ltd. obtained an approval for its Environment Impact Assessment Study to commence the construction in November 2017. Apart from that, the Company expanded its business to retail natural gas distribution in 2 industrial estates of the Group. A natural gas pipeline was constructed to tap to PTT's Natural Gas Transmission Network and the connecting point within the industrial estate. Then a Natural Gas Distribution Network will be connected to the customer. Such business is a joint venture among WHAUP, another leading Thai energy company and 2 leading natural gas energy companies of Japan.

For overall picture, the Company has grown satisfactorily, starting from the interest of institution and individual investors when the Company listed its stock in the Stock Exchange of Thailand in April 2017. The listing had strengthened the Company financial position. Part of the fund raised was used to repay debt, resulting to debt reduced to approximately THB 8,751 million while shareholders' equity increased to THB 11,578 million at the end of 2nd quarter 2017. At the same time, the net interest bearing debt to Shareholders' equity ratio dropped to 0.62 times from 1.35 times at the end of 1st quarter of the same year. In addition, the Company issued THB 4,000 million debenture to refinance part of the commercial loan to further reduce interest expense.

As at 31 December 2017, the Company recorded the total asset of THB 21,378 million with THB 8,801 million of debt and THB 12,577 million of Shareholders' Equity. The total debt to Shareholders' Equity was 0.70 times while the net interest bearing debt to Shareholders' equity ratio was 0.58 times.

On behalf of the Management team of WHA Utilities and Power Public Company Limited, I would like to extend my gratitude to all our shareholders who have trust in the company and thank all the employee who had put together the effort to achieve the growth as targeted.



DETAILS OF DIRECTORS



MR. SOMYOS ANANTAPRAYOON

Chairman of the Board of Directors
Chairman of the Executive Committee
Nomination and Remuneration Committee member

Age 57 years

Educational Qualification / Training

- Doctor of Medicine, Mahidol University
- Specialist doctor for Obstetrics and Gynecology, Rajavithi Hospital
- Master of Business Administration for Executives, Thammasat University
- Director Accreditation Program (DAP 210/2015) Thai Institute of Directors (IOD)
- Director Certification Program (DCP 94/2012), Thai Institute of Directors (IOD)
- National Defence College, The State , Private Sector and Political Sectors (Class 58/2015), Thailand National Defence College
- Executive Management with Business Development and Investment (Class 1/2014), Institute of Business and Industrial Development (IBID)
- Top Executive Program (Class 15/2012), Capital Market Academy (CMA)

Public Companies

- Chairman of the Board of Directors, WHA Corporation Public Company Limited
- Chairman of the Executive Committee, WHA Corporation Public Company Limited

Parent Company and Subsidiary Parent Companies

- Chairman of the Board of Directors, Hemaraj Land and Development Public Company Limited (Parent Company)
- Chairman & Director in 17 parent companies

Subsidiary Companies

- Chairman & Director in 4 subsidiary companies

Associate Companies

- Director in 22 associates companies

Other Business

- Director in 3 Other business

Percentage of Shareholding in the Company (%)

1.31% (50,240,625 Shares)



MISS JAREEPORN JARUKORNSAKUL

Vice Chairman of the Board of Directors
Vice Chairman of the Executive Committee
Chairman of the Risk Management Committee
Nomination and Remuneration Committee member

Age 50 years

Educational Qualification / Training

- Bachelor of Science (Environment Science), Mahidol University
- Master of Business Administration, Bangkok University
- Honorary Doctorate (Logistics and Supply Chain Management), Christian University of Thailand
- Director Accreditation Program (DAP 210/2015) Thai Institute of Directors (IOD)
- Director Certification Program (DCP 94/2012), Thai Institute of Directors (IOD)
- Corporate Governance for Capital Market Intermediaries (CGI 17/2016) Thai Institute of Directors (IOD)
- Senior Executives on Justice Administration Program (Class 20/2015), National Justice Academy, Office of Judiciary
- Top Executive Program (Class 18/2014), Capital Market Academy (CMA)

Public Companies

- Vice Chairman of the Board of Directors, WHA Corporation Public Company Limited
- Vice Chairman of the Executive Committee, WHA Corporation Public Company Limited
- Group Chief Executive Officer, WHA Corporation Public Company Limited

Parent Company and Subsidiary Parent Companies

- Vice Chairman of the Board of Directors Hemaraj Land and Development Public Company Limited (Parent Company)
- Director in 17 parent companies

Subsidiary Companies

- Chairman & Director in 6 subsidiary companies

Associate Companies

- Director in 15 associates companies

Other Business

Director in 2 other business

Percentage of Shareholding in the Company (%)

1.23% (46,999,800 Shares)



MR. DAVID RICHARD NARDONE

Director / Executive Committee member
Risk Management Committee member

Age 62 years

Educational Qualification / Training

- Master of Business Administration, Northeastern University, Boston, U.S.A.
- Director Certification Program (DCP 57/2005), Thai Institute of Directors (IOD)

Public Companies

- Vice Chairman of the Board of Directors, WHA Corporation Public Company Limited
- Member of the Executive Committee, WHA Corporation Public Company Limited

Parent Company and Subsidiary Parent Companies

- Director, Hemaraj Land and Development, Public Company Limited (Parent Company)
- Director in 16 parent companies

Subsidiary Companies

- Director in 6 subsidiary companies

Associate Companies

- Director in 1 associates companies

Other Business

None

Percentage of Shareholding in the Company (%)

-

Age 61 years

Educational Qualification / Training

- Bachelor of Engineering (Sanitary Engineering), Chulalongkorn University
- Director Accreditation Program (DAP 2/2003), Thai Institute of Directors (IOD)
- Director Certification Program (DCP 38/2003), Thai Institute of Directors (IOD)
- Anti-Corruption for Executive Program (ACEP 2/2014), Thai Institute of Directors (IOD)
- IOD Luncheon briefing 1/2013 : Thailand Economic Outlook 2013

Public Companies

- Director, WHA Corporation Public Company Limited
- Member of the Executive Committee, WHA Corporation Public Company Limited

Parent Company and Subsidiary Parent Companies

- Director, Hemaraj Land and Development , Public Company Limited (Parent Company)
- Director in 14 parent companies

Subsidiary Companies

- Director in 6 subsidiary companies

Associate Companies

- Director in 1 associates companies

Other Business

None

Percentage of Shareholding in the Company (%)

-



MR. VIVAT JIRATIKARNSAKUL

Director
Executive Committee member
Corporate Governance Committee member

Age 50 years

Educational Qualification / Training

- Bachelor of Engineering (Mechanical Engineering), Chulalongkorn University
- Master of Science (Mechanical Engineering), Missouri University of Science and Technology, Rolla, MO, U.S.A
- Director Certification Program (DCP 189/2014), Thai Institute of Directors (IOD)
- Petroleum Development and Operations, Stavanger, Norway
- Management of Electric Power Utilities, Stockholm, Sweden

Public Companies

None

Parent Company and

Subsidiary Parent Companies

None

Subsidiary Companies

- Director in 6 subsidiary companies

Associate Companies

- Director in 25 associates companies

Other Business

None

Work Experience

- Vice President - Business Development 1, Global Power Synergy Public Company Limited
- Director, Xayaburi Power Company Limited
- Director, Namlik 1 Power Company Limited
- Director, Natee Synergy Company Limited
- Vice President, Business Development - Power Projects, PTT International Company Limited

Percentage of Shareholding in the Company (%)

0.0026% (100,000 Shares)



MR. WISATE CHUNGWATANA

Director
Executive Committee member
Chief Executive Officer

Age 65 years

Educational Qualification / Training

- Bachelor of Engineering (Environment), Chulalongkorn University
- Honorary Doctorate (Technology), Shinawatra University
- Director Accreditation Program (DAP 2012), Thai Institute of Directors (IOD)

Public Companies

None

Other companies

- Chairman & Director in 2 other companies

Work Experience

- Chairman of the Audit Committee, Asiawealth Company Limited
- Chairman of the Board Directoc, E-Ester (Bangkok) Company Limited
- Director, WHA Corporation Public Company Limited
- Member of the Executive Committee, Renewable Energy Cluster, National Science and Technology Development
- Independent Director and Chairman of Risk Management Committee, MFC Asset Management Public Company Limited
- Member of the Executive Committee, MFC Energy Fund

Percentage of Shareholding in the Company (%)

-



MR. SURATHIAN CHAKTHRANONT

Director
Risk Management Committee member


MR. WEIDT NUCHJALEARN

Independent Director
Chairman of the Audit Committee member
Chairman of the Nomination and Remuneration Committee member

Age 64 years

Educational Qualification / Training

- Bachelor of Science (Agricultural Economics), Kasetsart University
- Master of Business Administration, Thammasat University
- Director Accreditation Program (DAP SEC/2015), Thai Institute of Directors (IOD)
- Role of the Chairman Program (RCP 31/2013), Thai Institute of Directors (IOD)
- Top Executive Program (Class 18), Capital Market Academy (CMA)
- Top Executive Program in Commerce and Trade : TEPCoT (Class 3/2010), Commerce Academy
- Financial Executive Development Program (Class 14/2016) , Thai Institute of Banking and Finance Association
- Commercial Credit Skills Assessment, Chulalongkorn University

Public Companies

- Director, Sisawad Power 1979 Public Company Limited
- Independent Director and Chairman of Audit Committee, Thaifoods Group Public Company Limited

Other Business

- Director in 5 other business

Work Experience

- Director, Dhipaya Insurance Public Company Limited
- Independent Director and Member of the Audit Committee, Hemaraj Land and Development Public Company Limited
- Vice Senior Chief Managing Director of Executives of Retail Business and Network Section, Krungthai Bank Public Company Limited
- Vice-Chief Managing Director of Executives of Medium-Size Business Section, Krungthai Bank Public Company Limited
- Assistant Managing Director/ Senior Director, Krungthai Bank Public Company Limited
- Executive of Medium-Size Business, Central, Eastern and Southern Regions, Krungthai Bank Public Company Limited
- Senior Director of Executives of Medium-Size Business, Central, Eastern and Southern Regions 1, Medium-Size Business Section, Krungthai Bank Public Company Limited

Percentage of Shareholding in the Company (%)

-


MR. EKAJAI TIVUTANOND

Independent Director / Audit Committee member
Corporate Governance Committee member

Age 65 years

Educational Qualification / Training

- Bachelor of Laws (First Class Honor), Thammasat University
- Master of Laws, Columbia University, New York, U.S.A.
- Thai Bar Association
- Director Accreditation Program (DAP 127/2016), Thai Institute of Directors (IOD)

Public Companies

None

Other Business

- Director in 1 other business

Work Experience

- Senior Executive Vice President, CIMB Thai Public Company Limited
- Director, Sathorn Asset Management Company Limited

Percentage of Shareholding in the Company (%)

-


MRS. PUNNEE WORAWUTHICHONGSATHIT

Independent Director / Audit Committee member
Chairman of the Corporate Governance Committee member

Age 65 years

Educational Qualification / Training

- Bachelor of Accountancy, Chulalongkorn University
- Master of Accountancy, Chulalongkorn University
- Certified Public Accountant (CPA), Federation of Accounting Professions
- Certified Professional Internal Auditors (CPIA), The Institute of Internal Auditors of Thailand
- Qualified Internal Auditors (QIA), The Institute of Internal Auditors of Thailand
- Certified Internal Auditor (CIA), The Institute of Internal Auditors (IIA)
- Driving Company Success with IT Governance (ITG 4/2017), Thai Institute of Directors (IOD)
- Ethical Leadership Program (ELP 2/2015), Thai Institute of Directors (IOD)
- Anti-Corruption the Practical Guide (ACPG 10/2014), Thai Institute of Directors (IOD)
- Anti-Corruption for Executive Program (ACEP 10/2014), Thai Institute of Directors (IOD)
- Role of the Nomination & Governance Committee (RNG 1/2011), Thai Institute of Directors (IOD)
- Role of the Chairman Program (RCP 25/2011), Thai Institute of Directors (IOD)
- DCP Refresher Course (RE DCP 2/2009), Thai Institute of Directors (IOD)
- Monitoring Fraud Risk Management (MFM 1/2009), Thai Institute of Directors (IOD)
- Role of the Compensation Committee (RCC 7/2008), Thai Institute of Directors (IOD)
- Chartered Director Class (CDC 7/2008), Thai Institute of Directors (IOD)

- Monitoring the System of Internal Control and Risk Management (MIR 2/2008), Thai Institute of Directors (IOD)
- Monitoring the Internal Audit Function (MIA 1/2007), Thai Institute of Directors (IOD)
- Improve the Quality of Financial Reporting (MFR 5/2007), Thai Institute of Directors (IOD)
- Audit Committee Program (ACP 2/2004), Thai Institute of Directors (IOD)
- Director Certification Program (DCP 38/2003), Thai Institute of Directors (IOD)
- Director Accreditation Program (DAP 2/2003), Thai Institute of Directors (IOD)

Public Companies

- Independent Director and Member of the Audit Committee, Brooker Group Public Company Limited
- Independent Director and Member of the Audit Committee, Thai Wacoal Public Company Limited
- Independent Director and Member of the Audit Committee, Mono Technology Public Company Limited
- Independent Director and Member of the Audit Committee, Saha Pathana Inter-Holding Public Company Limited

Other Business

- Director in 5 other business

Work Experience

- Independent Director and Member of the Audit Committee, Hemaraj Land and Development Public Company Limited

Percentage of Shareholding in the Company (%)

-

DETAILS OF MANAGEMENT AND CORPORATE SECRETARY



1. MR. WISATE CHUNGWATANA

CHIEF EXECUTIVE OFFICER

Age 50 years

Educational Qualification

- Master of Science (Mechanical Engineering), Missouri University of Science and Technology, Rolla, MO, U.S.A
- Percentage of Shareholding in the Company (%) 0.0026

2. MR. PAOPITAYA SMUTRAKALIN

CHIEF FINANCIAL OFFICER

Age 46 years

Educational Qualification

- Master of Science (Finance), Drexel University
- Percentage of Shareholding in the Company (%) 0.01

3. MR. KHAMHOUNG RATSAMANY

VICE PRESIDENT OF BUSINESS OPERATION

Age 51 year

Educational Qualification

- Master of Business Administration, Bangkok University
- Percentage of Shareholding in the Company (%) -

4. MR. VARANON LAOSUWAN

DIRECTOR OF UTILITIES PROJECT DEVELOPMENT

Age 37 year

Educational Qualification

- Master of Science (Management of Technology), Murray State University, KY, U.S.A.
- Percentage of Shareholding in the Company (%) -

5. MR. PUNRAPEE NOPARUMPA

DIRECTOR OF POWER PROJECT DEVELOPMENT

Age 36 year

Educational Qualification

- Master of Science (Global Market Economics), London School of Economics and Political Science, University of London, UK
- Percentage of Shareholding in the Company (%) 0.0034

6. MRS. RATTANA SHINAWATRA

DIRECTOR OF ACCOUNTING

Age 54 year

Educational Qualification

- Bachelor of Accountancy, Ramkhamhaeng University
- Percentage of Shareholding in the Company (%) -

7. MS. ARPASINEE CHANWANGSA

ASSISTANT DIRECTOR - FINANCE & INVESTOR RELATIONS

Age 42 year

Educational Qualification

- Master of Business Administration, Assumption University
- Percentage of Shareholding in the Company (%) -

8. MS. NUTCHA RATTANAJITBANJONG

CORPORATE SECRETARY

Age 33 year

Educational Qualification

- Master of Science (Computer Science and Information) (English Program), Chulalongkorn University
- Percentage of Shareholding in the Company (%) -



WHAUP STRATEGY

- ▶ DEVELOPING UTILITIES AND POWER BUSINESSES THAT HAVE PREDICTABLE GROWING REVENUE AND SUPERIOR PROFIT OPPORTUNITIES IN ORDER TO OPTIMIZE SHAREHOLDERS' VALUE.
- ▶ LEVERAGING COMPLEMENTARY MANAGEMENT EXPERTISE, CUSTOMER RELATIONSHIP, INFRASTRUCTURE AND ENVIRONMENTAL COMPETENCE TO EXPAND OPPORTUNITIES IN UTILITIES AND POWER BUSINESSES.
- ▶ UTILIZING SOUND HUMAN AND FINANCIAL RESOURCES SELECTIVELY FOR COMPETING INVESTMENT OPPORTUNITIES.
- ▶ CONTRIBUTING POSITIVELY TO NEIGHBORS, SOCIETY AND STAKEHOLDERS WITH SUSTAINABLE PROGRAMS IN EDUCATION, COMMUNITY AND ENVIRONMENT.



OVERVIEW OF BUSINESS



OVERVIEW OF BUSINESS

WHA Utilities and Power Public Company Limited (the Company or WHAUP) was established on June 30, 2008. As at the date of this prospectus, Hemaraj Land and Development Public Company Limited (Hemaraj or HRD) holds a majority stake of 99.99 per cent. The Company's core business relates to the: (i) utility business, i.e. procurement and distribution of raw water, production and distribution of industrial water and providing wastewater treatment services to operators in industrial estates and industrial lands; and (ii) power business through investment in power generation business, both domestically and abroad.

In addition to the exclusivity rights granted by the Hemaraj Group to operate water business, i.e. business relating to procurement, logistic, production and distribution of raw water, process water and wastewater treatment business in its industrial estates in Thailand, the Company has also obtained the right of first refusal to invest in the gas distribution business and waste disposal business in those industrial estates and industrial lands in Thailand for 50 years, starting from March 30, 2016 (as stated in the Strategic Partnership Agreement). The Hemaraj Group and the WHA Group have agreed not to compete with the Company in conducting water business and power business in Thailand, Cambodia, Laos, Myanmar and Vietnam (the CLMV countries) for an indefinite term (as stated in the Hemaraj Non-competition Agreement and the WHA Non-competition Agreement). In relation to the utility business, the Company and WHA Water Company Limited (a subsidiary in which the Company has a stake of 99.99 per cent.) are one of the major utilities service providers to companies in Thailand industrial estates.

The Company's aggregate maximum industrial water production capacity in all industrial estates and industrial lands is 281,376 cubic meters per day, with an aggregate maximum wastewater treatment capacity in all industrial estates of 117,456 cubic meters per day. In 2017, the Company's and its subsidiaries' aggregate average distribution quantity of raw water and industrial water in all industrial estates and industrial lands was 65.61 million cubic meters per year representing 182,258 cubic meters per day and an aggregate average wastewater treatment capacity in all industrial estates and industrial lands was 27.51 million cubic meters per year representing 76,416 cubic meters per day. The Company

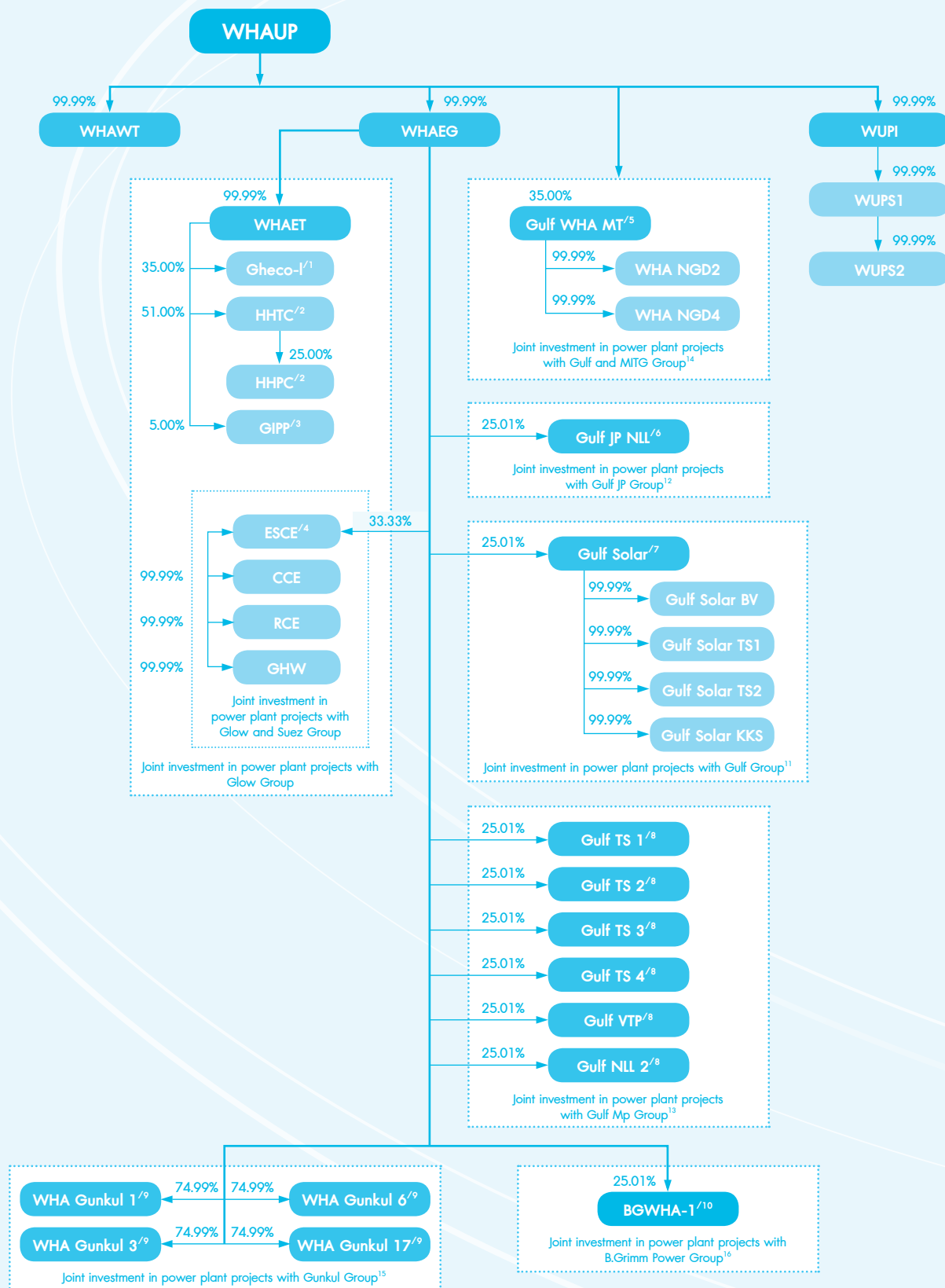


also have management service of wastewater treatment to Eastern Seaboard Industrial Estate (Rayong) of 6.63 million cubic meters per year representing 18,414 cubic meters per day. The Company and its subsidiaries also plan to provide other public utilities to industrial operators such as gas distribution systems and waste management service in which Hemaraj Group have agreed to grant the right to operate such businesses to the Company (as stated in the Strategic Partnership Agreement). In addition, the Company has a plan to provide utility service to customers outside industrial estates in the future. The Company has been awarded ISO 9001:2008 for quality standards and ISO 14001:2004 for environmental standards.

In relation to the power business, WHA Energy Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent., has jointly invested with leading power operators in conventional and alternative power generation businesses, both domestically and abroad. As at December 31, 2017, the Company's aggregate power generating capacity in proportion to its equity in the commercially operating power plants was 478.36 MW and in the power plants under construction was at 64.47 MW.

BUSINESS STRUCTURE

The Company's investment structure as at 31 December 2017 is set out in the following diagram:



- Remark :**
- ¹ About 65 per cent. of total issued and paid-up shares in Gheco-I are held by the Glow Group.
 - ² HHTC is a holding company, in which 49 per cent. of total issued and paid-up shares are held by the Glow Group, which also Holds 55 per cent. of total issued and paid-up shares in HHPC. Therefore, the Glow Group is directly and indirectly holding 67.25 per cent. of total shares in Houay Ho Power Plant.
 - ³ About 95 per cent. of total issued and paid-up shares in GIPP are held by the Glow Group.
 - ⁴ About 66.67 per cent. of total issued and paid-up shares in ESCE are held by the Glow Group and Suez (South East Asia) Limited.
 - ⁵ About 49 per cent. of total issued and paid-up shares in Gulf WHA MT are held by the Glow Group. Afterwards, Gulf WHA MT increased its registered capital from 49 Million Baht to 126.4 Million Baht and the Company and Gulf agreed to have new one strategic partner, MITG (Thailand) Limited. Cause, the shareholding is as follows: MITG hold 30 percent, the company hold 35 percent and Gulf Group hold 35 percent.
 - ⁶ About 74.99 per cent. of total issued and paid-up shares in Gulf JP NLL is held by the Gulf JP Group.
 - ⁷ About 74.99 per cent. of total issued and paid-up shares in Gulf Solar is held by the Gulf Group.
 - ⁸ About 74.99 per cent. of total issued and paid-up shares in each of Gulf TS1, Gulf TS2, Gulf TS3, Gulf TS4, Gulf VTP and Gulf NLL2 are held by Gulf MP Company Limited.
 - ⁹ About 74.99 per cent. of total issued and paid-up shares in each of WHA Gunkul 1, 3, 6 and 17 are held by Gunkul Group.
 - ¹⁰ About 74.99 per cent. of total issued and paid-up shares in BGWHA-1 are held by the B.Grimm Power Group.
 - ¹¹ Gulf Group means Gulf Energy Development Company Limited, its subsidiaries and related companies.
 - ¹² Gulf Group means Gulf Company Limited. which is a joint venture company between Gulf Energy Development Company Limited and J Power Company Limited.
 - ¹³ Gulf MP Group means Gulf MP Company Limited which is a joint venture company between Gulf Energy Development Company Limited and Mitsui Group.
 - ¹⁴ MITG Group means MITG (Thailand) Company Limited which is a joint venture company between Mitsui Company Limited and Tokyo Gas Company Limited.
 - ¹⁵ Gunkul Group means Gunkul Engineering Public Company Limited, its subsidiaries and related companies.
 - ¹⁶ B.Grimm Group means B.Grimmpower Public Company Limited, its subsidiaries and related companies.

KEY CHANGES AND DEVELOPMENTS

JUNE

The Company was established on June 30, 2008 under the name of Hemaraj Clean Water Company Limited with a registered capital of THB645 million to produce and distribute industrial water for use in industrial estates owned by HRD.

JULY

The Company entered into the Right Lease Agreement with HRD and its subsidiaries to produce and distribute industrial water for use in four industrial estates owned by HRD, namely HCIE, HEIE, ESIE and HESIE, with an aggregate industrial water production capacity of 121,200 cubic meters per day.

The Company acquired 99.99 per cent. of shares in WHA Water Company Limited. WHA Water Company Limited has a registered capital of THB100 million and produces and distributes clarified water in HEIE having an aggregate clarified water production capacity of 43,200 cubic meters per day and wastewater treatment capacity of 30,000 cubic meters per day.

2008

MARCH

WHA Energy Company Limited, a subsidiary of the Company, was incorporated on March 2, 2011 under the name of Hemaraj Energy Company Limited with a registered capital of THB100 million and was formed to invest in other companies engaging in power business. The Company holds 99.99 per cent. of shares in WHA Energy Company Limited.

JUNE

WHA Energy Company Limited, the Company's subsidiary and the Glow Group entered into a joint venture to invest in Glow Hemaraj Wind Company Limited (GHW), in which WHA Energy Company Limited holds 51.00 per cent. of its shares. This joint venture company was set up to carry out a feasibility study on the establishment of a wind power plant.

2011

APRIL

The Company increased its industrial water production capacity in ESIE from 36,000 cubic meters per day to 48,000 cubic meters per day.

2013

2012

MARCH

WHA Energy Company Limited, the Company's subsidiary and Gulf JP Company Limited entered into a joint venture to invest in Gulf JP NLL Company Limited, in which WHA Energy Company Limited holds 25.01 per cent. of its shares. The joint venture company was established to develop Gulf JP NLL SPP project of in HRIL which has a contracted power generating capacity of 122.5MW.

WHA Water Company Limited, a subsidiary of the Company, increased its clarified water production capacity in HEIE from 43,200 cubic meters per day to 86,400 cubic meters per day.

NOVEMBER

The Company increased its industrial water production capacity in HESIE from 12,000 cubic meters per day to 30,000 cubic meters per day.

2014

AUGUST

The Company was assigned from HRD for the production and distribution of industrial water in HCIE2. Its production capacity is 6,000 cubic meters per day.

JANUARY

- The Company increased its industrial water production capacity in HESIE from 30,000 cubic meters per day to 54,000 cubic meters per day.

FEBRUARY

- WHA Energy Company Limited and the B.Grimm Power Group founded a joint venture company named B.Grimm Power (WHA) 1 Company Limited, in which WHA Energy Company Limited holds 25.01 per cent. of its shares. The joint venture company was set up to develop SPP in HCIE having a contracted generating capacity of 121 MW.

MARCH

- WHA Energy Company Limited and Gulf MP Company Limited entered into a joint venture in five SPPs named GVTP, GTS1, GTS2, GTS3 and GTS4, respectively, in each of which WHA Energy Company Limited holds 25.01 per cent. of their respective shares. These power plants have a contracted power generating capacity of 640 MW.

2015**MAY**

- WHA Energy Company Limited accepted a transfer of 100 per cent. of the shares in WHA Energy 2 Company Limited from the Hemaraj Group. WHA Energy 2 Company Limited is a holding company, holding shares in the power companies Ghco-1 Company Limited (Ghco-1), Houay Ho Thai Company Limited (HHT) (having a stake of 25 per cent. in Houay Ho Power Company Limited (HHP) and Glow IPP Company Limited (Glow IPP).
- The Company increased its registered capital from THB 1,645 million to THB 3,200 million to finance its acquisition of all of the shares in WHA Energy 2 Company Limited.

JUNE

- WHA Energy Company Limited accepted a transfer of 74.99 per cent. of each of the total shares of 11 solar rooftop power companies, which are WHA Gunkul 1-6, 8-10, 16 and 17, from the WHA Group.

JULY

- The Company set up Chonburi Clean Energy Company Limited to bid for a contract to sell electricity generated from industrial waste.
- On July 21, 2016, the Company's shareholders, during extraordinary general meeting No. 3/2016, resolved to approve the following matters: (i) the Company's conversion into a public limited company named WHA Utilities and Power Public Company Limited, (ii) the change in par value of THB 5 per share, and (iii) the capital increase from THB 3,200 million to THB 3,825 million by issuing 125 million ordinary shares with a par value of THB 5 each for an initial public offering. The Company's conversion into a public limited company was registered with the Ministry of Commerce on August 10, 2016.

2016**2016****MARCH**

- On March 30, 2016, the Company and the Hemaraj Group signed the Strategic Partnership Agreement and the Right Lease Agreements for the production and distribution of industrial water and the operation of wastewater treatment services in seven current projects namely HEIE, HCIE, HCIE2, HESIE, HESIE2, HSIL and HRIL. The lease term is 50 years from the signing date.

The Company increased its registered capital from THB 645 million to THB 1,645 million for payment for the right lease for the production and distribution of industrial water and the operation of wastewater treatment services in seven current industrial estate projects of the Hemaraj Group.

JULY

- On July 29, 2016, the Company and the Hemaraj entered into the Hemaraj Non-competition Agreement to define their framework of cooperation to prevent competition with each other. Also included in that agreement are guidelines to reduce possible conflicts of interest which may arise in the future.
- On July 29, 2016, the Company and WHA Corporation Public Company Limited (WHA) entered into the WHA Non-competition Agreement to define their non-competition agreement which covers the core businesses in Thailand and the CLMV countries.

AUGUST

- WHA Energy Company Limited acquired a stake of 33.33 per cent. in Eastern Seaboard Clean Energy Company Limited (ESCE). ESCE will hold all the shares of Chonburi Clean Energy Company Limited and Rayong Clean Energy Company Limited, in order to participate in a special bid to sell electricity generated from industrial waste.
- On August 29, 2016, the Company's board approved the sale of all the shares of GHW to ESCE.

SEPTEMBER

- GHW restructured its shareholding and results in ESCE holding 100 per cent. of GHW shares.

DECEMBER

- WHA Energy Company Limited, the Company's subsidiary, has a joint investment with Gulf MP Company Limited in one SPP, by holding equity of 25.01 in Gulf NLL2 Company Limited having a contracted power generating capacity of 120 MW.

MARCH

- Chonburi Clean Energy (CCE), a joint venture company established by Glow Group, SUEZ and the Company, has signed a Power Purchase Agreement (PPA) with the Provincial Electricity Authority (PEA) for the 8.63 MW industrial-waste-to-energy power plant, located in the Hemaraj Chonburi Industrial Estate, Chonburi Province with a contracted capacity of 6.90 MW

APRIL

- The Company listed shares on the Stock Exchange of Thailand with registered capital of 3,825,000,000 Baht

JULY

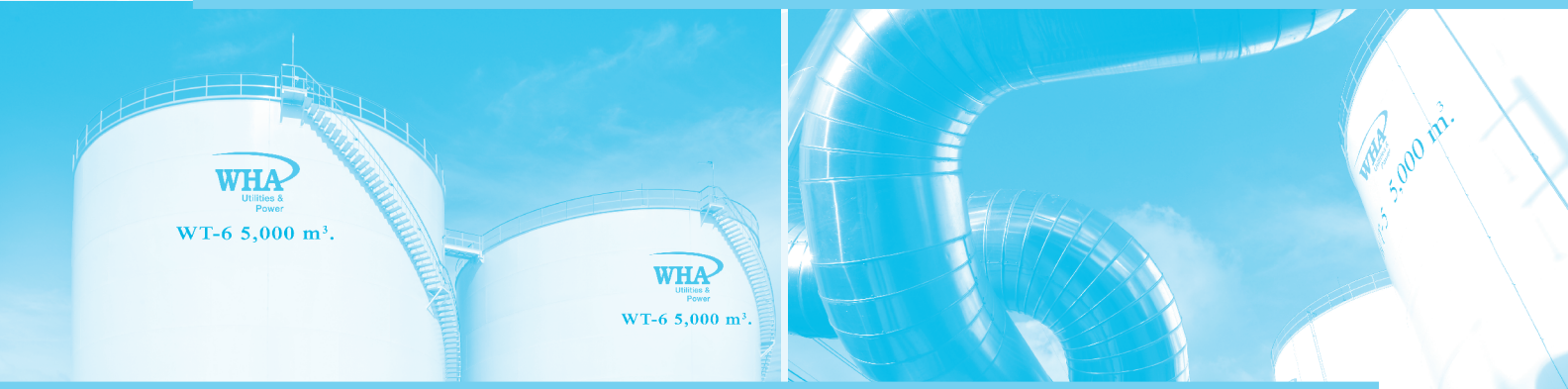
- The Extraordinary General Meeting on 30 June, 2017 approved the changing of par value from 5 Baht to 1 Baht and the company's shares had been traded with the new par value starting from July 13, 2017.

2017**AUGUST**

- The Company issued 4,000 million of bond issuance to refinance existing bank loan to reduce finance cost.

OCTOBER

- The Company obtained right to develop the distribution and retail trade of natural gas projects from Hemaraj Land And Development Public Company Limited. The Company acquired 2,499,000 shares of Gulf WHA MT Natural Gas Distribution Co.,Ltd from Hemaraj or 51% of total shares.



UTILITY BUSINESS

NATURE OF PRODUCTS AND SERVICES

The Company and its subsidiaries engage in the utility business by providing utility services mainly to operators in industrial estates and industrial lands. Utilities services provided are fundamental services for industrial estates and industrial lands. The nature of the Company's products and services is detailed as follows:

1. PROCUREMENT AND DISTRIBUTION OF RAW WATER

The WHAUP Group procures and distributes raw water to industrial operators in the Hemaraj Group's industrial areas. The Company offers raw water as an alternative of water consumption for industrial operators. The WHAUP Group's core customers are operators in steel industry, IPPs and SPPs.

2. PRODUCTION AND DISTRIBUTION OF INDUSTRIAL WATER

The WHAUP Group produces and distributes industrial water to industrial operations. This product can be divided into two categories:

- (1) Process Water: Process water is industrial water that has undergone the processes of sedimentation, filtration and chlorination for disinfection. The final product is used in the production process in industrial plants in general. The WHAUP Group's core customers include the automotive industry (e.g. automotive assembly plants and auto part manufacturing plants), food industry and electronics industry.
- (2) Clarified Water: Clarified water is produced through the processes of sedimentation, filtration and chlorination. Lower quantity and concentration of chlorine is used in chlorination process for clarified water, compared to process water, so that a very small amount of chlorine is left in the clarified water product when it is distributed to customers. This product is in great demand for customers in heavy industries such as petrochemical, given that chlorine may cause corrosion in machinery and equipment used in those industries.

3. WASTEWATER TREATMENT

The WHAUP Group provides wastewater treatment services to industrial plants to ensure that the wastewater is treated in accordance with applicable standards imposed by the Ministry of Industry before being discharged into natural sources of water or being recycled into the production process.

PRODUCTS AND SERVICES

INDUSTRIAL WATER PRODUCTION PLANTS AND WASTEWATER TREATMENT FACILITIES

Currently, the Company and its subsidiaries have 16 industrial water production plants and

12 wastewater treatment facilities located in eight industrial estates and industrial lands operated by the Hemaraj Group. The aggregate maximum industrial water production capacity is 281,376 cubic meters per day and the aggregate maximum wastewater treatment capacity is 117,456 cubic meters per day.

Industrial estates and industrial lands	Location	Industrial water production capacity ^{1/} (cubic meters/day)	Wastewater treatment capacity ^{1/} in which the Company has the right to operate (cubic meters/day)
Hemaraj Eastern Industrial Estate (Map Ta Phut)	Map Ta Phut, Rayong	98,400 ^{2/}	60,000
Eastern Seaboard Industrial Estate (Rayong)	Pluakdaeng, Rayong	48,000 ^{3/}	— ^{4/}
Hemaraj Eastern Seaboard Industrial Estate	Pluakdaeng, Rayong	54,000	10,000
Hemaraj Chonburi Industrial Estate	Sriracha, Chonburi	18,000	8,400
Hemaraj Chonburi 2 Industrial Estate	Sriracha, Chonburi	6,000	1,600
Hemaraj Saraburi Industrial Land	Nongkae, Saraburi	30,576	14,976
Hemaraj Rayong Industrial Land	Bankhai, Rayong	14,400	12,480
Hemaraj Eastern Seaboard 2 Industrial Estate	Pluakdaeng, Rayong	12,000	10,000
Total		281,376	117,456

Notes : ^{1/} Most of the industrial water production plants and wastewater treatment plants in the above table are owned by the Hemaraj Group. On March 30, 2016, the Company and the Hemaraj Group entered into the Right Lease Agreement, which allows the Company to use those facilities to conduct its business for 50 years from the signing date.

^{2/} Two clarified water production plants in HEIE are owned by WHA Water Company Limited, a subsidiary of the Company. Those plants have tax exemption privileges granted by the BOI

^{3/} On July 1, 2008, the Company and Eastern Seaboard Industrial Estate (Rayong) Company Limited entered into the Right Lease Agreement for the operation and distribution of industrial water in ESIE, which has a term of 25 years ending on June 30, 2033.

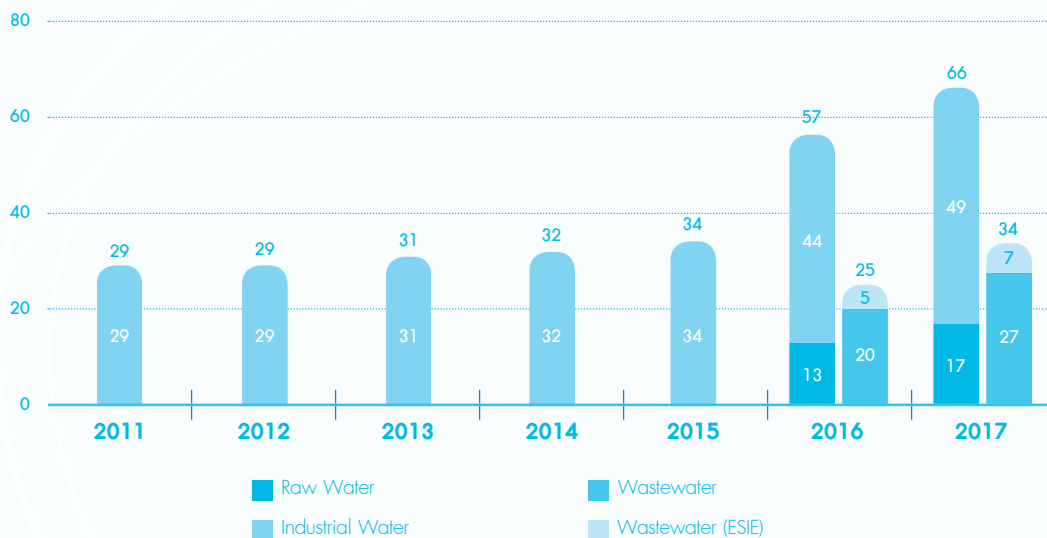
^{4/} The Company has not leased the right to conduct wastewater treatment in ESIE (Rayong). However, the Company provides wastewater management services in ESIE (Rayong) having wastewater treatment capacity of 32,000 cubic meters per day.

The operation and distribution of industrial water in ESIE (Rayong) is a joint investment and business arrangement agreed between Hemaraj and Siam Food Public Company Limited since 1994; therefore, there has been no amendment to any agreement between the parties.

In addition to the procurement of raw water, operation and distribution of industrial water and provision of wastewater treatment services, the Company also provides utility management service. The Company conducts wastewater management service in ESIE having wastewater treatment capacity of 32,000 cubic meters per day and utility management service in HLP 1, which are operation and distribution of industrial water having capacity of 120 cubic meters per day and wastewater treatment services. The Company receives service fee on a cost-plus basis for the services provided to the two aforementioned areas.

