



SMART WATER SOLUTIONS



eastwater

ANNUAL REPORT 2018

SMART WATER SOLUTIONS

As a leading provider of TOTAL WATER SOLUTIONS in Thailand, East Water grows together with its major eastern seaboard industrial estates to create sustainable economic and social value.

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Investors can study information of additionally issued securities from the Annual Registration Statements (56-1 Form) of the Company as shown in www.set.or.th or www.eastwater.com

SMART WATER SOLUTIONS



Raw
Water



Industrial
Water



Tap
Water



Drinking
Water



Wastewater
Treatment



Recycled
Water

VISION

To be the lead water solutions

MISSION

1

To develop the security and maintain stability of water resources in response to the long-term water demand.

4

To develop human resources and improve management efficiency.

der in total of the country



2

To expand the investment in water related business for continuous and sustainable growth.

3

To increase competitive advantages through technologies and innovations.

5

To be socially and environmentally responsible and establish good relationships with all stakeholders in accordance with corporate governance principles.



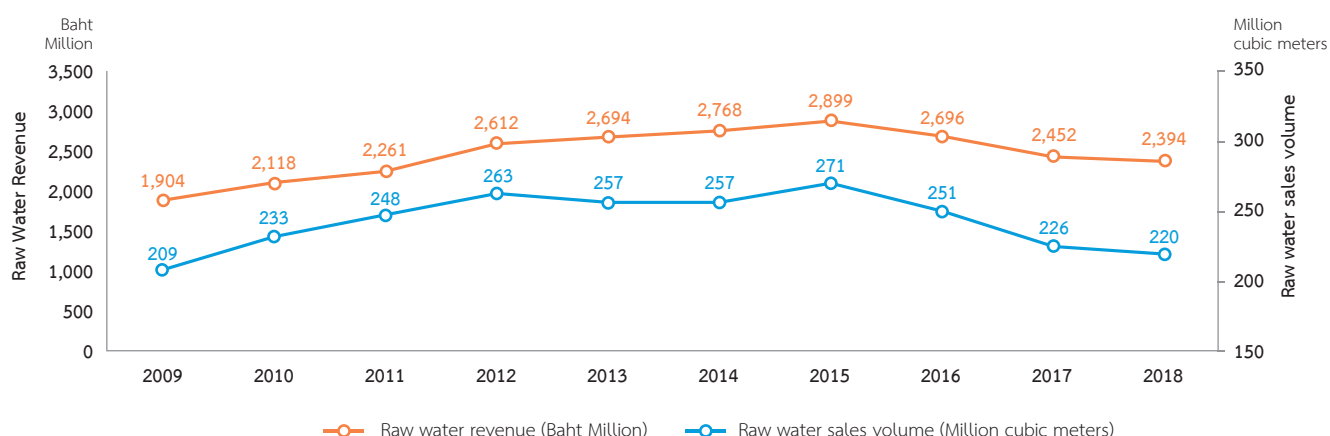
BUSINESS OVERVIEW

	2014	2015	2016	2017	2018
Statements of Income (Baht Million)					
Sales from supply of raw water business	2,768.38	2,898.67	2,696.43	2,452.05	2,393.82
Sales from supply of tap water business	988.74	1,160.24	1,392.87	1,422.75	1,438.40
Total revenue	4,035.84 ¹	4,563.14 ¹	4,295.73 ¹	4,080.98 ¹	4,022.75 ¹
EBITDA	2,288.42	2,444.71	2,404.24	2,347.33	2,280.92
Net profit (loss)	1,334.45	1,591.24	1,318.61	1,232.02	1,129.77
Net profit attributable to owners of the parent	1,334.21	1,584.94	1,309.23	1,221.18	1,117.52
Statements of Financial Position (Baht Million)					
Total assets	15,243.45	19,627.46	19,860.40	19,482.62	20,140.90
Total liabilities	6,726.37	10,127.90	9,812.09	9,052.71	9,335.75
Shareholders' equity	8,517.07	9,499.56	10,048.30	10,429.91	10,805.15
Owners of the parent	8,487.56	9,294.69	9,854.47	10,242.56	10,624.66
Financial Ratios					
Book value per share (Baht/share)	5.10	5.59	5.92	6.16	6.39
Net profit per share (Baht/share)	0.80	0.95	0.79	0.73	0.67
Dividend per share (Baht/share)	0.45	0.47	0.47	0.47	0.20 ²
Net profit margin (%)	33.59	30.55	30.96	30.55	28.33
Return on equity (ROE) (%)	16.31	17.83	13.67	12.15	10.71
Return on assets (ROA) (%)	9.29	9.09	6.63	6.21	5.64
Debt to equity ratio (D/E) (Times)	0.79	1.09	1.00	0.88	0.88

Remarks: ¹ Total revenues in 2014 - 2018 excluded "construction revenues under concession agreements" which is a newly classified revenue as a result of a new interpretation of financial reporting standards TFRIC12 (revised 2014) under the topic of "Service concession arrangements".

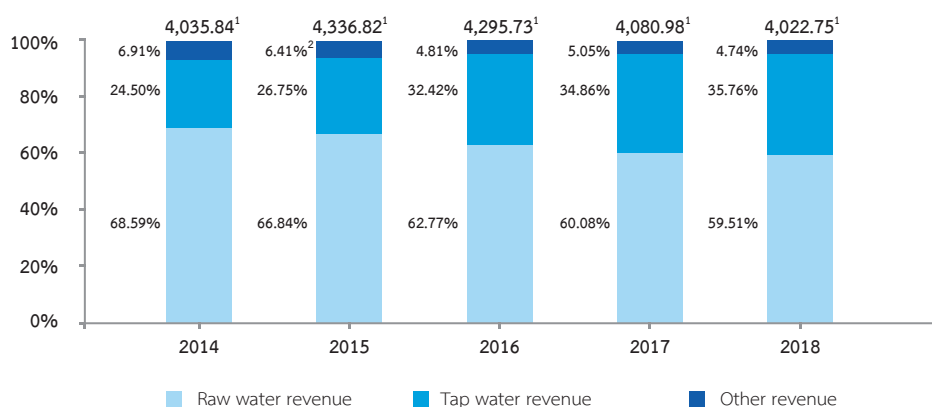
² In 2018, "Interim dividends" as approved by the Board of Directors' Meeting No. 9/2018 held on 9 August 2018 was Baht 0.20 per share.

Raw Water Sales Volume and Revenue



Remarks: Excluding raw water volume pumped to tap water units of the Company and its subsidiaries

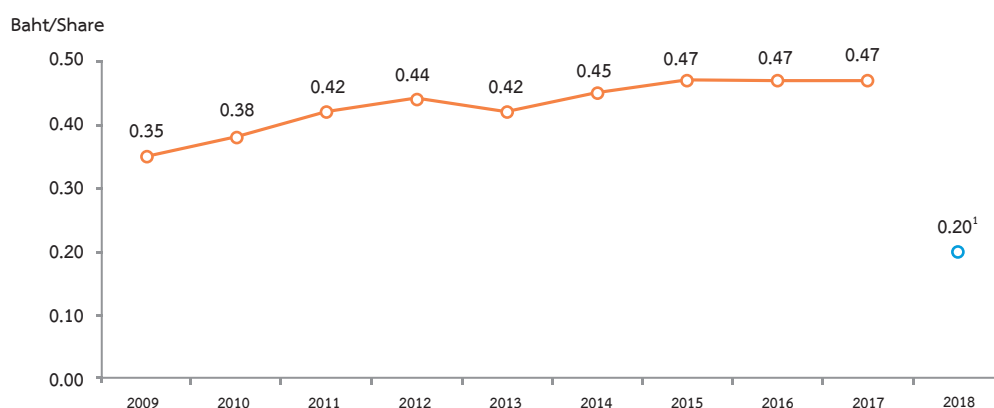
Sources of Revenue (Baht Million)