TOTAL SALES AND MANAGEMENT VOLUME

(million cubic metres/year)



In 2017, the industrial water production quantity in which the Company takes a lease right from Hemaraj Group was 49 million cubic meters, an increase 12.6% from 2016

The wastewater treatment quantity in all industrial estates in which the Company takes the right to operate from Hemaraj Group was 34 million cubic meters, an increase 35.9% from 2016.

The raw water procurement and distribution quantity in areas of Hemaraj Group was 17 million cubic meters, an increase 30.8% from 2016

The Company has a policy to adequately provide utility services to meet to the increase of customer's demand and the expansion of industrial areas where the Company operates in. If the customer demand or the expansion of industrial areas reaches of 70 per cent. of its production capacity or of its storage capacity of the system, which is also in line with the IEAT's criteria, the Company will consider increasing its service capacities by either expanding the current production capacity at its existing plants or establishing new facilities to ensure its adequate services.

MARKETING STRATEGIES

In conducting utility business, the Company and its subsidiaries pursue the following key marketing strategies:

1. GROWING TOGETHER WITH STRATEGIC PARTNERS

The Company entered into the Strategic Partnership Agreement with Hemaraj under which Hemaraj agreed to grant the Company the exclusive lease right to operate and distribute water in the Hemaraj Group's industrial areas, consisting of: (i) raw water procurement, (ii) industrial water production and distribution, and (iii) wastewater treatment services. The Hemaraj Group is one of Thailand's leading operators of industrial estates based on the size of its industrial areas and customer base. Therefore, the Company has a strong customer base which continues to grow along with the Hemaraj Group's expansion of its current and new industrial estates. In addition, the core customers of the Hemaraj Group's industrial estates are in automotive and petrochemical businesses, which use large amounts of industrial water and need wastewater treatment services. This strategy enables the Company to efficiently draw up short- and long-term business plans and boost its profitability.

The Company also plans to expand its total solution utility services to the projects which are under development by Hemaraj Group, i.e. Hemaraj Eastern Seaboard 3 Industrial Estate and Hemaraj Rayong 36 Industrial Estate, all of which have already been obtained approval from the Industrial Estate Authority of Thailand (IEAT).

2. CAPTURING BUSINESS IN OTHER INDUSTRIAL AREAS OR NON-INDUSTRIAL AREAS

The Company foresees that the demand for raw water, industrial water and wastewater treatment services in other industrial estates outside the current territory of its strategic partner, as well as the demand for the total solution for water management services provided by a highly experienced service providers, will continue to grow. Therefore, it plans to grow its footprint in other industrial zones by playing the role of strategic partner and leveraging on its strong expertise and experience in the utility business, efficient cost management capability and understanding on customer demand in relation to the expansion of this business.

Furthermore, the Company anticipates expanding its service areas into non-industrial zones, aimed at local administrative areas in the proximity of industrial areas, i.e. Subdistrict Administration Organization, City Municipality, Town Municipality or Subdistrict Municipality. These areas have records of increasing water consumption in line with the growth and development of nearby industrial areas, which bring about an upsurge in economic activities in the vicinity. In addition, the Company has maintained good relationships with local administrative bodies in the areas. Thus, it expects to offer them with products and services related to industrial and non-industrial activities, e.g. process water, to satisfy their demand.

3. OFFERING ON-PREMISE SERVICES

Many industrial plants are keen to adopt new technology in water management, e.g. recycle of wastewater back into the manufacturing process or using demineralized water and desalination system as alternatives for water consumption and as precaution against droughts. The Company will apply its knowledge and expertise in providing services that satisfy the requirements of each industrial customer. It plans to directly serve industrial plants by offering current water products as well as other products as required by the customers. In relation to such services, the Company is able to provide services starting from feasibility study, design and construction, investment, including production management and distribution services.

4. DIVERSIFYING PRODUCTS TO THE SATISFACTION OF CURRENT AND NEW CUSTOMERS' DEMAND.

The Company can utilize its expertise in the current utility services to devise additional services and products for the utmost benefit and to launch additional types of water products for industrial use or other non-industrial use such as for household consumption. Therefore, the Company plans to expand to a wider range of products and services to meet customers' demands.

5. EXPANDING SERVICES TO FOREIGN MARKET

The Company plans to expand its utility business as mentioned above to foreign market, particularly in countries with high growth in population, economic and demand for utility. The CLMV countries (i.e. Cambodia, Laos, Myanmar and Vietnam) are viewed as potential countries having attractive investment. The Company entered into the non-competition agreements with each of Hemaraj Group and WHA Group in respect of the development of utility businesses in these countries.

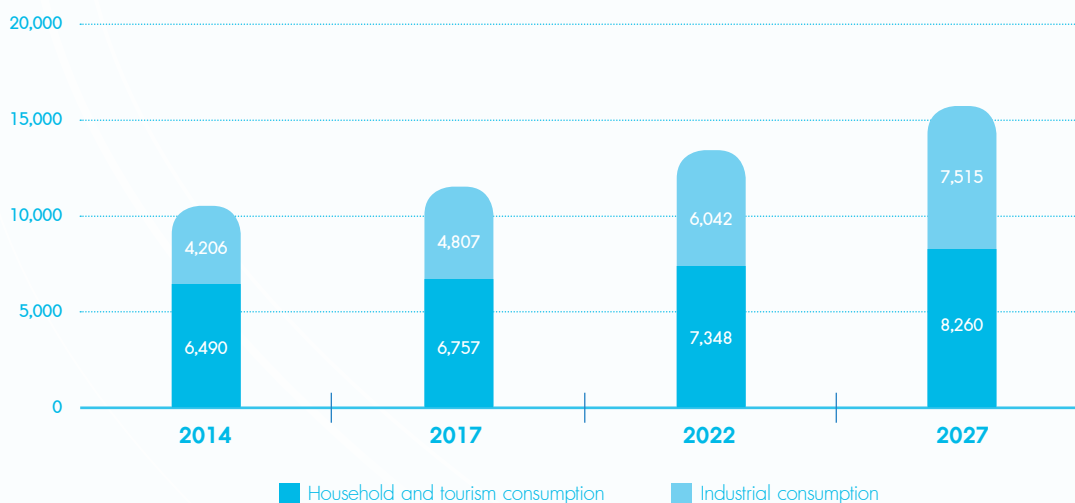
INDUSTRY CONDITION AND COMPETITION

OVERVIEW OF INDUSTRIAL CONDITION FOR THE USE OF WATER IN THAILAND

Thailand is one of the largest consumers of water in South East Asia. Water consumption can be divided according to two main purposes: (i) household consumption, which means the use of water by households and in the tourism business; and (ii) industrial consumption, which means the use of water by industrial factories, based on the strategic plan on water resources management prepared by the Water Resources Policy and Management Commission, Department of Water Resources. The quantities of household consumption and industrial consumption are expected to increase from 2014 to 2027 at the rate of 1.9 and 4.6 per cent. per annum, respectively. Water consumption tends to grow significantly in the densely populated zones of industrial factories, namely Bangkok and nearby provinces, including the eastern part of Thailand, which is the heart of the industrial area of the country. Other parts of the country are mainly domiciled with agro-related industries and local manufacturing businesses.

QUANTITY OF WATER CONSUMPTION CLASSIFIED BY PURPOSES OF USE

(Unit: Million cubic metres per annum)



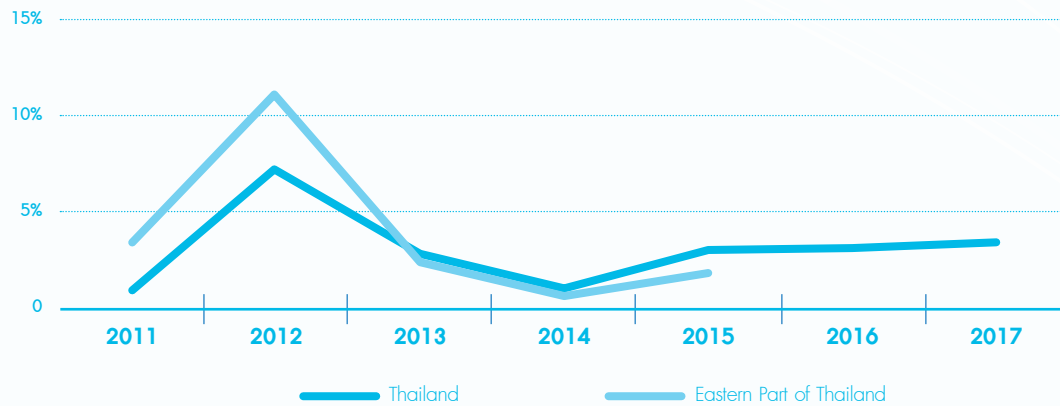
Source : Strategic plan on water resources management for years 2015-2026 prepared by the Water Resources Policy and Management Commission, Department of Water Resources

INDUSTRY CONDITION FOR WATER CONSUMPTION IN THE INDUSTRIAL SECTOR

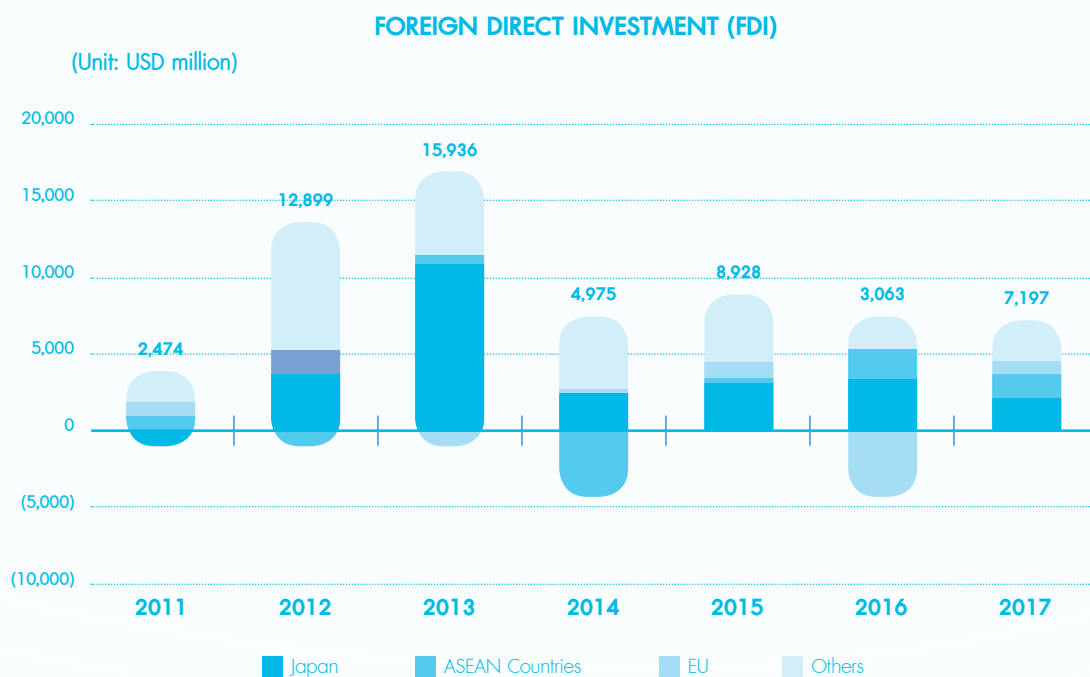
The industrial sector in Thailand has a growth trend as a result of economic recovery both locally and internationally. The sign of Thailand's economic recovery can be seen in the improvement of the gross domestic product (GDP) during the past. This was due to the improvement of political situation in Thailand, the recovered of world's economic, and especially the economy of the United States, a key trading partner of Thailand, resulting in the improvements in Thailand's export sector. In addition, the Government has announced a policy to develop special economic zones with the aim of attracting foreign direct investment and the inauguration of the ASEAN economic zone. The Government also expects to spearhead the Eastern Economic Corridor in a bid to promote investment in the eastern seaboard area, income from which accounted for 20.0 per cent. of GDP, and to improve logistics system in the same area, in particular on Laem Chabang Port. The aim is to develop Laem Chabang Port into a marine transportation hub to connect with other ASEAN countries such as Dawei deep sea port in Myanmar, Sihanoukville Autonomous Port in Cambodia and Port of Vung Tau in Vietnam.

According to the Bank of Thailand's forecast, Thailand's GDP is expected to grow by approximately 3.9 percent. in 2017. (Based on data as of September 2017)

During the past five years, the economic growth in the eastern part of Thailand (in which the Company is conducting the business) has surpassed the country's overall economic growth because it is an industrial region which benefited from the growth in domestic consumption and exports. In the past five years, this region had an average economic growth rate of 3.9 per cent. per annum, compared to the country's average growth rate of 2.9 per cent. per annum during the same period.



Furthermore, the country's economy began to recover after the restoration of political stability, resulting in improvements in foreign direct investment. The value of foreign direct investment in 2017 was USD 7,197 million, increasing by 134.9 per cent. from 2016.



Source : The Bank of Thailand

In 2017, the aggregate value of investment projects based on the applications submitted to the BOI was THB 625.1 billion, decreasing by 27.4 per cent. from 2016.

Applications for BOI investment promotional privileges mainly came from industrial operators in Rayong and Chonburi provinces, which accounted for 21.0 per cent. of total submitted applications and 35.5 per cent. of the aggregate value of investment projects in 2017. That was due to Rayong and Chonburi are the strongholds of petrochemical and automotive businesses, which are the major in Thailand industries.

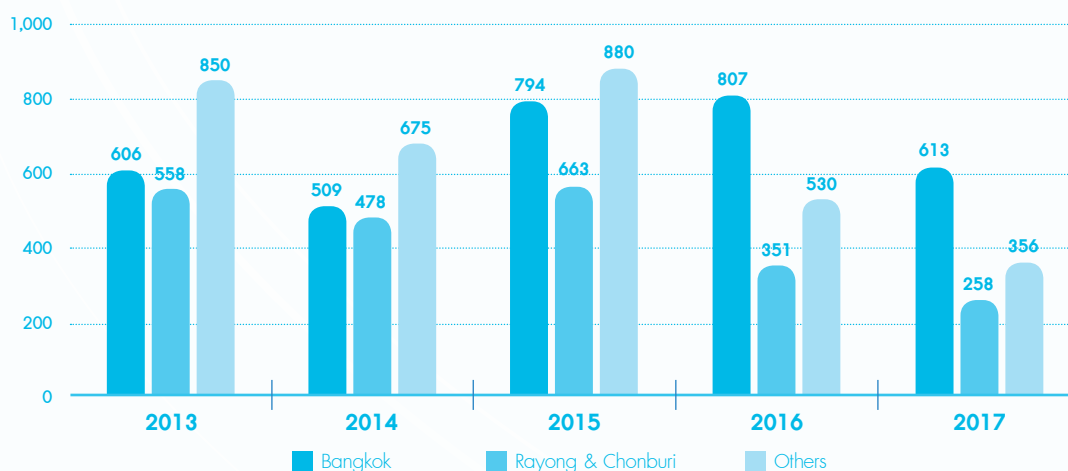
BOI-APPROVED INVESTMENT PROJECTS

BOI-approved applications	2012	2013	2014	2015	2016	2017
Number of projects	2,260	2,014	1,662	2,237	1,688	1,277
Project value of submitted applications (THB billion)	983.6	1,026.4	729.4	809.3	861.3	625.1

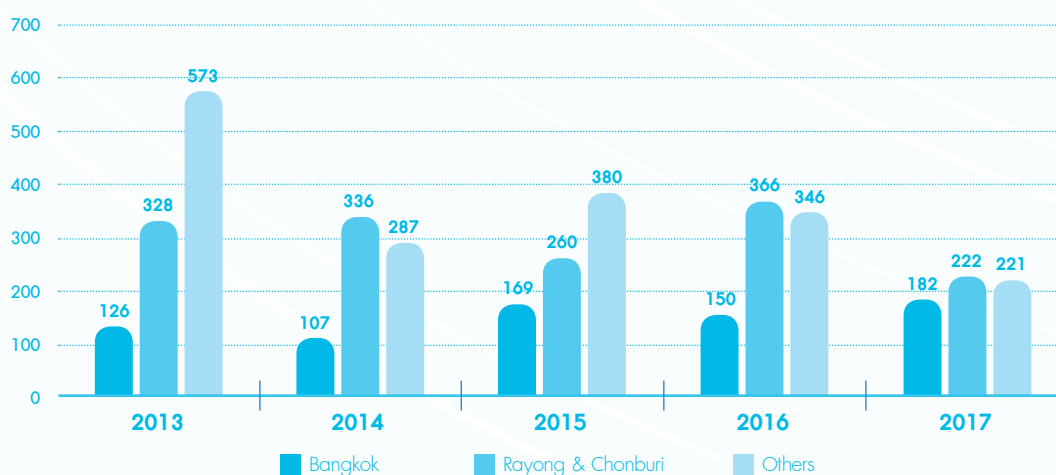
Source : Office of BOI

SITES OF BOI-APPROVED INVESTMENT PROJECTS

NUMBER OF BOI-APPROVED PROJECTS (PROJECTS)



VALUE OF BOI-APPROVED PROJECTS (THB BILLION)





POWER BUSINESS

NATURE OF PRODUCTS OR SERVICES

The WHAUP Group conducts power business by holding equity in other power generating and distribution companies, both domestically and abroad. The 17 commercially operating power plants in which the WHAUP Group has investment in have an aggregate contracted power generating capacity of 2,287.40 MW, or equal to a capacity in proportion to equity of 478.34 MW. For 4 power plant projects under construction in which the WHAUP Group has investment, these power plants have an aggregate contracted power generating capacity of 252.80 MW, or equal to a capacity in proportion to equity of 64.47 MW.

THIS TABLE SUMMARIZES THE POWER PLANT PROJECTS.

Power plant	Location	Type of power	Category of Plant	Equity holding (per cent.)	Contracted power generating capacity	Capacity in proportion to equity	Commercial Operation Date
1) Information about the commercially operating power plants in which the WHAUP Group has investment							
Joint venture with the Glow Group							
Gheco-I	Map Ta Phut Industrial Estate	Coal	IPP	35.00	Power 660.00 MW	231.00 MW	August 2012
Glow IPP	HCIE	Gas-fired cogeneration	IPP	5.00	Power 713.00 MW	35.65 MW	January 2003
Houay Ho Power	Lao People's Democratic Republic	Hydro power	IPP	12.75	Power 152.00 MW	19.38 MW	September 1999
Joint venture with the Gulf Group							
Gulf JP NNL	HRIL	Gas-fired cogeneration	SPP	25.01	Power 122.50 MW Steam 3.00 TPH Chilled water 3,200 RT	30.64 MW 0.75 TPH 800.32 RT	May 2013
Gulf Solar KKS	HLP1	Solar power	VSPP	25.01	Power 0.25 MW	0.06 MW	December 2014
Gulf Solar BV	HCIE	Solar power	VSPP	25.01	Power 0.13 MW	0.03 MW	June 2014

Power plant	Location	Type of power	Category of Plant	Equity holding (per cent.)	Contracted power generating capacity		Capacity in proportion to equity		Commercial Operation Date
Gulf Solar TS1	HESIE	Solar power	VSPP	25.01	Power	0.13 MW	0.03	MW	August 2014
Gulf Solar TS2	ESIE	Solar power	VSPP	25.01	Power	0.09 MW	0.02	MW	January 2015
Joint venture with the Gunkul Group									
WHA Gunkul Green Solar Roof 17	WHA Mega Logistics Centre, Wangnoi 61, Ayutthaya	Solar power	VSPP	74.99	Power	1.00 MW	0.73	MW	July 2014
WHA Gunkul Green Solar Roof 3	WHA Mega Logistics Centre, Bangna-Trad KM.18	Solar power	VSPP	74.99	Power	0.83 MW	0.62	MW	April 2014
WHA Gunkul Green Solar Roof 6	WHA Mega Logistics Centre, Bangna-Trad KM.18	Solar power	VSPP	74.99	Power	0.83 MW	0.62	MW	April 2014
WHA Gunkul Green Solar Roof 1	WHA Mega Logistics Centre, Bangna-Trad KM.18	Solar power	VSPP	74.99	Power	0.64 MW	0.48	MW	April 2014
Joint venture in power plant projects with B.GrimmPower Group									
BGWHA-1	HCIE	Gas-fired cogeneration	SPP	25.01	Power	121.00 MW	30.26	MW	November 2016
Joint venture with Gulf MP Company Limited									
Gulf VTP	ESIE	Gas-fired cogeneration	SPP	25.01	Power	130.00 MW	32.51	MW	May 2017
					Steam	20.00 TPH	5.00	TPH	
Gulf TS1	ESIE	Gas-fired cogeneration	SPP	25.01	Power	130.00 MW	32.51	MW	July 2017
					Steam	42.00 TPH	10.50	TPH	
Gulf TS2	ESIE	Gas-fired cogeneration	SPP	25.01	Power	130.00 MW	32.51	MW	September 2017
					Steam	36.00 TPH	9.00	TPH	
Gulf TS3	HESIE	Gas-fired cogeneration	SPP	25.01	Power	125.00 MW	31.26	MW	November 2017
					Steam	25.00 TPH	6.25	TPH	
Total					Power	2,287.40 MW	478.34	MW	
					Steam	126.00 TPH	31.50	TPH	
					Chilled water	3,200 RT	800.32	RT	

Power plant	Location	Type of power	Cate-gory of Plant	Equity holding (per cent.)	Contracted power generating capacity		Capacity in proportion to equity		Com-mercial Operation Date
2) Information about the power plants under construction in which the WHAUP Group has investment									
Gulf TS4	HESIE	Gas-fired cogeneration	SPP	25.01	Power	125.00 MW	31.26	MW	January
					Steam	25.00 TPH	6.25	TPH	2018
WHA KM.3 Solar	WHA KM.3	Solar Power	VSPP	100	Power	0.90 MW	0.90	MW	Quarterly 1
									2018
Gulf NLL2	HRIL	Gas-fired cogeneration	SPP	25.01	Power	120.00 MW	30.01	MW	January
					Steam	10.00 TPH	2.50	TPH	2019
CCE	HCIE	Waste-to-Energy	VSPP	33.33	Power	6.90 MW	2.30	MW	2019
Total					Power	252.80 MW	64.47	MW	
					Steam	35.00 TPH	8.75	TPH	

COMMERCIALY OPERATING POWER PLANTS IN WHICH THE WHAUP GROUP HAS INVESTMENT

1. GHECO-I COMPANY LIMITED (GHECO-I)

Gheco-I Power Plant is a coal-fired power plant in Map Ta Phut Industrial Estate, Rayong province. This power plant has a contracted power generating capacity of 660MW under an IPP power purchase agreement with EGAT. Total electricity generated from this power plant is sold to EGAT for 25 years starting from the COD in August 2012.

The Company holds equity in Gheco-I Power Plant through WHA Energy 2 Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent. WHA Energy 2 Company Limited holds 35 per cent. of total issued and paid-up shares in Gheco-I Power Plant. The remaining 65 per cent. of its total capital is held by the Glow Group.

2. GLOW IPP COMPANY LIMITED (GLOW IPP)

Glow IPP Power Plant is a gas-fired power plant in HCIE, Chonburi province. This power plant has a contracted power generating capacity of 713MW under an IPP power purchase agreement with EGAT. Total electricity generated from this power plant is sold to EGAT for 25 years starting from the COD in January 2003.

WHA Energy 2 Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent., holds 5 per cent. of total issued and paid-up shares in Glow IPP. The remaining 95 per cent. of total capital in Glow IPP is held by the Glow Group.

3. HOUAY HO POWER COMPANY LIMITED (HHP)

HHP, a company registered in Lao People's Democratic Republic, was established with the objectives to own and operate a hydro power plant, Houay Ho, in Attapeu province in the southern part of Laos. Houay Ho Power Plant has a contracted power generating capacity of 152 MW. HHP has obtained a 30-year concession on a build-operate-transfer basis from the Government of Laos. This power plant became commercially operating in September 1999 with a contracted power generating capacity to sell 126MW of electricity to EGAT and 2 MW to Electricité du Laos (EDL) for 30 years from the commercial operation date. However, the amount of electricity to be sold to EGAT in each year will be based on the quantity of water storage of the power plant. A monthly report on the estimated power generating quantity will be provided to EGAT.

The Company directly holds 51 per cent. of the total issued and paid-up shares in Houay Ho Thai Company Limited (HHT), with the remaining shares of HHT being directly held by the Glow Group. HHT directly holds 25 per cent. of the total issued and paid-up shares in HHP. Effectively, the Company owns 12.75 per cent. shareholding in HHP, while the Glow Group effectively owns (both directly and indirectly) 67.25 per cent. shareholding in HHP, and EDL-Generation Public Company Limited directly owns 20 per cent. shareholding in HHP.

4. GULF JP NLL COMPANY LIMITED (GULF JP NLL)

Gulf JP NLL owns and operates SPP power plant in HRIL, Rayong province. The SPP power plant is a gas-fired power plant having a contracted power generating capacity of 122.5MW. It sells 90MW of electricity to EGAT under an SPP power purchase agreement on a firm commitment basis, which has a term of 25 years from the COD in May 2013. This power plant also has an agreement to sell steam and chilled water to industrial customers in HRIL.

The Company holds equity in Gulf JP NLL power plant project through WHA Energy Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent. WHA Energy 2 Company Limited holds 25.01 per cent. of the total issued and paid-up shares in Gulf JP NLL. The remaining 74.99 per cent. of its total capital is held by the Gulf Group.

5. GULF SOLAR POWER PLANTS

Gulf Solar Company Limited (Gulf Solar) owns and operates four solar rooftop VSPP power plants having a contracted power generating capacity of 0.6MW, which is totally distributed to PEA and the Metropolitan Electricity Authority (MEA). The four power plants consist of the following companies:

1. Gulf Solar KKS Company Limited in HLP1, which has a contracted power generating capacity of 0.25MW and became commercially operational in December 2014;
2. Gulf Solar BV Company Limited in HCIE, which has a contracted power generating capacity of 0.13MW and became commercially operational in June 2014;
3. Gulf Solar TS1 Company Limited in HESIE, which has a contracted power generating capacity of 0.13MW and became commercially operational in August 2014; and
4. Gulf Solar TS2 Company Limited in ESIE, which has a contracted power generating capacity of 0.09MW and became commercially operational in January 2015.

WHA Energy 2 Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent., holds 25.01 per cent. of the total issued and paid-up shares in Gulf Solar. The remaining 74.99 per cent. of its total capital is held by the Gulf Group.

6. WHA GUNKUL SOLAR POWER PLANTS

The WHA Gunkul Group owns and operates four solar rooftop VSPP power plants having a contracted power generating capacity of 3.3MW, divided into 2.3MW sold to PEA and 1.0 MW to MEA. The four power plants consist of the following companies:

1. WHA Gunkul Green Solar Roof 17 Company Limited in WHA Mega Logistics Centre, Wangnoi 61, Phra Nakhon Sri Ayutthaya province, which has a contracted power generating capacity of 1.0MW and became commercially operational in July 2014;
2. WHA Gunkul Green Solar Roof 3 Company Limited in WHA Mega Logistics Centre, Bangna-Trad Road KM.18, Samutprakan province, which has a contracted power generating capacity of 0.83MW and became commercially operational in April 2014;

3. WHA Gunkul Green Solar Roof 6 Company Limited in WHA Mega Logistics Centre, Bangna- Trad Road KM.18, Samutprakan province, which has a contracted power generating capacity of 0.83MW and became commercially operational in April 2014; and
4. WHA Gunkul Green Solar Roof 1 Company Limited in WHA Mega Logistics Centre, Bangna- Trad Road KM.18, Samutprakan province, which has a contracted power generating capacity of 0.64MW and became commercially operational in April 2014.

WHA Energy Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent., holds 74.99 per cent. of total issued and paid-up shares in each of the above companies. The remaining 25.01 per cent. of total capital in those companies is held by the Gunkul Group.

7. B.GRIMM POWER (WHA) 1 COMPANY LIMITED (BGWHA-1)

BGWHA-1 owns and operates BGWHA-1 Power Plant in HCIE, Chonburi province. BGWHA-1 Power Plant is a gas-fired SPP power plant having a contracted power generating capacity of 121MW. This power plant sells 90MW of electricity to EGAT under a power purchase agreement on a firm commitment basis, which has a term of 25 years from the COD in November 2016. It also has an agreement to sell electricity to industrial customers in HCIE.

WHA Energy Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent., holds 25.01 per cent. of total issued and paid-up shares in BGWHA-1. The remaining 74.99 per cent. Of its total capital is held by the B.Grimm Power Group.

8. JOINT INVESTMENT BUSINESSES WITH GULF MP COMPANY LIMITED

The WHAUP Group and Gulf MP Company Limited jointly own 4 SPP gas-fired power plants with a firm basis power purchase agreement, consisting of the following companies:

1. Gulf VTP Company Limited (Gulf VTP), which operates Gulf VTP Power Plant in ESIE, Pluakdaeng sub-district, Rayong province having a contracted power generating capacity of 130 MW and a contracted steam generating capacity of 20 Ton/hour. This power plant became commercially operational in May 2017.
2. Gulf TS1 Company Limited (Gulf TS1), which operates Gulf TS1 Power Plant in ESIE, Pluakdaeng sub-district, Rayong province having a contracted power generating capacity of 130 MW and a contracted steam generating capacity of 42 Ton/hour. This power plant became commercially operational in July 2017.
3. Gulf TS2 Company Limited (Gulf TS2), which operates Gulf TS2 Power Plant in ESIE, Pluakdaeng sub-district, Rayong province having a contracted power generating capacity of 130 MW and a contracted steam generating capacity of 36 Ton/hour. This power plant became commercially operational in September 2017.
4. Gulf TS3 Company Limited (Gulf TS3), which operates Gulf TS3 Power Plant in HESIE, Pluakdaeng sub-district, Rayong province having a contracted power generating capacity of 125 MW and a contracted steam generating capacity of 25 Ton/hour. This power plant became commercially operational in November 2017.

WHA Energy Company Limited, a subsidiary in which the Company has a stake of 99.99 per cent., holds 25.01 per cent. of the total issued and paid-up shares in each of the above power plant companies. The remaining 74.99 per cent. of their total capital is held by Gulf MP Company Limited.

POWER PLANTS UNDER CONSTRUCTION IN WHICH THE COMPANY HAS INVESTMENT

1. JOINT INVESTMENT BUSINESSES WITH GULF MP COMPANY LIMITED

The WHAUP Group and Gulf MP Company Limited jointly own 2 SPP gas-fired power plants with a firm basis power purchase agreement, consisting of the following companies:

1. Gulf TS4 Company Limited (Gulf TS4), which operates Gulf TS4 Power Plant in HESIE, Pluakdaeng sub-district, Rayong province having a contracted power generating capacity of 125 MW and a contracted steam generating capacity of 25 Ton/hour. This power plant is expected to start its commercial operations in January 2018.
2. Gulf NLL2 Company Limited (Gulf NLL2), which operates Gulf NLL2 Power Plant in HRIL, Rayong province having a contracted power generating capacity of 120MW and a contracted steam generating capacity of 10 Ton/hour. This power plant is expected to star its commercial operations in January 2019.

2. SOLAR POWER PROJECT WHA KM.3 SOLAR

WHA KM.3 Solar Project located at WHA mega logistics center (Chonlahampichit KM.3), having a contracted power generating capacity of 0.9 MW. This power plant is expected to star its commercial operations in Quarterly 1 of 2018.

3. JOINT INVESTMENT BUSINESSES WITH GLOW ENERGY CO.,LTD & SUEZ COMPANY LIMITED

Chonburi Clean Energy Plant is a waste to energy power plant in HCIE, Chonburi province. This power plant has a contracted power generating capacity of 6.9 MW under. This power plant is expected to star its commercial operations in 2019.

Chonburi Clean Energy Company Limited is a subsidiary of Eastern Seaboard Clean Energy Company Limited, a joint venture between Glow IPP 3 Company Limited (a subsidiary of Glow Energy Plc.) with WHA Energy Co., Ltd. (a subsidiary of WHA Utilities and Power Plc.) and SUEZ Co.,Ltd for development of industrial waste energy projects each party owning an equal proportion of shares.

BUSINESS STRATEGIES

1. GROWING TOGETHER WITH THE STRATEGIC PARTNER

After the entire power business transfer by the Hemaraj Group (consisting of subsidiaries of WHA Corporation Public Company Limited) to the WHAUP Group, both parties entered into the Strategic Partnership Agreement, the Hemaraj Non-competition Agreement and the WHA Non-competition Agreement. Under those agreements, the Hemaraj undertakes not to directly or indirectly compete in conducting power business in Thailand, on its own or in collaboration with a third party, with the Company. If the Hemaraj Group acquires any local industrial estate in the future and has the right to conduct power business in that property, it agrees to offer the WHAUP Group with the first right to invest in the power business in that project. Further, if a third party investment offer is directly tendered to the Hemaraj Group, it covenants to so inform the Company for consideration.

2. FORMING JOINT VENTURE IN POWER GENERATION BUSINESS WITH LEADING COMPANIES

The Company's strategic partner is the Hemaraj Group, a reputable developer of industrial estates. Industrial estates are considered a suitable location for establishing power plants because it is likely that there will be no great concern over environmental issues, considering that the overall management of industrial estates, e.g. formation of industrial plants and environmental treatment, are supervised and regulated by IEAT. The Company's joint ventures in the Hemaraj industrial estates derive benefit from the Hemaraj customer base, which is an important factor that enhances the operating results of power plants, in particular, SPPs which can directly sell electricity and steam to those tenants. Most industrial customers have a preference for SPPs over EGAT due to the stability of power generation and distribution capacity of SPPs in industrial estates, combined

with their cheaper selling price. In addition, the SPPs have a supplemental capacity to produce and distribute steam, which is a key input in the manufacturing process of many industrial customers.

In addition, power plants is the industry that use large amounts of industrial water in their generating process and hence will be beneficial to the Company's industrial water business. This is due to demand for water in the power generation business constantly grows on the basis that it is usually conducted under a long-term (at least 25 years) agreement. Constant demand will partially strengthen cash flow from industrial water business of the Company. For instance, 2 power plant projects under construction with Gulf MP Company Limited which will become commercially operational starting from 2018 will increase the selling quantity of industrial water in Hemaraj Industrial Estates.

3. OPERATING ALTERNATIVE ENERGY POWER PLANTS

The WHA Group's and the Hemaraj warehouses, buildings and facilities in industrial estates have more than 2 million cubic meters of available rooftop space, which can support investments in solar rooftop power plants. In addition, the Government has a policy to stimulate investment in the solar rooftop power generation business which presents the Company with prospects for future growth in this business.

In addition to solar power generation plants, the Company plans to expand into other alternative energy, starting from a waste-to-energy power generation plant in which Chonburi Clean Energy Company Limited, a joint venture company with the Glow Group and Suez which were awarded to sell electricity generated from industrial waste for an aggregate of 6.9MW to PEA for the period of 20 years. On February 24, 2017, Chonburi Clean Energy Company Limited entered into the power purchase agreement with PEA for a waste-to-energy power generation plant.

INDUSTRY OVERVIEW

The power business in Thailand is an infrastructure service under the supervision and regulation of the Ministry of Energy, the ERC and the National Energy Policy Board (NEPB), which are in charge of the stability and sustainability of the national power utility. Originally, EGAT was solely responsible for generating power to support nationwide consumption. After demand for electricity sharply rose as a result of economic expansion and population increase, the governments has therefore the participation of private sector in the power generation business with a view to mitigating EGAT's investment burden in order to respond growing demand for electricity. Starting from 1992, the government launched a policy encouraging the private sector's participation in power generation and invited it to bid for the construction of power plants. Such policy inaugurated a new role of IPPs and SPPs in the country's power generation business since 1994. As there is also great support for alternative energy power generation, VSPPs are now taking an active role in the country's power industry.

RISK FACTORS

The Company aims to become Thailand's leading provider of public utilities and power services. The Company recognizes that the various risk factors arising from changes of internal and external factors, including the environment, may affect its operations. Therefore, the Company has conducted an assessment on material risks, and also the impacts of risks on its operations. The Company's assessment was divided into four kinds of major risks, namely strategy risk, operational risk, financial risk and compliance risk, which was analyzed in connection with its two core businesses, i.e. water business and power business.

STRATEGY RISK

WATER BUSINESS

(a) Revenue of the water business mainly derives from customers in the Hemaraj Group's industrial estates and industrial lands

Currently, the Company's core revenue is derived from its water business in industrial estates and industrial lands developed and managed by Hemaraj Land and Development Public Company Limited (Hemaraj) which is the Company's major shareholder and its subsidiaries (collectively called the Hemaraj Group). This source of revenue accounts for 57.6 per cent. and 43.4 per cent. of the Company's total revenue for 2016 and 2017, respectively.

The Company and the Hemaraj Group have entered into the Strategic Partnership Agreement and Right Lease Agreement which entitles the Company to operate its water business in the Hemaraj Group's industrial estates and industrial lands for the Current Projects and Future Projects. However, if the Hemaraj Group decides in the future to suspend the expansion of its business relating to development of industrial estates and industrial lands for any reason and the Company does not have any other customers outside the Hemaraj Group's industrial estates and industrial lands, the Company's income may significantly decrease. On the other hand, if the right lease agreement expires at the end of the 50-year term without renewal and the Company does not have customers apart from those in the Hemaraj Group's industrial estates and industrial lands to replace this revenue, the Company's results of operations and financial condition may materially be affected. The Company realizes the risk and consequences from that Factor. In order to pull down the risk, the company select the project with the reasonable of Equity Internal Rate of Return and study on the pros and cons of feasibility of the project and sensitivity analysis. If it is a joint venture, the company has a carefully selected investor by knowledge, ability, experience, expertise, financial, and history of past performance of the investor.

(b) Risk relating to customer concentration

The Company's core customers in the water business mainly consist of operators in petrochemical business, power generation business and automobile business in industrial estates and industrial lands, accounting for 42 per cent., 20 per cent. and 11 per cent., respectively, of the Company's total revenue from the water business for 2017. In addition, the 10 largest customers of the Company mainly consist of operators in the petrochemical business and power generation business, accounting for 54.2 per cent. and 54.4 per cent. of the Company's total revenue for 2016 and 2017, respectively. A decline or slowdown in the business expansion or investment conditions of these industrial sectors and large customers may reduce their demand for water services and other public utilities which may materially affect the results of operations of the Company.

The Company realizes the risk and consequences from that Factor. In order to pull down the risk 1) the Company monitors customer's water usage closely 2) Queries and revise water usage plan for those customers consistently and 3) to sustainably reduce the possible consequences, the Company set policies and operating plans to offer more variety of products to better serve customer demand such as specific industrial water or reverse osmosis (RO) to focus on more groups of customers as well as plan for customers outside the industrial estates such as sub-district administrative organization, etc. in the important economic area.

(c) Risk relating to reliance on the major suppliers for raw water procurement

The Company operates its utility service business by producing and distributing industrial water to operators in industrial estates and industrial lands in which the raw water is the key raw material for its operation. The cost of raw water represented approximately 65 per cent. of the total cost of the Company. Currently, the Company mainly procures raw water from three (3) major suppliers, i.e. (1) Eastern Water Resources Development and Management Public Company Limited (East Water) which is a large concessionaire granted by the Royal Irrigation Department (RID) having service area in Chonburi, Rayong and Chachoengsao provinces, (2) RID and (3) the Hemaraj Group (from Hemaraj Group's internal reservoir of natural water) and their supply volume accounts for 80 per cent., 10 per cent. and 10 per cent. of the total sources of raw water for the year 2017, respectively. Further, the Hemaraj Group acted as an intermediary for East Water and RID in the Company's water procurement process. However, the Company is able to directly procure raw water from East Water and RID.

If East Water, RID or the Hemaraj Group is unable to supply raw water to the Company in the quantity required and at the agreed time, due to raw water supply shortage or significantly increases in the selling price of raw water, this may have a material adverse effect on the Company's financial condition, results of operations and prospects.

In the past decade, the Company has planned to reduce risks of having few major suppliers of raw water and/or distributors of raw water by 1) the Company keeps updates on natural raw water resources and plan to build water reservoirs in some industrial estates as appropriate 2) plans to explore natural raw water resources in addition to the resources currently use 3) plans for recycled water system 4) the Company also follows up and coordinates with customers constantly to promptly plan for sufficient water usage and distribution as well as coordinates with raw water distributors and find protection and modification solutions constantly. With those mention preventive measures that have been performed, the Company is confidence that there is sufficient and quality raw water resources for water supply business

POWER BUSINESS

(a) Investment risk relating to the Company's investments in businesses over which the Company has no control

Currently, the Company has made investments in the power business by holding equity in various energy companies. Revenue from the power business of the Company is derived from investments in companies engaging in power business, which are considered associates of the Company, and accordingly the Company does not have power to control those entities, and the management of their businesses depends on the discretion of their respective boards of directors. Moreover, although the major shareholders of these companies have expertise in the power business, the Company is subject to the risk of investment in the power business. The Company received revenue from the investments of such power business in forms of share of profit from investments in associates and joint ventures, and dividends.