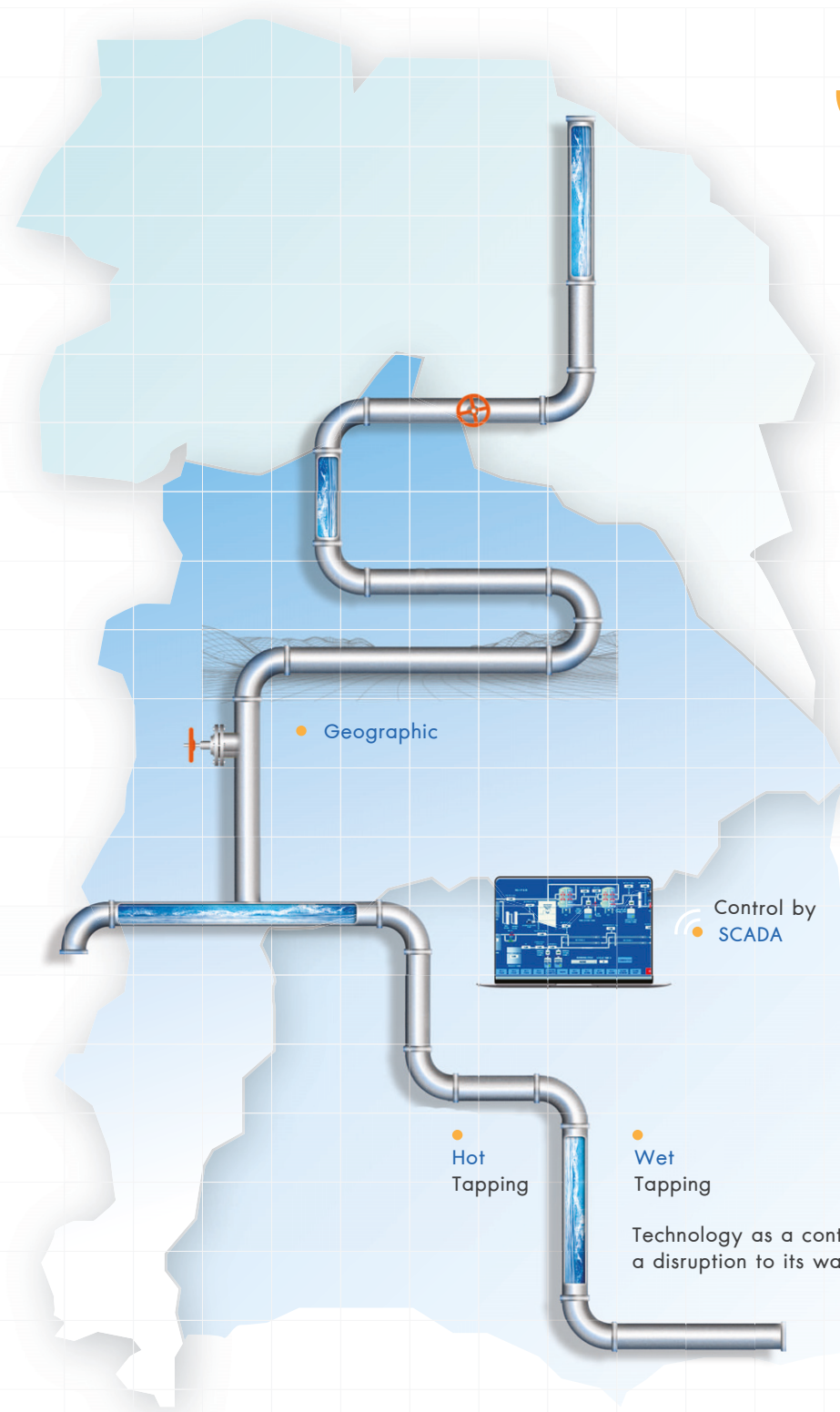
Remarks: ¹ Total revenues in 2014- 2018 excluded “Construction revenues under concession agreements” which is a newly classified revenue as a result of a new interpretation of financial reporting standards TFRIC 12 (revised 2014) under the topic of “Service concession arrangements”.

² “Other revenues” in 2015 excluded a profit of Baht 226.32 million from measuring fair value of 15.88% equity interest in Egcom Tara Company Limited held before the business integration.

Dividend History (Baht per Share)



Remarks: ¹ In 2018, “Interim dividends” as approved by the Board of Directors’ Meeting No. 9/2018 held on 9 August 2018 was Baht 0.20 per share. The Board of Directors will propose to the 2018 Annual General Meeting of Shareholders to approve a dividend based on the operating result for the six months ending 31 December 2018 on 23 April 2019.



SERVICE AREAS



CHACHOENGSAO



CHONBURI



RAYONG

WATER GRID

Connects all main water sources in Eastern Thailand with

491.8
km.

Technology as a control measure to prevent a disruption to its water distribution system

WATER GRID

SMART PATH FROM START TO DESTINATION

East Water enhances efficiency of water delivery through a comprehensive network of water supply pipelines from sources to end users to ensure national security of water utility.

PUMPING
STATIONS 

15

MAIN
WATER SOURCES

6

RESERVED
WATER SOURCES

3

- With its smart water solutions and **modern quality control technology**, East Water is prompt to provide quality, clean and safe water for a stable and sustainable future.

★★★★★
1 in 79
 Thailand Sustainability
 Investment: THSI



Mr. Veerasak Kositpaisal
 Chairman of the Board
 of Directors

Mr. Jirayut Rungsritthong
 President & Chief
 Executive Officer

★★★★★

4 Years
 Corporate Governance Reporting of
 Thai Listed Company (CGR)



MESSAGE FROM THE BOARD OF DIRECTORS

To Shareholders

In 2018, the overall Thai economy continued to see ongoing growth along with the expansion of production and exportation. The domestic demand recovered strongly in line with the household income. The rate of inflation rose in parallel with the statutory minimum wage and global oil and commodity prices. In addition, the government investment budget disbursement was high when compared to previous years especially for the Eastern Economic Corridor (EEC) Development Plan as well as other large-scale projects in the EEC areas. Therefore, the Company was prepared to support such business operations to its full potential through the use of its expertise and efficient water grid that covers the eastern areas of Thailand.

In 2018, the Company continued to place its focus on conducting business according to its vision “To be the leader in total water solutions of the country” and the strategies of 1) Operational Excellence 2) Total Water Solutions 3) Sustainability and 4) Human - Information and Organization Capital. The Company was moving forward towards strengthening its business in line with its vision by entering into contracts to provide industrial water services to large-scale business operators in the eastern region. The Company was selected by the Royal Thai Navy to join the project to provide water works and wastewater treatment systems to the U-Tapao International Airport with an intention to support the EEC project and to add value to the Company’s raw water business.

Furthermore, the Board of Directors approved the expansion of the total water solutions business; the review of the water price structure to ensure alignment with relevant costs and competitiveness; and the use of water innovation and technology to improve the efficiency of maintaining the water grid for non-revenue water (NRW) reduction and optimal use of water resources. The Board of Directors also approved the installation of a floating solar farm in order to reduce energy costs regarded as the Company’s main cost item.

The Company realized the importance of personnel as a key driver of its sustainability. Thus, the Company supported its people development in all aspects

through building an efficient training and development system with a view to ensuring development opportunities for all employees according to their individual development plans. The Company also supported a culture of self-learning and measured the learning results through the performance appraisal system. The performance management system was established with rewards to encourage desired performances and characteristics. The corporate core values and core competencies were reviewed to ensure that the employees were ready to support the Company’s future business expansion.

The Board of Directors and all employees performed duties according to the Securities and Exchange Commission (SEC)’s Corporate Governance Code for Listed Companies; and also complied with applicable laws, rules, and regulations. The list of the Company’s subcommittees was revised to include the Corporate Governance and Sustainability Development Committee. As a result, the Company was chosen as 1 of the 79 listed companies to be in the “Thailand Sustainability Investment (THSI)” or “Sustainability Stock” list. The Company won the Sustainability Report award in the category of Recognition. Additionally, according to the Corporate Governance Reporting of Thai Listed Company (CGR) assessment, the Company was given an “Excellent” rating for 4 consecutive years. The Company’s Annual General Meeting of Shareholders in 2018 obtain a total score of 95 higher than that in 2017 from the Thai Investors Association (TIA). Moreover, in 2018, the Company’s membership of Thailand’s Private Sector Collective Action Coalition Against Corruption (CAC) was renewed. The TRIS Rating affirmed the company rating and the ratings on the debentures of the Company at “A+/Stable”.

In light of the aforesaid operations and achievements, on behalf of the Board of Directors, we would like to thank all stakeholders including government and private agencies, business alliances, trading partners, customers and employees for the continued support for the Company’s business. We look forward to your ongoing support to strengthen the Company and its contribution to Thailand’s sustainability development.

Mr. Veerasak Kositpaisal
Chairman of the Board of Directors

Mr. Jirayut Rungsrithong
President & Chief Executive Officer

Report of the Audit Committee for 2018



Pol.Maj.Gen. Vichai Sangprapai
Chairman of the Audit Committee

The Board of Directors of Eastern Water Resources Development and Management Public Company Limited appointed the Audit Committee which consists of 3 independent directors and 1 advisor who possess appropriate qualifications according to requirements of the Stock Exchange of Thailand (SET). The Audit Committee consists of the following members:

1. Pol. Maj. Gen. Vichai Sangprapai
Chairman of the Audit Committee
2. Mrs. Tatchada Jitmahawong
Member of the Audit Committee
3. Mrs. Asvini Tailanga
Member of the Audit Committee
4. Gen. Trairat Rangaratna
Advisor to the Audit Committee
5. Mrs. Thidarut Kraiprasit
Secretary to the Audit Committee

In 2018, the Audit Committee held a total of 19 meetings including the meetings with the Company's internal auditor, management, and external auditor. The Audit Committee's performance was reported to the Board of Directors' Meeting on a quarterly basis. The Audit Committee performed its duties according to the Charter of the Audit Committee and in full compliance with requirements of the Securities and Exchange Commission (SEC) and the SET. The Audit Committee's operations can be summarized as follows:

1. Review of financial reports

The Audit Committee reviewed the Company's separate and consolidated quarterly and annual financial reports through meetings with its external and internal auditors and management response. The Audit Committee opined that the Company's financial reports were correct and reliable and disclosed sufficient and

timely information. The Audit Committee also provided the Company with the useful observations on the disclosure of information as needed and appropriate. Moreover, the Audit Committee had 2 meetings with its auditor without the management present at the meeting to discuss and acknowledge the auditor's independent work and scope of audit.

2. Review of internal control system effectiveness

The Audit Committee considered the 2018 audit plan and scope based on the risk-based approach (the risk-based internal audit plan), existing internal control procedures, previous audit findings, corporate risk assessment results, and interviews with the management about their needs or concerns.

The Audit Committee considered and reviewed results of the internal control system efficiency and effectiveness assessment conducted by the Internal Audit Department according to universal standards for all internal processes across the business group on a quarterly basis. The Audit Committee provided useful recommendations to improve operational efficiency and effectiveness for the Company and monitored the management's implementation of the recommendations on a continuous basis. Relevant parties were required to report their corrective actions to the Audit Committee on a monthly basis. The Audit Committee viewed that the Company had adequate and appropriate internal controls.