OPERATIONAL RISK

WATER BUSINESS

(a) Risk relating to an ability of the Company to increase public utilities price in the industrial estates

Section 14 of the Industrial Estate Authority of Thailand Act, B.E.2522 (as amended) states that “the IEAT has the power to determine the selling price, rental fee and hire purchase fee of real property and movable property, the maintenance fee of public facilities and other fees in relation to public services provided in industrial estates, taking into account reasonableness in terms of business.” Therefore, the power to announce and increase the price of public utilities such as industrial water price and wastewater treatment price in industrial estates lies solely with the IEAT. The Company cannot charge for public utilities at a higher rate than the rates specified by IEAT. Therefore, there is a risk that the IEAT may not grant approval if the Company seeks to increase the price of public utilities to meet the changing costs or to reflect the market condition. It is also notable that no requirements have been imposed on the Company to seek prior approval of the change of public utility prices collected in the industrial lands.

(b) Risk relating to the deterioration and damage of the water production and distribution System

The Company’s industrial water production and distribution system and wastewater treatment system may deteriorate in a usage life or be damaged during the course of operations, and if the repair is not completed in a timely manner, this may directly obstruct the production and distribution process of industrial water or interrupt the wastewater treatment system. In addition to impacting the Company’s profitability and cash flow, this may cause the Company fails to fulfill its obligations under the Right Lease Agreement with the Hemaraj Group and agreements with Company’s customers and may therefore also materially affect the Company’s results of operations.

To reduce the mentioned risk, the Company keeps checking on all systems constantly and arranges maintenance plans of water providing and distribution system for industrial purposes appropriately. The purpose of maintenance plan is to focus on maintenance of dilapidated or damaged parts and increase performances for effective usage of water providing and distribution system for industrial purposes. In case when it is needed to temporary halt water providing and distribution system for repair and maintenance, the Company will inform customers in industrial estates beforehand and arrange spare water resources until the main water providing & distribution system will be completely fixed. Apart from this, the Company also prepares property insurance with insurance companies to responsible any damage of any circumstance.

(c) Risk relating to severe accident, drought and natural catastrophe

Natural catastrophes (such as drought, flood, storm, fire and earthquake, epidemic and severe accident) are beyond the Company’s control. An occurrence of a drought, natural catastrophe or severe accident may affect the Company’s results of operations and severely damage the Company’s operating assets. The impact of those circumstances may affect the industrial and commercial operators in industrial estates and industrial lands where the Company is operating, which could also have an effect on the Company’s revenue and results of operations.

The Company is aware of the possibility of such risk, which is why it puts attention on the selection of location and the proper security system. The road in every project is higher than the public road in front of the projects or the highest water level during the floods in the past 30 years in the locality. The Company has applied for all-risk insurance covering all kinds of damage caused by natural disaster and accidents for every project. However, the Company is confident that it has proper plans and preventive measures to deal with floods. Therefore, there is little chance that damage from floods in any projects would exceed the compensation limit.

POWER BUSINESS

The Company invests in power business in the form of holding equity in energy companies. Revenue from the power business in 2016 accounted for 37 per cent. of the Company's total revenue for the year ended December 31, 2016 whereby the highest revenue came from investment in Gheco-I Company Limited (the Company's associates over which the Company has no control). Revenue from power business generated from the other associates for the same financial period was not material. The Company received revenue from power business in form of share of profit from investments in its associates and joint ventures and dividend received.

Risks relating to investment in power business include the following:

(a) Risk relating to a shortage of fuels

In the operation of natural gas and coal-fired power plants, natural gas and coals particularly constitute the key costs of operating activities. If there is a shortage of these natural gas or coals or a supplier is unable to provide a required quantity of natural gas or coals to the power plant of the Company's associates, which in each case is an uncontrollable event of the power plants, then the relevant power plants are likely to breach its obligations under the power purchase agreement it has entered into with EGAT or under electric power transmission or a steam supply agreements with their industrial customers. Therefore, a shortage of fuels may have a material and adverse effect on the profit sharing, financial condition and operating results of the Company.

However, GHECO-ONE Co., Ltd., the largest equity investment has already signed the contract to purchase coal in advance to prevent the risk of partial shortage of fuel.

WATER BUSINESS AND POWER BUSINESS

(a) Risk relating to uncertainty in economic, political and social condition and laws which may affect the Company's business expansion plan and operating results

As the Company engages in the water and power businesses, its prospects of business expansion and results of operations depend on the economic, political, social conditions and legal framework of the country where the Company's businesses are being conducted. Particularly, if there is a material adverse change in economic conditions resulting in liquidity risk, inflation, foreign exchange rate fluctuations and credit default risk which may affect the interest rate, or if there is a material change in social conditions and laws, then those changes may have adverse effects on the Company's business operations, financial condition, results of operations and business expansion plan.

(b) Slowdown in the global economy, changes in the state policy and other macroeconomic factors

The global economic slowdown, the United Kingdom's resolution to exit the European Union (Brexit), the change in state policy, and political uncertainty may affect investment and expansion of production capacity of industrial operators which are customers of the Company. Political uncertainty in Thailand may undermine the investor sentiment and private sector's confidence in Thailand investment. Some business segments may decide to move, expand or establish their production bases in neighboring countries instead in order to reduce this risk. The depressed political condition and the high level of household debt may also restrict private sector consumption. Declines in domestic consumption, production and export also curb investment activities which could reduce our customers' planned expansion of production or suspend their investment decisions, which may have adverse effects on the Company's business.

Nevertheless, Thailand remains attractive to the foreign investors who want to invest in South East Asia due to the better labor quality and the acceptable wage rate in comparison to those in European countries, The United States and other Asian countries. Moreover, the infrastructures particularly the public utilities in Thailand are better than competitors as well as. Despite the natural disaster in 2011, the overall investment in Thailand continues to expand. Moreover, in 2014, the government announced a change of regulations regarding rights and benefits of investment promotion to be suitable for current and future situations. This is also in line with the development direction of the country according to the National Economic and Social Development Plan the agricultural, industrial and service development policy effective in 2015.

FINANCIAL RISK

The operating performance, financial status, economic environment in Thailand and other countries, access to financial and capital market in Thailand and other countries, and interest rates are risk factors to the company's financial management. The company has consistently improved its financial position by having an appropriate and sufficient source of funds with a reasonable cost of capital. As at December 31, 2017, the Company's debt to equity ratio was 0.70 times and interest-bearing debt to total equity was 0.63 times. The company has a strong balance sheet and a lower debt level, moderate level of cash on hands, no foreign currency debts and broader lending sources. These will provide the company more flexibility to grow the business expansion, yet to minimize the financial risks.

Core revenue generated from power business derives from share of profit from the investments in associates and joint ventures. The Company's associates which engage in the power business had sources of financing and loans for development of power plants and part of operating costs in a foreign currency. Fluctuations in the foreign exchange rate and interest rate, may adversely affect the Company's share of profit from investments, financial condition and results of operations.

However, Gheco-One had already signed the contract the foreign exchange rate swap and the interest swap to prevent such financial risk.

COMPLIANCE RISK

(a) Risk of use and interpretation of the law and the Notifications related to the business of the Company

Announcement of the Revolutionary Party No. 58 stipulates that the waterworks business is considered to be a public utility business, which must be licensed or concessioned by the Minister prior to the operation. Also, the notification of the Ministry of Natural Resources and Environment Re: Criteria for Conducting Concession of the Waterworks for Safety or Well-being of People B.E. 2554 ("Ministry of Resources' Notification") issued in accordance with Announcement of the Revolutionary Party No. 58 stipulates that "the Waterworks" must be concessioned by the Minister of the Ministry of Natural Resources and Environment. The Ministry brought the matter into a discussion with the Department of Water Resources, a regulatory body according to the notification of Ministry of Resources, whether the water production and distribution business for industries and its subsidiaries is justified to be concessioned according to the Announcement of the Revolutionary Party No. 58 and the Ministry Notification. The conclusion is that the Company's production and distribution of industrial water is for the Company and its subsidiaries for industrial zones only. The water is not produced and sold to the public. Therefore, it is not considered to obtain a concession according to the Announcement of the Revolutionary Party No. 58 and the Ministry Announcement.

However, if the law changes in the future or the interpretation of the Announcement of the Revolutionary Party No. 58 and the Ministry Notification has changed, The Company and its subsidiaries may have to apply for a license or concession, and if the Company and its subsidiaries do not receive a license or concession for any reason, such event could adversely affect the business operation, revenue and financial position, the Company's performance and business opportunities.

(b) Changes to the IEAT's laws, rules and regulations and other applicable laws which are relevant to the business operation of the Company

The Company's industrial water business and power business are governed by the IEAT's laws, rules and regulations and other applicable laws which may be interpreted differently in the future.

The Company is unable to anticipate any guidelines on the regulator's exercise of power to supervise water business under the relevant laws. This uncertainty subjects the Company to the risk that there is a material change in applicable laws, rules and regulations. In addition, the national policy on public utilities and power is subject to change based on the policy and administrative system announced by each government. A change in the national policy on public utilities and power as well as an issue of new rules and regulations, e.g. a policy on alternative energy, may adversely affect the Company's investment and business expansion, including its business operations, revenue, financial condition, results of operations and business prospects.

OTHER RISK FACTORS

(a) The risk from the Company's ability to pay Dividends that is not in line with the Policy

The Company has a policy to pay dividends to shareholders of not less than 40.0% of the net profit in the consolidated financial statements after deduction of corporate income tax and legal reserve for each year, taking into account the current financial status, cash flow, liquidity, investment plans and other factors as deemed appropriate by the Board of Directors. Such dividend payments must not affect the normal operation of the Company significantly and are subject to the laws, regulations or rulings relating thereto. The resolution of the Board of Directors to approve the dividend payment must be proposed for approval from the shareholders' meeting, except for the interim dividend payment which the Board of Directors is authorized to pay for interim dividends and will report to the shareholders' meeting. The ability of the Company to declare the dividend payment is based on the financial statements at the end of each fiscal year, and the dividend payment can not exceed the retained earnings as shown in the separate financial statements of the Company and in compliance with related laws.

In addition, the Company's ability to pay the dividends depends on the dividends received from the joint venture that the Company has invested in whereas the Company is not a major shareholder of such affiliates. Therefore, the Company does not have a full control in the management and the ability to determine the dividend payment. Therefore, the Company cannot guarantee that the dividends can be paid to shareholders according to the policy.

In addition, the Public Company Act stipulates that the Company dividend cannot be paid if the Company has accumulated losses although the Company has earned a net profit in that year. Even if the Company has earned a net profit for any particular year, the Public Company Act and the Articles of Association of the Company stipulates that in case the Company have net profit in any year, the Company is required to set aside a statutory reserve of not less than 5.0% of its net profit after deducting accumulated deficit brought forward (if any) until the reserve fund reaches the amount not less than 10.0% of the registered capital. If the company is not profitable enough, or if the Company otherwise deems it appropriate, the Company may not pay dividends.

PROFILE AND CONTACT

GENERAL INFORMATION

THE COMPANY

Name of the Issuing Company	: WHA Utilities and Power Public Company Limited
Symbol	: WHAUP
Head office	: 9/241-242 UM Tower, 24/F, Ramkhamhaeng Road, Suanluang sub-district, Suanluang district, Bangkok 10250, Thailand Telephone : 02-719-9559 Fax : 02-717-2128
Website	: www.wha-up.com
Nature of business	: (1) Utility business of distributing raw water, producing and Distributing industrial water and providing wastewater treatment services to operators in industrial estates and industrial land (2) Power business through investment in power generation business, both domestically and abroad.
Corporate registration no.	: 0107559000401
Registered capital	: THB 3,825,000,000
Issued and Fully Paid-up Capital	: THB 3,825,000,000, consisting of 3,825,000,000 common shares at THB 1 per share

OTHER REFERENCES

Share Registrar	: Thailand Securities Depository Company Limited
Head office	: 93 The Stock Exchange of Thailand Building, Ratchadaphisek Road, Dindaeng Bangkok 10400, Thailand Telephone : 02-009-9000 Fax : 02-009-9991
Debenture Registrar	: Bank of Ayudhya Public Company Limited
Head office	: 1222 Rama III Road, Bangpongpan, Yannawa Bangkok 10120, Thailand Telephone : 02-296-3582 Fax : 02-683-1298
Auditor	: PricewaterhouseCoopers ABAS Limited
Head office	: 179/74-80, 15 th Floor, Bangkok City Tower, South Sathorn Road, Bangkok 10120, Thailand Telephone : 02-344-1000 Fax : 02-286-5050
Legal Advisor	: RL Counsel Company Limited
Head office	: 62/15 Thaniya, Suriyawongse Sub District, Bangrak District, Bangkok 10500, Thailand Telephone : 0-2235-3339 Fax : 0-2235-3076

OTHER MATERIAL INFORMATION

There is no other information which may materially affect investors' decisions.

SUBSIDIARIES (INFORMATION AS AT 31 DECEMBER 2017)

Company Name	Abbre- viation	Nature of Business	Registered in	Shareholder	Registered Capital (mm)	Paid-up Capital (mm)	Par Value (Per Share)	Percentage of shares held by the Company
Subsidiaries								
1. WHA Water Co., Ltd.	WHAWT	Water resources development and management	Thai	WHAUP	THB 100.00	THB 100.00	THB 10.00	99.99
2. WHA Energy Co., Ltd.	WHAEG	Holding Company	Thai	WHAUP	THB 9,178.00	THB 9,178.00	THB 10.00	99.99
3. WHAUP International Co., Ltd.	WUPI	Holding Company	Thai	WHAUP	THB 45.00	11.25THB	THB 5.00	99.99
Subsidiaries under WHAEG								
4. WHA Energy 2 Co., Ltd.	WHAET	Holding Company	Thai	WHAEG	THB 5,959.00	THB 5,959.00	THB 10.00	99.99
Subsidiaries under WUPI								
5. WHAUP (SG) 1 PTE. Limited	WUPS1	Holding Company	Singapore	WUPI	USD 1.00	USD 1.00	USD 1.00	99.99
6. WHAUP (SG) 2 PTE. Limited	WUPS2	Holding Company	Singapore	WUPI	USD 1.00	USD 1.00	USD 1.00	99.99

JOINT VENTURE COMPANIES (INFORMATION AS AT 31 DECEMBER 2017)

Company Name	Abbre- viation	Nature of Business	Registered in	Shareholder	Registered Capital (mm)	Paid-up Capital (mm)	Par Value (Per Share)	Percentage of shares held by the Company
Joint Venture Companies under WHAEG								
1. Eastern Seaboard Clean Energy Co., Ltd.	ESCE	Electricity and Power Generation	Thai	WHAEG	THB 1,039.00	THB 435.82	THB 10.00	33.33
2. Chonburi Clean Energy Co., Ltd.	CCE	Electricity and Power Generation	Thai	ESCE	THB 989.00	THB 989.00	THB 10.00	99.99
3. Rayong Clean Energy Co., Ltd.	RCE	Electricity and Power Generation	Thai	ESCE	THB 50.00	THB 12.50	THB 10.00	99.99
4. Glow Hemaraj Wind Co., Ltd.	GHW	Electricity and Power Generation	Thai	ESCE	THB 50.00	THB 12.50	THB 10.00	99.99
5. WHA Gunkul Green Solar Roof 1 Co., Ltd.	WHA Gunkul 1	Producing and distributing electricity by solar photovoltaic rooftop	Thai	WHAEG	THB 11.50	THB 11.50	THB 10.00	74.99

Company Name	Abbre- viation	Nature of Business	Registered in	Shareholder	Registered Capital (mm)	Paid-up Capital (mm)	Par Value (Per Share)	Percentage of shares held by the Company
6. WHA Gunkul Green Solar Roof 3 Co., Ltd.	WHA Gunkul 3	Producing and distributing electricity by solar photovoltaic rooftop	Thai	WHAEG	THB 14.50	THB 14.50	THB 10.00	74.99
7. WHA Gunkul Green Solar Roof 6 Co., Ltd.	WHA Gunkul 6	Producing and distributing electricity by solar photovoltaic rooftop	Thai	WHAEG	THB 14.50	THB 14.50	THB 10.00	74.99
8. WHA Gunkul Green Solar Roof 17 Co., Ltd.	WHA Gunkul 17	Producing and distributing electricity by solar photovoltaic rooftop	Thai	WHAEG	THB 16.00	THB 16.00	THB 10.00	74.99

ASSOCIATED COMPANIES (INFORMATION AS AT 31 DECEMBER 2017)

Company Name	Abbre- viation	Nature of Business	Registered in	Shareholder	Registered Capital (mm)	Paid-up Capital (mm)	Par Value (Per Share)	Percentage of shares held by the Company
Associated Companies Under WHAEG								
1. B.Grimm Power (WHA) 1 Limited	BGWHA-1	Electricity and Power Generation	Thai	WHAEG	THB 1,533.56	THB 1,533.56	THB100.00	25.01
2. Gulf JP NLL Co., Ltd.	Gulf JP NLL	Electricity and Power Generation	Thai	WHAEG	THB 1,384.00	THB 1,384.00	THB 10.00	25.01
3. Gulf VIP Co., Ltd.	Gulf VIP	Electricity and Power Generation	Thai	WHAEG	THB 1,610.00	THB 1,610.00	THB 10.00	25.01
4. Gulf TS1 Co., Ltd.	Gulf TS1	Electricity and Power Generation	Thai	WHAEG	THB 1,685.00	THB 1,685.00	THB 10.00	25.01
5. Gulf TS2 Co., Ltd.	Gulf TS2	Electricity and Power Generation	Thai	WHAEG	THB 1,690.00	THB 1,690.00	THB 10.00	25.01
6. Gulf TS3 Co., Ltd.	Gulf TS3	Electricity and Power Generation	Thai	WHAEG	THB 1,278.00	THB 1,278.00	THB 10.00	25.01
7. Gulf TS4 Co., Ltd.	Gulf TS4	Electricity and Power Generation	Thai	WHAEG	THB 1,278.00	THB 1,278.00	THB 10.00	25.01
8. Gulf NLL2 Co., Ltd.	Gulf NLL 2	Electricity and Power Generation	Thai	WHAEG	THB 1,010.00	THB 260.00	THB 10.00	25.01
9. Gulf Solar Co., Ltd.	Gulf Solar	Producing and distributing electricity by solar photovoltaic rooftop	Thai	WHAEG	THB 14.63	THB 14.63	THB 10.00	25.01
10. Gulf Solar TS1 Co., Ltd.	Gulf Solar TS 1	Producing and distributing electricity by solar photovoltaic rooftop	Thai	Gulf Solar	THB 3.03	THB 3.03	THB 10.00	99.99

Company Name	Abbre- viation	Nature of Business	Registered in	Shareholder	Registered Capital (mm)	Paid-up Capital (mm)	Par Value (Per Share)	Percentage of shares held by the Company
11. Gulf Solar TS2 Co., Ltd.	Gulf Solar TS 2	Producing and distributing electricity by solar photovoltaic rooftop	Thai	Gulf Solar	THB 2.29	THB 2.29	THB 10.00	99.99
12. Gulf Solar BV Co., Ltd.	Gulf Solar BV	Producing and distributing electricity by solar photovoltaic rooftop	Thai	Gulf Solar	THB 3.13	THB 3.13	THB 10.00	99.99
13. Gulf Solar KKS Co., Ltd.	Gulf Solar KKS	Producing and distributing electricity by solar photovoltaic rooftop	Thai	Gulf Solar	THB 6.00	THB 6.00	THB 10.00	99.99
14. Gulf WHA MT Natural Gas Distribution Co., Ltd.	Gulf WHA MT	Transport, distributing natural gas fuels through pipelines.	Thai	WHAUP	THB 126.40	THB 71.22	THB 10.00	35.00
15. WHA Eastern Seaboard NGD2 Co., Ltd.	WHA NGD2	Transport, distributing natural gas fuels through pipelines.	Thai	Gulf WHA MT	THB 50.00	THB 12.50	THB 10.00	99.99
16. WHA Eastern Seaboard NGD4 Co., Ltd.	WHA NGD4	Transport, distributing natural gas fuels through pipelines.	Thai	Gulf WHA MT	THB 50.00	THB 12.50	THB 10.00	99.99
Associated Companies Under WHAET								
17. Gheco-One Co., Ltd.	Gheco-1	Electricity and Power Generation	Thai	WHAET	THB 11,624.00	THB 11,624.00	THB 10.00	35.00
18. Houay Ho Thai Co., Ltd.	HHTC	Electricity and Power Generation	Thai	WHAET	THB 422.15	THB 422.15	THB 10.00	51.00
19. Houay Ho Power Co., Ltd.	HHPC	Electricity and Power Generation	สปป.ลาว	HHT	USD 40.00	USD 40.00	USD 80.00	25.00
20. Glow IPP Co., Ltd.	GIPP	Electricity and Power Generation	Thai	WHAET	THB 2,850.00	THB 2,850.00	THB 10.00	5.00

Note : (1) About 49 per cent. of total issued and paid-up shares in Gulf WHA MT are held by the Glow Group. Afterwards, Gulf WHA MT increased its registered capital from 49 Million Baht to 126.4 Million Baht and the Company and Gulf agreed to have new one strategic partner, MITG (Thailand) Limited. Cause, the shareholding is as follows: MITG hold 30 percent, the company hold 35 percent and Gulf Group hold 35 percent.

(2) Gulf TS2 Co., Ltd increased registered capital from 1,428 Million Baht to 1,690 Million Baht.

(3) Houay Ho Thai Company Limited held 25% in Houay Ho Power Company Limited which registered in Lao People's Democratic Republic. US Currency is the main currency used for business operation. Also, the Company did not include the financial information of Houay Ho Thai Company Limited in the consolidated financial statement because the Company is the strategic partner. Moreover, the other investors are proficient in the operation of all power plants.

INFORMATION ON SECURITIES AND SHAREHOLDERS

REGISTERED CAPITAL AND PAID-UP CAPITAL

As of 31 December 2017, the Company's registered capital was THB 3,825 million, and its paid-up capital was THB 3,825 million, divided into 3,825 million ordinary shares with a par value of THB 1 per share. The Company's Extraordinary General Meeting of Shareholders No. 1/2017 held on June 30, 2017 the meeting approved the amendment to the par value of the shares from Baht 5 per share to be Baht 1 per share.

SHAREHOLDERS

MAJOR SHAREHOLDERS

The shareholding structure of the Company prior to and after the Offering can be summarised as follows:

No.	Shareholders	Number of shares	Per cent.
1	The Hemaraj Group		
	Hemaraj Land and Development Public Company Limited ¹	2,633,999,970	68.86
	WHA Holding Company Limited ²	72,581,665	1.90
	H-International (SG) Pte. Ltd. ³	43,500,010	1.14
	Total	2,750,081,645	71.90
2	K 20 Select LTF	83,339,100	2.18
3	Mr. Somyos Anantaprayoon	50,240,625	1.31
4	Miss Jareeporn Jarukonsakul	46,999,800	1.23
5	Thai NVDR Company Limited	36,194,537	0.95
6	Bangkok Life Assurance Public Company Limited	31,620,000	0.83
7	SCB Dividend Stock 70/30 Long Term Equity Fund	29,055,015	0.76
8	AIA TH-EQ1-P	24,329,660	0.64
9	AIA TH-EQ2-P	15,417,292	0.40
10	Muang Thai Life Assurance Public Company Limited	14,911,900	0.39
	Total top 10 major shareholders	3,082,189,574	80.58
	Other shareholders	742,810,426	19.42
	Total	3,825,000,000	100.00

Notes : ¹ Hemaraj Land and Development Public Company Limited engages in industrial estates development in which its securities were delisted from the Stock Exchange of Thailand (the SET) since 2 March 2016. Currently, WHA Ventures Holding Co., Ltd. and other shareholders hold 98.54 per cent.

WHA Ventures Holding Company Limited is a holding company with 99.99 per cent of its shares currently held by WHA Corporation Public Company Limited.

² WHA Holding Company Limited is a holding company. As of 31 December 2017, its registered capital was THB 5 million divided into one million shares, with a par value of THB 5 per share. The shareholders are as follows:

No.	Shareholders	Number of shares	Per cent.
1	Mr. Somyos Anantaprayoon	500,000	50.0
2	Miss Jareeporn Jarukornsakul	499,999	50.0
3	Miss Jaruwan Jarukornsakul	1	0.0
	Total	1,000,000	100.0

³ H-International (SG) Pte. Ltd. is an investment company incorporated under the law of Singapore. As of 31 December 2017, All of its shares are held by Hemaraj Land And Development Public Company Limited.

SHAREHOLDER AGREEMENT

As of 31 December 2017, the Company has no the major shareholder agreement. However, the Company or Subsidiary (case by case) has the shareholder agreement between the shareholders in associate and joint ventures.

OTHER SECURITIES

As of 31 December 2017, the Company has the debentures. The details are as follows:

Debenture	Amount (Million Baht)	Coupon (Percent)	Tenor (Years) / Maturity Date	Rating by FITCH (Thai)
WHAUP208A	3,200	3.33% p.a. Semi-annually payment	3 Years Maturity date : 18 August 2020	BBB+(tha)
WHAUP208B	800	3.33% p.a. Semi-annually payment	2.9 Years Maturity date : 10 August 2020	BBB+(tha)

DIVIDEND POLICY

DIVIDEND POLICY OF THE COMPANY

The Company will consider paying dividend according to provision of law, including the Public Limited Company Act, B.E. 2535, which requires a public limited company to pay dividend only from the net profit derived from standalone financial statement with no accumulated deficit.

The Company's dividend payment policy is to pay dividends in the amount of not less than 40 per cent of the Company's consolidated net profit after deducting corporate income tax and other reserve funds as required by law in each year. However, the dividend payment of the Company may take into account the Company's financial position, cash flow, liquidity, investment plan and other factors, as the Board of Directors deems appropriate. The dividend payment shall not materially affect the Company's normal business operations and comply with law, regulation or relevant ruling. The Board of Directors shall propose to the shareholders' meeting approval of dividend payments, except the payment of interim dividends. The Board of Directors may declare interim dividends and report to the shareholders at the next shareholders' meeting.

The payment of dividend shall not exceed retained earnings of the Company in the separate financial statements of the Company and shall be in accordance with applicable laws.

DIVIDEND POLICY OF THE SUBSIDIARIES

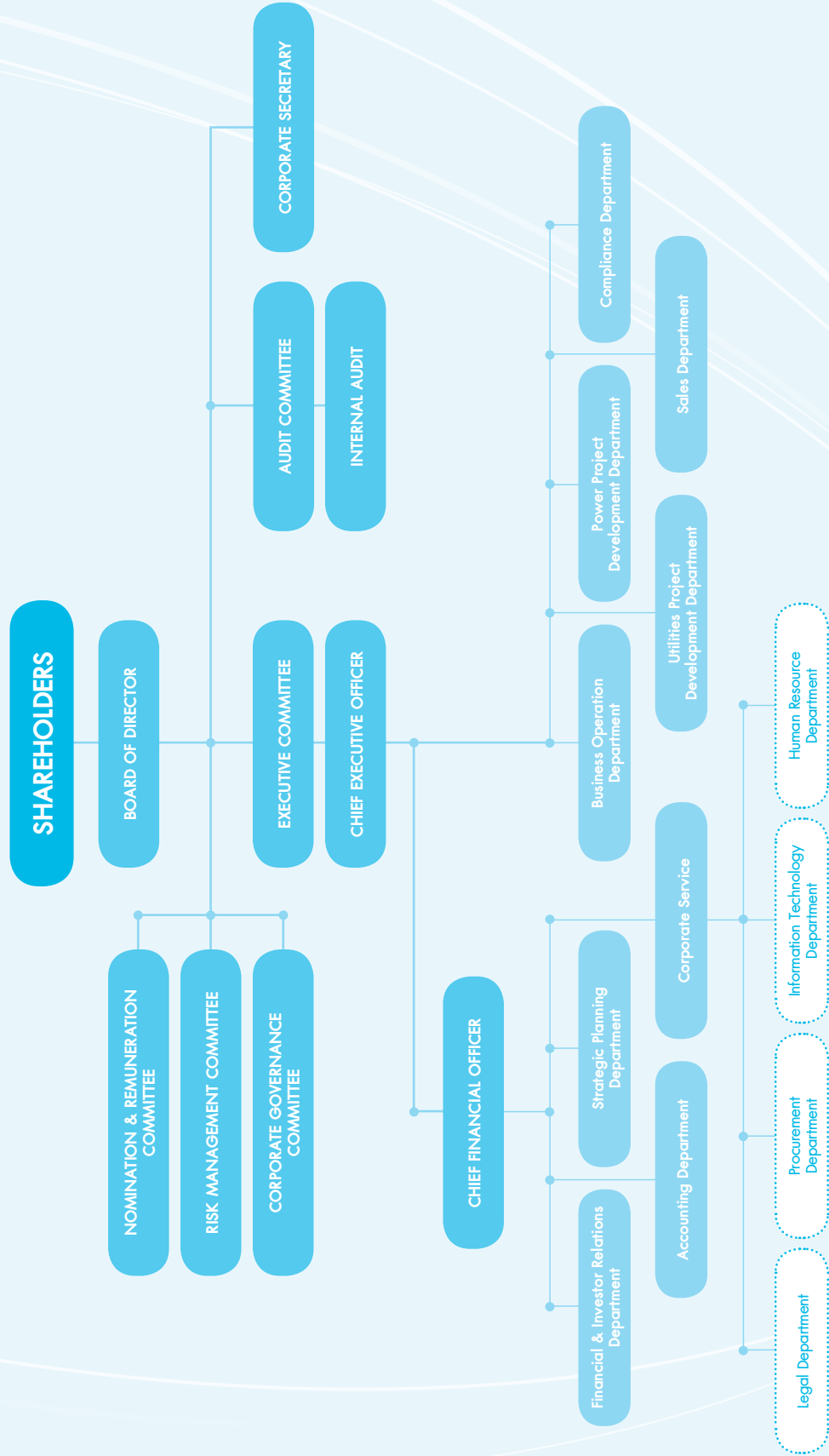
Each Subsidiary's dividend payment policy is to pay dividends in the amount of not less than 50 per cent of the net profit after deducting corporate income tax and other reserve funds as required by law in each year. However, the dividend payment of each Subsidiary may take into account the financial position, cash flows, liquidity, investment plan and other factors, as the board of directors deems appropriate, and for the best interest of shareholders. The dividend payment shall not materially affect each Subsidiary's normal business operations. The board of directors of each Subsidiary shall propose to the shareholders' meeting approval of dividend payments, except the payment of interim dividends. The board of directors of each Subsidiary may declare interim dividends and report to the shareholders at the next shareholders' meeting.

DIVIDEND POLICY OF ASSOCIATES AND JOINT VENTURES

Each associate and joint venture is to pay dividends in proportion to a shareholding according to conditions set out in related shareholders agreement.

MANAGEMENT STRUCTURE

As of 31 December 2017, the management structure of the Company consists of the Board of Directors and five sub-committees, i.e. the Audit Committee, Executive Committee, Risk Management Committee, Corporate Governance Committee, and Nomination and Remuneration Committee. The management structure of the Company is as follow:



BOARD OF DIRECTORS

As of 31 December 2017, the Company has nine the directors:

Name	Position
1. Mr. Somyos Anantaprayoon	Chairman of the Board of Directors
2. Miss Jareeporn Jarukornsakul	Vice-Chairman of the Board of Directors
3. Mr. David Richard Nardone	Director
4. Mr. Vivat Jiratikarnsakul	Director
5. Mr. Wisate Chungwatana	Director and Chief Executive Officer
6. Mr. Surathian Chakthranont	Director
7. Mr. Weidt Nuchjalearn	Independent Director and Chairman of Audit Committee
8. Mr. Ekajai Tivutanond	Independent Director and Audit Committee member
9. Mrs. Punnee Worawuthichongsathit	Independent Director and Audit Committee member

Miss Nutchra Rattanjitbanjong acts as the secretary of the Board of Directors.

AUTHORIZED DIRECTORS

The Company's authorized directors are Mr. Somyos Anantaprayoon or Miss Jareeporn Jarukornsakul who jointly sign with Mr. David Richard Nardone or Mr. Vivat Jiratikarnsakul or Mr. Wisate Chungwatana with the Company's seal.

TERM OF DIRECTORSHIP

At every annual general meeting of the shareholders, one-third of the total number of the directors are required to vacate their office. If the number is not a multiple of three, then the number nearest to one-third is required to retire from office. The director who has been in office for the longest term is required to retire. The director retiring by rotation may be re-elected to be a director of the Company.

COMPOSITION OF THE BOARD OF DIRECTORS

The composition of the Board of Directors of the Company is as follows:

1. Each director is not required to be a shareholder of the Company.
2. The number of directors shall be determined by the shareholders' meeting, but there shall be at least five directors and at least half of all directors shall reside in Thailand.
3. Not less than one-third of board members shall be independent directors, at least three independent directors in any case.

The Board of Directors shall appoint one of the directors to be the Chairman of the Board of Directors. If the Board of Directors deem it appropriate, the Board of Directors may appoint one or more directors to be a Vice-Chairman of the Board of Directors.

AUDIT COMMITTEE

As of 31 December 2017, the Company has three members of the Audit Committee:

Name	Position
1. Mr. Weidt Nuchjalearn	Chairman of the Audit Committee
2. Mr. Ekajai Tivutanond	Audit Committee member
3. Mrs. Punnee Worawuthichongsathit	Audit Committee member

Mr. Weidt Nuchjalearn and Mrs. Punnee Worawuthichongsathit are directors having sufficient knowledge and experience in accounting or finance to review the reliability of the financial statements, and Mrs. Rattana Shinawatra acts as secretary for the Audit Committee.

APPOINTMENT AND TERM

The Board of Directors or the shareholders' meeting shall appoint independent directors of the Company to the Audit Committee. The term of the members of the Audit Committee/independent directors shall be three years. The members of the Audit Committee retiring by rotation may be re-elected to be the members of the Audit Committee of the Company.

In the case of a vacancy in the Audit Committee otherwise than by rotation, the Company shall appoint another fully qualified person to be a member of the Audit Committee in order to make up the number of the Audit Committee, as required by the Board of Directors. The appointed person shall retain this office during such time only as the vacating director was entitled to retain the same.

EXECUTIVE COMMITTEE

As of 31 December 2017, the Company has five members of the Executive Committee:

Name	Position
1. Mr. Somyos Anantaprayoon	Chairman of the Executive Committee
2. Miss Jareeporn Jarukornsakul	Executive Committee member
3. Mr. David Richard Nardone	Executive Committee member
4. Mr. Vivat Jiratikarnsakul	Executive Committee member
5. Mr. Wisate Chungwatana	Executive Committee member

Miss Nutchra Rattanjitbanjong acts as the secretary of the Executive Committee.

The Executive Committee is authorized by the Board of Directors to support the Board of Directors with respect to the policies and plans of the Company, including monitoring that management implements the Company's approved policies and strategic plans with responsibility, care and honesty, including in compliance with laws, objectives and articles of association of the Company, and the resolution of the Board of Directors and shareholders' meeting.

CORPORATE GOVERNANCE COMMITTEE

As of 31 December 2017, the Company has three members of the Corporate Governance Committee:

Name	Position
1. Mrs. Punnee Worawuthichongsathit	Chairman of the Corporate Governance Committee
2. Mr. Ekajai Tivutanond	Corporate Governance Committee member
3. Mr. Vivat Jirafikansakul	Corporate Governance Committee member

Miss Thanita Kititaveesatian acts as the secretary of the Corporate Governance Committee.

APPOINTMENT AND TERM

The Corporate Governance Committee of the Company shall be appointed from the directors. The term of the Corporate Governance Committee shall be three years from the date of appointment. The Corporate Governance Committee retiring by rotation may be re-elected to be the Corporate Governance Committee of the Company.

RISK MANAGEMENT COMMITTEE

As of 31 December 2017, the Company has three members of the Risk Management Committee:

Name	Position
1. Miss Jareeporn Jarukornsakul	Chairman of the Risk Management Committee
2. Mr. David Richard Nardone	Risk Management Committee member
3. Mr. Surathian Chakthranont	Risk Management Committee member

Miss Nutch Rattanajitbanjong acts as the secretary of the Risk Management Committee.

APPOINTMENT AND TERM

The Risk Management Committee of the Company shall be appointed from the directors and at least one-third of the Risk Management Committee and the Chairman of the Risk Management Committee shall be independent directors. The term of the Risk Management Committee shall be three years from the date of appointment. The Risk Management Committee retiring by rotation may be re-elected to be the Risk Management Committee of the Company.

NOMINATION AND REMUNERATION COMMITTEE

As of 31 December 2017, the Company has three members of the Nomination and Remuneration Committee:

Name	Position
1. Mr. Weidt Nuchjalearn	Chairman of the Nomination and Remuneration Committee
2. Mr. Somyos Anantaprayoon	Nomination and Remuneration Committee member
3. Miss Jareeporn Jarukornsakul	Nomination and Remuneration Committee member

Miss Nutch Rattanajitbanjong acts as the secretary of the Nomination and Remuneration Committee.

APPOINTMENT AND TERM

The Nomination and Remuneration Committee of the Company shall be appointed from the directors and at least one-third of the Nomination and Remuneration Committee and the Chairman of the Nomination and Remuneration Committee shall be independent directors.

The term of the Nomination and Remuneration Committee shall be three years from the date of appointment. The Nomination and Remuneration Committee retiring by rotation may be re-elected to be the Nomination and Remuneration Committee of the Company.

ATTENDANCE AT THE BOARD OF DIRECTORS' MEETINGS

Details of the attendance at the meetings of the Board of Directors the Audit Committee, Executive Committee, Risk Management Committee, Corporate Governance Committee and Nomination and Remuneration Committee on 1 January 2016 and 31 December 2017 are as follows:

Name	Position	Board of Directors	Audit Committee	Executive Committee	Corporate Governance Committee	Risk Management	Nomination and Remuneration Committee	Shareholder meeting Committee
		9 members Meeting 10 Time	3 members Meeting 7 Time	5 members Meeting 12 Time	3 members Meeting 2 Time	3 members Meeting 2 Time	3 members Meeting 3 Time	9 members Meeting 2 Time
1. Mr. Somyos Anantaprayoon	- Chairman of the Board of Director - Chairman of the Executive Committee - Nomination and Remuneration Committee	7/10	-	9/12	-	-	3/3	2/2
2. Miss Jareeporn Jarukornsakul	- Vice-Chairman of the Board of Director - Vice-Chairman of the Executive Committee - Chairman of the Risk Management Committee - Nomination and Remuneration Committee	10/10	-	12/12	-	2/2	3/3	2/2
3. Mr. David Richard Nardone	- Director - Executive Committee - Risk Management Committee	9/10	-	11/12	-	2/2	-	1/2
4. Mr. Vivat Jiratikarnsakul	- Director - Executive Committee - Corporate Governance Committee	10/10	-	12/12	2/2	-	-	2/2
5. Mr. Wisate Chungwatana	- Director - Executive Committee	10/10	-	11/12	-	-	-	2/2
6. Mr. Surathian Chakthranont	- Director - Risk Management Committee	10/10	-	-	-	2/2	-	2/2

Name	Position	Board of Directors	Audit Committee	Executive Committee	Corporate Governance Committee	Risk Management	Nomination and Remuneration Committee	Shareholder meeting Committee
		9 members Meeting 10 Time	3 members Meeting 7 Time	5 members Meeting 12 Time	3 members Meeting 2 Time	3 members Meeting 2 Time	3 members Meeting 3 Time	9 members Meeting 2 Time
7. Mr. Weidt Nuchjalearn	- Director - Chairman of the Audit Committee / Independent Director - Chairman of the Nomination and Remuneration Committee	10/10	7/7	-	-	-	3/3	2/2
8. Mr. Ekajai Tivutanond	- Director - Audit Committee / Independent Director - Corporate Governance Committee	10/10	7/7	-	2/2	-	-	2/2
9. Mrs. Punnee Worawuthichong-sathit	- Director - Audit Committee / Independent Director - Chairman of the Corporate Governance Committee	10/10	7/7	-	2/2	-	-	2/2

EXECUTIVES

As of 31 December 2017, the Company has seven the executives:

Name	Position
1. Mr. Wisate Chungwatana	Chief Executive Officer
2. Mr. Paopitaya Smutrakalin	Chief Financial Officer
3. Mr. Khamhoung Ratsamany	Vice President - Business Operation
4. Mr. Varanon Laosuwan	Director - Utilities Project Development
5. Mr. Punrapee Noparumpa	Director - Power Project Development
6. Mrs. Rattana Shinawatra	Director - Accounting
7. Miss Arpasinee Chanwangsa	Assistant Director - Finance & Investor Relations

COMPANY SECRETARY

The Board of Directors' meeting No. 5/2017, held on 30 May 2017, approved the appointment of Miss Nutchra Rattanjitbanjong to be the Corporate Secretary in order to act on behalf of the Company and/or the Board of Directors. The Company Secretary's scope of authority, duty and responsibility are as follows:

1. providing preliminary recommendation to directors according to related laws, rules and regulations;
2. providing advice for convening the shareholders' meetings in order to be in compliance with laws, regulations and guidelines, including preparing the notice of the shareholders' meetings;
3. recording the minutes of the shareholders' and the Board of Directors' meetings, including monitoring the compliance of the resolution of the shareholders' and the Board of Directors' meetings;
4. monitoring the disclosure and information memorandum to the public according to related regulations and notifications;
5. preparing and keeping the following documents:
 - (a) director register book;
 - (b) the notice and minutes of the Board of Directors' meeting and the annual report of the Company; and
 - (c) the notice and minutes of the shareholders' meeting;
6. keeping reports on the interests of directors and executives; and
7. performing any other actions as specified by the Capital Market Supervisory Board.