3. Review of compliance with applicable laws, rules and regulations as well as professional ethics

The Audit Committee supervised and ensured transparent information disclosure and reviewed the Company's compliance with laws relating to its business and securities and exchanges as well as requirements of the SET. An executive summary report on the Company's compliance with applicable laws, rules and regulations is produced annually. The Audit Committee was assigned by the Board of Directors to consider and give opinions on the key internal operating procedures as per the policies of the Company before submission to the Board of Directors for consideration and approval.

4. Supervision of internal audit

The Audit Committee considered and approved action plans, annual budgets and manpower framework of the Internal Audit Department as well as supported and promoted the Audit Department's ability to perform

work independently. To ensure increased operational efficiency, the Internal Audit Department is required to report directly to the Audit Committee.

The Audit Committee also considered the Guidelines and Charter of the Audit Committee to ensure compliance with universal standards and the changing situation as well as the determination of key performance indicators and performance appraisal of the Audit Department on an annual basis. The Audit Committee opined that the Internal Audit Department achieved specified goals and plans.

5. Review of performance and consideration of appointment of the Company's auditor

The Audit Committee considered the hiring requirements for the purpose of nomination and selection of an auditor for the business group of 2019. The auditor's performance appraisal results of the auditor in the past year were satisfactory. Also, the auditor's qualifications were reviewed to ensure correctness and completeness. The Audit Committee therefore proposed the selection of the auditor to the Board of Directors for consideration and endorsement before further submission to the 2019 Annual General Meeting of Shareholders for approval.

6. Self-assessment and review of the Charter of the Audit Committee

The Audit Committee conducted annual performance appraisal using the self-performance appraisal form according to the principles of good corporate governance. The performance appraisal results were reported to the Board of Directors for consideration. The self-appraisal results were at a very good level. The Audit Committee also revised the Guidelines and Charter of the Audit Committee to respond to the changing situation and ensure that the Audit Committee performed all the duties as assigned and in line with best practices of the SET before submission to the Board of Directors for approval.

In conclusion, the Audit Committee performed all the duties stipulated in the Charter of the Audit Committee as approved by the Board of Directors and in line with requirements of the SEC and the SET. The Audit Committee also agreed with the auditor's opinion that the Company presented the financial reports correctly as per the generally accepted accounting principles (GAAP) in Thailand, established appropriate and effective internal control and internal audit systems, and strictly complied with applicable laws, rules and regulations. Throughout the course of operations in 2018, no significant issues or weaknesses were found and the operations were continuously improved to ensure appropriateness and alignment with the current business environment.

On behalf of the Audit Committee



Pol.Maj.Gen. Vichai Sangprapai
Chairman of the Audit Committee

Report of the Investment Committee



Mr. Surachai Kanasa
Chairman of the Investment Committee

The Investment Committee consists of the following members:

1. Mr. Surachai Kanasa
Chairman of the Investment Committee
2. Mr. Kritsada Sunkhamani
Member of the Investment Committee
3. Mr. Oran Vongsuraphichet
Member of the Investment Committee
4. Mr. Virgilio Jr. Cervantes Rivera
Member of the Investment Committee
5. Mr. Jirayut Rungsrihong
Member of the Investment Committee
6. Mr. Vicha Nilpetploy
Advisor to the Investment Committee
7. Mr. Charin Sony
Secretary to the Investment Committee

In 2018, the Investment Committee held a total of 11 meetings. The Investment Committee approved 4 important projects with a total value of Baht 296,966,000 (exclusive of VAT) and considered another 4 large-scale projects worth Baht 2,239,710,000 (exclusive of VAT) for further submission to the Board of Directors for consideration and approval. The results of operations can be summarized as follows:

1. Considered the expansion of water business investment to ensure continuous and sustainable growth. The projects being considered included the construction of the clarified water production system for the Amata City Industrial Estate and the construction of the clarified water production system for the GULF Power Plant. The Company has utilized pricing and differentiation as marketing strategies. With its strengths in terms of raw water source security and expertise in investment in the construction of large-scale water production systems and management, the Company has been able to provide industrial water services to customers in the Eastern Economic Corridor (EEC), which has added value to its raw water business.