REMUNERATION OF DIRECTORS AND EXECUTIVES

REMUNERATION OF DIRECTORS

(1) MONETARY REMUNERATION

The 2017 Annual General Meeting of Shareholder held on 2 March 2017, approved the remuneration of the directors and sub-committee of the Company for year 2017, by dividing the payment into three categories i.e., in forms of meeting allowance, directors' remuneration and bonus. The details are as follows:

	Yearly Remuneration	Meeting Allowance
Board of Directors	Chairman THB 200,000 per annum Director THB 150,000 per annum	Chairman THB 30,000 per time Director THB 25,000 per time
Executive Committee	-	Chairman THB 25,000 per time Member THB 15,000 per time
Audit Committee	-	Chairman THB 25,000 per time Member THB 15,000 per time
Corporate Governance Committee	-	Chairman THB 25,000 per time Member THB 15,000 per time
Nomination and Remuneration Committee	-	Chairman THB 25,000 per time Member THB 15,000 per time
Risk Management Committee	-	Chairman THB 25,000 per time Member THB 15,000 per time

The rate of bonus will be at the rate of 0.2 per cent. of the total income on the profit in that year.

Details of the remuneration of the Company's directors and committees for year 2017 are as follows:

(Unit: THB Baht)

No.	Name	Yearly Remuneration	Board of Directors	Audit Committee	Meeting Allowance			Risk Management Committee	Nomination & Remuneration Committee	Bonus	Total
					Executive Committee	Corporate Governance Committee					
1	Mr. Somyos Anantaprayoon	200,000.00	210,000.00	-	225,000.00	-	-	-	45,000.00	469,640.74	1,149,640.74
2	Miss Jareeporn Jarukornsakul	150,000.00	250,000.00	-	180,000.00	-	-	50,000.00	45,000.00	432,902.84	1,107,902.84
3	Mr. David Richard Nardone	150,000.00	225,000.00	-	165,000.00	-	-	30,000.00	-	432,902.84	1,002,902.84
4	Mr. Vivat Jiratikarnsakul	150,000.00	250,000.00	-	180,000.00	30,000.00	-	-	-	432,902.84	1,042,902.84
5	Mr. Wisate Chungwatana	150,000.00	250,000.00	-	165,000.00	-	-	-	-	328,829.00	893,829.00
6	Mr. Surathian Chakthranont	150,000.00	250,000.00	-	-	-	-	30,000.00	-	277,899.26	707,899.26
7	Mr. Weidt Nuchjalearn	150,000.00	250,000.00	175,000.00	-	-	-	-	75,000.00	432,902.84	1,082,902.84
8	Mr. Ekajai Tivutanond	150,000.00	250,000.00	105,000.00	-	30,000.00	-	-	-	432,902.84	967,902.84
9	Mrs. Punnee Warawuthichongsathit	150,000.00	250,000.00	105,000.00	-	50,000.00	-	-	-	432,902.84	987,902.84

(2) OTHER REMUNERATIONS

- None -

REMUNERATION OF DIRECTORS AND EXECUTIVES

REMUNERATION OF EXECUTIVES

(1) MONETARY REMUNERATION

Details of remuneration of executives of the Company (excluding remuneration as directors) for the year ended 31 December 2016 and 31 December 2017 are as follows:

	Year 2016	Year 2017
Number of persons	9	11 ¹
Total remuneration (THB million)	24.64	29.24

Notes : ¹ The four executives are as follows Mrs.Kamsasi Nananukool, Miss Khuntong Thammongkol, Mr.Apichat Tronguksun and Mrs.Amporn Chubthaison have resigned on 30 June 2017. As of 31 December 2017, the Company has seven the executives.

(2) OTHER REMUNERATIONS

For the year 2017, the Company contributed to the provident fund to the management as employees of the Company at THB 1.49 million.

PERSONNEL

NUMBER OF PERSONNEL

The number of personnel of the Company and its Subsidiaries (excluding nine executives) across the divisions of the Company as of 31 December 2016 and 31 December 2017 was as follows:

Divisions	Number of personnel	
	As of 31 December 2016	As of 31 December 2017
Operation	57	59
Utilities	-	1
Power	-	4
Accounting	1	3
Finance and Investor Relations	1	3
Legal ¹	2	3
Management Support	3	6
Total	64	79

Note : ¹ In 2016 and 2017, Corporate Secretary is under the Legal Department.

REMUNERATION OF PERSONNEL (EXCLUDING EXECUTIVES)

For the year 2016 and 2017, the Company paid remuneration to employees (excluding executives) in the amount of THB 19.47 million and THB 27.70 million, respectively, as follows:

	Fiscal year ended 31 December 2016	Fiscal year ended 31 December 2017
Monthly salary ¹	18.47	26.41
Other remunerations ²	1.00	1.29
Total	19.47	27.70

Notes : ¹ Including bonus

² Including provident fund.

LABOUR DISPUTES FOR THE PAST 3 YEARS

As of 31 December 2017, the Company and its subsidiaries have no pending material labour disputes for the past 3 years which would have a material impact on the Company's and its subsidiaries' assets, shareholders' equity and/or the operation of Company and its subsidiaries.

PERSONNEL DEVELOPMENT POLICY

1. DEVELOPMENT OF DIRECTORS AND EXECUTIVES

- 1.1 The Company promotes and facilitates the training and development of knowledge of persons relating to corporate governance policy of the Company, such as directors, Audit Committee, Company Secretary, in order to continuously improve their performance. The training may be internal training and/or external training.
- 1.2 The management division will provide documents and information useful for performing the duties of a new director, including the nature of business and business guidelines of the Company.

2. DEVELOPMENT OF EMPLOYEES

The Company is aware of the importance of human resource development. Therefore, the Company focuses on being a learning organisation by having policies to support and facilitate the training and development of knowledge suitable for personnel in every division. In addition, the Company plans to support educational loans for its personnel to study master degrees in order to develop their knowledge and capability in related fields.

CORPORATE GOVERNANCE

CORPORATE GOVERNANCE POLICY

The Company regards good corporate governance principles as an important factor in promoting efficiency and sustainable growth, ultimately translating into greater value for its stakeholders, including its employees, partners, customers, investors and other stakeholders. The board of directors has put in place a corporate governance policy which covers all material principles, including structure, roles, duties and responsibilities of directors, and principles of management in order to gain transparency and verifiability in business operation. This policy acts as a guideline for the management of the Company to gain confidence that that Company operates its business with fairness and takes into account the ultimate benefits of shareholders and stakeholders.

The board of directors gives precedence to this corporate governance policy, which covers the following five categories:

CATEGORY 1 : RIGHTS OF SHAREHOLDERS

The Company (i) emphasizes the importance of shareholders' rights, which are not limited to the rights under the law, (ii) refrains from any act which may infringe on, or deprive, the rights of shareholders, and (iii) encourages the shareholders to exercise their rights. Basic shareholder rights include the right to buy, sell or transfer shares, the right to share the company profit, the right to obtain adequate information from the Company, the right to attend shareholder meetings to exercise their right to vote in the appointment or removal of directors, the appointment of auditors and matters affecting the Company, such as the allocation of dividends, specifications or amendments of the Company's articles of association and memoranda of association, reduction or increase of capital and approval of extraordinary transactions.

In addition, the Company also employs the following practices in order to encourage and facilitate the exercise of shareholders' rights:

- 1) Disclosing the policies to support or encourage all shareholders to attend the Company's shareholder meetings.
- 2) Sending shareholders the notice of the meeting with supporting documents at least 30 days in advance. The notice shall contain details of the date, time, venue, and agenda of the meeting with an explanation and reason for each of the agenda items or each resolution sought in order to provide shareholders with the opportunity to study such information, thoroughly. In the event of emergency, the Company will notify the shareholders in advance in accordance with the time period specified by law, and will refrain from any act which will limit the opportunity of shareholders to study the Company's information.
- 3) Facilitating shareholders' participation and voting in the meeting. Any actions that could hinder shareholders from conveniently exercising their right to attend the meetings and participate in voting should be prohibited. For example, procedures to attend and vote should not be complicated or costly for shareholders, and the location of the meeting should be relatively accessible.
- 4) The chairman of the meeting will allocate proper time for the meeting and encourage shareholders to express their opinions and ask questions relating to the Company. The Company will allow shareholders to send their questions to the Company prior to the meeting date. In this regard, the criteria for advance questions will be clearly determined and the shareholders will be notified of the same in the notice of the shareholders meeting. Also, the Company will publish the criteria for submitting the questions on the Company's website.
- 5) Encouraging shareholders to use proxy forms which allow shareholders to control the outcome of their votes and permit at least one independent director to attend the meeting.
- 6) Encouraging the use of technology in the shareholder meetings to register, count and validate votes, and depict the result of the vote for fast, accurate and prompt meetings.
- 7) Encouraging all directors of the Company to attend the shareholder meetings and answer the shareholders' questions.

- 8) In the meetings, the shareholders shall separately vote for each matter in case a particular agenda having several matters to be considered, for example, the agenda of appointment of directors.
- 9) Encouraging the appointment of an independent party to count and validate votes at shareholder meetings. The result will be disclosed at the meeting and recorded in the minutes.
- 10) Encouraging the use of voting cards for important agenda items such as related party transactions, acquisitions or disposal of assets, for the sake of transparency and traceability in the case of subsequent objection.
- 11) Preparing minutes of shareholder meetings which include: details regarding voting procedures and the method used to find out the result of such vote; the opportunity to record both questions and answers; voting results of each agenda; and a list of attendance. The minutes will be published on the Company's website within 14 days from the date of the meeting.

CATEGORY 2 : EQUITABLE TREATMENT OF SHAREHOLDERS

The Company has policies in place to treat all shareholders fairly and equally, regardless of their status, whether executive or non-executive shareholders, majority or minority shareholders, Thai or non-Thai shareholders. These policies are as follows:

- 1) The Company shall release its general meeting notice with detailed agenda and explanatory circulars which will be uploaded to the Company's website at least 30 days in advance. In the event of emergency, the Company will notify the shareholders in advance in accordance with the time period specified by law prior to the date of the meeting. The Company should provide an English translation of the Company's notice of the shareholders meeting and publish it at the same time as the Thai version.
- 2) The Company shall inform shareholders of meeting procedures and voting criteria, including the voting rights attached to each class of shares, if any.
- 3) The voting rights in the shareholder meetings shall be in accordance with a number of shares held by shareholders. One share will have one vote. In addition, the Company allows shareholders who attend the meeting after its commencement to vote for agendas which are under consideration and have not yet been voted upon, and the votes of such shareholders will be included in the quorum.
- 4) The Company, in advance of the meeting date, shall have pre-determined criteria on allowing minority shareholders to propose any agenda item, for the sake of fairness and transparency. In addition, the shareholders in management positions should not table any agenda item which have not been included in the notice to the general meeting, especially if it is an issue that will require careful consideration before deciding.
- 5) The Company shall set up procedures for the minority shareholders to nominate a person to serve as a director through a nomination and remuneration committee prior to the shareholder' meeting date. Supporting information, with respect to candidates' qualifications and consent, should be provided by the minority shareholders nominating the candidates.
- 6) The process used in the election of directors should allow shareholders to vote on individual nominees.
- 7) The Company ensures that every director and executive regularly submits to the board a report on their ownership of the Company's shares and this information should be disclosed in the firm's annual report.
- 8) The Company shall provide written procedures to prevent the act of using inside information. The Company shall establish these procedures and communicate them to everyone in the Company. Any person deemed to have inside information is prohibited to buy and sell Company shares within one month prior to the disclosure of the quarterly and annual financial statements, and within 24 hours after publishing or disclosing material information.
- 9) The Company shall require the directors to inform the Company of their conflicts of interest regarding each agenda item before considering such agenda item, and such conflicts should be recorded in the minutes. The Company shall require such board members to abstain from participating in board discussions on agenda items for which such director has expressed a conflict of interest.

CATEGORY 3 : ROLE OF STAKEHOLDERS

The Company regards the role of shareholders as highly important and values the rights of all stakeholders by adhering to the following policies:

(1) POLICY AND TREATMENT OF EMPLOYEES

The Company recognises the importance of all employees, whose roles are to support the Company in achieving its goals. Therefore, it is the policy of the Company to treat all employees fairly in respect of opportunity, remuneration, appointment and transfer, while striving to develop their potential. To this end, the Company undertakes the following practices:

- 1) To treat employees with politeness and respect by taking into account each employee's individualism
- 2) To give employees fair remuneration, set up provident funds for employees and recognise the importance of employee's welfare
- 3) To protect the work environment by adhering to health and safety regulations
- 4) To give extensive and constant opportunities to employees to empower them to reach their full potential
- 5) To appoint, transfer, reward and penalise the employees fairly and in good faith
- 6) To acknowledge employees' professional views and suggestions
- 7) To strictly comply with relevant laws and regulations relating to labour and employment

(2) POLICY AND TREATMENT OF SHAREHOLDERS

- 1) To perform fiduciary duty and make any decision in accordance with professional principles, with due care and fairness to both majority and minority shareholders, for the ultimate benefit of shareholders
- 2) To continually and fully present reports on the Company's status, business performance, financial status and accounting, etc.
- 3) To inform all shareholders of any plans of the Company, whether these will have a positive or negative impact, while also providing supporting information and rationale
- 4) To prohibit the use, by themselves or any third parties, of Company's information which has not yet been disclosed to the public and to avoid doing anything which may cause a conflict of interest within the Company

(3) POLICY AND TREATMENT OF CUSTOMERS

The Company recognises the importance of its customers and sets out the following policies:

- 1) To provide customers with recognised procedures relating to the production process, to focus on the consolidation and development of production technology and to regularly check the quality of products
- 2) To provide customers with recognised procedures in order to strictly and regularly comply with Company-customer regulations with good faith
- 3) To keep customer information confidential and to avoid using it for its own benefit or for the benefit of related persons
- 4) To ensure the safety of customers at all times; to commit to solving any problems which have been raised by the customers; and to take into account any customers' recommendations. The Company will, at least once a year, measure customer satisfaction relating to both products and services in order to make improvements

(4) POLICY AND TREATMENT OF PARTNERS AND/OR CREDITORS

The Company has a policy for its employees to fairly treat partners and/or creditors to avoid situations which may cause conflicts of interest. Negotiation for treatment will be conducted under the following practices:

- 1) Not to claim or receive or pay any benefits in bad faith to partners and/or creditors
- 2) In the case where there is any information that the claim, receipt or payment of any benefits was made in bad faith, details must be disclosed to partners and/or creditors and the problems should be solved fairly and promptly
- 3) To strictly comply with conditions as agreed upon. In case of non-compliance with any commitments, creditors shall be informed in advance in order to jointly come to a solution.
- 4) The Company shall treat creditors as important partners. The Company, therefore, aims to comply with all commitments under the contracts between the Company and its creditors, including not to disclose any information which may cause damage to the creditors. In case of non-compliance with any commitments under the agreements, the Company will inform the creditors in advance to seek a solution, which might include guarantee conditions, capital management and defaults.
- 5) The Company has a policy relating to the procurement to assort partners or contractors which will be categorised by group of distributor and contractor pursuant to the pre-determined criteria on grouping partners or contractors. Such criteria shall be evaluated and considered for improvement at least once a year.
- 6) The Company has a policy to support local business by procuring things from contractors or distributors from qualified local companies.

(5) POLICY AND TREATMENT OF SOCIETIES/COMMUNITIES

The Company has a policy on conducting business which benefits the economy, society and adheres to the principles of good citizenship. The Company fully complies with related laws and regulations and participates in activities which promote or enhance the quality of life of societies and communities in which the Company operates its business. There are also policies in place which support participation in various organisations in societies, communities and vicinities regarding education, safety and security, etc.

(6) ENVIRONMENT POLICY

The Company shall operate its water business in a sustainable and environmentally-friendly manner in compliance with environmental management standards such as ISO 14001. In addition, the Company has a policy to support various activities aimed towards quality improvements, health and safety, and the environment.

CATEGORY 4 : DISCLOSURE AND TRANSPARENCY

The board of directors has a policy to disclose accurate, complete and transparent material information regarding the Company, both in terms of financial reports and general information, in accordance with the rules of the SEC and the SET, as well as essential information that impacts the price of the Company's shares, which affects the decision-making process of investors and stakeholders of the Company as follows:

- 1) The Company shall disclose information to stakeholders through a mechanism which ensures that all information disclosed is accurate, will not cause any misunderstanding and is adequate for decision-making by the investors;
- 2) The board of directors shall disclose information regarding corporate governance, code of conduct, risk management policy, environmental policy and policy to societies as exclusively approved by the board, together with steps taken to implement such policies and the reason for each case of non-compliance through various channels, such as the annual report and the Company's website, etc.;

- 3) The board of directors shall present its responsibilities concerning the Company's financial reports alongside the auditors report;
- 4) The board shall ensure that audit fee and fee for other services are disclosed;
- 5) The board shall ensure that its roles and responsibilities, together with those of its committees, the number of meetings held, the attendance record of each director, and the results of tasks assigned, including ongoing professional education or training of its directors, are disclosed in the annual report.
- 6) The board should disclose remuneration policies for directors and executives that correspond to the contributions and responsibilities of each person. Also, the board should disclose the forms and the amounts of payment to each person. If any director of the Company is also a director any of its subsidiaries, the amount paid by each subsidiary to each director should be disclosed as well.
- 7) Apart from the disclosure of information in accordance with the rules specified and through the channels of the SET, the annual registration statement (Form 56-1) and the annual report, the Company will disclose information, both in Thai and English, through other channels, such as the Company's website regularly, and present up-to-date information.
- 8) All directors and executives of the Company shall inform the Company of their interest, or the interest of a related person, with respect to the management of the business of the Company or its subsidiaries based on the rules, conditions, and procedures specified in the notification of the Capital Market Supervisory Board. Such interest must be resolved and reported to the Company within 30 days from the date on which such interest has been changed. The Company shall provide those issues in the board of director's meeting on a quarterly basis.

CATEGORY 5 : RESPONSIBILITIES OF THE BOARD OF DIRECTORS

5.1 BOARD STRUCTURE

The board of directors of the Company comprises of at least five persons. One third of the board shall be independent directors and such independent directors consist of no fewer than three members in accordance with the rules of the SEC. The board should comprise of persons from various professions, including business, accounting and finance which relate to and support the Company's business. There are five other committees: the Executive committee, Audit committee, Nomination and Remuneration committee, Risk Management committee and Corporate Governance committee.

All of the Company's independent directors are independent of management and majority shareholders. Independent directors are eligible to serve as the director of a maximum of five listed companies.

The policy relating to the terms of directors shall be in accordance with the Company's articles of association, which state that in the annual ordinary meeting of shareholders of the Company, one third of the directors must annually retire from office. Those who have the longest term shall retire first. The term of a director is three years. A retiring director is eligible for re-appointment through a shareholders' meeting.

In addition, the Company shall ensure appointment of the Executive committee, Audit committee, Nomination and Remuneration committee and Risk Management committee and clearly provide the scope of authorities, duties and responsibilities of such committees in order to achieve a balance of power, as well as appoint the Company Secretary to perform the duties and coordinate compliance with the resolution of the board.

Independence of Directors

The board of directors of the Company comprises of nine directors consisting of three independent directors which is one-third of the total number of directors of the Company in accordance with the Notification of the Capital Market Supervisory Board No. Tor Chor. 39/2559 Re: Application for and Approval of Offer for Sale of Newly Issued Shares. However, the Chairman of the board of directors is not an independent director, according to the recommendation specified in the Principles of Good Corporate Governance of the SET, the number of independent directors should be more than half of the total directors.

The Company viewed that the board structure is transparent, sufficient and able to protect the shareholders' and the Company's benefit; since there are three independent directors, according to the office of SEC's requirement. Each of independent directors and audit committee is external persons having knowledge, capability and experience which benefit to the operation of the Company and no conflict of interest involves with the major shareholders. These independent directors attend and give opinion in the meetings regularly.

In addition, once the Company becomes a listed company on the SET, the Company shall comply with the notifications of the SEC, the Capital Market Supervisory Board, the SET's board, such as the notifications relating to connected transaction and the acquisition or disposition of assets. Under these notifications, any material transaction must be approved by the shareholders' meeting and the Company must inform shareholders the opinion of the audit committee. The audit committee is viewed as a representative of minority shareholders. Therefore, if the shareholders received the opinion of the audit committee, the shareholders will have sufficient information for their decision making.

The directors have duties to comply with the applicable laws, e.g. fiduciary duty according to the Securities and Exchange Act, the Public Company Act and the Company's policies including corporate governance policy, code of conduct which require directors and related persons to comply with applicable laws and policies for the utmost benefit of the shareholders of the Company.

5.2 COMMITTEE

The board of directors are organised into five committees, namely the Executive committee, Audit committee, Nomination and Remuneration committee, Risk Management committee and Corporate Governance committee to review and monitor the operations at the Company based on the specified scope of duties in order to enhance their efficiency. The composition and appointment of committees shall be in accordance with the rules relating to the appointment of the Executive committee, Audit committee, Nomination and Remuneration committee, Risk Management committee and Corporate Governance committee.

5.3 ROLES, DUTIES AND RESPONSIBILITIES OF THE BOARD OF DIRECTORS

5.3.1 Corporate Governance policy

The Company intends to maintain high standards of corporate governance by complying with the corporate governance policy, which is subject to the Principles of Good Corporate Governance for listed companies 2012 proposed by the SET, and complying with the code of conduct which is approved by the board and communicated to everyone in the Company. The Company also set up the Standard Operating Procedures in order to control the operations and procedures of the Company. In addition, the board also approves and regularly considers having internal rules and regulations to continuously improve the Company's corporate governance.

5.3.2 Code of Conduct

The Company strongly believes that conducting business with ethical standards is essential for sustainable growth for the benefit of all stakeholders. In order to encourage and support good business ethics, the Company has set out relevant guidelines which have been approved by the board, and require the board, executive directors and employees to strictly comply with and communicate them to everyone in the Company through various channels, including via email, the intranet system and information board to encourage everyone to comply with the Company's code of conduct.

The code of conduct has been prepared pursuant to good faith, transparency and the corporate governance policy, as well as good ethical standards.

5.3.3 Conflict of interest

Any transaction between the Company and any connected persons which could turn into a conflict of interest shall be thoroughly considered by the Audit committee. If such transaction is considered to be material, it shall be approved by the board of directors and/or shareholders, depending on the type and size of the transaction, pursuant to the rules of the Capital Market Supervisory Board. Directors or executives of the Company who have such interests shall not participate in the decision-making process on such issues.

Such transactions shall be conducted under general conditions with the counterparty at fair price and on an arm's length basis without influence from a party which might have conflicting interests. In circumstances where the price cannot be determined, the Company shall refer to the report by the independent appraiser appointed by the Company in order to consider the appropriate price for both the Company and the connected person.

5.3.4 Internal controls and internal audit systems

The Company recognises the importance of an efficient internal control and internal audit system and therefore assigned the Audit committee the task of reviewing the Company's internal control system, and internal audit system which consists of the following five elements: control environment, risk assessment, control activity, information and communication, and monitoring and evaluation. This is in line with the guidelines set forth by the Committee of Sponsoring Organization of the Tread way Commission. The Audit committee will report to the board of directors.

5.3.5 Internal audit

The Company set up an independent internal audit division through which the internal audit manager shall control the internal audit system and directly report to the Audit committee. The internal audit manager has the key responsibility of reviewing and evaluating the efficiency of the Company's internal audit system in accordance with the annual evaluation form approved by the Audit committee. It must also regularly report to the Audit committee on a quarterly basis in order to improve the effectiveness of the Company's operations.

The appointment, removal and transfer of the internal audit manager shall be approved by the Audit committee.

5.3.6 Procedures on governing subsidiaries or associates

The Company shall authorise its directors or any other person with expertise relating to Company's business, to act as a director in subsidiaries or associates in order to control the management, as well as report to the board of directors on a quarterly basis.

The number of directors in subsidiaries and associates authorised by the Company shall be at least proportionate to the ownership of each company. Any essential policies and voting in essential agendas shall be approved by the chairman of the board.

5.4 THE BOARD OF DIRECTORS' MEETING AND COMMITTEE MEETING

5.4.1 Board of directors

The Company shall hold the board of directors' meeting at least four times per year and its agenda shall be clearly set in advance. The Company may hold ad hoc meetings in order to consider any urgent matters.

Top executives of the Company may attend board meetings to present material details and directly acknowledge policies. In addition, non-executive directors should be able to meet among themselves, without the management team, in order to discuss their concerns at least once a year.

The Executive committee shall consider and set the board meeting agenda. Each member of the committee should be free to propose an issue for a meeting agenda and to express their opinions. Then, the Company Secretary shall prepare the agenda papers and the notice of the board meeting. Approval in the board of directors' meetings will be made by majority votes, and one director has one vote. Interested directors shall not attend the meeting or shall refrain from voting in such issues.

5.4.2 Executive committee

The Company will have the Executive committee meeting regularly, at least four times per year on a quarterly basis, and the meeting will be scheduled and notified in advance.

The Executive committee's duties should not only include meeting attendance, but should also cover the exchange of opinions, recommendations, experiences and connections to enhance the Company's benefits.

5.4.3 Audit committee

The Company will have the Audit committee meeting regularly, prior to the board of directors' meeting, at least four times per year on a quarterly basis. The meeting will be scheduled and notified in advance.

5.4.4 Nomination and Remuneration committee

The Company will have the Nomination and Remuneration committee meeting regularly, at least annually, prior to the board of directors' meeting. The meeting will be scheduled and notified in advance.

5.4.5 Risk Management committee

The Company will have the Risk Management committee meeting regularly, at least once a year, and prior to the board of directors' meeting. The meeting will be scheduled and notified in advance.

5.4.6 Corporate Governance committee

The Company will have the Corporate Governance committee meeting regularly, at least once a year, and prior to the board of directors' meeting. The meeting will be scheduled and notified in advance.

5.5 EVALUATION OF PERFORMANCE OF BOARD OF DIRECTORS

The Company provides for the annual self-evaluation of directors to jointly consider and summarise their performance in relation to their review of the board of directors' performance, problems and obstacles, and the offering of solutions to improve overall performance and effectiveness of the board of directors. The Company based its guidelines for evaluation of the board of directors on the guidelines of the SET. The result of the evaluation will play an important role in developing the efficient performance of duties of the board of directors. The evaluation form outlines the following topics:

1. Satisfaction regarding:
 - (1) Result of performance of the board of directors as a whole;
 - (2) Result of business operation of the Company; and
 - (3) Proceeding with solving problems by management.
2. Understanding on:
 - (1) Roles and duties;
 - (2) Company's business; and
 - (3) Company's strategy.
3. Good relationships between the board of directors and management
4. Efficiency of subsidiaries and committees
5. Sufficient and appropriate time allocation by the board of directors to consider the following issues:
 - (1) Policy and direction of the Company;
 - (2) Business performance of the Company; and
 - (3) Solution in case of non-achievement.
6. Preparation by the board of directors to attend the meeting
7. Independence of the board of directors in expressing opinions
8. Neutral opinion of the board of directors
9. Opportunity and support given by the chairman to every director to independently express his/her opinion
10. Opinion of the board of directors on investors' confidence in the board of directors
11. Acceptability among employees on corporate governance practice of the Company.

The Company Secretary will provide directors with the evaluation form at the end of each year and will report the summary to the board of directors for further consideration and discussion annually.

5.6 REMUNERATION

The Company provides the policy on the remuneration for the board of directors, which will be based on the duties, responsibilities and achievements connected to the Company's performance and related factors. The remuneration of the board of directors and the board of committees will be considered and reviewed by the Nomination and Remuneration committee which shall be further reviewed and approved by the board of directors before proposing for review and approval at the shareholders meeting.

5.7 DEVELOPMENT OF DIRECTORS AND EXECUTIVES

(1) The Company encourages training and knowledge sharing for all parties related to corporate governance, such as directors, members of the Audit committee, executives, the Company Secretary, etc. to promote continuous performance improvement. Training and knowledge sharing may be held internally by the Company or provided by external institutions.

(2) New directors should be provided with all documents and information useful to perform their duties, including an introduction to the nature of the business and the operations of the Company.

5.8 SUCCESSION PLAN

The Company recognises the importance of a succession plan. The Company, therefore, prepared a succession plan to cover significant positions, and on an ongoing basis selects qualified persons to serve in such positions and arranges training for such candidates to serve such positions in the future, thus ensuring that the Company will have knowledgeable and capable executives to succeed in such positions in the future.

5.9 ORIENTATION OF NEW DIRECTORS

In performing its duties, the director must understand the nature of the business of the Company. Therefore, in case of a change of directorship, the Company will provide an orientation for a new director to understand the nature of, and guidelines on, the business operation as a whole and will share the material information and corporate governance guidelines necessary for the satisfactory performance of the director. The Company Secretary will coordinate for such orientation.

5.10 POLICY ON RESTRICTION ON NUMBER OF COMPANIES AND NUMBER OF TERMS OF DIRECTOR

The Company has a policy stipulating that its directors may serve as directors at no more than five other listed companies, without exception.

Moreover, the Company has a policy that requires that the Chief Executive Officer shall not be a director in other companies in the same or similar type of business except related companies, and/or subsidiaries, and/or associates, to ensure that the Company will have no conflict of interest.

Independent directors can serve as directors of the Company for a period of no more than 9 consecutive years except pursuant to the approval of shareholders.

5.11 RISK MANAGEMENT

The Company will assign a Risk Management committee to be in charge of setting up a working group comprising the Company executives to jointly discuss and regularly evaluate the risk in the organization for internal and external risks and set risk management measures. Working group will monitor the risks as identified with support from various divisions and report the result to Risk Management committee for acknowledgement. Risk Management committee will, subsequently, evaluate the efficiency in respect of risk management and report it to the Board of Directors at least once a year to identify the weakness and to adjust the policy with more efficiency.

COMMITTEES

Committees of the Company consist of the board of directors, Audit committee, Executive committee, Risk Management committee, Corporate Governance committee, and the Nomination and Remuneration committee. The scope of duties of each of the committees are as follows:

SCOPE OF DUTIES OF THE COMMITTEES

SCOPE OF DUTIES OF THE BOARD OF DIRECTORS

Extraordinary General Meeting of Shareholders no.1/2016, held on 11 August 2016, passed a resolution approving the charter of the board of directors which determines the scope of authority, duty and responsibility of the Company's board of directors, as follows:

1. The board of directors has the authority, duty, and responsibility of managing and operating the business of the Company in accordance with the law, objectives, articles of association, and resolution of the shareholders' meeting with responsibility, carefulness, and integrity, in order to maintain the interest of the Company.
2. The board will set up the vision, strategy, direction, policies, goals, plans, budgets, management structure and authorisation of the Company and subsidiaries, which are presented by the administration of the Company, and will supervise the performance of management, committees or any other persons assigned by the Company to ensure compliance with the policies for the best interests of the Company and its shareholders.
3. The board of directors will continuously monitor and evaluate the operating results of management of the committees to achieve the Company strategy and to ensure compliance with the plans and budgets.
4. The board of directors will set up the scope and policy for salary, bonus, and other long-term compensation of employees, as well as an appropriate executive salary.
5. The board of directors will ensure that the Company and the subsidiaries implement an appropriate and efficient accounting system, financial reporting and account auditing, and provide a traceable internal control system and internal audit system.
6. The board of directors will approve the acquisitions or disposal of assets (in the case where shareholders' approval is not required), an investment in new business, and any operation to comply with related laws, notifications, rules and regulations.
7. The board of directors will consider and/or provide an opinion on the related party transaction (in the case where shareholder's approval is not required) of the Company and subsidiaries to comply with the law, notifications and related rules and regulations.
8. The board of directors will consider an interim dividend payment for Company shareholders.
9. The board of directors will re-examine the process and policy relating to risk management, and monitor the operating results.
10. The board of directors will prevent any problems arising from conflicts of interest between Company stakeholders and subsidiaries. If any director has an interest in any transaction with the Company or if any director's shareholding proportion of the Company and/or subsidiaries increases or decreases, such director must notify the Company immediately.
11. The board of directors will provide and comply with policies relating to corporate governance of the Company and the subsidiaries based on the good corporate governance principles, and efficiently implement the policies.

12. The board of directors will ensure that the Company has the policy relating to the corporate governance, social responsibility and anti-corruption of the Company and approve annual evaluating reports relating to such issues which are prepared by the assigned committees.
13. The board of directors will appoint the committees, such as the Audit committee, Executive committee, Risk Management committee and/or other committees in order to appropriately encourage and support the directors to perform their duties.
14. The board of directors will appoint the Company Secretary to support the directors to perform their duties in accordance with related laws and regulations.
15. The board of directors will obtain professional opinions from external organisations if necessary to support appropriate decision-making.
16. The board of directors will prepare an annual report, will be responsible for preparing and disclosing financial statements to reflect the financial status and operating results of the previous year, and will present the same to the shareholders meeting for consideration and approval.
17. The board of directors will arrange for an annual general meeting of shareholders within four months of the end of each accounting period.
18. The board of directors will fairly approve any issues by taking into account the benefit of all shareholders and every group of stakeholders.
19. The board of directors may authorise any one or more directors or any other persons to take any action on behalf of the board of directors.

Such authorisation shall not constitute authorisation or sub-authorisation in a manner which causes the person to have the authority to consider and approve a transaction in which they have a conflict, interest, or a conflict of interest in any other manner, to be made with the Company or a subsidiary (if any) (as defined in the notifications of the Capital Market Supervisory Board or the SET, or any other notifications of relevant agencies), except in the case of approval of transactions consistent with the policy and criteria previously considered and approved by the shareholders or board of directors.

SCOPE OF DUTIES OF THE AUDIT COMMITTEE

The Audit committee is the independent committee appointed to support the board of directors to oversee the management and internal control, and to comply with related laws, as well as to oversee the financial reporting to monitor the performance and disclosure of the Company's information to ensure that it is trustworthy and transparently disclosed. The scope of authority, duty and responsibility of the Audit committee is as follows:

1. To ensure that the Company's financial statements are accurate and adequately disclosed;
2. To ensure that the Company implements internal controls and internal audit systems that are appropriate and effective and takes into account the independence of the internal audit unit, while giving consent regarding appointment, transfer, and termination of employment of the head of the internal audit or any other unit responsible for internal audit;
3. To ensure that the Company complies with the law governing securities and exchange, regulations of the SET, and the laws applicable to the Company's business;
4. To consider selecting, nominating, and appointing an independent person to act as an auditor of the Company and propose the remuneration of such auditor, and attend meetings with the auditor without the management's presence at least once a year;

5. To consider related party transactions or transactions with likely conflicts of interest and ensure that they are conducted in accordance with the law and regulations of the SET and ensure that such transactions are reasonable and in the best interest of the Company;
6. To prepare a report relating to the performance of the Audit committee disclosed in the Company's annual report. Such report must be signed by the chairman of the Audit committee and shall contain the following information:
 - The opinion on the accuracy, completeness, and reliability of the Company's financial reports
 - The opinion on the sufficiency of the internal control of the Company
 - The opinion on compliance with the SEC's laws and regulations of the SET, or other laws relating to the Company's business
 - The opinion on the appropriateness of the auditor
 - The opinion on the transactions that may give rise to conflicts of interest
 - The amount of Audit committee' meetings and the attendance list of each Audit committee
 - The overall opinion or remark that the Audit committee obtained from performing its duties according to the charter
 - Other transactions about which shareholders and general investors should be informed under the scope of duties and responsibilities assigned by the board of directors
7. To perform any other acts assigned by the board of directors, with the consent of the Audit committee.
8. In performing the Audit committee's duties, if a transaction or action which may materially affect the Company's financial status and performance is found or suspected to occur, the Audit committee shall report to the board of directors of the Company in order to remedy such affect within a period that the Audit committee deems appropriate. Such transaction or action is as follows:
 - (a) A transaction having a conflict of interest
 - (b) A fraud or irregularity or major defect on the internal control system
 - (c) Violation of the law governing securities and exchange, regulations of the SET, and the laws applicable to the Company's business

If the board of directors or the executives do not remedy within the period set out in paragraph one, any of the Audit committee members may report that there are such transactions or actions under the first paragraph to the SEC or SET.
9. To consider and propose to amend the scope of duty, authority and responsibility of the Audit committee as it deems appropriate.
10. To consider the regulations and an annual performance review at least once a year.

SCOPE OF DUTIES OF THE EXECUTIVE COMMITTEE

Board of directors meeting no.1/2016, held on 11 August 2016, passed a resolution approving the charter of the Executive committee which determines the scope of authority, duty and responsibility of the Executive committee, as follows:

1. To consider and prepare policies, strategies, goals and business plans, financial targets and annual budget of the Company which are appropriately considered and should be proposed to the board of directors. If situations have changed, the Executive committee shall consider the approved budget appropriately.

2. To consider, screen and monitor the Company's operation to comply with the policy, business strategy, goals, business plans, financial targets and budgets approved by the board of directors for efficiency and effectiveness, and to provide management with advice and recommendations about top executives.
3. To determine the structure of the Company and management policy, and appointment and transfer of the executives of each business, and to consider and monitor the succession plans, manpower plans, remuneration plans and evaluation of performance of the directors.
4. To study the possibility of investment in new projects. The Executive committee has the authority to consider and approve the investment or joint investment with natural persons, juristic persons, or any other business organisations to operate the Company's business as the Executive committee deems appropriate, as well as to consider and approve any payment for such investments, and to enter into any agreements and/or any processes relating to such matters pursuant to financial limits and/or related laws and regulations and/or the Company's articles of association.
5. To monitor the performance and development of invested project in each business and to notify the board of directors of the results, including problems or obstacles and how to solve these issues.
6. To consider and give recommendation or opinion to the board of directors relating to the proposed project or the entering into of any transactions in the Company's course of business as well as to consider alternative fundraising methods when it is necessary and in excess of the specified financial limit. Related laws and regulations and the Company's articles of association require shareholders meetings or board of directors' meetings to approve such issues.
7. To consider and enter into any financial transactions with financial institutions for opening accounts, borrowing money, applying for credit, a pledge, mortgage and a guarantee, among others, including sale and purchase, and register any ownership on the site under the Company's objective for the operation of the Company, as well as to enter into any agreement, apply for, propose, contact with, or conduct any juristic act with the governmental authority in order to obtain any rights of the Company and/or proceed with any operation regarding such issues pursuant to the financial limit and/or related laws and regulations or the Company's articles of association.
8. To consider and approve rules, articles of association, management policy and any operation of the Company's business or any act binding the Company.
9. To appoint and/or assign the member of the Executive committee or one or more persons to act on behalf of and within the scope of authority of the Executive committee as the Executive committee deems appropriate. The Executive committee may cancel, revoke, or change such authority.
10. To have the duties and responsibilities which have been assigned, or are pursuant to the policy assigned by the board of directors.
11. To consider and approve the guidelines for appointed and/or authorised persons to acknowledge their scope of responsibility and authority and to use such guidelines as the operation handbook with referable evidence and under orderly procedures.

SCOPE OF DUTIES OF THE CORPORATE GOVERNANCE COMMITTEE

Board of directors meeting no.1/2016, held on 11 August 2016, passed a resolution approving the charter of the Corporate Governance committee, which determines the scope of authority, duty and responsibility of the Corporate Governance committee, as follows:

1. To consider, review and revise the corporate governance policy in order to propose to the board of directors for approval. The policy will be made in writing and used as best practice.
2. To consider, review and revise the code of conduct. The code of conduct will be made in writing and used as best practice.
3. To set out and plan the policy on Corporate Social Responsibilities.
4. To act as representative of the Company, communicating and conducting activities regarding corporate governance with management, employees and external organisations.
5. To monitor, review and improve the performance to be in accordance with the designated plan and to prepare quarterly summary reports for the board of directors.

SCOPE OF DUTIES OF THE RISK MANAGEMENT COMMITTEE

Board of directors meeting no.1/2016, held on 11 August 2016, passed a resolution approving the charter of the Risk Management committee, which determines the scope of authority, duty and responsibility of the Risk Management committee, as follows:

1. To approve risk management policy, scope of risk management and acceptable risk level of the Company assigned by the board of directors.
2. To monitor and support the compliance of the risk management policy to be in line with strategy, operational targets and altered situations.
3. To monitor the compliance of the risk management policy and the scope of risk management for an efficient risk management system and continuous compliance throughout the Company.
4. To consider the report from the risk management team to monitor the material risks at the organisation level as well as to provide opinions on the risks which may have occurred and control measures, practices or risk management plans in order to ensure sufficient and appropriate risk management of the Company.
5. To report to the board of directors potential risks and risk management plans. If there are important factors which may materially affect the Company, they must be reported to the board of the Company, immediately.
6. To coordinate with the Audit committee relating to risk information and material internal controls for the Audit committee to consider and approve the internal audit plans to gain confidence that the Company has an appropriate internal control system to cope with the risks, and appropriately adopt the risk management system throughout the Company.
7. To support the culture of managing risk in the Company.
8. To hold the Risk Management committee meeting at least once a year.
9. To perform any other duties related to risk management assigned by the board of directors.
10. To review, and provide an opinion and recommendation to, the management team to comply with the risk management of the Company and have an authority to request the documents and related persons to provide the information as well as is responsible to examine and evaluate the risks of corruption, continuously.
11. To effectively implement the anti-corruption policies. To regularly review, monitor, reconsider and improve the anti-corruption policies and provide an evaluation report to the board of directors.

SCOPE OF DUTIES OF THE NOMINATION AND REMUNERATION COMMITTEE

Board of directors meeting no.1/2016, held on 11 August 2016, passed a resolution approving the charter of the Nomination and Remuneration committee, which determines the scope of authority, duty and responsibility of the Nomination and Remuneration committee, as follows:

1. To consider the structure, composition and qualification of the board of directors and other groups of committees of the Company.
2. To consider the rules and procedures for the nomination of directors. To nominate appropriate persons to serve as directors and propose to the board, for consideration by the shareholders meeting, in cases when directors retire by rotation, and propose to the board of directors in other cases. To give opportunity to the minority shareholders, with a sufficient period of time, to compile a list of persons to be nominated as directors prior to the shareholder' meeting.
3. To consider and suggest the list of Company directors to serve in the committees of the Company.
4. To consider screening appropriate persons to be a Chief Executive Officer if there is a vacant seat.
5. To approve the succession plan for the Chief Executive Officer and top management by constant review.
6. To consider the criteria and rule on the remuneration of the directors of the Company, the committees and top executives, and further propose this to the board of directors for consideration.
7. To assess the rules relating to the evaluation of the performance of the Chief Executive Officer and present the results to the board of directors for consideration.
8. To evaluate the performance of the Chief Executive Officer in order to consider the appropriateness or remuneration and present the results to the board of directors for consideration.
9. To access the rules on the annual remuneration for board directors, the committees and Chief Executive Officer of the Company including attendance fees, bonus, welfare and other benefits and to present the results to the board of directors for consideration.

SCOPE OF DUTIES OF THE CHIEF EXECUTIVE OFFICER

Board of directors meeting, no.1/2016, held on 11 August 2016, passed a resolution approving the charter of the Chief Executive Officer which determines the scope of authority, duty and responsibility of the Chief Executive Officer, as follows:

1. To determine policy, strategy, structure and management authority as well as to take responsibility for setting up the strategy and annual budget plans and proposing these to the board of directors.
2. To follow up, control, supervise and operate and/or manage regular tasks to comply with the policies, plans and budgets approved by the board of directors.
3. To be an authorised person of the Company and to operate the business to comply with the Company's objectives, articles of association, policies, rules, regulations, orders, shareholders' resolutions and/or board of director's' resolutions.
4. To take actions and perform duties as the representative of the Company toward third parties in related business which would be beneficial to the Company.
5. To consider and approve the business operation plans of each department of the Company, to approve any action of each department of the Company which is subject to the assigned table on the authority to operate business and the transactions entered into by the Company.
6. To give orders, issue regulations, make announcements and records in order to perform the work to be in accordance with the policies and benefits of the Company and to maintain internal regulations of the Company.
7. To sub-authorise and/or assign a person to take action on behalf of the Chief Executive Officer. In this regard, the sub-authorising and/or assignment shall be under the scope of authority prescribed in the power of attorney of the Company and/or regulations, rules or orders which are specified by the board of directors and/or the Company.

8. To approve related party transactions for normal operation such as the sale and purchase of goods at market price, service fees at the normal rate and giving credit terms similar to general customers, etc. pursuant to the policies approved by the board of directors.
9. To have authorities, duties and responsibilities to manage the Company's subsidiaries and other departments of the Company.
10. To perform other work as assigned by the board of directors on a case-by-case basis.

THE NOMINATION AND APPOINTMENT OF THE COMMITTEES

1. COMPOSITION AND APPOINTMENT OF THE BOARD OF DIRECTORS

The Company's board of directors shall consist of no fewer than five members. The number of independent directors shall constitute at least one third of the Company's board of directors and not fewer than three members. One half of the directors must reside in Thailand and such directors may be Company' shareholders.

When appointing a member of the board of directors, the Company shall consider knowledge, ability, and experience relating to the business, or those majority shareholders who have experience beneficial to the operation of the Company. However, the appointment of new directors must be approved by the board of directors and/or the shareholder' meeting (as the case may be). In this regard, the shareholder' meeting shall appoint the directors pursuant to the following rules:

- (1) One share will have one vote.
- (2) Each shareholder may vote all of his rights under clause (1) to appoint one director or more to serve as the Company's director. If the shareholders vote to appoint more than one director, such shareholders' voting rights shall be equal for all candidates.
- (3) The candidate with the most electoral votes shall be appointed as a director to fill the vacant seat. If the voting results for the following vacant seat are equal, the chairman of the meeting shall have a casting vote.

In an annual general meeting of the Company, one third of directors must resign from office. If the number of directors is not a multiple of three, then the number nearest to one third must resign from office. Those who have the longest term must resign first. A retiring director is eligible for re-appointment.

If there is a vacant seat, except for in cases of retirement by rotation, the Nomination and Remuneration committee shall elect the persons who possess the required qualifications, but do not possess any prohibited characteristics under the law governing public limited companies and the law governing securities and exchange, for nomination at the next board of directors' meeting, unless the remaining term of office of the vacating director is less than two months. If such vacancy occurs, any appointed persons shall retain office during the time only as the vacating director was entitled to retain the same. In this regard, the resolution of the board of directors shall not less than three-fourths of the number of remaining directors.

Independent directors shall also possess all qualifications under the rules prescribing qualifications of independent directors in Notification of the Capital Market Supervisory Board No. TorJor. 28/2551 Re: Application and Approval for New Shares, as amended.

2. COMPOSITION AND APPOINTMENT OF THE EXECUTIVE COMMITTEE

The board of directors shall appoint the Executive committee by considering the directors or Chief Executive Officer who are able to administrate the regular task of business and perform administrative work as well as set up the policies, plans, budget and management structure, including reviewing and monitoring the business operation of the Company pursuant to the policy set up by the board of directors.

3. COMPOSITION AND APPOINTMENT OF THE AUDIT COMMITTEE

The Audit committee shall consist of at least three independent directors with three years' terms of service. The Company has the policy to nominate the Audit committee which is in line with the Notification of the Capital Market Supervisory Board No. TorJor. 28/2551 dated 15 December 2008, Re: Application and Approval for New Shares, as amended as follows:

1. Neither being shareholder holding more than one per cent of shares of the Company, parent company, subsidiaries, associates, majority shareholders or controlling persons, including shares held by related persons of such independent director;
2. Neither being nor used to be an executive director, employee, staff, advisor who receives a salary, or controlling person of the Company, its parent company, subsidiaries, associates, same-level subsidiary company, major shareholder or controlling person, unless the foregoing status has ended not less than two years prior to the date of appointment. Such prohibited characteristic shall not include the case where the independent director used to be a government official or advisor of a government unit which is a major shareholder or controlling person of the Company;
3. Not being a person related by blood or legal registration as father, mother, spouse, sibling, and child, including spouse of child of other directors, executive, majority shareholder, controlling person, or person to be nominated as director executive or controlling person of the Company or its subsidiaries;
4. Neither having nor used to have a business relationship with the Company, parent company, subsidiaries, associates, majority shareholder or controlling person, in a manner which may interfere with his independent judgement, and neither being nor used to be a significant shareholder or controlling person of any person having a business relationship with the Company, parent company, subsidiaries, associates, majority shareholder or controlling person, unless the foregoing relationship has ended not less than two years prior to the date of filing an application with the Office;

The term business relationship shall include any normal business transaction, rental or lease of immovable property, transaction relating to assets or services or granting or receipt of financial assistance through receiving or extending loans, guarantee, providing assets as collateral, and any other similar actions, which result in the Company or its counterparty being subject to indebtedness payable to the other party in the amount of three percent or more of the net tangible assets of the Company or twenty million baht or more, whichever is lower. The amount of such indebtedness shall be calculated according to the method of calculation of value of connected transactions under the Notification of the Capital Market Supervisory Board governing rules on connected transactions mutatis mutandis. The consideration of such indebtedness shall include indebtedness occurred during the period of one year prior to the date on which the business relationship with the person commences;

5. Neither being nor used to be an auditor of the Company, parent company, subsidiaries, associates, majority shareholder or controlling person, and not being a significant shareholder, controlling person, or partner of an audit firm which employs auditors of the applicant, its parent company, subsidiary company, associates, majority shareholder or controlling person, unless the foregoing relationship has ended not less than two years prior to the date of filing an application with the Office;
6. Neither being nor used to be a provider of any professional services including those as legal advisor or financial advisor who receives service fees exceeding two million baht per year from the Company, parent company, subsidiaries, associates, majority shareholder or controlling person, and not being a significant shareholder, controlling person or partner of the provider of professional services, unless the foregoing relationship has ended not less than two years prior to the date of filing an application with the Office;
7. Not being a director appointed as representative of directors of the Company, majority shareholders or shareholder who is related to majority shareholders;
8. Not undertaking any business in the same nature and in competition to the business of the Company or subsidiaries or not being a significant partner in a partnership or being an executive director, employee, staff, advisor who receives a salary or holding shares exceeding one per cent of the total number of shares with voting rights of another company which undertakes business in the same nature and in competition to the business of the Company or its subsidiary company;

9. Not having any other characteristics which cause the inability to express independent opinions with regard to the Company's business operations;
10. Not being a director assigned by the board of directors to make a decision on the business operation of the Company, subsidiaries, associates, same-level subsidiary company, majority shareholders or controlling person; and
11. Not being a director of a subsidiary company or same-level subsidiary company of the listed company.

In addition, at least one independent director who serves as the Audit committee must possess sufficient knowledge and experience in accounting or finance in order to review the reliability of the Company's financial report. Moreover, the Company may consider other qualifications such as experience in conducting business, specific experience relating to the business and ethical behaviour, etc.

The rules and procedures on appointment of the Audit committee shall be in accordance with the rules and procedures on appointment of the board of directors. Members of the Audit committee who resign by rotation are eligible for re-appointment.

If there is a vacant seat, except for those who retire by rotation, the board of directors may appoint the person who possesses the required qualifications to become a member of the Audit committee in order to fill up the vacancy. In such case, an appointed person shall retain office during the time only as the vacating Audit committee member was entitled to retain the office.

4. COMPOSITION AND APPOINTMENT OF THE NOMINATION AND REMUNERATION COMMITTEE

The Nomination and Remuneration committee shall consist of a certain number of directors, and one third of those must be independent directors. The term of Nomination and Remuneration committee is three years from the date of appointment. Members of the Nomination and Remuneration committee who retire by rotation are eligible for re-appointment.

5. COMPOSITION AND APPOINTMENT OF RISK MANAGEMENT COMMITTEE

The Risk Management committee shall consist of a certain number of directors, and one third of those must be independent directors.

The term of the Risk Management committee is three years from the date of appointment. Members of the Risk Management committee who retire by rotation are eligible for re-appointment.

6. COMPOSITION AND APPOINTMENT OF CORPORATE GOVERNANCE COMMITTEE

The Corporate Governance committee shall consist of a certain number of directors.

The term of the Corporate Governance committee is three years from the date of appointment. Members of the Corporate Governance committee who retire by rotation are eligible for reappointment.

GOVERNANCE OF OPERATION OF SUBSIDIARIES AND ASSOCIATES

POLICY RELATING TO AN INVESTMENT IN SUBSIDIARIES AND ASSOCIATES

The Company has a policy to invest in the public utility business, power services business, alternative energy business and related businesses.

POLICY RELATING TO THE GOVERNANCE OF OPERATION AND MANAGEMENT OF SUBSIDIARIES AND ASSOCIATES

1. The Company will nominate a specified number of Company representatives to serve as directors of the subsidiaries and associates reflecting the shareholding proportion of the Company in the respective subsidiaries and associates. Such nomination of directors shall be considered and approved by the board of directors' meeting.

2. The scope of duties and responsibilities of the directors of subsidiaries and associates are as follows:
 - (1) To perform their duties in compliance with laws, objectives and the Company's articles of association, as well as the resolution of the board of directors and the resolution of shareholders' meeting with duty of loyalty, duty of care, accountability and ethics.
 - (2) To follow up and provide necessary opinion for the operation of subsidiaries and associates to be in accordance with the agreements and related rules and regulations.
 - (3) To continuously monitor the operations of subsidiaries and associates, as well as providing necessary recommendations to ensure that the operations of subsidiaries and associates are in accordance with the specified target. Such directors are able to promptly and appropriately deal with any obstacles which may occur.
 - (4) To consider, monitor and provide any necessary recommendations for subsidiaries and associates to have internal control systems and/or working systems for efficiency and effectiveness of business operation.
 - (5) Where necessary to review and improve the policies and business plans relating to the business operation of subsidiaries and associates in order to remain up-to-date and appropriate.
 - (6) The boards of directors of the subsidiaries and associates may assign one or more director or any other persons to act on behalf of such boards of directors. Such authorisation shall not constitute authorisation or sub-authorisation in a manner which causes the directors, or the person with the authority to approve a transaction in which they have a conflict, interest, or a conflict of interest in any other manner, to be made with the Company and/or subsidiaries and/or associates.
3. The Company shall set up necessary plans to ensure that the subsidiaries and associates shall disclose information relating to the operation and financial status, including information which is required to be disclosed to related authorities and governmental authorities, external investors and the public, and which is accurate, full and reliable.
4. When it becomes necessary for subsidiaries or associates to enter into any related party transactions or transactions which may have a conflict of interest, the Company shall monitor and ensure that subsidiaries and associates fairly and transparently enter into such transactions. The Company shall strictly comply with the rules regarding related transactions and acquisitions or disposal of assets which are regulated by related regulators.
5. The Company shall monitor and proceed with necessary actions, to ensure that subsidiaries and associates have the sufficient and appropriate system relating to the disclosure of information and the sufficient and appropriate internal control system to operate the business.
6. The Company has prescribed the guidelines requiring that nomination of persons to be directors of the subsidiaries and associates, and the exercise of voting rights at shareholders' meetings, require the approval of the board of directors, except in the following cases:
 - (1) Agenda items to be adopted by the shareholders' meeting in accordance with the joint venture agreement to which the Company is a party.
 - (2) Following regular agendas in the annual general meetings where the executive committee may consider casting the vote:
 - To certify the minutes of the previous shareholders' meeting
 - To consider and approve the report of the board of directors and performance of the past year
 - To consider and approve the annual financial statement
 - To consider and approve the allocation of net profits for the legal reserve fund and dividend payment
 - To appoint new directors to replace the directors who are due to retire by rotation and to consider director's remuneration
 - To appoint the auditor for the year

CONTROL OF INTERNAL INFORMATION

The Company has implemented policy and procedures to ensure the directors and executives do not use any non-public information for personal gain, including without limitation, insider trading. The policies are:

1. The Company shall advise its directors, executives and persons holding accounting manager or financing manager positions, or similar positions on the duty to prepare and submit the report on the holding of securities of such directors, executives, their spouses and minor children to the Office of the SEC under Section 59 and penalty under Section 275 of the Securities and Exchange Act B.E. 2535, as amended.
2. The Company shall require its directors, executives, or persons holding accounting manager or financing manager positions or similar positions to prepare and submit such report on the holding of securities of such directors, executives, their spouses and minor children through the Company Secretary prior to filing with the Office of the SEC. The report shall be prepared and filed within 30 days from the appointment date of directors and executives or within three business days from the date on which securities are purchased, sold, transferred or received.
3. The Company shall require its directors, executives, including persons holding accounting manager or financing manager positions, or similar positions, and any related employees who have knowledge of material inside information which can potentially affect securities price to refrain from sale and purchase of securities of the Company during the period prior to the disclosure of financial statements or financial status of the Company until such information has been disclosed to the public, during the Blackout Period. Blackout Period means the period of one month prior to, and on the date which, the financial report of the Company has been disclosed annually and on a quarterly basis. The Company will advise in writing its directors and executives, including persons holding accounting manager or financing manager positions, or similar positions, to refrain from sale and purchase of securities of the Company. Such advice shall be sent at least 30 days in advance prior to the disclosure of information to the public and shall wait for at least 24 hours after the disclosure of information to the public. The disclosure of material information to other persons is also prohibited.
4. Disciplinary action will apply in case of breach of duty on the use of internal information for personal benefits. This may be done by issuance of warning letter, deduction of wage, temporary suspension of work without payment, or termination of employment, taking into account the intention and seriousness of such violation.

REMUNERATION OF THE AUDITOR

AUDIT FEE

For the fiscal year ended December 31, 2017, the Company and its subsidiaries paid PricewaterhouseCoopers ABAS Ltd. (PwC) for the audit of the consolidated financial statements in the amount of THB 2,690,000. The Company also paid the Non-Audit fees in the amount of THB 105,450.

The person or business related to the auditor and the audit office is not a person or business related to the Company.

CORPORATE SOCIAL RESPONSIBILITY (CSR)

The Company conducts its business in accordance with the principles of corporate governance: with transparency and accountability. It aims to concurrently improve its business and maintain a balance of economic, social and environmental awareness. One of the Company's pledges is to be a good corporate citizen, which operates sustainably, grows steadily and gains public recognition based on its code of ethics and corporate governance. The Company also strives for healthy returns to shareholders; however, any effects of its operations may have on all stakeholders are always taken into account.

Taking the view that social responsibility is important, the Company has established a CSR policy consisting of the following components:

1. FAIR CONDUCT

Guidelines to treat all stakeholders with responsibility are provided in the Company's code of conduct. Stakeholders include shareholders, employees, customers, trading partners, and contractual parties, as well as local communities, wider society and the environment. The Company's code of conduct also embraces the principles of free competition, the prevention of conflicts of interest and infringements of intellectual property rights, and anti-corruption. Key policies can be summarized as follows:

(1) CORPORATE GOVERNANCE

The Company aims to operate fairly, honestly and transparently, and with public accountability, as well as disclose material information. It always considers both the benefits and effects that may be experienced by shareholders, customers, trading partners, employees and all stakeholders. The Company considers the right and fair sharing of profit to be crucial.

(2) CORPORATE SOCIAL RESPONSIBILITY (CSR)

The Company pursues the CSR policy under the code of ethics to ensure fairness toward all stakeholders. The principles of corporate governance also serve as guidelines for the Company to maintain a balance between its performance and its economic, community, social and environmental awareness, which will lead to the success and sustainability of its business.

(3) COMPLIANCE POLICY

The Company recognizes the significance of compliance with applicable laws, rules and regulations, including the code of conduct in accordance with international standards. All of its directors, executives and employees must comply with applicable laws, rules and regulations and avoid being involved in, supporting or otherwise dealing with a breach of law and related regulations.

(4) RESPONSIBLE USE OF RESOURCES

All of the Company's directors, executives and employees are encouraged to appropriately, efficiently and sustainably use resources for the utmost benefit. The Company always communicates with all employees and stakeholders to promote and educate about the responsible use of resources for the benefit of the organization, to ensure awareness of resource management is inherent in the Company.

The Company has intention to participate in the Collective Action Coalition of private sector in Thailand against corruption of the Thai Institute of Directors. Now the Company is studying purposes and goals of attending such program.

2. RESPECT FOR HUMAN RIGHTS

The Company recognizes the importance of respect for human rights, and emphasizes the equitable treatment of those within and outside of the Company. Direct or indirect infringements of an individual's rights or freedoms are prohibited. Respect for and protection of human rights are promoted in combination with measures that have been established in order to prevent the Company's business from involving the infringement of human rights, e.g. forced labour and child labour. It also stresses the fair and respectful treatment of all stakeholders on the basis of human dignity. Discrimination by origin of birth, race, gender, age, complexion, religion, physical appearance, social status or class, and genealogical history is strongly opposed. Internally, the Company promotes a mechanism for the monitoring of all employees' compliance with its rules on human rights. Externally, it encourages all joint venture parties, trading partners and stakeholders to follow the principles of preserving human rights in accordance with international standards. For any stakeholders who suffer an infringement of human rights resulting from the Company's operations, the Company offers compensation worth not lower than the rate imposed by law.

3. FAIR LABOUR PRACTICES

The employees' right to enjoy a working life in a good and respectful environment is highlighted on the Company's agenda. Employees at all levels are encouraged to treat their colleagues with respect. Taking advantage of other colleagues is ardently discouraged. In relation to labor practices, the Company has a comprehensive policy of human resources management involving recruitment, HR development and training, fair remuneration and welfare benefits. All employees are offered opportunities for career prospects, with training courses provided to employees at all levels with a view to improving their professional skills. Key policies of the Company can be summarized as follows:

(1) REMUNERATION AND WELFARE BENEFITS

The Company has a policy to provide fair remuneration, enhance job security and promote career paths for all employees. It provides all necessary employee welfare benefits as required by law, such as social security benefits. Also offered are extra welfare benefits other than those required by law, such as health and accident insurance, financial contributions towards the funeral costs of employee's parents, and scholarships for the children of employees.

(2) KNOW-HOW IMPROVEMENT AND TRAINING

The Company promotes HR development by encouraging all employees to improve upon their knowledge, and enhance their ability, potential, attitude, morals and ethics, and embrace the spirit of teamwork. Training workshops and seminars are organized from time to time to effect those improvements. Further, the Company supports corporate and human resources development, focusing on efficiently implementing operating procedures, clearly defining the scope of employees' roles and duties, determining appropriate rates of remuneration, improving the performance evaluation system and expanding employee's capacity.

(3) OCCUPATIONAL HEALTH AND SAFETY

Company policy stresses the importance of employee occupational health and safety in a good workplace. Great efforts have been made to implement precautionary measures to avoid work-related accidents with great efforts. Safety awareness is established among employees. Training sessions are held from time to time to promote and educate all employees about occupational health (e.g. any acts or things that are detrimental to the health or condition of customers or service users and should be avoided). All employees are encouraged to keep the workspace in a hygienic and safe condition at all times.

4. CONSUMER LIABILITY

The Company commits itself to dealing honestly with customers (in other words, they are consumers) by complying with any agreements made in accordance with applicable standards required by law. Quality control is emphasized in all steps of the production process. The Company recognizes that water quality and safety are a foundation of its operations. In addition, it stresses the importance of ensuring that skilled personnel are available, and the stringent measures of quality control in the production process, from the procurement of the raw materials until the manufactured end products.

5. ECO-FRIENDLY PRACTICE

Environmental protection is one of the Company's concerns. In managing its business in the past, the Company has always taken into account environmental effects which may result from any stage of its operating procedures. For instance, an initial environmental examination is always carried out before construction work is commenced. All necessary operating systems and regulations have been carefully designed and established to prevent potential harmful effects on the environment and local communities. ISO14001 international environmental management standards were adopted as a guideline for the Company's business. With the view that sustainable use of natural resources is crucial, the Company will reuse by-products or residue of the production process, adopt a treatment system to manage wastewater from its manufacturing activities and regularly evaluate the environmental management system.

6. PARTICIPATION IN SOCIAL DEVELOPMENTS

The Company strongly aims to contribute benefits to the country's economy and society and to be a good citizen that complies with all applicable laws and regulations. It also commits itself to improving and elevating the quality of life of locals in proximity to its premises as well as expanding its business at the same time, which constitutes a component of its code of conduct. The Company always operates according to environmental standards; for instance, in the production process, power and resources are efficiently used and preventive measures are taken to control and avoid pollutant products. Environmental management is performed according to well-established standards and is regularly monitored and evaluated for further development.

To foster a good relationship with local communities, the Company always supports local activities and campaigns, taking into account the suitability and benefits to the communities for enhancing sustainable development.

7. GREEN INNOVATION

The Company recognizes the value and importance of non-renewable water resources, as well as the importance of environmental conservation and social responsibility. Therefore, water preservation is a policy imposed to underline the Company's strong commitment to efficiently using resources in its operations and manufacturing activities. The Company also emphasizes power saving practices by adopting innovation and efficient management systems, such as using solar and other alternative energy in its power generation business. It also employs a policy to share know-how and educate customers and other related government bodies about power saving practices.

8. INTELLECTUAL PROPERTY-RELATED PRACTICE

The Company has a policy of avoiding taking any action that infringes intellectual property rights, i.e. copyrights, patents, trademarks, trade secrets and other intellectual property, as defined by law. For instance, all software used by the Company is copyrighted and must be screened and installed by the IT team in order to prevent the use of pirated software.

INTERNAL CONTROL AND RISK MANAGEMENT

BOARD'S OPINION ON INTERNAL CONTROL

The Company sees the significance of good internal controls and corporate governance in the conduct of its business, i.e. implementing the operating system which is transparent, fair and reliable with checks and balances, which will lead ultimately to the benefit of shareholders, employees, trading partners, communities and other stakeholders. At the Board of Directors' meeting no.6/2015 of 19 November 2015, the Company's board appointed Audit Committee consisting of three members to review the adequacy of the Company's internal control system and to check and ensure compliance with applicable laws and regulations issued by the Office of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET), including all other applicable laws relating to the Company's business.

At the Board of Directors' meeting no.2/2018 on 20 February 2018 at which all members of the Audit Committee attended, the Board of Directors considered and prepared a questionnaire on the adequacy of the Company's internal control. The questionnaire was completed by management, in conjunction with reference information from an analysis report on the adequacy of the Company's internal controls prepared by Dharmniti Internal Audit Company Limited. The board took the view that the Company's internal control system is adequate and appropriate and reflects the questions set out in the SEC questionnaire on the adequacy of internal controls. The Board of Director's analysis of the Company's internal control included the following aspects:

1. Control environment;
2. Risk assessment;
3. Control activities;
4. Information and communication; and
5. Monitoring activities

HEAD OF INTERNAL CONTROL AND HEAD OF COMPLIANCE

The Company appointed Dharmniti Internal Audit Company Limited (Dharmniti) as the Company's internal auditor, and Dharmniti designated Mr. Saksri Ampawan to take charge of the Company's annual internal audit.

After reviewing the background of Dharmniti and Mr. Saksri Ampawan, the Audit Committee found that Mr. Saksri Ampawan is suitable for the designated function, considering his independence to make a judgment with more than 18 years' experience in internal audit and his understanding of the Company's activities and operations. Therefore, the Audit Committee viewed that he is qualified for this mission. An appointment, removal or transfer of the head of internal control requires an approval from the Audit Committee. Qualifications of the heads of internal control are set out as follows:

HEAD OF INTERNAL AUDIT - DHARMNITI INTERNAL AUDIT COMPANY LIMITED

Subject	Internal auditor (external)
Internal auditor	Mr. Saksri Ampawan (in charge of internal audit) Dharmniti Internal Audit Company Limited
Educational qualifications	Bachelor of Business Administration, Ramkhamhaeng University
Work experience	More than 25 years' experience and works with Dharmniti Internal Audit Company Limited from 1992 until present.
Audit Committee's opinion on the internal auditor's experience	Mr. Saksri Ampawan's knowledge and experience made him suitable to oversee the internal control for the Company.
Duties and responsibilities	<ul style="list-style-type: none"> To examine various operating systems of the Company as the audit committee determines or thinks fit. To advise the Audit Committee on an annual internal audit plan.

DETAILS RELATING TO DIRECTORS OF THE COMPANY AND SUBSIDIARIES

Company	Mr. Somyos Anantaprayoon	Ms. Jareeporn Jarukornsakul	Mr. David Richard Nardone	Mr. Vivat Jiratikarnsakul	Mr. Wisate Chungwatana	Mr. Surathian Chakhranont	Mr. Weidt Nuchlaearn	Mr. Ekajai Tivutanonda	Ms. Punnee Worawuthichongsahtit	Mr. Paopitaya Smutrakalin	Mr. Khamhoung Ratsamany	Mr. Varanon Laosuan	Mr. Punrapee Noparumpa	Ms. Rattana Shinawatra	Ms. Arpasinee Chanwangsa	
	WHA Utilities and Power Public Co., Ltd.		X	-	-	-	I,III	-	II,IV	II,IV	III	III	III	III	III	III
		WHA Water Co., Ltd.		X	-	-	-	-	-	-	-	-	-	-	-	-
		WHA Energy Co., Ltd.		X	-	-	-	-	-	-	-	-	-	-	-	-
		WHA Energy 2 Co., Ltd.		X	-	-	-	-	-	-	-	-	-	-	-	-
	WHAUP International Co., Ltd.		X	-	-	-	-	-	-	-	-	-	-	-	-	-
	WHAUP (SG) 1 PTE. Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WHAUP (SG) 2 PTE. Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Eastern Seaboard Clean Energy Co., Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chonburi Clean Energy Co., Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Rayong Clean Energy Co., Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Glow Hemaraj Wind Co., Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WHA Gunkul Green Solar Roof 1 Co., Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WHA Gunkul Green Solar Roof 3 Co., Ltd.		-	-	-	-	-	-	-	-	-	-	-	-	-	-

Company	Mr. Somyos Anantaprayoon	Ms. Jareeporn Jarukornskul	Mr. David Richard Nardone	Mr. Vivat Jiratikarnsakul	Mr. Wisate Chungwatana	Mr. Surathian Chakthirant	Mr. Weidt Nuchlalearn	Mr. Ekajai Tivutanonda	Ms. Punnee Worawuthichongsahtit	Mr. Paopitaya Smutrakalin	Mr. Khamhoung Ratsamany	Mr. Varanon Laoswan	Mr. Punrapee Noparumpa	Ms. Rattana Shinawatra	Ms. Arpasinee Chanwangsa
	WHA Gunkul Green Solar Roof 6 Co., Ltd.					Joint Venture Companies									
	WHA Gunkul Green Solar Roof 17 Co., Ltd.					Joint Venture Companies									
	B.Grimm Power (WHA) 1 Limited					Associated Companies									
	Gulf JP NLL Co., Ltd.					Associated Companies									
	Gulf Solar Co., Ltd.					Associated Companies									
	Gulf Solar BV Co., Ltd.					Associated Companies									
	Gulf Solar TS1 Co., Ltd.					Associated Companies									
	Gulf Solar TS2 Co., Ltd.					Associated Companies									
	Gulf Solar KKS Co., Ltd.					Associated Companies									
	Gulf TS1 Co., Ltd.					Associated Companies									
	Gulf TS2 Co., Ltd.					Associated Companies									
	Gulf TS3 Co., Ltd.					Associated Companies									
	Gulf TS4 Co., Ltd.					Associated Companies									
	Gulf VTP Co., Ltd.					Associated Companies									
	Gulf NLL2 Co., Ltd.					Associated Companies									

Company	Mr. Somyos Anantaprayoon	Ms. Jareeporn Jarukornsakul	Mr. David Richard Nardone	Mr. Vivat Jiratikarnsakul	Mr. Wisate Chungwatana	Mr. Surathian Chakthiramonit	Mr. Weidt Nuchjalearn	Mr. Ekajai Tivutanonda	Ms. Punnee Worawuthichongsathit	Mr. Paopitaya Smutrakalin	Mr. Khamhoung Ratsamany	Mr. Varanon Laosuan	Mr. Punrapee Noparumpa	Ms. Rattana Shinawatra	Ms. Arpasinee Chanwangsas
	Gulf WHA MT Natural Gas Distribution Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—
	WHA Eastern Seaboard NGD2 Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—
	WHA Eastern Seaboard NGD4 Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—
	Gheco-One Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—
	Houay Ho Thai Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—
	Houay Ho Power Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—
	Glow IPP Co., Ltd.	Associated Companies	—	—	—	—	—	—	—	—	—	—	—	—	—

Note: X = Chairman of the Board of Directors / I = Director / II = Independent Director / III = Executive / IV = Audit Committee

RELATED PARTY TRANSACTIONS

PERSONS WITH A POSSIBLE CONFLICT OF INTEREST; NATURE OF RELATIONSHIP

The Company and its Subsidiaries have entered into transactions with persons who may have conflicts of interest, which can be summarized as follows:

Persons who may have conflicts	Nature of Business	Nature of Relationship
Hemaraj Land and Development Public Company Limited ("Hemaraj" or "HRD")	- Real estate business development and industrial estate management	- It is a major shareholder of the Company holding 70% of paid-up capital. (Both direct and indirect) - There are 4 common directors: 1) Mr. Somyos Anantaprayoon 2) Ms. Jareeporn Jarukornsakul 3) Mr. David Richard Nardone 4) Mr. Vivat Jiratikarnsakul.
Eastern Seaboard Industrial Estate (Rayong) Company Limited ("ESIE")	- Real estate business development and industrial estate management	- A subsidiary of Hemaraj, which is the Company's major shareholder holding 60% of the paid-up capital. (Both direct and indirect) - There are 3 common directors: 1) Mr. Somyos Anantaprayoon 2) Ms. Jareeporn Jarukornsakul 3) Mr. David Richard Nardone
Eastern Industrial Estate Company Limited ("HEIE")	- Real estate business development and industrial estate management	- A subsidiary of Hemaraj, which is the Company's major shareholder, holding 99.99% of paid-up capital. (Both direct and indirect) There are 4 common directors: 1) Mr. Somyos Anantaprayoon 2) Ms. Jareeporn Jarukornsakul 3) Mr. David Richard Nardone 4) Mr. Vivat Jiratikarnsakul.
Hemaraj Eastern Seaboard Industrial Estate Company Limited ("HESIE")	- Real estate business development and industrial estate management	
Hemaraj Rayong Industrial Land Company Limited ("HRIL")	- Real estate development and management of industrial zone projects	
Hemaraj Saraburi Industrial Land Company Limited ("HSIL")	- Real estate development and management of industrial zone projects	

Persons who may have conflicts	Nature of Business	Nature of Relationship
H-Construction Management and Engineering Company Limited. ("HCME")	- Design and construction services	- A subsidiary of Hemaraj, which is the Company's major shareholder, holding 99.99% of paid-up capital. (Both direct and indirect) - There are 3 common directors: 1) Mr. Somyos Anantaprayoon 2) Ms. Jareeporn Jarukornsakul 3) Mr. David Richard Nardone
SME Factory Company Limited. ("SME")	- Logistics business, selling and renting factory buildings, and finished warehouses	- A subsidiary of Hemaraj, which is the Company's major shareholder, holding 99.99% of paid-up capital. (Both direct and indirect)

TRANSACTIONS BETWEEN THE COMPANY AND ITS SUBSIDIARIES WITH PERSONS WHO MAY HAVE CONFLICT OF INTEREST

In 2017, the Company and Hemaraj, the major shareholders of the Company, have restructured their businesses to clarify the business and reduce the conflict of interest of each company and to accommodate the expansion of the Company in the future. On March 30, 2016, the Company entered into a business alliance agreement with Hemaraj and the lease agreement for the production and distribution of water and wastewater management with Hemaraj. In addition, in the second quarter of 2016, the Company and its subsidiaries acquired the energy business from Hemaraj and the WAH Group as the major shareholder of Hemaraj.

Transactions between 2016 and 2017 can be summarized as follows:

1) Water management service

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Revenue from management fee			The Company has entered into an agreement to manage the water business by providing waste water treatment services to ESIE and providing industrial water and waste water treatment services to SME (For water services in HLP1). The agreement is valid for 3 years and effective from 30 March 2016 because the two companies do not have professional staff in water business as a result of business restructuring. The Company charged the average of direct expenses plus a margin of 8% which is comparable to the margins of the same service provider in the market.	The Audit Committee considered and opined that: Such transactions are reasonable and reasonable, and the management can be compared with other companies providing the same services.
• ESIE	2.39	3.30		
• SME	0.36	0.50		
Accrued income				
• ESIE	0.27	0.28		
• SME	0.04	0.04		

2) Raw water procurement

2.1 Raw water procurement in ESIE

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Raw water cost				
• ESIE	115.21	107.39	<ul style="list-style-type: none"> In 2008, the Company entered into a contract to purchase raw water from ESIE under a lease agreement for the production and distribution of industrial water. The contract period is 25 years. The Company agreed to purchase raw water at the rate of raw water cost defined by the lessor plus a margin of 15%. The cost of repairs and maintenance is the responsibility of the lessor. However, the Company is in the process of entering into a contract to purchase raw water directly from the East Water Development and Management Co., Ltd. ("EASTW") 	The Audit Committee considered and opined that such transaction is necessary and reasonable and beneficial to the Company's business. It is normal business transaction with general trading conditions. Raw water is the main raw material to produce industrial water and both the Company and Hemaraj will benefit from the supply of such raw water.
Accounts payable and accrued expenses				
• ESIE	12.59	12.21		

2.2 Purchase of raw water in industrial estates and other industrial zones

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Raw water cost			<ul style="list-style-type: none"> In 2008, the Company entered into a contract to purchase raw water from ESIE under a lease agreement for the production and distribution of industrial water. The contract period is 25 years. The Company agreed to purchase raw water at the rate of raw water cost defined by the lessor plus a margin of 15%. The cost of repairs and maintenance is the responsibility of the lessor. Later on March 30, 2016, the Company cancelled such raw water purchasing contract and entered into a Memorandum to amend the raw water purchasing contract with HRD, HEIE and HESIE with the term for 50 years, in accordance with the terms of the Lease Agreement for the production and distribution of industrial water and the management of wastewater to supply raw water to customers in the industrial estates since the Company is in the process of entering into a direct contract with EAST. The raw water price under this contract is equal to the raw water cost of the lessor plus the average of the difference between the cost of the lessor and the price the company has to pay if it buys raw water directly. The Company is 	The Audit Committee considered and opined that such transaction is necessary and reasonable and beneficial to the Company's business. It is normal business transaction with general trading conditions. Raw water is the main raw material to produce industrial water and both the Company and Hemaraj will benefit from the supply of such raw water.
• HRD	30.01	32.76		
• HEIE	425.47	469.50		
• HESIE	32.92	62.66		
• HRIL	24.06	32.72		
• HSIL	2.59	3.49		
Accounts payable and accrued expenses			<ul style="list-style-type: none"> Later on March 30, 2016, the Company cancelled such raw water purchasing contract and entered into a Memorandum to amend the raw water purchasing contract with HRD, HEIE and HESIE with the term for 50 years, in accordance with the terms of the Lease Agreement for the production and distribution of industrial water and the management of wastewater to supply raw water to customers in the industrial estates since the Company is in the process of entering into a direct contract with EAST. The raw water price under this contract is equal to the raw water cost of the lessor plus the average of the difference between the cost of the lessor and the price the company has to pay if it buys raw water directly. The Company is 	The Audit Committee considered and opined that such transaction is necessary and reasonable and beneficial to the Company's business. It is normal business transaction with general trading conditions. Raw water is the main raw material to produce industrial water and both the Company and Hemaraj will benefit from the supply of such raw water.
• HRD	2.90	3.09		
• EE	45.00	40.85		
• HESIE	2.65	7.69		
• HRIL	2.89	3.22		
• HSIL	0.27	0.29		

2.2 Purchase of raw water in industrial estates and other industrial zones (Continued)

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
			<p>responsible for the cost of repairs and maintenance of equipment and assets of the raw water system.</p> <ul style="list-style-type: none"> On March 30, 2016, the Company has entered the raw water purchasing contract with HRL and HSL with the term for 50 years, in accordance with the terms of the Lease Agreement for the production and distribution of industrial water and the management of wastewater to supply raw water to customers in the industrial estate since the Company is in the process of entering into a direct contract with EAST and Irrigation Department. The raw water price under this contract is equal to the raw water cost of the lessor. The Company is responsible for the cost of repairs and maintenance of equipment and assets of the raw water system. 	