2. Considered the investment in the provision of a full range of water services to the U-Tapao International Airport which is being pushed forward by the government to become a center of trade, transportation, logistics, aviation maintenance, aviation and aerospace technology research and development, and security technology research and development in order to support the EEC Development Plan.
3. Considered the investment in the tap water production and sale to the Phuket Provincial Waterworks Authority (PWA), Phuket Province, from the Loch Palm water reservoir. This would bring benefits to the Company in terms of income generation and the expansion of its tap water business in new areas as well as more opportunities for the expansion of its complete water solutions to other areas in Phuket Province.
4. Provided advice to the management on the energy cost reduction project through the development of a floating or land-based solar farm in order to reduce energy costs and optimize the use of the Company's assets.
5. Considered criteria for investment to ensure clarity and the Company's overall investment budget as well as followed up on the progress of the key investment projects as assigned by the Board of Directors to achieve the investment targets.
6. Considered and determined rates of return on investment (ROI) as approved by the Investment Committee and set up time frames for monitoring relevant projects to ensure that they are executed by all relevant parties on an ongoing basis.
7. Reviewed the Charter of the Investment Committee by adjusting roles and responsibilities to ensure appropriateness and alignment with the current situation. Also, revised the topics under the Charter to ensure uniformity with other subcommittees.

The Investment Committee performed its duties as assigned by the Board of Directors and according to the Charter. Focus has been placed on the key operations and the development of new projects to ensure that the Company's investment is aligned with its vision and mission. The Investment Committee exercised prudence and caution in its operations, taking into consideration the benefits of the Company and its shareholders. The Investment Committee also complied with relevant laws and regulations under the principles of good corporate governance to ensure the Company's stable growth.



Mr. Surachai Kanasa
Chairman of the Investment Committee

Report of the Risk Management Committee



Mrs. Asvini Tailanga
Chairman of the Risk Management Committee

The Risk Management Committee consists of the following members:

1. Mrs. Asvini Tailanga
Chairman of the Risk Management Committee
2. Mr. Kritsada Sunkhamani
Member of the Risk Management Committee
3. Mr. Jirayut Rungsrihong
Member and Secretary to the Risk Management Committee
4. Mr. Siwa Sangmanee
Advisor to the Risk Management Committee

The Board of Directors realizes the importance of risk management to ensure that business plans meet targets. Therefore, the Risk Management Committee was set up to help consider and screen surrounding factors, business context, and significant risks and also to provide appropriate recommendations and solutions. Its responsibilities include stipulating risk management policies, considering enterprise risks, assessing possible risks that affect the business, determining measures to prevent and solve possible risk impacts, and monitoring and reviewing relevant risks on a continuous basis.

In 2018, the Risk Management Committee held a total of 5 meetings to consider important issues which can be summarized as follows:

1. Considered and delivered the enterprise risk management policy. Also, supported the revision of the organizational risk management handbook according to the principle of COSO-ERM as per universal risk management standards
2. Considered risk assessment criteria and determined key risk indicators (KRIs)
3. Considered and endorsed enterprise risks for risk issue owners to prepare risk management plans and develop relevant protective and control measures or solve issues to mitigate risk impacts to the levels desired or accepted by the organization
4. Monitored, checked, and reviewed risks on a continuous basis; and required that effectiveness of the control measures be evaluated to ensure that risk management objectives were met
5. Reviewed the Charter of the Risk Management Committee to ensure appropriateness and alignment with the current situation

The Risk Management Committee is committed to ensuring that the Company develops and improves its risk management system under the good corporate governance principles in order to execute business plans most efficiently with appropriate risk management. In addition, self-performance appraisal is conducted annually and the appraisal results are used to improve and solve relevant issues such that the Company manages risks according to its strategic plans and meets business targets.

A stylized handwritten signature in black ink, appearing to read 'Asvini Tailanga'.

Mrs. Asvini Tailanga
Chairman of the Risk Management Committee

Report of the Corporate Governance and Sustainability Development Committee



Mrs. Tatchada Jitmahawong
Chairman of the Corporate Governance
and Sustainability Development Committee

The Corporate Governance and Sustainability Development Committee consists of the following members:

1. Mrs. Tatchada Jitmahawong
Chairman of the Corporate Governance
and Sustainability Development Committee
2. Pol.Maj.Gen. Vichai Sangprapai
Member of the Corporate Governance
and Sustainability Development Committee
3. Col. Premjiras Tanathaipakdee
Member of the Corporate Governance
and Sustainability Development Committee
4. Mrs. Wirawan Tharanont
Secretary to the Corporate Governance
and Sustainability Development Committee

In 2018, the Board of Directors revised the role and responsibilities of the Corporate Governance and Sustainability Development Committee to ensure compliance with the 2017 Corporate Governance Code for Listed Companies of the Securities and Exchange Commission (SEC). Realizing the importance of the role and responsibilities of the Corporate Governance and Sustainability Development Committee as a leader to create long-term value for the organization, the Board of Directors assigned additional authority, duties and responsibilities in respect of sustainability development to the Committee. Also, the Committee shall be responsible for corporate governance activities and ensuring that the management works with a firm commitment to social, community and environmental responsibility in alignment with the Company's main objectives, goals and strategies.