3) Lease of land for business purposes

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Land rent			<p>The Company and WHA Water Co., Ltd., a Company's subsidiary, have entered into a land rental agreement with HRD, HESIE, HEIE and HESIE4 to use in the industrial water production business. The rental rate per rai per year is comparable with the market price to be increased by 10% every 5 years, rental to be paid monthly which is the rate that other industrial estates charge from general customers. Each rental agreement is 30 years old, with HRD HESIE and HEIE commencing from March 30, 2016 to March 29, 2589, HESIE4 commenced from May 1, 2017 to April 30, 2090, and is renewable for another 20 years.</p>	<p>The Audit Committee considered and opined that the transaction is reasonable and necessary for the operation of the business of the Company. The rental rate is the rate that other industrial estates charge to the general customers.</p>
• HRD	1.81	2.40		
• HEIE	1.10	1.46		
• HESIE	1.71	2.27		
• HESIE4	-	1.10		
Accounts payable and accrued expenses				
• HRD	0.19	-		
• HEIE	-	-		
• HESIE	0.18	-		
• HESIE4	-	1.10		

4) Management expenses

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Management expenses				
• HRD	5.85	9.15	<ul style="list-style-type: none"> In 2015, the Company and WHA Energy Co., Ltd. ("WHAEG") entered into a management contract with HRD to manage the financial, accounting, personnel and distribution. 	<p>The Audit Committee considered and opined that the transaction is reasonable. The scope of services under the management agreement is consistent with the organizational structure and the new management policy of the Company. In addition, the management fee in such contract is a reasonable rate.</p>
Accounts payable and accrued expenses				
• HRD	1.98	4.19	<ul style="list-style-type: none"> Due to business restructuring, the Company thus transferred the staff of the production, the wastewater treatment and the accounting departments. And, in order to comply with its management restructuring plan, the Company has hired the executives for the purchasing department, legal department, human resources department and business development department. The Company thus terminated the contracts between WHAET and WHAEG with HRD and entered into a new contract between the Company and HRD to provide financial, information and other administrative services. The management fee is calculated based on the costs related with the business plus 	

4) Management expenses (Continued)

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
			an 8% margin which can be compared to other companies' profit margins in the same business.	
Trade accounts payable <ul style="list-style-type: none"> • HCME 	1.28	7.36	<p>The Company contracted HCME to manage and supervise the construction for each water system in each project because HCME has experience in engineering in industrial estates. The Company entered into such contract on January 1, 2017 and would expire on December 31, 2018. Each contract is valid for one year. Currently, HCME is in the process of supervising the construction of the water production system and waste water treatment system in HSEI4 industrial estate. The service tariff is calculated from the related costs plus the margin that can be comparable to those of the same business.</p>	<p>Such transactions are considered as necessary and beneficial to the Company since the Company has expanded its business and the water supply system has to be installed for production and service. Therefore, it is necessary to hire experienced engineers to design and supervise the construction work. The Audit Committee considered and opined that such transaction is necessary and reasonable and is beneficial to the business operation.</p>

5) Renting the right to produce and distribute industrial water with ESIE

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Royalties for production and distribution - Eliminations <ul style="list-style-type: none"> • ESIE 	8.69	8.69	<p>In 2008, the Company entered into agreements to lease the rights to produce and distribute industrial water with ESIE for a period of 25 years to provide industrial water services to the operators in the industrial estate and will gradually amortize until the end of the contract.</p>	<p>The Committee considered that this transaction occurred before the appointment of the Audit Committee. In addition, ESIE is a joint venture between Hemraj and other entities. The Audit Committee considered and opined that such transaction is necessary and reasonable and is beneficial to the business operation.</p>

6) Renting the right to produce and distribute industrial water

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Royalties for production and distribution (Old contract) <ul style="list-style-type: none"> - Deduct from the Account • HRD • HEE • HESIE 	0.61 1.23 1.53	- - -	<ul style="list-style-type: none"> • In 2008, the Company entered into a lease agreement with HRD, HEE and HESIE for a period of 25 years to provide industrial water services to industrial operators. Subsequently, on March 30, 2016, the three contracts were canceled and new contracts were entered into. • The annual royalties fee is an agreement under the lease agreement for the right to operate 	<p>The Audit Committee considered and opined that such transaction is necessary and reasonable. The rate of the royalties' fee of the new contract is comparable to other businesses in the market. Such remuneration represents a percentage of revenue from the operation of the water business in the project is reasonable since the variation is in line with actual revenue and arising from</p>

6) Renting the right to produce and distribute industrial water (Continued)

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Annual royalties (New contract)			<p>and distribute industrial water and waste water management. The Company entered into a contract with Hemaraj Group with the annual royalties fee from the water business as follows:</p> <ul style="list-style-type: none"> • Year 1-3: 1% per annum of revenue from water business in the project • Year 4 onwards: 3% per annum of revenue from water business in the project. The rate of the royalties' fee is comparable to other businesses in the market. 	business restructuring.
• HRD	0.55	0.81		
• HEE	3.13	3.91		
• HESIE	0.77	1.21		
• HRIL	0.49	0.73		
• HSIL	0.89	1.39		
Accounts payable and accrued expenses				
• HRD	0.08	0.16		
• HEE	0.66	0.29		
• HESIE	0.10	0.12		
• HRIL	0.10	0.06		
• HSIL	0.07	0.11		

7) Financial assistance

7.1 Financial assistance from HRD

Items	Size of Transaction (Million Bath)		Description	Opinion of the Audit Committee
	Financial year 31 December 2016	Financial year 31 December 2017		
Financial assistance from HRD				
• Short-term loans	-	-	<ul style="list-style-type: none"> In 2015, the Company received loan from HRD to operate in the business and invest in electricity business. Later in March and in May 2016, the Company received additional loan to invest in renting water business rights and the transfer of electricity business respectively according to business restructuring plan with the interest rate MLR minus 0.5% per annum which was equal to the interest rate that Hemaraj gave finance assistance to other affiliates. As of July 14, 2016, the Company paid the full amount of such loan and interest using its credit line from a commercial bank. 	<p>The Audit Committee considered and opined that such transaction is necessary and reasonable for the restructuring of the company's business and is beneficial to its operation.</p>
• Interest	123.75	-		
• Accrued interest	-	-		

MANAGEMENT DISCUSSION AND ANALYSIS (MD&A)

WHAUP completed our 2017 at record-high result with a Net Income of Baht 1,980.9 million, 436.1% increase from 2016.

1. RESULTS OF OPERATION FOR 2017

Consolidated Financial Statements	2016	2017	Increase/(Decrease)	
	Baht million	Baht million	Baht million	%
Revenue from Sales and Services	1,467.5	1,633.8	166.2	11.3
- Operating Revenue ¹	1,317.2	1,570.2	253.0	19.2
- Other Income from Utilities Business ²	150.3	63.5	(86.8)	(57.7)
Costs of Sales and Services	(949.5)	(1,092.4)	(142.9)	15.0
Gross Profit	518.0	541.4	23.4	4.5
Gross Profit from Operation³	367.7	477.9	110.1	30.0
Other Income ⁴	91.9	134.4	42.5	46.2
Administrative Expenses	(69.3)	(152.9)	(83.6)	120.6
Finance Costs	(404.0)	(459.9)	(55.9)	13.8
Share of Profit from Investments in Associates and Joint Ventures	962.5	1,936.1	973.7	101.2
Income Tax (Expense) Income	(44.6)	(18.2)	26.5	(59.3)
Non-Controlling Interests	(685.0)	(0.0)	685.0	(100.0)
Profit attributable to Owners of the Parent	369.5	1,980.9	1,611.4	436.1
Foreign Exchange Gain (Loss)	6.2	574.3	568.2	9,224.6
Normalized Profit attributable to Owners of the Parent	363.3	1,406.6	1,043.3	287.2

¹ Operating Revenue consists of Raw Water Sales, Industrial Water Sales, and Wastewater Treatment Services.

² Other Incomes from Utilities Business consists of Excessive Charge for additional Utilities demand and Service Fees for Wastewater Management.

³ Gross Profit from Operation excludes Other Income from Utilities Business.

⁴ Other Incomes mainly consists of Interest Income from Loans to GHECO-One and Dividends Received from Investments in Glow IPP.

2017 KEY HIGHLIGHTS

- WHAUP successfully completed the IPO in April 2017, raising Baht 3,181 million to the Company for refinance existing bank loan of Baht 2,500 million, investment in new project of Baht 520 million and for working capital of Baht 161 million.
- Utilities Business's Operating Revenue was Baht 1,570.2 million, a 19.2% increase YoY as planned reflected stable growth from both volume and price.
- Share of Profit (Power Business) increased 101.2% YoY from 2016 to record at Baht 1,936.1 million with foreign exchange gain of Baht 574.3 million

- GHECO-One, our largest power investment generated Baht 1,406.6 million share of profit to WHAUP and achieved 2017 contracted available hours despite planned major maintenance in 1Q2017.
- B.Grimm Power (WHA) 1 performed full year operation in 2017 (COD in November 2016). In addition, Four SPPs (Gulf VTP, Gulf TS1, Gulf TS2, and Gulf TS3) achieved their COD this year as per the planned schedule
- Additional revenue from business interruption claims of GHECO-One and Gulf JP NLL was Baht 144 million (WHAUP's Portion)
- Since March 2016, WHAUP started acquiring utilities and power assets which were previously owned by different entities in WHA Group in order to consolidate WHAUP as the group's flagship for Utilities and Power Business and as a result improved the Company's performance compared to 2016
- Par splitting from Baht 5 to Baht 1 started July 13, 2017.
- The Company issued the 3-Year debentures to refinance existing bank loan to reduce finance cost in the amount of Baht 4,000 Million on August 18, 2017
- As of the end of 2017, we had Baht 7,338.8 million of Net Interest-Bearing Debt. Our Net Interest-Bearing Debt to Equity ratio was at 0.58x.

SUBSEQUENT EVENT:

- The company obtained right to develop natural gas distribution and retail projects in six Hemaraj industrial estates, starting with the WHA Eastern Seaboard NGD 2 project, scheduled to operate by 3Q2018.

PERFORMANCE BY BUSINESS

UTILITIES BUSINESS

Revenue from Sales and Services from Utilities Business in 2017 of Baht 1,633.8 million has details as the table below.

Revenue	Consolidated financial statements for the period			
	2016	2017	Increase /(Decrease)	
	Baht million	Baht million	Baht million	%
Industrial Water Sales	1,013.0	1,155.2	142.2	14.0
Raw Water Sales	196.3	262.9	66.6	33.9
Wastewater Treatment Services	108.0	152.1	44.2	40.9
Other Incomes from Utilities Business ¹	150.3	63.5	(86.8)	(57.7)
Total Revenue from Sales and Services	1,467.5	1,633.8	166.2	11.3

¹ Other Incomes from Utilities Business consist of Excessive Charge for additional Utilities demand and Service Fees for Wastewater Management in ESIE and HLP1

THE GROWTH MAINLY CAME FROM:

i) the increase in both Raw Water and Industrial Water sales volume as well as Wastewater Treatment and Management volume;

Volume	2016	2017	Increase /(Decrease)	
	million m3	million m3	million m3	%
Raw Water and Industrial Water Sales	56.5	65.6	9.2	16.2
Wastewater Treatment and Management Services	25.2	34.2	9.0	35.6

as a result of

- a) the growing demand from both existing customers and new customers
- b) the acquisition of Raw Water, Industrial Water and Wastewater Treatment Services from WHA Group in March 2016

Location	Water Type	Transfer Date
Hemaraj Eastern Industrial Estate (Map Ta Phut) ("HEIE")	Raw Water / Wastewater	30 Mar 2016
Hemaraj Eastern Seaboard Industrial Estate ("HESIE")	Raw Water / Wastewater	30 Mar 2016
HemarajChonburi Industrial Estate ("HCIE")	Raw Water / Wastewater	30 Mar 2016
HemarajChonburi 2 Industrial Estate ("HCIE2")	Wastewater	30 Mar 2016
HemarajSaraburi Industrial Land ("HSIL")	Industrial Water / Wastewater	30 Mar 2016
HemarajRayong Industrial Land ("HRIL")	Industrial Water / Wastewater	30 Mar 2016
Hemaraj Eastern Seaboard 2 Industrial Estate ("HESIE2")	Wastewater	30 Mar 2016

c) B.Grimm Power (WHA) 1 power plant achieved its COD in November 2016 whereby 4 of our SPPs ie Gulf VTP, Gulf TS1, Gulf TS2, and Gulf TS3 achieved COD in 2017 and hence increased our raw water, industrial water and wastewater.

ii) The increase in the selling price of Raw Water and Industrial Water as well as the Wastewater Treatment service fees. In 2017, on average, our water tariff of each product increased by 3.0% from last year.

III) Other income from Utilities Business which mainly represented one time Excessive Charge in 2017 was Baht 63.5 million.

Our Gross Profit Margins excluding Other Income from Utilities Business improved from 27.9% in 2016 to 30.4% in 2017 mainly due to increased selling volume, increased selling prices, and ability to manage operating costs. Our 2017 Gross Profit was recorded at Baht 541.4 million, a 4.5% increase from that of 2016.

POWER BUSINESS

In 2017, our Share of Profit from Investment in Associates and Joint Ventures ("Share of Profit from Investments") and Dividend Income totalled at Baht 1,995.4 million, a 102.6% growth from 2016. This include gain on Foreign Exchange of Baht 574.3 million.

The breakdown of the Company's Share of Profit and Dividend Income by category of power plant were as follows:

By Category of Power Plant	2016	2017	Increase /(Decrease)	
	Baht million	Baht million	%	
IPP	1,059.8	1,488.4	428.6	40.4
SPP	(18.8)	431.7	450.6	2,391.3
Alternative Energy	6.6	6.0	(0.6)	(9.2)
Power Plants under Constuction and Development	(62.6)	69.2	131.8	210.6
Share of Profit from Investments in Associates and Joint Ventures and Dividend Income	985.0	1,995.4	1,010.4	102.6
Foreign Exchange Gain (Loss)	6.2	574.3	568.2	9,224.6
Normalized Share of Profit from Investments in Associates and Joint Ventures and Dividend	978.8	1,421.0	442.2	45.2

WHAUP is a strategic co-developer of power business. We currently have 478.4 equity MW under operation, and another 64.5 equity MW under construction. We partner with a number of key Thai and international power developers, namely the Glow Group, the Gulf Group, the B.Grimm Power Group, SUEZ and the Gunkul Group. WHAUP recognized Power Business performance in a form of 1) Share of Profit and 2) Dividend Income. Share of Profit is a net profit in proportion of our equity stake (%). Such Share of Profit is net of all relevant costs in the Associates or Joint Ventures.

The growth mainly came from:

- i) The acquisitions of Power Assets from WHA Group, mainly are the investment in Glow Group and Gunkul Group.
 - a. Transferred on 27 May 2016, the Investment in Glow Group

Power Plant	Type of Power of Plant	Category (%)	Equity Holding Capacity	Contracted Capacity (MW)	Equity (MW)
GHECO-One	Coal-fired	IPP	35.00	660.0	231.0
Glow IPP	Gas-fired Cogeneration	IPP	5.00	713.0	35.7
Houay Ho Power	Hydropower	IPP	12.75	152.0	19.4
Total				1,525.0	286.1

b) Transferred on 29 June 2016, the Investment in Gunkul Group

Power Plant	Type of Power of Plant	Category (%)	Equity Holding Capacity	Contracted Capacity (MW)	Equity (MW)
WHA Gunkul Green Solar Roof 17	Solar power	VSPP	74.99	1.0	0.7
WHA Gunkul Green Solar Roof 3	Solar power	VSPP	74.99	0.8	0.6
WHA Gunkul Green Solar Roof 6	Solar power	VSPP	74.99	0.8	0.6
WHA Gunkul Green Solar Roof 1	Solar power	VSPP	74.99	0.6	0.5
Total				3.2	2.4

ii) Full year operation of BGWHA-1 which achieved its COD since November 2016

iii) Completion of Project under Construction

Power plant	Type of power	Category of producer	Equity holding (%)	Contracted Capacity (MW)	Equity Capacity (MW)	COD
Gulf VTP	Gas-fired Cogeneration	SPP	25.01	130.0	32.5	May 2017
Gulf TS1	Gas-fired Cogeneration	SPP	25.01	130.0	32.5	Jul 2017
Gulf TS2	Gas-fired Cogeneration	SPP	25.01	130.0	32.5	Sep 2017
Gulf TS3	Gas-fired Cogeneration	SPP	25.01	125.0	31.3	Nov 2017
Total					515.0	128.8

IPP

- In 2017, GHECO-One generated Baht 1,406.6 million of Share of Profit to WHAUP with gain on foreign exchange translation of Baht 321.5 million
 - Achieved 2017 Contracted Available Hours despite 54 days planned major maintenance shutdown in 1Q2017.
 - In addition, GHECO-One booked other income from claim of business interruption of Baht 290 million in the 2017 (WHAUP's portion was Baht 101.5 million)
- In 2017, HouayHo Power generated Baht 29.6 million of Share of Profit to WHAUP

SPP

Power Plant	COD	Total Share of Profit (Baht million)	Foreign Exchange Gain (Loss) (Baht million)	Normalized Share of Profit (Baht million)
GJP NLL	May 2013	139.7	27.3	112.4
BGWHA-1	November 2016	111.0	42.4	68.6
Gulf VTP	16 May 2017	66.5	34.1	32.3
Gulf TS1	8 July 2017	71.6	33.6	38.0
Gulf TS2	1 September 2017	60.7	36.1	24.6
Gulf TS3	1 November 2017	32.7	30.9	1.8
Total		482.2	204.4	277.7

- In addition, GJP NLL booked other income from claim of business interruption of Baht 170 million in the 2017 (WHAUP's portion was Baht 42.5 million)

ALTERNATIVE ENERGY

- Currently, WHAUP has 2.6 Equity MW of solar rooftop power under operation and generated Baht 6.0 million of Share of Profit to WHAUP

PROJECTS UNDER CONSTRUCTION

- 4 out of 6 SPPs under the joint development with Gulf MP were achieved COD this year. Another 2 SPPs, namely Gulf TS4 and Gulf NLL2 are scheduled to achieve COD on 2018 and 2019, respectively.
- VSPP, WHA KM.3 Solar with a total contracted capacity of 0.9 Equity MW, is scheduled to achieve COD in 1Q'18.
- Another VSPP, Waste to Energy project under construction phase, namely Chonburi Clean Energy (CCE) with a total contracted capacity of 6.9 MW, representing 2.3 Equity MW, is scheduled to achieve COD in the 2019.
- For 2017, Projects under Construction generated Baht 21.9 million of Share of Profit to WHAUP, consisting of a share of loss from operation of Baht 25.4 million and gain on foreign exchange translation of Baht 47.3 million.

Power plant	Type of power	Category of producer	Equity holding (%)	Contracted Capacity (MW)	Equity Capacity (MW)	COD
Gulf TS4	Gas-fired Cogeneration	SPP	25.01	125.0	31.3	Jan 2018
WHA KM.3 Solar	Solar	VSPP	100	0.9	0.9	1Q2018
Gulf NLL2	Gas-fired Cogeneration	SPP	25.01	120.0	30.0	Jan 2019
CCE	Waste to Energy	VSPP	33.33	6.9	2.3	4Q2019
Total				252.8	64.5	

OVERALL PERFORMANCE

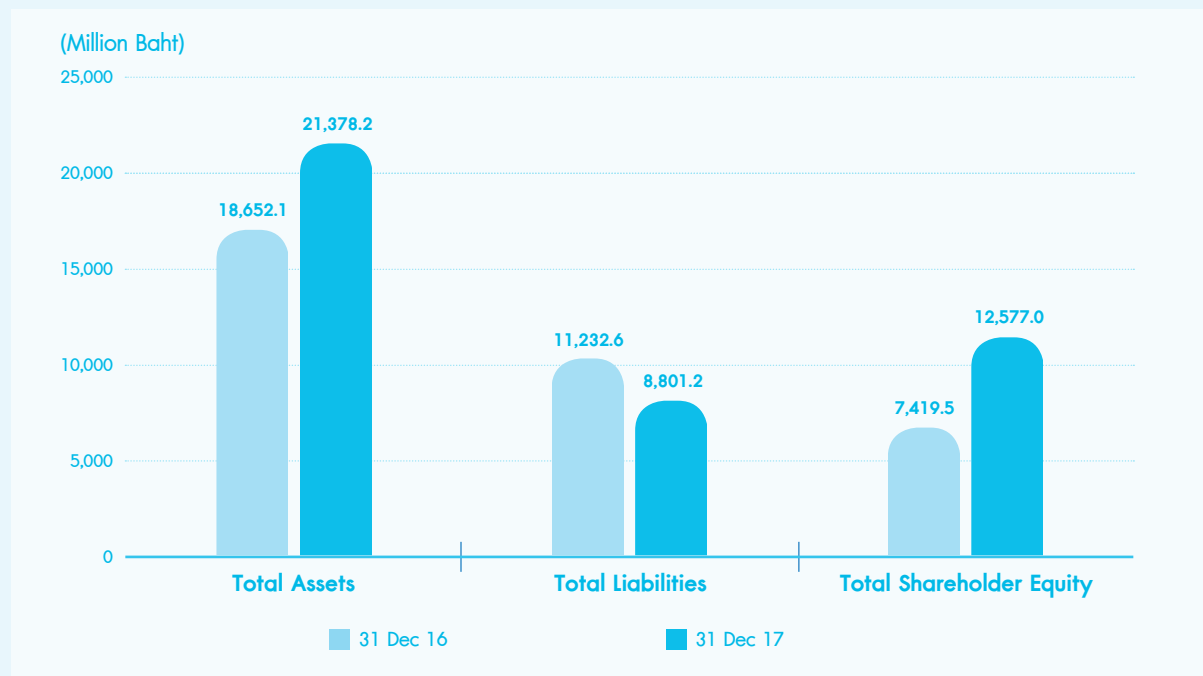
OPERATING EXPENSE

- Administrative Expenses increased from Baht 69.3 million in 2016 to Baht 152.9 million in 2017 as the Company expanded our business portfolio and increased the number of management and staffs to drive the growth.
- Finance Cost increased from Baht 404.0 million in 2016, to Baht 459.9 million in 2017 due to the fact that the Company used interest-bearing debt to fund the acquisitions of Utilities and Power projects from WHA Group in 2016. However our interest-bearing debt at the end of 2017 decreased to Baht 7,930.3 million, from that of Baht 10,421.0 million at the end of 2016 due to the loan repayment of Baht 2,500 which derived from the IPO proceed. Net Interest-bearing Debt in 2017 was Baht 7,338.8 million, decrease from Baht 10,273.9 million in 2016 presenting the Net Interest-bearing Debt-to-Equity ratio of 0.58x.

As a result, our 2017 EBITDA stood at Baht 2,639.2 million, compared to Baht 1,663.1 million in 2016, or a 58.7% growth YoY. EBITDA Margin improved from 65.9% in 2016 to 71.2% in 2017.

Our Net Profit attributable to Owners of the Parent increased by 436.1% in 2017, compared to 2016 figures, to record at Baht 1,980.9 million. Net Profit Margin improved from 14.7% in 2016 to 53.5% in 2017. Normalized Net Profit attributable to Owners of the Parent at Baht 1,406.6 million, a 287.2% growth from 2016.

2. FINANCIAL POSITION



The Consolidated Balance Sheet as of 31 December 2017 is summarized as follows.

ASSETS

As at 31 December 2017, the Company's total Assets amounted to Baht 21,378.2 million, increased by Baht 2,726.1 million from Baht 18,652.1 million at year-end 2016 mainly due to additional investment in 8 power projects under construction. The key elements of Assets in the Company's Consolidated Financial Statements consist of: (i) Investments in associates of Baht 10,626.5 million, (ii) Building and equipment (net) of Baht 3,089.1 million (iii) Goodwill of Baht 2,772.9 million, (iv) Intangible assets of Baht 1,991.8 million and (v) Short-term loans to related parties of Baht 1,013.8 million.

LIABILITIES

As of 31 December 2017, Total Liabilities were Baht 8,801.2 million, decreased Baht 2,431.4 million from Baht 11,232.6 million at year-end 2016 mainly due to repayment long term loan borrowing from financial institutions of Baht 2,500 million. Total Liabilities mainly consisted of Loans from Financial Institutions of Baht 3,936.9 million, Long-term borrowings debentures of Baht 3,993.4 million and Provision for Liabilities from the water business of Baht 304.6 million.

SHAREHOLDERS' EQUITY

As of 31 December 2017, Total Shareholders' Equity was Baht 12,577.0 million, an increase of Baht 5,157.5 million from Baht 7,419.5 million at the end of 2016, mainly driven by the increase in Retain earnings of Baht 1,974.6 million and Share premium on ordinary shares of Baht 2,557.8 million.

As at 31 December 2017, the Company's Debt-to-Equity ratio was 0.70x, improved from 1.51x at the end of 2016, while the Net Interest-bearing Debt-to-Equity ratio was 0.58x at the end of 2017, improved from 1.38x at the end of 2016.

3. KEY FINANCIAL RATIOS

	For the Year ended on	
	31 December 2016	31 December 2017
Gross Profit Margin	35.3%	33.1%
Net Profit Margin ¹	14.7%	53.5%
Return on Equity	4.2%	19.8%
Debt/Equity Ratio	1.51x	0.70x
Net Interest-bearing Debt/Equity Ratio	1.38x	0.58x

¹ Net profit margin is calculated by dividing the Net Profit attributable to Owners of the Parent by Revenue from Sales and Services and Share of Profit from Investments in Associates and Joint Ventures and other income.

REPORT ON RESPONSIBILITIES OF THE BOARD OF DIRECTORS TOWARDS THE FINANCIAL REPORT OF THE YEAR 2017

The Board of Directors of WHA Utilities and Power Public Company Limited realizes its role and responsibility as the Directors in supervising the Company to have the Financial Reports of year 2017 to present sufficient in materiality, relevant and transparent financial and accounting information. Appropriate accounting policies have been put in place and adhered to on a consistent basis according to the generally accepted accounting principle while due consideration has been placed on the process of preparing the Company's and the Consolidated fiscal year 2017 financial statements including other information that have been included in the annual report of this year. The Audit Committee, who is appointed by the Company's Board of Directors, comprising of independent directors fully qualified in accordance with the requirement of the Stock Exchange of Thailand have reviewed and ensure accuracy and sufficiency of the financial report including accurate and complete disclosure of connected transactions or transactions with possible conflict of interests, sufficient and effective internal control and internal audit system, risk management and appropriate corporate governance and to be compliance with the requirement of the Stock Exchange of Thailand and relevant rules and regulations.

The Company's Board of Directors has the opinion that the financial statements and financial reports for the year 2017 of the Company and the Subsidiaries, which have been reviewed by the Audit Committee in conjunction with the management, and audited by the Company's auditors, reflect accurate financial position, operational results and cash flow status in accordance with consistent appropriate accounting policies generally accepted accounting standards and according to relevant rules and regulations.

A handwritten signature in blue ink, consisting of a stylized 'J' followed by a series of loops and a final flourish.

(Miss Jareeporn Jarukornsakul)

Chairman of the Board of Directors

A handwritten signature in blue ink, featuring a series of loops and a final flourish.

(Mr. Wisate Chungwatana)

Director and Chief Executive Officer

AUDIT COMMITTEE REPORT

The Audit Committee of WHA Utilities and Power Public Company Limited has the following independent non-executive directors as its members :

- | | |
|-------------------------------------|---------------------------------|
| 1. Mr. Weidt Nuchjalearn | Chairman of the Audit Committee |
| 2. Mr. Ekajai Tivutanond | Audit Committee member |
| 3. Mrs. Punnee Worawuthichongsathit | Audit Committee member |

The Audit Committee members are qualified in accordance with the rules and regulations for Audit Committees, as issued by the Securities and Exchange Commission and the Stock Exchange of Thailand. The Audit Committee has fulfilled its responsibilities according to the scope and duties assigned by the Board of Directors in compliance with its Charter and official regulations.

The activities of the Audit Committee covered the following areas:

1. Review of the interim and annual financial statements of 2017 to verify that the statements were accurate and complete, and that relevant supporting financial information was disclosed. The review was conducted with inputs from the management and the external auditors. The Audit Committee and external auditors agreed that the financial statements were correct with financial reporting standards. The Company had diligently applied itself to the Federation of Accounting Professionals of Thailand's revised sets of accounting standards, which had been introduced in conjunction with international practice.

2. Review of the internal and risk management control system in order to verify that the system was appropriate and effective in meeting its objectives. The review which was conducted with inputs from the internal auditors, coupled with discussions with the external auditors, did not reveal any significant weaknesses or deficiencies, either at company or subsidiary level. The Audit Committee and both the internal and external auditors are of the view that the prevailing internal control and risk management system meet the requirements of the SET and SEC, and is adequate to safeguard assets and provide sufficient disclosure of information.

3. Review of the internal audit function to ensure its effectiveness and independence. The internal audit function is conducted by a reputable and independent internal audit firm. Work is performed in accordance with a program jointly studied and approved on a continuing basis by the Audit Committee, together with the Management. The internal auditors report their findings to both the Audit Committee and the Management on a quarterly basis, with open access to the Audit Committee at all times. The Audit Committee believes that the internal audit functions of the Company and subsidiaries are appropriate, effective and independent.

4. Review of compliance with the Securities and Exchange Acts, other relevant laws and SEC-SET regulations, as well as the Company's own rules and obligations to external parties. This review, which was performed by the Audit Committee members, with contracted assistance from the internal auditors, did not find any significant instances of non-compliance.

5. Review of, and giving opinion on, connected transactions and transactions potentially giving rise to conflicts of interest, together with the aspect of information disclosure on such transactions in compliance with the regulations of the SET and SEC. The Audit Committee and both the internal and external auditors were of the opinion that such transactions had fully and appropriately been disclosed in the financial statements and notes thereto, and were reasonable, of a normal business nature, as well as being beneficial to the Company.

6. Considering the appointment of external auditors and their remunerations for the year 2018.

The Audit Committee recommending such to the Board of Directors for submission to the Shareholders' Annual General Meeting for the next year. Having considered for performance, independence and remuneration issues, the Audit Committee was satisfied with audit personnel of the present external audit firm, PricewaterhouseCoopers ABAS Ltd., on all count. The committee thus recommended Mr.Chanchai Chaiprasit (Certified Public Accountant registration number 3760), Mr.Pisit Thangtanagul (Certified Public Accountant registration number 4095), and Ms. Nopanuch Apichatsatien (Certified Public Accountant registration number 5266) to appointed the Company's external auditor for the year 2018 at a remuneration of Baht 2,590,000 and non-audit fees in the amount of Baht 75,000

The external auditors had no family, financial interest, employment, investment or business relationship with the Company or any of its subsidiaries, other than in the normal course of audit business.

In summary, the Audit Committee, in the course of discharging its Chartered responsibilities as assigned by the Board of Directors, found that the Company had presented its financial and operational information in a true and fair manner, had appropriate and effective internal control and audit and risk management, had complied with laws, regulations and obligations, and had disclosed connected transactions correctly

A handwritten signature in blue ink, consisting of a large, stylized 'W' followed by a cursive 'N' and 'J'.

Mr. Weidt Nuchjalearn

Chairman of the Audit Committee

INDEPENDENT AUDITOR'S REPORT

TO THE SHAREHOLDERS AND THE BOARD OF DIRECTORS OF WHA UTILITIES AND POWER PUBLIC COMPANY LIMITED

MY OPINION

In my opinion, the consolidated financial statements of WHA Utilities and Power Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial statements of the Company present fairly, in all material respects, the consolidated and separate financial position of the Group and of the Company as at 31 December 2017, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRSs).

WHAT I HAVE AUDITED

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2017;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then ended; and
- the notes to the consolidated and separate financial statements, which include a summary of significant accounting policies.

BASIS FOR OPINION

I conducted my audit in accordance with Thai Standards on Auditing (TSAs). My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated and separate financial statements section of my report. I am independent of the Group and the Company in accordance with the Federation of Accounting Professions under the Royal Patronage of his Majesty the King's Code of Ethics for Professional Accountants together with the ethical requirements that are relevant to my audit of the consolidated and separate financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

MY AUDIT APPROACH - OVERVIEW



Materiality

Overall group materiality: Baht 102 million which represents 5% of Group's profit before tax.

Audit scope

I conduct with audit work of the consolidated financial statements by focusing on the significant components which account for 80% of the Group's profit before tax and 84% of the Group's total assets.

Key audit matters

I identified Goodwill impairment assessment as key audit matter.

MATERIALITY

The scope of my audit was influenced by my application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on my professional judgement, I determined certain quantitative thresholds for overall materiality for the consolidated financial statements as set out in the table below. These, together with qualitative considerations, helped me to determine the scope of my audit and the nature, timing and extent of my audit procedures and to evaluate the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Overall materiality for consolidated financial statements	Baht 102 million
How I determined it	5% of Group's profit before tax
Rationale for the materiality benchmark applied	I chose profit before tax as the critical measure because, in my view, it is the measure against which the performance of the Company is most commonly assessed. The 5% benchmark is a generally accepted auditing practice and there were no significant unusual elements that merited adjustments to this benchmark.

I agreed with the audit committee that I would report to them misstatements identified during my audit.

MY AUDIT SCOPE

I tailored the scope of my audit in order to perform sufficient work to enable me to provide an opinion on the Group's consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

KEY AUDIT MATTERS

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the consolidated and separate financial statements of the current period. I determine one key audit matter: Goodwill impairment assessment. The matter was addressed in the context of my audit of the consolidated and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on the matter.

Key audit matter	How my audit addressed the key audit matter
<p>Goodwill impairment assessment</p> <p>Refer to Note 2.12 Accounting policy and Note 13 Goodwill, as at 31 December 2017, the Group has goodwill of Baht 2,773 million arising from the acquisition of power and water businesses.</p> <p>The Group tests goodwill acquired in a business combination for impairment annually irrespective of whether there is any indication of impairment as required by TAS 36 Impairment of assets.</p> <p>I focused on this matter because management uses judgement and estimates about the future to determine the recoverable amount of cash-generating units that include goodwill.</p> <p>The recoverable amount is based on fair value less costs of disposal determined using a present value technique. The key assumptions in relation to forecast of net future cash flow discounted to net present value are the gross margin, growth rate and discount rate.</p> <p>The management concluded that there is no impairment of goodwill because the recoverable amount is higher than the carrying amount.</p>	<p>I obtained information about the forecasted future cash flow provided by the Group's management and gained an understanding of the procedure for preparing the forecast.</p> <p>Then I challenged the reasonableness of the procedures and assumptions that underpin management's forecast of the gross margin and growth rate based on historical trend analysis and future business plan.</p> <p>The discount rate is determined using the weighted average cost of capital method. I specifically challenged the reasonableness of the assumptions by comparing them to recent performance and industry data.</p> <p>I also tested the mathematical accuracy of key figures estimated based on the above assumptions and used to calculate the recoverable amount and compare to the carrying amount.</p> <p>Based on these procedures, I found the key assumptions were consistent with market and industry data.</p>

OTHER INFORMATION

The directors are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated and separate financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the consolidated and separate financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the consolidated and separate financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to the audit committee.

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

The directors are responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with TFRSs, and for such internal control as the directors determine is necessary to enable the preparation of consolidated and separate financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated and separate financial statements, the directors are responsible for assessing the Group and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

The audit committee assists the directors in discharging their responsibilities for overseeing the Group and the Company's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

My objectives are to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with TSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.

As part of an audit in accordance with TSAs, I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated and separate financial statements, including the disclosures, and whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the audit committee with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, I determine those matters that were of most significance in the audit of the consolidated and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

PricewaterhouseCoopers ABAS Ltd.



Chanchai Chaiprasit

Certified Public Accountant (Thailand) No. 3760

Bangkok

20 February 2018

STATEMENT OF FINANCIAL POSITION

WHA Utilities and Power Public Company Limited

As at 31 December 2017

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Assets					
Current assets					
Cash and cash equivalents	7	591,566,584	147,476,373	398,698,337	56,335,109
Trade and other receivables, net	8	259,676,932	347,889,200	221,846,445	217,515,872
Short-term loans to related parties	27.3	1,013,765,000	1,432,900,000	1,556,015,000	592,985,623
Other current assets		216,733,643	207,257,412	206,869,330	203,835,638
Total current assets		2,081,742,159	2,135,522,985	2,383,429,112	1,070,672,242
Non-current assets					
Investments in associates	9.1	10,626,537,022	8,202,340,466	-	-
Investments in subsidiaries	9.2	-	-	9,290,749,955	9,279,499,959
Interests in joint ventures	9.3	392,305,890	247,595,655	6,247,500	-
Other long-term investments, net		281,302,895	295,175,582	-	-
Building and equipments, net	10	3,089,109,352	2,823,597,831	2,829,820,636	2,663,441,750
Right to operate and distribute industrial water, net	11	134,690,279	143,382,279	134,690,279	143,382,279
Intangible assets, net	12	1,991,767,810	2,025,436,573	1,991,767,810	2,025,436,573
Goodwill	13	2,772,877,526	2,772,877,526	610,669,873	610,669,873
Deferred tax asset	14	1,669,200	-	-	-
Other non-current assets		6,184,183	6,166,683	6,184,183	6,166,683
Total non-current assets		19,296,444,157	16,516,572,595	14,870,130,236	14,728,597,117
Total assets		21,378,186,316	18,652,095,580	17,253,559,348	15,799,269,359

The accompanying notes are an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION (Cont'd)

WHA Utilities and Power Public Company Limited

As at 31 December 2017

	Notes	Consolidated		Separate	
		financial statements		financial statements	
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Liabilities and equity					
Current liabilities					
Trade and other payables	15	336,191,240	276,049,082	289,242,524	271,153,556
Accrued income tax		26,789,545	35,508,122	-	-
Current portion of long-term borrowing					
from financial institution	16	-	2,491,534,108	-	2,491,534,108
Other current liabilities		23,050,924	21,512,248	15,192,156	13,038,636
Total current liabilities		386,031,709	2,824,603,560	304,434,680	2,775,726,300
Non-current liabilities					
Long-term borrowings					
from financial institution	16	3,936,901,708	7,929,904,298	3,936,901,708	7,929,904,298
Debentures	16	3,993,421,481	-	3,993,421,481	-
Deferred tax liabilities	14	149,217,718	181,722,647	121,457,141	151,187,533
Provision for liabilities from					
water business	17	304,598,534	279,866,229	304,598,534	279,866,229
Employee benefit obligations	18	10,986,346	8,324,585	10,986,346	8,324,585
Other non-current liabilities		20,050,856	8,191,169	15,853,470	7,897,168
Total non-current liabilities		8,415,176,643	8,408,008,928	8,383,218,680	8,377,179,813
Total liabilities		8,801,208,352	11,232,612,488	8,687,653,360	11,152,906,113

The accompanying notes are an integral part of these financial statements.

STATEMENT OF FINANCIAL POSITION (Cont'd)

WHA Utilities and Power Public Company Limited

As at 31 December 2017

Notes	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
	Baht	Baht	Baht	Baht
Liabilities and equity (Cont'd)				
Equity				
Share capital				
Authorised share capital				
Ordinary shares 3,825,000,000 shares at par value of Baht 1 each	19	3,825,000,000	3,825,000,000	3,825,000,000
Issued and paid-up share capital				
Ordinary shares 3,825,000,000 shares, paid-up at Baht 1 each (2016: Ordinary share 3,200,000,000 shares, paid up at Baht 1 each)	19	3,825,000,000	3,200,000,000	3,825,000,000
Share premium on ordinary shares	19	2,557,841,248	-	2,557,841,248
Retained earnings				
Appropriated - legal reserve	20	73,100,541	36,251,431	73,100,541
Unappropriated		2,566,235,433	622,168,981	833,464,285
Other components of equity		3,554,800,669	3,561,062,586	1,276,499,914
Equity attributable to				
owners of the parent		12,576,977,891	7,419,482,998	8,565,905,988
Non-controlling interests		73	94	-

The accompanying notes are an integral part of these financial statements.

STATEMENT OF COMPREHENSIVE INCOME

WHA Utilities and Power Public Company Limited

For the year ended 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		2017 Baht	2016 Baht	2017 Baht	2016 Baht
Revenue from sales		1,440,176,035	1,303,820,276	1,149,924,278	935,084,599
Revenue from services		193,580,591	163,698,886	210,980,591	163,698,886
Total revenues		1,633,756,626	1,467,519,162	1,360,904,869	1,098,783,485
Cost of sales		(956,590,900)	(851,268,763)	(921,642,628)	(749,283,482)
Cost of services		(135,789,788)	(98,241,948)	(135,789,788)	(98,241,948)
Total costs		(1,092,380,688)	(949,510,711)	(1,057,432,416)	(847,525,430)
Gross profit		541,375,938	518,008,451	303,472,453	251,258,055
Other income		134,402,138	91,914,619	973,200,247	199,426,005
Administrative expenses		(140,257,591)	(60,368,037)	(110,523,682)	(45,222,644)
Management and director's remuneration		(12,688,263)	(8,964,818)	(12,688,263)	(8,964,818)
Finance costs	21	(459,867,463)	(403,963,428)	(446,138,783)	(378,512,745)
Share of profit from investments in associates and interests joint ventures	9.1, 9.3	1,936,106,033	962,451,696	-	-
Profit before income tax expenses		1,999,070,792	1,099,078,483	707,321,972	17,983,853
Income tax (expense) income	23	(18,155,187)	(44,611,171)	29,660,218	9,110,447
Profit for the year		1,980,915,605	1,054,467,312	736,982,190	27,094,300
Other comprehensive income:					
Items that will not be reclassified to profit or loss					
Remeasurements of retirement benefit obligations	18	5,247,028	(7,647,316)	(350,870)	(2,049,418)
Income tax on items that will not be reclassified	14	(1,049,406)	1,529,463	70,174	409,883
Total items that will not be reclassified to profit or loss		4,197,622	(6,117,853)	(280,696)	(1,639,535)
Items that will be reclassified subsequently to profit or loss					
Share of other comprehensive income of joint ventures accounted for using the equity method	9.3	(10,459,539)	(9,433,707)	-	-
Total items that will be reclassified subsequently to profit or loss		(10,459,539)	(9,433,707)	-	-
Other comprehensive income for the year, net of tax		(6,261,917)	(15,551,560)	(280,696)	(1,639,535)
Total comprehensive income for the year		1,974,653,688	1,038,915,752	736,701,494	25,454,765
Profit attributable to					
Owners of the parent		1,980,915,562	369,474,854	736,982,190	27,094,300
Non-controlling interest from business combination under common control		-	684,992,413	-	-
Non-controlling interests	43	43	45	-	-
Profit for the year		1,980,915,605	1,054,467,312	736,982,190	27,094,300
Total comprehensive income attributable to					
Owners of the parent		1,974,653,645	353,923,294	736,701,494	25,454,765
Non-controlling interest from business combination under common control		-	684,992,413	-	-
Non-controlling interests	43	43	45	-	-
Total comprehensive income for the year		1,974,653,688	1,038,915,752	736,701,494	25,454,765
Earnings per share					
Basic earnings per share	24	0.54	0.16	0.20	0.01

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY

WHA Utilities and Power Public Company Limited

For the year ended 31 December 2017

		Consolidated financial statements											
		Attributable to owners of the parent						Non-controlling interests					
		Retained earnings			Surplus arising from business combination under common control			Other components of equity			Non-controlling interests from business combination under common control		
		Other comprehensive income (expense)			Share of other comprehensive expense of joint ventures			Gain(loss) on remeasurement of defined employee benefit plans			Total owner of the parent		
		Share premium on ordinary shares	Appropriated - legal reserve	Unappropriated	from business combination under common control	Share of other comprehensive expense of joint ventures	Gain(loss) on remeasurement of defined employee benefit plans				Non-controlling interests	Other	Total
Notes		Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
Beginning balance as at 1 January 2016		-	34,896,716	254,048,842	-	-	55,615	-	934,001,173	9,166,179,283	61	9,166,179,344	10,100,180,517
Issuance of ordinary shares	19	2,555,000,000	-	-	-	-	-	-	2,555,000,000	-	-	-	2,555,000,000
Legal reserve	20	-	1,354,715	(1,354,715)	-	-	-	-	-	-	-	-	-
Surplus from business combination under common control		-	-	-	3,576,556,531	-	-	-	3,576,556,531	(9,851,171,696)	-	(9,851,171,696)	(6,274,613,165)
Dividend from a subsidiary paid to non-controlling interests		-	-	-	-	-	-	-	-	-	(32)	(32)	(32)
Transfer of non-controlling interest		-	-	-	-	-	-	-	-	-	20	20	20
Total comprehensive income for the year		-	-	369,474,854	-	-	(6,117,653)	(9,433,707)	353,923,284	684,992,413	45	684,992,458	1,038,915,752
Ending balance as at 31 December 2016		-	36,251,431	622,168,981	3,576,556,531	-	(6,062,238)	(9,433,707)	7,419,482,988	-	94	94	7,419,483,092
Beginning balance as at 1 January 2017		-	36,251,431	622,168,981	3,576,556,531	-	(6,062,238)	(9,433,707)	7,419,482,988	-	94	94	7,419,483,092
Paid-up ordinary shares	19	2,557,841,248	-	-	-	-	-	-	3,182,841,248	-	-	-	3,182,841,248
Legal reserve	20	-	36,840,110	(36,840,110)	-	-	-	-	-	-	-	-	-
Dividend from a subsidiary paid to non-controlling interests		-	-	-	-	-	-	-	-	-	(68)	(68)	(68)
Issuance of ordinary shares in subsidiary		-	-	-	-	-	-	-	-	-	4	4	4
Total comprehensive income for the year		-	-	1,980,915,562	-	-	4,197,622	(10,459,539)	1,974,653,645	-	43	43	1,974,653,688
Ending balance as at 31 December 2017		2,557,841,248	73,100,541	2,569,235,433	3,576,556,531	-	(1,864,616)	(19,893,246)	12,576,977,891	-	73	73	12,576,977,964

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN EQUITY (Cont'd)

WHA Utilities and Power Public Company Limited

For the year ended 31 December 2017

Separate financial statements														
Other components of equity														
Retained earnings														
Other comprehensive income (expense)														
Surplus arising from business combination under common control														
Gain (Loss) on remeasurement of defined employee benefit plans														
Total equity														
Notes	Issued and paid-up share capital	Share premium on ordinary shares	Appropriated - legal reserve	Unappropriated	Surplus arising from business combination under common control	Gain (Loss) on remeasurement of defined employee benefit plans	Total equity							
	Baht	Baht	Baht	Baht	Baht	Baht	Baht							
Beginning balance as at 1 January 2016														
19	645,000,000	-	34,896,716	107,591,620	-	55,615	787,543,951							
20	2,555,000,000	-	-	-	-	-	2,555,000,000							
	-	-	1,354,715	(1,354,715)	-	-	-							
	-	-	-	-	1,278,364,530	-	1,278,364,530							
	-	-	-	27,094,300	-	(1,639,535)	25,454,765							
Ending balance as at 31 December 2016														
	3,200,000,000	-	36,251,431	133,331,205	1,278,364,530	(1,583,920)	4,646,363,246							
Beginning balance as at 1 January 2017														
19	3,200,000,000	-	36,251,431	133,331,205	1,278,364,530	(1,583,920)	4,646,363,246							
20	625,000,000	2,557,841,248	-	-	-	-	3,182,841,248							
	-	-	36,849,110	(36,849,110)	-	-	-							
	-	-	-	736,982,190	-	(280,696)	736,701,494							
Ending balance as at 31 December 2017														
	3,825,000,000	2,557,841,248	73,100,541	833,464,285	1,278,364,530	(1,864,616)	8,565,905,988							

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

WHA Utilities and Power Public Company Limited

For the year ended 31 December 2017

	Notes	Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
		Baht	Baht	Baht	Baht
Cash flows from operating activities					
Profit before income tax		1,999,070,792	1,099,078,483	707,321,972	17,983,853
Adjustments of					
(Reversal of) doubtful accounts		26,056,813	(1,840,489)	17,710,814	(1,840,489)
Share of profit from investments in associates and interests joint ventures	9.1, 9.3	(1,936,106,033)	(962,451,696)	-	-
Gain on sales of interests in joint ventures		-	(784,116)	-	-
Loss on liquidation of interests in joint ventures		144,020	-	-	-
Depreciation	10	136,960,168	121,123,214	129,872,032	112,688,657
Loss from write-off of assets	10	33,334	-	33,334	-
Amortisation of right to operate and distribute industrial water	11	8,692,000	12,062,192	8,692,000	12,062,192
Amortisation of intangible assets	12	35,702,563	27,032,888	35,702,563	27,032,888
Amortisation of other long-term investments		13,872,687	13,910,695	-	-
Employee benefit obligations		7,908,789	133,325	2,310,891	5,731,223
Dividend income		(59,251,404)	(22,500,751)	(928,747,934)	(150,499,970)
Interest income		(74,446,662)	(61,120,911)	(44,147,952)	(28,700,230)
Finance costs	21	459,867,463	403,963,428	446,138,783	378,512,745
		618,504,530	628,606,262	374,886,503	372,970,869
Changes in operating assets and liabilities					
Trade and other receivables, net		33,509,161	(160,029,472)	(32,043,067)	(142,201,887)
Other current assets		(2,195,991)	(165,149,987)	4,246,546	(166,144,487)
Other non-current assets		(17,500)	(6,166,683)	(17,500)	(6,166,683)
Trade and other payables		5,397,571	(8,288,913)	4,255,386	26,032,464
Other current liabilities		1,538,677	13,628,901	2,153,520	9,404,329
Employee benefit obligations	18	-	(165,940)	-	(165,940)
Provision for liabilities from water business	17	(8,052,901)	(5,836,571)	(8,052,901)	(5,836,571)
Other non-current liabilities		11,859,687	(789,015)	7,956,302	(789,015)
Cash generated from operating activities		660,543,234	295,808,582	353,384,789	87,103,079
Interest paid		(408,212,855)	(206,721,111)	(394,484,173)	(180,934,758)
Dividends received from operating activities		687,364,938	651,522,830	-	-
Cash paid for corporate income tax		(69,377,536)	(30,786,117)	(7,280,237)	(4,247,413)
Net cash generated from (used in) operating activities		870,317,781	709,824,184	(48,379,621)	(98,079,092)
Cash flows from investing activities					
Repayments of short-term loans to related party	27.3	(39,015,000)	(1,432,900,000)	(1,125,015,000)	(783,346,506)
Cash received from short-term loans to related party	27.3	458,150,000	-	161,985,623	190,360,883
Cash paid for acquisition of investments in associates	9.1	(1,219,487,600)	(731,180,404)	-	-
Cash paid for acquisition of investments in subsidiaries	9.2	-	(7,443,905,909)	(11,249,996)	(8,978,000,000)
Cash paid for acquisition of interests in joint ventures	9.3	(138,747,500)	(69,325,013)	(6,247,500)	-
Cash received from disposal of interests in joint ventures		-	1,274,997	-	-
Cash received from liquidation of interests in joint ventures		2,151,955	-	-	-
Interest received		128,406,847	4,786,349	54,149,632	15,157,041
Dividends from investing activities		59,251,404	5,001,750	928,747,934	150,499,970
Purchases of building and equipments		(350,281,656)	(160,217,373)	(284,971,892)	(159,116,102)
Purchases of Intangible assets	12	(2,033,800)	-	(2,033,800)	-
Cash paid for transfer of water business		-	(2,744,000,000)	-	(2,744,000,000)
Cash received from termination of right to operate and distribute industrial water	11	-	235,763,639	-	235,763,639
Net cash used in investing activities		(1,101,605,350)	(12,334,701,964)	(284,634,999)	(12,072,681,075)

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS (Cont'd)

WHA Utilities and Power Public Company Limited

For the year ended 31 December 2017

		Consolidated financial statements		Separate financial statements	
		2017	2016	2017	2016
Notes		Baht	Baht	Baht	Baht
Cash flows from financing activities					
Proceeds from short-term borrowings from related parties	27.4	-	11,258,612,908	-	11,303,612,908
Repayment of short-term borrowings from related parties	27.4	-	(12,531,112,908)	-	(12,065,612,908)
Proceeds from long-term borrowings from financial institution	16	-	10,499,000,000	-	10,499,000,000
Repayment of long-term borrowings from financial institution	16	(6,500,000,000)	-	(6,500,000,000)	-
Cash paid for deferred financing fee on long-term borrowings from financial institution	16	-	(104,990,000)	-	(104,990,000)
Proceeds from capital increase	19	3,281,250,000	2,555,000,000	3,281,250,000	2,555,000,000
Cash paid for shares issuance	19	(98,408,752)	-	(98,408,752)	-
Proceeds from debentures issuance	16	4,000,000,000	-	4,000,000,000	-
Cash paid for issuing debentures	16	(7,463,400)	-	(7,463,400)	-
Dividend paid from a subsidiaries to non-controlling interests		(68)	(32)	-	-
Net cash generated from financing activities		675,377,780	11,676,509,968	675,377,848	12,187,010,000
Net increase in cash and cash equivalents					
Cash and cash equivalents - beginning balance		147,476,373	95,844,185	56,335,109	40,085,276
Cash and cash equivalents - ending balance		591,566,584	147,476,373	398,698,337	56,335,109
Non-cash transactions					
Significant non-cash transactions for the year ended 31 December are as follows:					
1) Payables for purchases of fixed assets		68,219,951	15,996,578	27,308,945	15,996,585
2) Other receivables from a joint venture's reduction of their share capital		-	17,104,379	-	-

The accompanying notes are an integral part of these financial statements.

NOTES TO THE CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

WHA Utilities and Power Public Company Limited

For the year ended 31 December 2017

1 General information

WHA Utilities and Power Public Company Limited (“the Company”) is a public limited company which is listed on the Stock Exchange of Thailand and is incorporated and domiciled in Thailand. The address of the Company’s registered office is as follows:

The Company’s head office is located at 24th floor, UM Tower, 9/241-242 Ramkhamhaeng Road, Suanluang subdistrict, Suanluang district, Bangkok, 10250.

For reporting purposes, the Company and its subsidiaries are referred to as “the Group”.

The Group’s major business are to produce and distribute the industrial water, provide waste water treatment service in industrial estate and invest in power business.

The consolidated and separate financial statements have been authorised for issue by the Board of Director on 20 February 2018.

2 Accounting policies

The principal accounting policies applied in the preparation of these consolidated and separate financial statements are set out below:

2.1 Basis for preparation

The consolidated and separate financial statements have been prepared in accordance with Thai generally accepted accounting principles under the Accounting Act B.E. 2543, being those Thai Financial Reporting Standards issued under the Accounting Profession Act B.E. 2547, and the financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act.

The consolidated and separate financial statements have been prepared under the historical cost convention, except as disclosed in the accounting policies below.

The preparation of financial statements in conformity with Thai generally accepted accounting principles requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group’s accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements and separate financial statements are disclosed in note 4.

An English version of the consolidated and separate financial statements have been prepared from the statutory financial statements that are in the Thai language. In the event of a conflict or a difference in interpretation between the two languages, the Thai language statutory financial statements shall prevail.

2.2 Revised accounting standards, financial reporting standards, and related interpretations

The Group has applied the revised accounting standards, financial reporting standards, and related interpretations which are effective on 1 January 2017 and relevant to the Group. The application of those financial reporting standards does not have significant impact to the financial statement.

The Group has not yet early adopted the revised accounting standards, financial reporting standards and related interpretations which are effective on 1 January 2018.

2 Accounting policies (Cont'd)

2.3 Group accounting - Investments in subsidiaries, associates and joint arrangements

(1) Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the Group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognises any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurements are recognised in profit or loss.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognised in profit or loss. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If the total of consideration transferred, non-controlling interest recognised and previously held interest measured is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognised directly in profit or loss.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Group.

(2) Transactions with non-controlling interests

The Group treats transactions with non-controlling interests as transactions with equity owners of the Group. For purchases from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

(3) Disposal of subsidiaries

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities.

2 Accounting policies (Cont'd)

2.3 Group accounting - Investments in subsidiaries, associates and joint arrangements (Cont'd)

(4) Business combination under common control

The Group accounts for business combination under common control by measuring acquired assets and liabilities of the acquiree in the proportion of interests under common control at the carrying values of the acquiree presented in the highest level of the consolidation prior to the business combination under common control at the acquisition date. The Group retrospectively adjusted the business combination under common control transactions as if the combination occurred from the beginning of period of which the financial statements in the previous period are comparatively presented in accordance with the guidance of business combination under common control as issued by the Federation of Accounting Professions.

Costs of business combination under common control are the aggregated amount of fair value of assets transferred, liabilities incurred and equity instruments issued by the acquirer at the date of which the exchange in control occurs. Other costs directly attribute to business combination under common control, such as professional fees of legal advisors and other advisors, registration fees, and costs relating to preparation of information for shareholders, are capitalised as an investment in the separate financial statements while immediately recognised as expenses in the consolidated financial statements in the period of which the business combination occurs.

The difference between costs of business combination under common control and the acquirer's interests in the carrying value of the acquiree is presented as "Surplus arising from business combination under common control" under "Other component of equity" and is derecognised when the investment is disposed (transfer to retained earnings).

(5) Associates

Associates are all entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting.

(6) Joint arrangements

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangements.

A joint venture is a joint arrangement whereby the Group has rights to the net assets of the arrangement. Interests in joint ventures are accounted for using the equity method.

(7) Accounting under equity method

Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The Group's investment in associates includes goodwill identified on acquisition.

If the ownership interest in associates and joint ventures is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate. Profit or loss from reduce of the ownership interest in an associates and joint ventures is recognise in profit or loss.

The Group's share of its associates and joint ventures' post-acquisition profits or losses is recognised in the profit or loss, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the Group's share of losses in associates and joint ventures equals or exceeds its interest in the associates and joint ventures, together with any long-term interests that, in substance, form part of the entity's net investment in the associates or joint ventures, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associates and joint ventures.

2 Accounting policies (Cont'd)

2.3 Group accounting - Investments in subsidiaries, associates and joint arrangements (Cont'd)

(7) Accounting under equity method (Cont'd)

The Group determines at each reporting date whether there is any objective evidence that the investments in the associates and joint ventures are impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the investments and its carrying value and recognises the amount adjacent to share of profit (loss) of associates and joint ventures in profit or loss.

Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates and joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

(8) Separate financial statement

In the separate financial statements, investments in subsidiaries, associates and joint ventures are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration amendments.

2.4 Foreign currency translation

(1) Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The Consolidated financial statements are presented in Baht, which is the company's functional and the Group's presentation currency.

(2) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognised in profit and loss, any exchange component of that gain or loss is recognised in profit and loss.

(3) Group companies

The results and financial position of all the Group entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each statement of financial position presented are translated at the closing rate at the date of that statement of financial position;
- Income and expenses for each statement of comprehensive income are translated at average exchange rates; and
- All resulting exchange differences are recognised in other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the closing rate.

2 Accounting policies (Cont'd)

2.5 Cash and cash equivalents

In the statements of cash flows, cash and cash equivalents includes cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less and bank overdrafts. In the statements of financial position, bank overdrafts are shown within borrowings in current liabilities.

2.6 Trade accounts receivable

Trade accounts receivable are carried at the original invoice amount and subsequently measured at the remaining amount less any allowance for doubtful receivables based on a review of all outstanding amounts at the year-end. The amount of the allowance is the difference between the carrying amount of the receivable and the amount expected to be collectible. Bad debts are written-off during the year in which they are identified and recognised in profit or loss within administrative expenses.

2.7 Other long-term investments

Investments in non-marketable equity securities are classified as general investment.

Investment are initially recognised at cost, which is equal to the fair value of consideration paid plus transaction cost.

Other long-term investments are carried at cost less impairment loss.

A test for impairment is carried out when there is a factor indicating that an investment might be impaired. If the carrying value of the investment is higher than its recoverable amount, impairment loss is charged to the income statement.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to the profit or loss. When disposing of part of the Company's holding of a particular investment in debt or equity securities, the carrying amount of the disposed part is determined by the weighted average carrying amount of the total holding of the investment.

2.8 Buildings and equipment

Building and equipment are stated at cost less any accumulated depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Depreciation on assets is calculated using the straight line method to allocate their cost to their residual values over their estimated useful lives, as follows:

Buildings improvements	5 and 10 years
Buildings and structure	30 years
Tools	5 and 15 years
Equipment, furniture and fixtures	5 years
Raw water pipes	25 years
Industrial water production systems	10 - 30 years
Waste water treatment systems	30 years

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at the end of each reporting period.

The assets' carrying amount is written-down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount (Note 2.12).

Gains or losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised in profit or loss.

2 Accounting policies (Cont'd)

2.9 Goodwill

Goodwill on acquisitions of subsidiaries (Note 2.3 (1)) is separately reported in the consolidated statement of financial position.

Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose, identified according to operating segment.

2.10 Intangible assets

(1) Exclusive right

Exclusive right in sale of water to customers in the real estate, acquired on business combination, is recognised at fair value at the date of acquisition. There will be no reassessment on the asset value. Amortisation is reassessment on an annual basis for 50 years in each project, adjusted for impairment, if any.

(2) Computer software

Computer software development costs recognised as assets are amortised over their estimated useful lives, which does not exceed 3 years.

2.11 Right to operate and distribute the industrial water

Right to operate and distribute the industrial water is carried at cost less accumulate amortization and accumulated impairment losses (if any). This cost are amortised using the straight-line method over 25 years, as periods of contractual rights.

2.12 Impairment of assets

Assets that have an indefinite useful life, for example goodwill, are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2.13 Leases

Leases - where the Group is the lessee

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

When an operating lease is terminated before the lease period has expired, any payment required to be made to the lessor by way of penalty is recognised as an expense in the period in which termination takes place.

Leases of property, plant or equipment where the lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the lower of the fair value of the leased property and the present value of the minimum lease payments.

2 Accounting policies (Cont'd)

2.13 Leases (Cont'd)

Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the liabilities balance outstanding. The corresponding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to profit or loss over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant or equipment acquired under finance leases is depreciated over the shorter period of the useful life of the asset and the lease term.

2.14 Borrowings

Borrowings are recognised initially at the fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised in statement of comprehensive income over the period of the borrowings using the effective yield method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Company has an unconditional right to defer settlement of the liability for at least 12 months after the end of reporting date.

2.15 Current and deferred income taxes

The tax expense for the period comprises current and deferred tax. Tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case the tax is also recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the end of reporting period in the countries where the company and its subsidiaries operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised, using the liability method, on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements.

However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred income tax is provided on temporary differences arising from investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

2 Accounting policies (Cont'd)

2.16 Employee Benefit

The Group companies operate various retirement benefits schemes. The Group has both defined benefit and defined contribution plans.

(1) Defined contribution plan

The Group operates a provident fund, being a defined contribution plan, the asset for which is held in a separate trustee-administered fund. The provident fund is funded by payments from employees and by the Group.

The Group's contributions to the provident fund are charged to the statement of comprehensive income in the year to which they relate.

(2) Retirement benefits

A defined benefit plan is a retirement plan that is not a defined contribution plan. Typically defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually depends on one or more factors such as age, years of service and compensation.

The liability recognised in the statement of financial position in respect of defined benefit retirement plans is the present value of the defined benefit obligation at the end of the reporting period. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related retirement liability.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. They are presented as a separate item in statements of changes in equity.

Past-service costs are recognised immediately in profit or loss.

2.17 Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount can be reliably estimated.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as interest expense.

2.18 Share capital

Ordinary shares with discretionary dividends are classified as equity.

Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from the proceeds.

2 Accounting policies (Cont'd)

2.19 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and service in the ordinary course of the Group's activities. Revenue is shown net of value-added tax, returns, rebates and discounts, and after eliminating sales within the Group for the consolidated financial statements. Revenue from sales of goods is recognised when significant risks and rewards of ownership of the goods are transferred to the buyer. Revenue from rendering services is based on the stage of completion determined by reference to services performed to date as a percentage of total services to be performed.

Interest income is recognised using the effective interest method.

Dividend income is recognised when the right to receive payment is established.

2.20 Dividend distribution

Dividend distribution to the Company's shareholders is recognised as a liability in the Group's financial statements in the period in which the dividends are approved by the Company's shareholders, and interim dividend are approved by the Board of Directors.

2.21 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as Board of Directors that makes strategic decisions.

The Group's principle business operations are providing of potable water, raw water, clarified water, waste water treatment, power business and holding company.

3 Financial risk management

3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks including the effects of changes in interest rate and credit risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group uses derivative financial instruments to hedge certain exposures.

Risk management is carried out by a central treasury department (Group Treasury) under policies approved by the Board of Directors. The Group Treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units.

(1) Foreign exchange risk

The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to Baht. Foreign exchange risk arises from future commercial transactions, recognised assets and liabilities and net investments in foreign operations.

(2) Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash, the availability of funding through an adequate amount of committed credit facilities. Due to the dynamic nature of the underlying business, the Group treasury aims at maintaining flexibility in funding by keeping committed credit lines available.

(3) Credit risk

The Group has no significant concentrations of credit risk. The Group has policies in place to ensure that services are provided to customers with an appropriate credit history. Deposits are limited to high credit quality financial institutions.

3 Financial risk management (Cont'd)

3.1 Financial risk factors (Cont'd)

(4) Interest rate risk

Interest rate risk is the risk that the value of a financial instrument will fluctuate due to changes in market interest rates.

The Group's income and operating cash flows are substantially independent of changes in market interest rates. All interest rate derivative transactions are subject to approval by the Finance Director before execution. The Group has no significant interest-bearing assets.

3.2 Accounting for derivative financial instruments and hedging activities

The Group is party to derivative financial instrument, which is foreign currency forward contracts. Such instrument is not recognised in the financial statements on inception

Foreign currency forward contracts protect the Group from movements in exchange rates. The Group enters into contract establishing the rate at which a foreign currency asset will be realised or a foreign currency liability will be settled in the future. The Group does not recognise foreign currency forward contracts transaction in the financial statements until the contracts are settled. The realised gain (loss) from the settlement of foreign currency forward contracts will be included in gain (loss) on exchange rate in profit or loss. The fee incurred in establishing each agreement is amortised over the contract period, if any.

3.3 Fair value estimation

The table below analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- Quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1).
- Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices) (Level 2).
- Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) (Level 3).

4 Critical accounting estimates, assumptions and judgements

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

4.1 Critical accounting estimates, assumptions

(1) Estimated impairment of goodwill

The Group tests annually whether goodwill has suffered any impairment, in accordance with the accounting policy stated in note 2.12. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of estimates (Note 13).

(2) Provision for liabilities from water business

The Group estimates the liabilities according to the Strategic Partnership Agreement and Right Lease Agreement to operate the industrial water business and the waste water management business by determining the demand of sales and services, price and relevant factors. The Group use future cash flow that expect to pay under the agreement and discounted with the rate which is reflected with related risk.

(3) Plant and equipment, and depreciation

In determining depreciation of plant and equipment the management is required to make estimates of the useful lives and residual values of plant and equipment and to review estimated useful lives and residual values when there are any changes.

(4) Retirement benefits

The present value of the retirement benefits obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Including the discount rate. Any changes in these assumptions will have an impact on the carrying amount of retirement benefits obligation.

The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the retirement benefits obligations. In determining the appropriate discount rate, the Group considers the market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related retirement benefits liability.

Additional information of other key assumptions for retirement benefits obligations other is disclosed in Note 18.

4.2 Critical judgements in applying the entity's accounting policies

Joint arrangement

The Group holds share over 50% of the voting rights of its joint arrangements, The Group has joint control over these arrangements as under the contractual agreements, unanimous consent is required from all parties to the agreements for all major decisions.

The Group's joint arrangements are structured as a limited company and provides the Group and the parties to the agreements with rights to the net assets of the limited company under the arrangements. Therefore, this arrangements are classified as a joint ventures.

5 Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares, or sell assets to reduce debt.

6 Segment information

The Group reported operating segments in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as Board of Directors that makes strategic decisions.

The factors used to identify the Group's reportable segments include types of products and services. There are three reportable segments, (1) water business (2) power business and (3) holding company.

The Board of Director assesses the performance of the operating segments based on revenues from segment. Interest income and expenditure are not allocated to segments, as this type of activity is driven by the central treasury function, which manages the cash position of the Group.

The Group's revenues between segments are carried out at arm's length. The revenue from external parties reported to the Board of Director is measured in a manner consistent with that in the statement of comprehensive income.

6 Segment information (Cont'd)

6.1 The information of revenue and profit in business segments for the years ended 31 December is as follows:

	2017			2016		
	Domestic		Oversea	Domestic		
	Water Business Baht	Power Business Baht	Holding Company Baht	Water Business Baht	Power Business Baht	Total Baht
Sales income	1,440,176,035	-	-	1,303,820,276	-	1,303,820,276
Services income	193,580,591	-	-	163,698,886	-	163,698,886
Total	1,633,756,626	-	-	1,467,519,162	-	1,467,519,162
Gain (loss) from operations	403,631,311	(14,675,354)	(525,873)	463,848,146	(15,172,550)	448,675,596
Other income	3,274,468	131,116,594	11,076	8,019,091	83,895,528	91,914,619
Finance costs	(94,014,208)	(365,853,255)	-	(134,293,896)	(269,669,532)	(403,963,428)
Share of profit (loss) from investments in associates and interests in joint ventures	-	1,936,106,033	-	-	962,451,696	962,451,696
Income tax (expense) income	701,266	(18,856,453)	-	(30,759,394)	(13,851,777)	(44,611,171)
Profit (loss) for the year	313,592,837	1,667,837,565	(514,797)	306,813,947	747,653,365	1,054,467,312
Non-controlling interest from business combination under common control	-	-	-	-	-	(684,992,413)
Net profit attributable to non-controlling interests	-	-	-	-	-	(43)
Net profit attributable to equity-holders of the parent	-	1,980,915,562	-	-	-	369,474,854

For the year ended 31 December 2017, the Group has 5 significant customers that are accounted for at least 10% each of the Group's total revenue from sales and services income from the utility segment, amounting Baht 551,320,833 (2016: the Group has 4 significant customers, amounting Baht 443,274,030).

7 Cash and cash equivalents

As at 31 December, cash and cash equivalents comprise the following:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Cash	1,098,580	2,589,589	646,957	2,559,589
Bank deposits	590,468,004	144,886,784	398,051,380	53,775,520
	<u>591,566,584</u>	<u>147,476,373</u>	<u>398,698,337</u>	<u>56,335,109</u>

The interest rates on deposits are as follows:

	Consolidated financial statements		Separate financial statements	
	2017 % (per annum)	2016 % (per annum)	2017 % (per annum)	2016 % (per annum)
Deposits held at call	0.10 - 0.625	0.10 - 0.625	0.10 - 0.625	0.10 - 0.625

8 Trade and other receivables, net

As at 31 December, trade and other receivables comprise the following:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Trade receivables from third parties	186,394,597	219,336,151	119,795,142	126,687,269
<u>Less</u> Allowance for doubtful accounts	<u>(26,063,843)</u>	<u>(7,030)</u>	<u>(17,717,843)</u>	<u>(7,030)</u>
Trade accounts receivable, net	160,330,754	219,329,121	102,077,299	126,680,239
Prepaid expenses	2,034,889	7,460,031	1,719,872	7,380,294
Accrued income	52,348,895	43,249,296	44,714,090	35,122,102
Other receivables	27,688,313	73,471,041	3,922,174	13,575,289
Receivables from related parties (Note 27.2)	17,274,081	4,379,711	69,413,010	34,757,948
	<u>259,676,932</u>	<u>347,889,200</u>	<u>221,846,445</u>	<u>217,515,872</u>

As at 31 December, trade accounts receivable were classified by aging as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Within due	118,757,243	211,292,352	71,631,787	118,643,470
Over due				
Up to 3 months	41,573,511	8,036,770	30,445,512	8,036,770
Over 3 - 6 months	24,543,597	-	16,197,597	-
Over 6 - 12 months	1,519,995	6,778	1,519,995	6,778
Over 12 months	251	251	251	251
	<u>186,394,597</u>	<u>219,336,151</u>	<u>119,795,142</u>	<u>126,687,269</u>
<u>Less</u> Allowance for doubtful accounts	<u>(26,063,843)</u>	<u>(7,030)</u>	<u>(17,717,843)</u>	<u>(7,030)</u>
	<u>160,330,754</u>	<u>219,329,121</u>	<u>102,077,299</u>	<u>126,680,239</u>

8 Trade and other receivables, net (Cont'd)

As at 31 December, receivable from related parties were classified by aging as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Within due	14,791,515	3,854,271	39,448,303	32,681,008
Over due				
Up to 3 months	2,482,566	525,440	29,964,707	2,076,940
	<u>17,274,081</u>	<u>4,379,711</u>	<u>69,413,010</u>	<u>34,757,948</u>

9 Investments in subsidiaries, associates and interests in joint ventures

9.1 Investments in associates

Set out below are the associates of the Group as at 31 December. The associates as listed below have share capital consisting solely of ordinary shares, which are held directly and indirectly by the Group; the country of incorporation or registration is also their principal place of business.

Nature of investment in associates 2017 and 2016

Associates	Country of Incorporation	Type of business	Proportion of ordinary shares held by the Company (%)		Proportion of ordinary shares held by the Group (%)	
			2017	2016	2017	2016
Gulf JP NLL Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf NLL 2 Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf Solar Company Limited and its subsidiaries:	Thailand	Holding company	-	-	25	25
Gulf Solar KKS Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf Solar BV Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf Solar TS1 Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf Solar TS2 Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
B.Grimm Power (WHA) 1 Limited (Formerly "Bowin Clean Energy Company Limited")	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf VTP Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf TS1 Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf TS2 Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf TS3 Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
Gulf TS4 Company Limited	Thailand	Power plant operation and sale of electricity	-	-	25	25
GHECO-One Company Limited	Thailand	Power plant operation and sale of electricity	-	-	35	35

The Group has contingent liabilities relating to guarantee of associates' loan by ordinary shares of such associates (Note 26).

6 Segment information (Cont'd)

6.2 Business segment information in the consolidated financial statement as of 31 December is as follows:

	2017				2016			
	Domestic		Oversea		Domestic			
	Water Business Baht	Power Business Baht	Holding Company Baht	Total Baht	Water Business Baht	Power Business Baht	Total Baht	Total Baht
Cash and cash equivalents	478,420,476	101,886,013	11,260,095	591,566,584	138,959,359	8,517,014	147,476,373	
Investments in associates	-	10,626,537,022	-	10,626,537,022	-	8,202,340,466	8,202,340,466	
Interests in joint ventures	3,537,880	388,768,010	-	392,305,890	-	247,595,655	247,595,655	
Other long-term investments, net	-	281,302,895	-	281,302,895	-	295,175,582	295,175,582	
Building and equipment, net	3,055,388,735	33,720,617	-	3,089,109,352	2,823,597,831	-	2,823,597,831	
Right for production and distribution of industrial water, net	134,690,279	-	-	134,690,279	143,382,279	-	143,382,279	
Intangible assets, net	1,991,767,810	-	-	1,991,767,810	2,025,436,573	-	2,025,436,573	
Goodwill	610,669,873	2,162,207,653	-	2,772,877,526	610,669,873	2,162,207,653	2,772,877,526	
Other	492,277,990	1,005,750,968	-	1,498,028,958	486,653,462	1,507,559,833	1,994,213,295	
Total assets	6,766,753,043	14,600,173,178	11,206,095	21,378,186,316	6,228,699,377	12,423,396,203	18,652,095,580	

9 Investments in subsidiaries, associates and interests in joint ventures (Cont'd)

9.1 Investments in associates (Cont'd)

The movements of investments in associates for the year ended 31 December are as follows:

	Consolidated financial statements	
	2017 Baht	2016 Baht
At 1 January	8,202,340,466	7,194,086,969
Additions	1,219,487,600	731,180,404
Share of profits in associates	1,902,074,749	928,595,923
Dividends received	(697,365,793)	(651,522,830)
At 31 December	10,626,537,022	8,202,340,466

During the year, the six associates issued increased ordinary shares. The Group purchased all increased ordinary shares to maintain their ownership interest.

Summarised financial information for associates

Set out below are the summarised financial information for the associates that are material to the Group. The information disclosed reflects the amounting presented in the financial statements of the relevant associates (not the Group's shares of those amounts). They have been amended to reflect adjustments made using the equity method, including fair value adjustments and modifications for differences in accounting policy of the Group and associates.

Summarised statement of financial position

	Gheco-One Company Limited	
	31 December 2017 Baht	31 December 2016 Baht
Current assets	6,425,088,493	7,256,398,850
Non-current assets	33,302,621,184	34,191,778,841
Current liabilities	(5,977,216,366)	(7,241,943,680)
Non-current liabilities	(11,905,618,362)	(14,717,853,677)
Net assets	21,844,874,949	19,488,380,334

9 Investments in subsidiaries, associates and interests in joint ventures (Cont'd)

9.1 Investments in associates (Cont'd)

Summarised statement of comprehensive income

Gheco-One Company Limited For the year ended 31 December

	2017 Baht	2016 Baht
Revenue	11,108,954,715	11,722,404,672
Profit before income tax	4,046,281,193	2,881,273,167
Income tax expense	(58,939,378)	(1,423,560)
Profit for the year	3,987,341,815	2,879,849,607
Total comprehensive income	3,987,341,815	2,879,849,607
Dividends received from associate	570,796,516	651,350,835

Reconciliation of the summarised financial information

Reconciliation of the summarised financial information presented to the carrying amount of its interest in the material associate is as follows:

Summarised financial information

Gheco-One Company Limited For the year ended 31 December

	2017 Baht	2016 Baht
Closing net assets	21,844,874,949	19,488,380,334
Interest in associates	35%	35%
Carrying value	7,645,401,252	6,820,628,136

Individually immaterial associates

In addition to the interests in associates disclosed above, the Group also has interests in a number of individually immaterial associates that are accounted for using the equity method.

	2017 Baht	2016 Baht
Total book value of the equity in associates are recorded by equity method per each non-significant	2,981,135,770	1,381,712,330
Total share from investment in associates		
Profit (loss) from continued operations	506,526,726	(79,351,432)

9 Investments in subsidiaries, associates and interests in joint ventures (Cont'd)

9.2 Investments in subsidiaries

The Group comprises of the subsidiaries listed below as at 31 December. All subsidiaries are included in the consolidation and have share capital consisting solely of ordinary shares, that are held directly by the Group. The proportion of ownership interests held equals the voting rights held by the Group.

Subsidiaries	Country of incorporation	Nature of business	Proportion of ordinary shares held by the Company (%)		Proportion of ordinary shares held by the Group (%)	
			2017	2016	2017	2016
WHA Water Company Limited	Thailand	Water resources, development and management	100	100	-	-
WHA Energy Company Limited and its subsidiaries:	Thailand	Holding company	100	100	-	-
WHA Energy 2 Company Limited	Thailand	Holding company	-	-	100	100
WHAUP International Company Limited and its subsidiaries:			100	-	-	-
WHAUP (SG) 1 PTE. Limited	Singapore	Holding company	-	-	100	-
WHAUP (SG) 2 PTE. Limited	Singapore	Holding company	-	-	100	-

The movements of investments in subsidiaries for the year ended 31 December are as follows:

	Separate financial statements	
	2017 Baht	2016 Baht
At 1 January	9,279,499,959	301,499,959
Additions	11,249,996	8,978,000,000
At 31 December	<u>9,290,749,955</u>	<u>9,279,499,959</u>

9 Investments in subsidiaries, associates and interests in joint ventures (Cont'd)

9.3 Interests in joint ventures

The joint ventures listed as at 31 December below has share capital consisting solely of ordinary shares, which are held directly by the Group. The country of incorporation or registration is also their principal place of business

Nature of investment in joint ventures 2017 and 2016

Joint ventures	Country of incorporation	Type of business	Proportion of ordinary shares held by the Company (%)		Proportion of ordinary shares held by the Group (%)	
			2017	2016	2017	2016
WHA Gunkul Green Solar Roof 1 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	75	75
WHA Gunkul Green Solar Roof 2 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 3 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	75	75
WHA Gunkul Green Solar Roof 4 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 5 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 6 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	75	75
WHA Gunkul Green Solar Roof 8 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 9 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 10 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 16 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	-	75
WHA Gunkul Green Solar Roof 17 Co., Ltd.	Thailand	Power plant operation and sale of electricity	-	-	75	75
Eastern Seaboard Clean Energy Co., Ltd. and its subsidiaries:	Thailand	Holding company	-	-	33	33
Chonburi Clean Energy Co., Ltd.	Thailand	Power generation from renewable energy	-	-	33	33
Rayong Clean Energy Co., Ltd.	Thailand	Power generation from renewable energy	-	-	33	33
Glow Hemaraj Wind Company Limited	Thailand	Power plant operation and sale of electricity	-	-	33	33
Houay Ho Thai Company Limited and its associate:	Thailand	Holding Company	-	-	51	51
Houay Ho Power Company Limited	Laos People's Democratic Republic	Power plant operation and sale of electricity	-	-	13	13
Gulf WHA MT Gas distribution Company Limited and its subsidiaries:	Thailand	Invest in gas distribution	51	-	-	-
WHA Eastern Seaboard NGD2 Company Limited	Thailand	Gas distribution	-	-	51	-
WHA Eastern Seaboard NGD4 Company Limited	Thailand	Gas distribution	-	-	51	-

The Group has joint control over this arrangement as under the contractual agreements, unanimous consent is Group required from all parties to the agreements for all relevant activities.

The Group's joint arrangement is structured as a limited company and provides the Group and the parties to the agreements with rights to the net assets of the limited company under the arrangements. Therefore, this arrangement is classified as a joint venture.

All joint ventures are private companies and there are no quoted market price available for its shares.

9 Investments in subsidiaries, associates and interests in joint ventures (Cont'd)

9.3 Interests in joint ventures (Cont'd)

The movements of interests in joint ventures for the year ended 31 December is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
At 1 January	247,595,655	264,718,852	-	-
Additions	138,747,500	12,769,996	6,247,500	-
Disposals	-	(490,881)	-	-
Capital reductions	-	(53,824,378)	-	-
Liquidation of interests in joint ventures	(2,295,975)	-	-	-
Translation adjustments	(10,459,539)	(9,433,707)	-	-
Share of net profits	34,031,284	33,855,773	-	-
Dividend received	(15,313,035)	-	-	-
At 31 December	<u>392,305,890</u>	<u>247,595,655</u>	<u>6,247,500</u>	<u>-</u>

On 18 October 2017, the Group interested in 2,499,000 ordinary shares of Gulf WHA MT Gas Distribution Company Limited which consist of 2 subsidiaries are WHA Eastern Seaboard NGD2 Company Limited, and WHA Eastern Seaboard NGD4 Company Limited at Baht 2.5 per shares, totaling Baht 6.25 million, representing 51% of shareholding. This investment is classified as interest in joint venture.

During the year 2017, Eastern Seaboard Clean Energy Company Limited issued increased ordinary shares. The Group purchased all increased ordinary shares to maintain their ownership interest in the total amount Baht 132,500,000.

Moreover, the Group has received return fund from 7 joint ventures' liquidation in the total amount of Baht 2,151,955 and recognised loss in the amount of Baht 144,020 in the statement of comprehensive income.

Individually immaterial joint ventures

The Group has interests in a number of individually immaterial joint ventures that are accounted for using the equity method.