The Corporate Governance and Sustainability Development Committee held a total of 12 meetings in 2018 to consider and review important matters according to the Charter of the Corporate Governance and Sustainability Development Committee before

submission to the Board of Directors for consideration. The details can be summarized as follows:

1. Reviewed the Charter of the Corporate Governance and Sustainability Development Committee as a guideline for other subcommittees to adopt to ensure consistent standards and formats
2. Reviewed the Company's good corporate governance principles by revising formats and adding key contents as per the 2017 Corporate Governance Code for Listed Companies of the SEC
3. Reviewed the anti-corruption policy to ensure compliance with the Act Supplementing the Constitution Relating to the Prevention and Suppression of Corruption B.E. 2561 (2018) and the recommendations of the Thailand's Private Sector Collective Action Coalition Against Corruption (CAC) Council
4. Reviewed the code of conduct of the business group by revising the complaint handling procedures for the stakeholders to enhance fairness, transparency and clarity of the Company's operations
5. Provided suggestions on preparation of tests to measure the levels of knowledge and understanding of the employees regarding good corporate governance and anti-corruption practices of the organization
6. Approved the Company's sustainability management policy and sustainability development action plan for 2018 to create environmental, social and governance (ESG) sustainability in the Company's business, the gist as follows:
 - 1) Held the Corporate Governance Day event
 - 2) Facilitated the training in anti-corruption
 - 3) Held the corporate social responsibility (CSR) activities through the following 3 projects:
 - 3.1) Water Utility and Environmental Conservation Promotion
 - 3.2) Community Well-Being Promotion; and
 - 3.3) Lifelong Learning Promotion
7. Endorsed the scope of contents of the 2018 Sustainability Report for disclosure according to the Global Reporting Initiative (GRI) by assigning the President and CEO to consider such report contents before distribution



Mrs. Tatchada Jitmahawong
Chairman of the Corporate Governance and
Sustainability Development Committee

Report of the Nomination and Remuneration Committee



Pol.Maj.Gen. Vichai Sangprapai

Chairman of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee consists of the following members:

1. Pol.Maj.Gen. Vichai Sangprapai
Chairman of the Nomination and Remuneration Committee
2. Mr. Surachai Kanasa
Member of the Nomination and Remuneration Committee
3. Mr. Oran Vongsuraphichet
Member of the Nomination and Remuneration Committee
4. Col. Premjiras Tanathaipakdee
Member of the Nomination and Remuneration Committee
5. Miss Chinda Mahaisawariya
Secretary to the Nomination and Remuneration Committee

In 2018, the Nomination and Remuneration Committee performed its duties in full compliance with its Charter. The Committee held a total of 8 meetings to consider and review various matters before submission to the Board of Directors for consideration and approval, which can be summarized as follows:

1. Considered directors' remuneration of the business group for further submission to the shareholders' meeting for consideration and approval. The rates of remuneration were compared with those as per the Thai Institute of Directors (IOD)'s Thai Directors Compensation Survey and those offered by peer companies in the same industry sector.
2. Considered and reviewed the criteria for paying compensation and bonuses to employees in the business group to ensure appropriateness and consistency with the operating results so as to motivate the employees to perform their duties to achieve targets

3. Determined the 2018 corporate KPIs; provided recommendations on performance improvement and development practices to meet specified objectives and goals; and reviewed the corporate KPIs handbook to ensure alignment with the corporate vision and missions for use by the management and employees as a guideline for conducting performance appraisal at all levels
4. Set out KPIs for the President & CEO and reported his performance based on the said KPIs to the Board of Directors for consideration of his remuneration and employment contract renewal
5. Proposed a restructuring of the subcommittees to the Board of Directors for consideration. In this regard, the Nomination and Remuneration Committee was additionally tasked with handling nomination affairs while the Corporate Governance and Sustainability Development Committee was assigned additional responsibilities relating to sustainability development. This was to ensure a segregation of duties and a good balance between the different subcommittees.
6. Nominated persons with appropriate qualifications according to the specified criteria and procedures for appointment as directors; and proposed the directors for their selection as members of the subcommittees to the Board of Directors and the shareholders' meeting, respectively
7. Considered and reviewed the criteria and procedures regarding the minority shareholders' right to propose meeting agenda items and candidates for nomination as the Company's directors as well as the names of independent directors as proxies at the shareholders' meeting
8. Considered the criteria and methods for selecting qualified candidates for the position of Advisor to the Board of Directors
9. Revised the criteria for selecting a successor to the position of Company Secretary
10. Revised the Charter of the Nomination and Remuneration Committee to ensure appropriateness and alignment with the current situation

Pol.Maj.Gen. Vichai Sangprapai

Chairman of the Nomination and Remuneration Committee



BOARD OF DIRECTORS



01.

Mr. Veerasak Kositpaisal

- Independent Director
- Chairman

02.

Mr. Amorn Laohamontri

- Independent Director

03.