	2017 Baht	2016 Baht
Aggregate carrying amount of individually immaterial joint ventures	<u>392,305,890</u>	<u>247,595,655</u>
Aggregate amounts of the Group's share of:		
Profit for the year	34,031,284	33,855,773
Other comprehensive income	<u>(10,459,539)</u>	<u>(9,433,707)</u>
Total comprehensive income	<u>23,571,745</u>	<u>24,422,066</u>

10 Buildings and equipment, net

	Consolidated financial statements								
	Buildings improvements	Buildings and structure	Tools	Equipment, furniture and fixtures	Raw water pipes	Industrial water production systems	Waste water treatment systems	Construction in progress	Total Baht
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
At 1 January 2016									
Cost	1,955,328	45,696,186	50,196,327	348,648	579,185,217	451,040,589	-	125,706,583	1,254,128,878
Less Accumulated depreciation	(1,635,347)	(12,124,367)	(23,658,293)	(235,096)	(113,289,304)	(83,771,806)	-	-	(234,714,213)
Net book amount	319,981	33,571,819	26,538,034	113,552	465,895,913	367,268,783	-	125,706,583	1,019,414,665
For the year ended									
31 December 2016									
Opening net book amount	319,981	33,571,819	26,538,034	113,552	465,895,913	367,268,783	-	125,706,583	1,019,414,665
Additions	77,570	5,420,561	7,181,462	1,765,879	12,319,626	345,796	-	109,104,706	136,215,600
Transfers in (out)	-	-	162,400	2,318,748	144,897,241	62,060,175	-	(209,438,564)	-
Increase from business transferred	3,117,887	218,882,272	52,604,742	-	1,016,225,000	290,954,657	207,306,222	-	1,789,090,780
Depreciation (Note 22)	(343,962)	(7,373,542)	(18,258,408)	(185,277)	(62,141,182)	(27,388,126)	(5,432,717)	-	(121,123,214)
Closing net book amount	3,171,476	250,501,110	68,228,230	4,012,902	1,577,196,598	693,241,285	201,873,505	25,372,725	2,823,597,831
At 31 December 2016									
Cost	5,150,785	269,999,019	110,144,931	4,433,275	1,752,627,084	804,401,217	207,306,222	25,372,725	3,179,435,258
Less Accumulated depreciation	(1,979,309)	(19,497,909)	(41,916,701)	(420,373)	(175,430,486)	(111,159,932)	(5,432,717)	-	(355,837,427)
Net book amount	3,171,476	250,501,110	68,228,230	4,012,902	1,577,196,598	693,241,285	201,873,505	25,372,725	2,823,597,831

10 Buildings and equipment, net (Cont'd)

	Consolidated financial statements								
	Buildings improvements	Buildings and structure	Tools	Equipment, furniture and fixtures	Raw water pipes	Industrial water production systems	Waste water treatment systems	Construction in progress	Total Baht
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
At 1 January 2017									
Cost	5,150,785	269,999,019	110,144,931	4,433,275	1,752,627,084	804,401,217	207,306,222	25,372,725	3,179,435,258
Less Accumulated depreciation	(1,979,309)	(19,497,909)	(41,916,701)	(420,373)	(175,430,486)	(111,159,932)	(5,432,717)	-	(355,837,427)
Net book amount	3,171,476	250,501,110	68,228,230	4,012,902	1,577,196,598	693,241,285	201,873,505	25,372,725	2,823,597,831
For the year ended 31 December 2017									
Opening net book amount	3,171,476	250,501,110	68,228,230	4,012,902	1,577,196,598	693,241,285	201,873,505	25,372,725	2,823,597,831
Additions	2,087,484	1,274,900	5,816,622	1,882,535	24,541,993	137,681	-	366,763,808	402,505,023
Transfers in (out)	-	-	7,242,545	1,168,500	93,587,675	19,245,255	-	(121,243,975)	-
Write-off	-	-	(33,333)	(1)	-	-	-	-	(33,334)
Depreciation (Note 22)	(567,856)	(9,116,890)	(17,758,908)	(1,136,725)	(72,841,361)	(28,379,793)	(7,158,635)	-	(136,960,168)
Closing net book amount	4,691,104	242,659,120	63,495,156	5,927,211	1,622,484,905	684,244,428	194,714,870	270,892,558	3,089,109,352
At 31 December 2017									
Cost	7,238,269	271,273,919	122,473,298	7,481,085	1,870,756,752	823,784,153	207,306,222	270,892,558	3,581,206,256
Less Accumulated depreciation	(2,547,165)	(28,614,799)	(58,978,142)	(1,553,874)	(248,271,847)	(139,539,725)	(12,591,352)	-	(492,096,904)
Net book amount	4,691,104	242,659,120	63,495,156	5,927,211	1,622,484,905	684,244,428	194,714,870	270,892,558	3,089,109,352

10 Buildings and equipment, net (Cont'd)

	Separate financial statements													
	Buildings improvements			Buildings and structure		Tools	Equipment, furniture and fixtures	Raw water pipes		Industrial water production systems	Waste water treatment systems		Construction in progress	Total
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
At 1 January 2016														
Cost	1,955,328	45,696,186	46,554,029	348,648	554,241,759	240,855,108	-	125,706,583	1,015,357,641					
Less Accumulated depreciation	(1,635,347)	(12,124,367)	(20,835,492)	(235,096)	(108,754,089)	(19,847,957)	-	-	(163,432,348)					
Net book amount	319,981	33,571,819	25,718,537	113,552	445,487,670	221,007,151	-	125,706,583	851,925,293					
For the year ended 31 December 2016														
Opening net book amount	319,981	33,571,819	25,718,537	113,552	445,487,670	221,007,151	-	125,706,583	851,925,293					
Additions	77,570	5,420,561	6,080,196	1,765,879	12,319,626	345,796	-	109,104,706	135,114,334					
Transfers in (out)	-	-	162,400	2,318,748	144,897,241	62,060,175	-	(209,438,564)	-					
Increase from business transferred	3,117,887	218,882,272	52,604,742	-	1,016,225,000	290,954,657	207,306,222	-	1,789,090,780					
Depreciation (Note 22)	(343,962)	(7,373,542)	(18,089,028)	(185,277)	(61,027,456)	(20,236,675)	(5,432,717)	-	(112,688,657)					
Closing net book amount	3,171,476	250,501,110	66,476,847	4,012,902	1,557,902,081	554,131,104	201,873,505	25,372,725	2,663,441,750					
At 31 December 2016														
Cost	5,150,785	269,999,019	105,401,367	4,433,275	1,727,683,626	594,215,736	207,306,222	25,372,725	2,939,562,755					
Less Accumulated depreciation	(1,979,309)	(19,497,909)	(38,924,520)	(420,373)	(169,781,545)	(40,084,632)	(5,432,717)	-	(276,121,005)					
Net book amount	3,171,476	250,501,110	66,476,847	4,012,902	1,557,902,081	554,131,104	201,873,505	25,372,725	2,663,441,750					

10 Buildings and equipment, net (Cont'd)

	Separate financial statements								
	Buildings improvements	Buildings and structure	Tools	Equipment, furniture and fixtures	Raw water pipes	Industrial water production systems	Waste water treatment systems	Construction in progress	Total
	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht	Baht
At 1 January 2017									
Cost	5,150,785	269,999,019	105,401,367	4,433,275	1,727,683,626	594,215,736	207,306,222	25,372,725	2,939,562,755
Less Accumulated depreciation	(1,979,309)	(19,497,909)	(38,924,520)	(420,373)	(169,781,545)	(40,084,632)	(5,432,717)	-	(276,121,005)
Net book amount	3,171,476	250,501,110	66,476,847	4,012,902	1,557,902,081	554,131,104	201,873,505	25,372,725	2,663,441,750
For the year ended 31 December 2017									
Opening net book amount	3,171,476	250,501,110	66,476,847	4,012,902	1,557,902,081	554,131,104	201,873,505	25,372,725	2,663,441,750
Additions	2,087,484	1,274,900	5,816,622	1,882,535	24,541,993	137,681	-	260,543,037	296,284,252
Transfers in (out)	-	-	7,242,545	1,168,500	93,587,675	19,245,255	-	(121,243,975)	-
Write-off	-	-	(33,333)	(1)	-	-	-	-	(33,334)
Depreciation (Note 22)	(567,856)	(9,116,890)	(17,624,039)	(1,136,725)	(71,911,908)	(22,355,979)	(7,158,635)	-	(129,872,032)
Closing net book amount	4,691,104	242,659,120	61,878,642	5,927,211	1,604,119,841	551,158,061	194,714,870	164,671,787	2,829,820,636
At 31 December 2017									
Cost	7,238,269	271,273,919	117,729,735	7,481,085	1,845,813,294	613,598,672	207,306,222	164,671,787	3,235,112,983
Less Accumulated depreciation	(2,547,165)	(28,614,799)	(55,851,093)	(1,553,874)	(241,693,453)	(62,440,611)	(12,591,352)	-	(405,292,347)
Net book amount	4,691,104	242,659,120	61,878,642	5,927,211	1,604,119,841	551,158,061	194,714,870	164,671,787	2,829,820,636

10 Buildings and equipment, net (Cont'd)

Depreciation was charged to the statements of comprehensive income as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Cost of sales	79,644,411	73,856,926	79,644,411	73,856,926
Cost of services	56,305,284	47,144,228	49,217,148	38,709,671
Administrative expense	1,010,473	122,060	1,010,473	122,060
	<u>136,960,168</u>	<u>121,123,214</u>	<u>129,872,032</u>	<u>112,688,657</u>

11 Right to operate and distribute industrial water, net

The company had entered into a contract to obtain the right to produce and distribute industrial water. The contractual period is 25 years from 1 July 2008 to 30 June 2033.

For the year ended 31 December, the movements of right for production and distribution of industrial water are as follows:

	Consolidated and Separate financial statements	
	2017 Baht	2016 Baht
At 1 January		
Cost	217,300,000	559,000,000
<u>Less</u> Accumulated amortisation	<u>(73,917,721)</u>	<u>(167,791,890)</u>
Net book amount	<u>143,382,279</u>	<u>391,208,110</u>
For the year ended 31 December		
Opening net book amount	143,382,279	391,208,110
Decrease for the year	-	(235,763,639)
Amortisation	<u>(8,692,000)</u>	<u>(12,062,192)</u>
Closing net book amount	<u>134,690,279</u>	<u>143,382,279</u>
At 31 December		
Cost	217,300,000	217,300,000
<u>Less</u> Accumulated amortisation	<u>(82,609,721)</u>	<u>(73,917,721)</u>
Net book amount	<u>134,690,279</u>	<u>143,382,279</u>

Decreasing during the year 2016 arose from the termination of 25-year right to operate and distribute industrial water because the Company had acquired the 50-year right to operate and distribute industrial water (Note 12).

12 Intangible assets, net

	Consolidated and Separate financial statements		
	Right to operate and distribute industrial water and waste management Baht	Computer program Baht	Total Baht
For the year ended 31 December 2016			
Open net book amount	-	-	-
Additions	2,052,469,461	-	2,052,469,461
Amortisation	(27,032,888)	-	(27,032,888)
Closing net book amount	<u>2,025,436,573</u>	<u>-</u>	<u>2,025,436,573</u>
At 31 December 2016			
Cost	2,052,469,461	-	2,052,469,461
Less Accumulated amortisation	<u>(27,032,888)</u>	<u>-</u>	<u>(27,032,888)</u>
Net book amount	<u>2,025,436,573</u>	<u>-</u>	<u>2,025,436,573</u>
For the year ended 31 December 2017			
Open net book amount	2,025,436,573	-	2,025,436,573
Additions	-	2,033,800	2,033,800
Amortisation	<u>(35,620,954)</u>	<u>(81,609)</u>	<u>(35,702,563)</u>
Closing net book amount	<u>1,989,815,619</u>	<u>1,952,191</u>	<u>1,991,767,810</u>
At 31 December 2017			
Cost	2,052,469,461	2,033,800	2,054,503,261
Less Accumulated amortisation	<u>(62,653,842)</u>	<u>(81,609)</u>	<u>(62,735,451)</u>
Net book amount	<u>1,989,815,619</u>	<u>1,952,191</u>	<u>1,991,767,810</u>

The Company received the right to produce and distribute water business and waste water management with the Group which are included Hemaraj Land and Development Public Company Limited, Eastern Industrial Estate Company Limited, Hemaraj Eastern Seaboard Industrial Estate Company Limited, Hemaraj Rayong Industrial Land Company Limited, and Hemaraj Saraburi Industrial Land Company Limited for 50 years in each project from the contract commencement date.

13 Goodwill

Goodwill is allocated to the Group's Cash-Generating Units (CGUs) identified according to business segment as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Power business	2,162,207,653	2,162,207,653	-	-
Water business	610,669,873	610,669,873	610,669,873	610,669,873
	<u>2,772,877,526</u>	<u>2,772,877,526</u>	<u>610,669,873</u>	<u>610,669,873</u>

The recoverable amount of a CGU is determined based on fair value less costs of disposal calculations by using a present value techniques that are within level 3 of the fair value hierarchy. These calculations use cash flow projections based on financial budgets approved by management covering a five-year period. Cash flows beyond the five-year period are extrapolated using the estimated growth rates that does not exceed the long-term average growth rate for the business in which the CGU operates.

The key assumptions used for fair value less costs of disposal calculations are as follows:

	Power business (%)	Water business (%)
Gross margin	-	22.0 - 26.0
Growth rate	(8.4)	7.8
Discount rate	8.3	6.2

Management determined budgeted gross margin based on past performance and its expectations of market development. The weighted average growth rates used are consistent with the forecasts included in industry reports. The discount rates used reflect specific risks relating to the relevant segments.

The recoverable amount will be equal to the carrying amount if the key assumptions used for fair value less costs of disposal changes to be as follows:

	Power business (%)	Water business (%)
Gross margin	-	7.3
Growth rate	(21.2)	(17.9)
Discount rate	10.5	15.1

14 Deferred income taxes

The analysis of deferred tax assets and deferred tax liabilities is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Deferred tax assets:				
to be recovered within 12 months	1,669,200	-	-	-
to be recovered after more than 12 months	-	-	-	-
	<u>1,669,200</u>	<u>-</u>	<u>-</u>	<u>-</u>
Deferred tax liabilities:				
to be settled within 12 months	(4,700,791)	(14,770,115)	(1,926,253)	(270,862)
to be settled after more than 12 months	(144,516,927)	(166,952,532)	(119,530,888)	(150,916,671)
	<u>(149,217,718)</u>	<u>(181,722,647)</u>	<u>(121,457,141)</u>	<u>(151,187,533)</u>
Deferred tax asset, net	<u>(147,548,518)</u>	<u>(181,722,647)</u>	<u>(121,457,141)</u>	<u>(151,187,533)</u>

The movements of deferred tax is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
At 1 January	(181,722,647)	(27,101,455)	(151,187,533)	6,215,800
Business combination	-	(166,923,664)	-	(166,923,664)
Recognised to profit or loss (Note 23)	35,223,535	10,773,009	29,660,218	9,110,447
Recognised to other comprehensive income	(1,049,406)	1,529,463	70,174	409,884
At 31 December	<u>(147,548,518)</u>	<u>(181,722,647)</u>	<u>(121,457,141)</u>	<u>(151,187,533)</u>

14 Deferred income taxes (Cont'd)

The movements in deferred tax assets and liabilities during the year is as follows:

	Consolidated financial statements				
	At 1 January 2016 Baht	Business combination Baht	Recognised to profit or loss Baht	Recognised to comprehensive income Baht	At 31 December 2016 Baht
Deferred tax assets					
Allowance for doubtful account	369,503	-	(368,098)	-	1,405
Time difference from income recognition	5,704,320	-	(5,704,320)	-	-
Employee benefit obligations	141,977	-	(6,522)	1,529,463	1,664,918
Cash paid for transfer of water business	-	548,800,000	(8,292,142)	-	540,507,858
Provision liabilities from water business	-	52,588,384	3,384,862	-	55,973,246
	6,215,800	601,388,384	(10,986,220)	1,529,463	598,147,427
Deferred tax liabilities					
Right to operate and distribute industrial water and waste management	-	(410,493,892)	5,406,581	-	(405,087,311)
Depreciation	-	(357,818,156)	13,570,507	-	(344,247,649)
Fair value adjustment from long-term investment	(33,317,255)	-	2,782,141	-	(30,535,114)
	(33,317,255)	(768,312,048)	21,759,229	-	(779,870,074)
	(27,101,455)	(166,923,664)	10,773,009	1,529,463	(181,722,647)
Deferred income tax, net					

14 Deferred income taxes (Cont'd)

The movements in deferred tax assets and liabilities during the year is as follows: (Cont'd)

	Consolidated financial statements				
	At	Recognised to	Recognised to	At	
	1 January 2017 Baht	Recognised to profit or loss Baht	comprehensive income Baht	31 December 2017 Baht	
Deferred tax assets					
Allowance for doubtful account	1,405	5,211,363	-	-	5,212,768
Employee benefit obligations	1,664,918	1,581,758	(1,049,406)	-	2,197,270
Cash paid for transfer of water business	540,507,858	(10,976,000)	-	-	529,531,858
Provision liabilities from water business	55,973,246	4,946,461	-	-	60,919,707
Interest expenses paid on borrowings	-	7,575,700	-	-	7,575,700
	598,147,427	8,339,282	(1,049,406)		605,437,303
Deferred tax liabilities					
Right to operate and distribute industrial water and waste management	(405,087,311)	7,124,191	-	-	(397,963,120)
Depreciation	(344,247,649)	16,985,525	-	-	(327,262,124)
Fair value adjustment from long-term investment	(30,535,114)	2,774,537	-	-	(27,760,577)
	(779,870,074)	26,884,253	-	-	(752,985,821)
Deferred income tax, net	(181,722,647)	35,223,535	(1,049,406)		(147,548,518)

14 Deferred income taxes (Cont'd)

The movements in deferred tax assets and liabilities during the year is as follows: (Cont'd)

	Separate financial statements				
	At 1 January 2016 Baht	Business combination Baht	Recognised to profit or loss Baht	Recognised to comprehensive income Baht	At 31 December 2016 Baht
Deferred tax assets					
Allowance for doubtful account	369,503	-	(368,098)	-	1,405
Time difference from income recognition	5,704,320	-	(5,704,320)	-	-
Employee benefit obligations	141,977	-	1,113,057	409,884	1,664,918
Cash paid for transfer of water business	-	548,800,000	(8,292,142)	-	540,507,858
Provision liabilities from water business	-	52,588,384	3,384,862	-	55,973,246
	6,215,800	601,388,384	(9,866,641)	409,884	598,147,427
Deferred tax liabilities					
Right to operate and distribute industrial water and waste management	-	(410,493,892)	5,406,581	-	(405,087,311)
Depreciation	-	(357,818,156)	13,570,507	-	(344,247,649)
	-	(768,312,048)	18,977,088	-	(749,334,960)
Deferred income tax, net	6,215,800	(166,923,664)	9,110,447	409,884	(151,187,533)

14 Deferred income taxes (Cont'd)

The movements in deferred tax assets and liabilities during the year is as follows: (Cont'd)

	Separate financial statements			
	At 1 January 2017 Baht	Recognised to profit or loss Baht	Recognised to comprehensive income Baht	At 31 December 2017 Baht
Deferred tax assets				
Allowance for doubtful account	1,405	3,542,163	-	3,543,568
Employee benefit obligations	1,664,918	462,178	70,174	2,197,270
Cash paid for transfer of water business	540,507,858	(10,976,000)	-	529,531,858
Provision liabilities from water business	55,973,246	4,946,461	-	60,919,707
Interest expenses paid on borrowings	-	7,575,700	-	7,575,700
	598,147,427	5,550,502	70,174	603,768,103
Deferred tax liabilities				
Right to operate and distribute industrial water and waste management	(405,087,311)	7,124,191	-	(397,963,120)
Depreciation	(344,247,649)	16,985,525	-	(327,262,124)
	(749,334,960)	24,109,716	-	(725,225,244)
Deferred income tax, net	(151,187,533)	29,660,218	70,174	(121,457,141)

15 Trade and other payable

As at 31 December, trade and other payable consisted of:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Trade payable from other parties	80,879,613	29,594,925	36,577,370	25,990,430
Trade payable from related parties (Note 27.2)	73,602,614	66,185,520	73,602,614	66,177,674
Accrued interest expense from financial institutions	149,909,923	147,388,701	149,909,923	147,388,701
Accrued expenses	31,349,168	32,644,012	28,702,695	31,360,827
Others	449,922	235,924	449,922	235,924
	<u>336,191,240</u>	<u>276,049,082</u>	<u>289,242,524</u>	<u>271,153,556</u>

16 Borrowings

	Consolidated and Separate financial statements	
	2017 Baht	2016 Baht
Current		
Current portion of long-term borrowings from financial institution	-	2,491,534,108
	-	2,491,534,108
Non-current		
Long-term borrowings from financial institution	3,936,901,708	7,929,904,298
Debentures	3,993,421,481	-
	<u>7,930,323,189</u>	<u>7,929,904,298</u>
	<u>7,930,323,189</u>	<u>10,421,438,406</u>

On 14 July 2016, the Company had entered into a long-term loan agreement with financial institution in credit facility of Thai Baht 10,499 million. The long-term loan bear interest at 4.2% per annum for the first two years, at MLR minus 1.5% per annum for the third year and at MLR minus 1.0% per annum for the rest of agreement. The interest and principle will be paid annually, starting from March 2017. The long-term loan is pledged by all ordinary shares of WHA Energy 2 Company Limited.

The movements of borrowings from financial institutions for the year ended 31 December are as follows:

	Consolidated and separate financial statements	
	2017 Baht	2016 Baht
At 1 January	10,421,438,406	-
Addition	-	10,499,000,000
Repayment	(6,500,000,000)	-
Deferred direct finance cost	-	(104,990,000)
Amortisation of deferred direct finance cost	15,463,302	27,428,406
At 31 December	<u>3,936,901,708</u>	<u>10,421,438,406</u>

16 Borrowings (Cont'd)

On 18 August 2017, the Company issued 2 series of unsecured debentures denominated in Thai Baht of which detail are as follows:

- Series 1 Debenture amount of Baht 3,200 million. The principal will be redeemed on the completion date of 18 August 2020. The debenture bears interest at fixed rate of 3.33% per annum and the interest payment schedule is every six-month.
- Series 2 Debenture amount of Baht 800 million. The principal will be redeemed on the completion date of 10 August 2020. The debenture bears interest at fixed rate of 3.33% per annum and the interest payment schedule is every six-month.

The movements of debenture for the year ended 31 December are as follows:

	Consolidated and separate financial statements
	2017 Baht
At 1 January	-
Additions	4,000,000,000
Deferred direct finance cost	(7,463,400)
Amortisation of deferred direct finance cost	884,881
At 31 December	3,993,421,481

Maturity of long-term loans from financial institution and debentures are as follows:

	Consolidated and Separate financial statements	
	2017 Baht	2016 Baht
Within 1 year	-	2,491,534,108
Between 2 years and 5 years	7,930,323,189	4,935,991,481
Over 5 years	-	2,993,912,817
	7,930,323,189	10,421,438,406

The effective interest rates at the statement of financial position date were as follows:

	Consolidated and Separate financial statements	
	2017 %	2016 %
Long-term borrowing from financial institution	4.92	3.58
Debentures	3.37	-

16 Borrowings (Cont'd)

The carrying amounts and fair values of certain long-term loans are as follows:

	Consolidated and separate financial statements			
	Carrying amount		Fair values	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Long-term borrowing from financial institution	3,936,901,708	10,421,438,406	4,037,286,929	10,425,034,530
Debentures	3,993,421,481	-	3,989,300,472	-
	<u>7,930,323,189</u>	<u>10,421,438,406</u>	<u>8,026,587,401</u>	<u>10,425,034,530</u>

17 Provision for liabilities from water business

Provision for liabilities from water business represents the annual right lease fees to be paid according to the Strategic Partnership Agreement and Right Lease Agreement to operate the industrial water business and the waste water management business. The annual right lease fees are calculated as 1% for the first-three years and 3% for the fourth-fiftieth year of revenue from water business before deduction of expenses over the contract period.

Movements of provision for liabilities from water business for the year ended 31 December are as follows:

	Consolidated and Separate financial statements	
	2017 Baht	2016 Baht
At 1 January	279,866,229	-
Increase	-	262,941,920
Provision paid	(8,052,901)	(5,836,571)
Interest expense (Note 21)	32,785,206	22,760,880
At 31 December	<u>304,598,534</u>	<u>279,866,229</u>

18 Employee Benefit Obligations

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Retirement benefits	10,986,346	8,324,585	10,986,346	8,324,585

The movement of employee benefit obligation for the year is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
At 1 January	8,324,585	709,884	8,324,585	709,884
Current service cost	3,022,641	104,953	2,107,779	1,019,815
Interest expense	203,112	28,372	203,112	28,372
Benefit paid	-	(165,940)	-	(165,940)
Transferring employees between the Group	4,683,036	-	-	4,683,036
Remeasurements of retirement benefit obligations	(5,247,028)	7,647,316	350,870	2,049,418
At 31 December	10,986,346	8,324,585	10,986,346	8,324,585

Retirement benefit expenses which are recognised as income or expense in operating profit in the statement of comprehensive income are as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Current service costs	3,022,641	104,953	2,107,779	1,019,815
Interest expense	203,112	28,372	203,112	28,372
Transferring employees between the Group	4,683,036	-	-	4,683,036
Remeasurements of retirement benefit obligations	(5,247,028)	7,647,316	350,870	2,049,418
	2,661,761	7,780,641	2,661,761	7,780,641

Actuarial gain or loss were included in other comprehensive income in statement of comprehensive income.

The principal actuarial assumptions used were as follows:

	Consolidated and separate financial statements	
	2017	2016
Discount rate	2.41%	2.44%
Salary increase rate	6.35%	6.63%
Retirement age	55 years old	55 years old
Turnover rate	0.00% - 13.00%	0.00% - 13.00%

18 Employee Benefit Obligations (Cont'd)

The effects to the retirement benefit obligation as at 31 December 2017 is as follows:

	consolidated and separate financial statements		
	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	1.00 %	Decrease by 8.72 %	Increase by 9.90 %
Salary growth rate	1.00 %	Increase by 9.42 %	Decrease by 8.49 %
Staff turnover rate	1.00 %	Decrease by 9.24 %	Increase by 5.76 %

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumption the same method (present value of the defined benefit obligation calculated with the projected unit credit method) has been applied as when calculating the retirement benefits recognised within the statement of financial position.

The weighted average durations of the retirement benefit obligation as at 31 December 2017 and 2016 are 9.8 and 8.1 years, respectively.

19 Share capital and premium on share capital

The movement of share capital for the year ended 31 December is as follows:

	Authorised Share capital		Issued and paid-up share capital		Share premium on ordinary shares (net)
	Share	Baht	Share	Baht	Baht
At 1 January 2016	64,500,000	645,000,000	64,500,000	645,000,000	-
Issue of shares	380,500,000	3,180,000,000	255,500,000	2,555,000,000	-
Change in par value	320,000,000	-	320,000,000	-	-
At 31 December 2016	765,000,000	3,825,000,000	640,000,000	3,200,000,000	-
Paid-up of shares	-	-	125,000,000	625,000,000	2,656,250,000
Change in par value	3,060,000,000	-	3,060,000,000	-	-
Expense related to issuance of shares	-	-	-	-	(98,408,752)
At 31 December 2017	3,825,000,000	3,825,000,000	3,825,000,000	3,825,000,000	2,557,841,248

At the Annual General Shareholder's meeting of the Company (Public company) in 2017 held on 2 March 2017 approved the resolution to pass the authorisation to directors or Chief Executive Officer of the Company to set the IPO price for the 125,000,000 shares offering to the public at the rate of Baht 26.25 Baht per share. The Company has received in amount of Baht 3,281,250,000 for the 125,000,000 shares on 5 April 2017. The Company registered the paid-up shares with the Ministry of Commerce on 5 April 2017. And recorded the share premium of Baht 2,656,250,000 and offset with expenses related to issuance of shares of Baht 98,408,752 in the equity.

The Extraordinary General Meeting of Shareholders No. 1/2017 held on 30 June 2017 has resolved to approve the amendment to the par value of the shares from Baht 5 per share to be Baht 1 per share. The Company has registered the aforementioned change with the Department of Business Development, the Ministry of Commerce, effective on 13 July 2017.

20 Legal reserve

	Consolidated and Separate financial statements	
	2017 Baht	2016 Baht
At 1 January	36,251,431	34,896,716
Appropriation during the year	36,849,110	1,354,715
At 31 December	73,100,541	36,251,431

Under the public limited company Act., B.E. 2535, the Company is required to set aside as a legal reserve at least 5% of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10% of the registered capital. The legal reserve is non-distributable.

21 Finance costs

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Long-term borrowing from financial institution	362,943,882	231,598,000	362,943,882	231,598,000
Short-term borrowings from related parties	-	126,439,809	-	124,153,865
Debentures	49,524,701	-	49,524,701	-
Issuing debentures fee (Note 16)	884,881	-	884,881	-
Interest expense from provision for liabilities from water business (Note 17)	32,785,206	22,760,880	32,785,206	22,760,880
Others	13,728,793	23,164,739	113	-
Total finance costs	459,867,463	403,963,428	446,138,783	378,512,745

22 Expense by nature

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Cost of raw water	708,695,114	630,265,782	708,695,114	564,099,842
Employee benefit expense	72,107,293	49,281,802	72,107,293	49,281,802
Depreciation (Note 10)	136,960,168	121,123,214	129,872,032	112,688,657
Amortisation (Note 11, 12)	44,394,563	39,095,080	44,394,563	39,095,080
Operating lease	14,900,822	6,773,961	13,368,860	5,671,600
Professional fee	9,684,346	1,594,617	9,684,346	1,225,626
Management and director remuneration	12,688,263	8,964,818	12,688,263	8,964,818

23 Income tax expense

Income tax expenses for the year ended 31 December summarises below:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Current tax	52,385,606	51,466,580	-	-
Adjustments in respect of prior year	993,116	3,917,600	-	-
Deferred tax (Note 14)	(35,223,535)	(10,773,009)	(29,660,218)	(9,110,447)
	<u>18,155,187</u>	<u>44,611,171</u>	<u>(29,660,218)</u>	<u>(9,110,447)</u>

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate of the year presents as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Profit before tax	1,999,070,792	1,099,078,483	707,321,972	17,983,853
Profit exempt from BOI	(69,908,531)	(63,158,705)	-	-
Share of profit from investments in associates and joint ventures	(1,936,106,033)	(962,451,696)	-	-
	<u>(6,943,772)</u>	<u>73,468,082</u>	<u>707,321,972</u>	<u>17,983,853</u>
Tax calculated at a tax rate of 20% (2016: 20%)	(1,388,754)	14,693,616	141,464,394	3,596,771
Tax effect:				
Expense double deductible	(1,560,930)	(2,357,574)	-	-
Income not subject to tax	(5,925,140)	(500,175)	(185,749,586)	(30,099,994)
Expenses not deductible for tax purpose	19,429	-	1,619	-
Tax losses for which no deferred income tax asset was recognised	26,017,466	28,857,704	14,623,355	17,392,776
Adjustments in respect of prior year	993,116	3,917,600	-	-
Income tax expense (income)	<u>18,155,187</u>	<u>44,611,171</u>	<u>(29,660,218)</u>	<u>(9,110,447)</u>

24 Earnings per share

	Consolidated financial statements		Separate financial statements	
	2017	2016	2017	2016
Profit attributable to ordinary shareholders of the Company (Baht)	1,980,915,562	369,474,854	736,982,190	27,094,300
Weighted average number of ordinary shares outstanding (shares)	3,664,041,096	2,332,281,421	3,664,041,096	2,332,281,421
Basic earnings per share (Baht per share)	0.54	0.16	0.20	0.01

Basic earnings per share is calculated by dividing the profit attributable to shareholders of the Company by the weighted average number of ordinary shares.

25 Commitments

25.1 Capital commitments

Capital commitment at the statement of financial position date but not recognised in the financial statements is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Construction in progress	80,402,770	65,874,049	31,024,672	65,874,049

25.2 Operating lease commitments

The Company has the obligations under long-term lease agreements for office building, vehicles and land with the term of contracts for 3 years, 5 years and 30 years, respectively. The obligations for rental payments are as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Not later than 1 year	11,707,062	10,063,922	10,247,709	8,604,569
Later than 1 year but not later than 5 years	39,588,744	35,158,987	33,503,792	29,219,970
Over 5 years	246,691,053	200,661,710	200,498,087	152,863,455
	297,986,859	245,884,619	244,249,588	190,687,994

25.3 Commitments and contingencies liabilities

A subsidiary has obligations regarding guarantee under condition of the standby letters of credit issued by the Group according to the joint operation agreement with power group in the total amount of Baht 1,006 million (2016: Baht 2,033 million).

26 Assets pledged as collaterals

Company	Assets pledged as collaterals	Collaterals
WHA Energy Company Limited	Investment in ordinary shares of associates - Gulf JP NLL Company Limited amounted to 34.61 million shares - Gulf Solar Company Limited amounted to 0.37 million shares - B.Grim Power (WHA) 1 Company Limited (Formerly "Bowin Clean Energy Company Limited") amounted to 3.84 million shares - Gulf VTP Company Limited amounted 40.27 million shares - Gulf TS1 Company Limited amounted to 42.14 million shares - Gulf TS2 Company Limited amounted to 35.71 million shares - Gulf TS3 Company Limited amounted to 31.96 million shares - Gulf TS4 Company Limited amounted to 31.96 million shares - Gulf NLL2 Company Limited amounted to 25.26 million shares	Borrowings by Gulf JP NLL Co., Ltd. Borrowings by Gulf Solar Co., Ltd. Borrowings by B.Grim Power (WHA) 1 Co., Ltd. (Formerly "Bowin Clean Energy Company Limited") Borrowings by Gulf VTP Co., Ltd. Borrowings by Gulf TS1 Co., Ltd. Borrowings by Gulf TS2 Co., Ltd. Borrowings by Gulf TS3 Co., Ltd. Borrowings by Gulf TS4 Co., Ltd. Borrowings by Gulf NLL2 Co., Ltd.
WHA Energy 2 Company Limited	Investment in ordinary shares of associates - Gheco-One Company Limited amounted to 406.84 million Other long-term investment - Glow IPP Company Limited amounted to 14.25 million shares	Borrowings by Gheco-One Co., Ltd. Borrowings by Glow IPP Co., Ltd.

27 Related-party transactions

Individuals and entity that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, the company, including holding companies, subsidiaries and fellow subsidiaries are related parties of the company. Associates and individuals owning, directly or indirectly, an interest in the voting power of the company that gives them significant influence over the Company, key management personnel, including directors and officers of the Company and close members of the family of these individuals and entities associated with these individuals also constitute related parties.

In considering each possible individuals and related-party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

27.1 Revenue and expenses

During the year ended 31 December, the Group has significant related-party transactions that can be summarised as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
<u>Ultimate parent company</u>				
Revenue from sales and services	56,800	26,400	56,800	26,400
Electricity fee	99	-	-	-
Service fee	48,406	-	-	-
Rental fee	72,610	-	-	-
	<u>177,915</u>	<u>26,400</u>	<u>56,800</u>	<u>26,400</u>
<u>Parent company</u>				
Revenue from sales and services	-	66,252	-	66,252
Raw water cost	32,755,930	30,009,778	32,755,930	30,009,778
Electricity fee	2,406,631	-	2,406,631	-
Service fee	191,885	-	191,885	-
Amortisation of right for production and distribution of water	-	612,493	-	612,493
Management fee	9,150,000	6,334,200	9,150,000	5,850,000
Land rental	2,397,430	1,810,962	2,397,430	1,810,962
Interest expense	-	126,439,885	-	123,754,515
	<u>46,901,876</u>	<u>165,273,570</u>	<u>46,901,876</u>	<u>162,104,000</u>
<u>Associates</u>				
Revenue from sales and services	105,689,477	65,191,361	105,689,477	65,191,361
Interest income	71,336,339	59,357,392	-	-
	<u>177,025,816</u>	<u>124,548,753</u>	<u>105,689,477</u>	<u>65,191,361</u>
<u>Subsidiaries</u>				
Revenue from sales and services	-	-	305,389,147	227,667,757
Interest income	-	-	42,028,211	28,437,836
Management income	-	-	-	17,400,000
Dividend income	-	-	928,747,934	150,499,970
Interest expense	-	-	-	399,349
	<u>-</u>	<u>-</u>	<u>1,276,165,292</u>	<u>424,404,912</u>
<u>Join Venture</u>				
Revenue from sales and services	287,500	-	287,500	-
Interest income	507,792	-	507,792	-
	<u>795,292</u>	<u>-</u>	<u>795,292</u>	<u>-</u>

27 Related-party transactions (Cont'd)

27.1 Revenue and expenses (Cont'd)

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
<u>Other related parties</u>				
Revenue from sales and services	6,705,411	7,353,928	6,705,411	7,353,928
Management fee	-	2,745,000	-	2,745,000
Dividend income	59,251,404	5,001,750	-	-
Raw water cost	675,939,183	600,256,005	675,939,183	534,090,065
Electricity fee	9,888,737	16,698,664	9,888,737	16,698,664
Service fee	1,007,393	560,578	1,007,393	560,578
Amortisation of right for production and distribution of water	8,692,000	11,449,699	8,692,000	11,449,699
Land rental	4,824,502	2,816,855	3,365,149	1,714,494
Training	42,675	-	42,675	-
	<u>766,351,305</u>	<u>646,882,479</u>	<u>705,640,548</u>	<u>574,612,428</u>

27.2 Outstanding balance arising from purchase and sale from goods and service

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
<u>Trade receivables - related parties</u>				
Ultimate parent company	11,556	4,708	11,556	4,708
Associates	16,602,386	2,881,374	16,602,386	2,881,374
Subsidiaries	-	-	52,138,929	30,378,237
Joint Ventures	307,625	-	307,625	-
Other related parties	352,514	1,493,629	352,514	1,493,629
	<u>17,274,081</u>	<u>4,379,711</u>	<u>69,413,010</u>	<u>34,757,948</u>
<u>Accrued income</u>				
Associates	25,313,891	-	-	-
Subsidiaries	-	-	11,002,263	9,580,991
Other related parties	320,250	305,000	320,250	305,000
	<u>25,634,141</u>	<u>305,000</u>	<u>11,322,513</u>	<u>9,885,991</u>
<u>Accrued interest income</u>				
Associates	1,821,314	56,334,562	-	-
Subsidiaries	-	-	2,988,445	13,543,189
Joint ventures	553,064	-	553,064	-
	<u>2,374,378</u>	<u>56,334,562</u>	<u>3,541,509</u>	<u>13,543,189</u>
<u>Advance to related parties</u>				
Subsidiaries	-	-	380,620	-
Other related parties	-	32,100	-	32,100
	<u>-</u>	<u>32,100</u>	<u>380,620</u>	<u>32,100</u>

27 Related-party transactions (Cont'd)

27.2 Outstanding balance arising from purchase and sale from goods and service (Cont'd)

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
<u>Others receivables</u>				
Ultimate parent company	-	245,758	-	245,758
Parent company	2,763,678	2,959,541	2,763,678	-
Other related parties	1,919,358	2,641,820	1,919,358	5,601,361
Joint ventures	-	17,104,379	-	-
	<u>4,683,036</u>	<u>22,951,498</u>	<u>4,683,036</u>	<u>5,847,119</u>
<u>Trade and other payables</u>				
Parent company	3,810,498	3,630,455	3,810,498	3,630,455
Other related parties	69,792,116	62,555,065	69,792,116	62,547,219
	<u>73,602,614</u>	<u>66,185,520</u>	<u>73,602,614</u>	<u>66,177,674</u>
<u>Accrued expense</u>				
Ultimate parent company	1,411,717	-	1,411,717	-
Parent company	3,816,933	2,799,852	3,816,933	2,286,252
Other related parties	3,774,310	14,840,462	3,766,464	14,840,462
	<u>9,002,960</u>	<u>17,640,314</u>	<u>8,995,114</u>	<u>17,126,714</u>

27.3 Short-term loan to related parties

Short-term loan to related parties has due at call and bearing interest rate at MLR-0.5% per annum. The movement of short-term loan to related parties for the year ended 31 December is as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
At 1 January	1,432,900,000	-	592,985,623	-
Additional	39,015,000	1,432,900,000	1,125,015,000	783,346,506
Received	(458,150,000)	-	(161,985,623)	(190,360,883)
At 31 December	<u>1,013,765,000</u>	<u>1,432,900,000</u>	<u>1,556,015,000</u>	<u>592,985,623</u>

27.4 Short-term loan from related parties

Short-term loan from related parties is in Thai baht currency has due at call, bearing interest rate at MLR-0.5% per annum and has not collateral.

The movement of short-term loan to related parties for the year ended 31 December as follows:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
At 1 January	-	1,272,500,000	-	762,000,000
Additional	-	11,258,612,908	-	11,303,612,908
Repayments	-	(12,531,112,908)	-	(12,065,612,908)
At 31 December	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

27 Related-party transactions (Cont'd)

27.5 Key management compensation

Key management includes directors (executive and non-executive), members of the Executive Committee, the Company Secretary and the Head of Internal Audit. The compensation paid or payable to key management for employee services is shown below:

	Consolidated financial statements		Separate financial statements	
	2017 Baht	2016 Baht	2017 Baht	2016 Baht
Short-term benefits	43,068,862	8,964,818	43,068,862	8,964,818
Post-employment benefits	1,758,627	1,131,183	1,758,627	1,131,183
	<u>44,827,489</u>	<u>10,096,001</u>	<u>44,827,489</u>	<u>10,096,001</u>

28 Benefits from the Board of Investment of Thailand ("BOI")

For the year ended 31 December 2017 and 2016, the Group has received the benefits from the Board of Investment of Thailand (BOI) for public utilities and basis services production of water supply for industry, 1 certificate.

Significant privileges consist of:

- 1) Tax exemption on the profit that the Company gains (no more than 100% of the investment cost that is not included in land cost and working capital that have 8 years of useful life). If the Company has loss from the operation, BOI allows the Company to deduct the loss from the profit that might occur in another 5 years after BOI expiry date. In addition, the Company can also choose to deduct the loss in one year or multiple years combine.
- 2) The Group does not need to include dividend received from a BOI-promoted entity to calculate the income tax expenses during the exemption period.
- 3) Tax deduction (50% of normal rate) on net profit within 5 years after the end of the right period as mentioned in 1 above.
- 4) Double deduction on distribution, electricity, and water supply cost within 10 years starting from the date that the Group receives its first profit from the operation.
- 5) Deduction on investment cost (25% of investment cost that is not included in the normal depreciation rate).

As a promoted company, the Company must comply with certain conditions and restrictions provided for in the promotional certificates.

Services income for promoted and non-promoted activities for the years ended 31 December can be classified as follows:

	Consolidated financial statements					
	2017 (Baht '000)			2016 (Baht '000)		
	Promoted activity	Non-promoted activity	Total	Promoted activity	Non-promoted activity	Total
Sales income	378,536	1,061,640	1,440,176	369,360	934,460	1,303,820
Services income	-	193,581	193,581	-	163,699	163,699
	<u>378,536</u>	<u>1,255,221</u>	<u>1,633,757</u>	<u>369,360</u>	<u>1,098,159</u>	<u>1,467,519</u>

Investor may additionally obtain the information of the issuing company from its annual filing (orm 56-1) showing in www.set.or.th, www.sec.or.th or in the website of WHA Utilities and Power Public Company Limited www.wha-up.com



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