Pol.Maj.Gen Vichai Sangprapai

- Independent Director
- Chairman of the Audit Committee
- Chairman of the Nomination and Remuneration Committee
- Member of the Corporate Governance and Sustainability Development Committee

04.

Mr. Surachai Kanasa

- Independent Director
- Chairman of the Investment Committee
- Member of the Nomination and Remuneration Committee

05.

Mrs. Tatchada Jitmahawong

- Independent Director
- Chairman of the Corporate Governance and Sustainability Development Committee
- Member of the Audit Committee

06.

Mrs. Asvini Tailanga

- Independent Director
- Chairman of the Risk Management Committee
- Member of the Audit Committee



07.

Mr. Oran Vongsuraphichet

- Independent Director
- Member of the Investment Committee
- Member of the Nomination and Remuneration Committee

08.

Col. Premjiras Tanathaipakdee

- Independent Director
- Member of the Nomination and Remuneration Committee
- Member of the Corporate Governance and Sustainability Development Committee

09.

Mr. Kraitsada Sunkhamani

- Director
- Member of the Investment Committee
- Member of the Risk Management Committee

10.

Mr. Virgilio Jr. Cervantes Rivera

- Director
- Member of the Investment Committee

11.

Miss Somchint Pilouk

- Director

12.

Mr. Jirayut Rungsritthong

- Director and President & CEO
- Member of the Investment Committee
- Member of the Risk Management Committee



PROFILE OF BOARD OF DIRECTORS



Mr. Veerasak Kositpaisal
Independent Director
Chairman

Years
64

Date appointed as Director on April 23, 2018

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Master of Science (Mechanical Engineering), Texas A&I University, USA
- Bachelor of Engineering (Mechanical), Chulalongkorn University

Training

- Director Certification Program (DCP) 82/2006, Thai Institute of Directors (IOD)
- Finance for Non-Finance Director (FND) 30/2006, Thai Institute of Directors (IOD)
- Certificate in Top Executives in the Energy Education Program Class 5, Thailand Energy Academy (TEA)
- Leadership Development Program "Enhancing Competitiveness", International Institute for Management Development (IMD) 2012
- Top Executive Program in Commerce and Trade (TEPCoT) 2/2009, Commerce Academy, University of the Thai Chamber of Commerce
- Capital Market Academy Leadership Program Class 11, Capital Market Academy (CMA)

Work Experience

Position in Other Listed Company

Feb 2017 - Present	Director, Member of the Audit Committee, TOA Paint (Thailand) Public Company Limited
Jan 2015 - Present	Vice Chairman, Chairman of the Corporate Governance Committee, Member of the Risk Management, MCOT Public Company Limited
May 2012 - Sep 2014	President and CEO, Thai Oil Public Company Limited
Oct 2011 - Apr 2012	Chief Executive Officer, PTT Global Chemical Public Company Limited
Oct 2008 - Oct 2011	Chief Executive Officer, PTT Chemical Public Company Limited

Position in Other Non-Listed Company / Other Organization

Jul 17, 2018 - Present	Director, Tobacco Authority of Thailand
Sep 2017 - Present	Director, Member of the Audit Committee, Sapthip Company Limited
Sep 5, 2014 - Oct 16, 2018	Chairman of the Board of Directors, HMC Polymers Company Limited



Mr. Amorn Laohamontri
Independent Director

Years
68

Date appointed as Director on December 1, 2014

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Master of Public Administration, Pennsylvania State University
- Bachelor of Laws, Chulalongkorn University

Training

- Risk Management Program for Corporate Leaders (RCL) 4/2016, Thai Institute of Directors (IOD)
- Advanced Audit Committee Program (AACP) 18/2015, Thai Institute of Directors (IOD)
- Director Accreditation Program (DAP) 114/2015, Thai Institute of Directors (IOD)
- Director Certification Program (DCP) 208/2015, Thai Institute of Directors (IOD)
- Financial Statements for Directors (FSD) 27/2015, Thai Institute of Directors (IOD)

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

2014 - Present	Working Group of Deputy Minister, Ministry of Interior
2007 - 2010	Legal Advisor, Office of the Permanent Secretary, Ministry of Interior
2005 - 2007	Senior Expert in Local Legal Affairs, Department of Local Administration, Ministry of Interior
2002 - 2005	Director Bureau of Local Legal Affairs, Department of Local Administration, Ministry of Interior
2000 - 2002	Director Division of Structure and System Development, Department of Provincial Administration, Ministry of Interior



Pol.Maj.Gen Vichai Sangprapai
Independent Director
Chairman of the Audit Committee
Chairman of the Nomination and Remuneration Committee
Member of the Corporate Governance and Sustainability Development Committee

Years
63

Date appointed as Director on December 8, 2014

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Master of Public Administration in Social Development, National Institute of Development Administration
- Bachelor of Laws, Sripatum University
- Cadet Training, Sampran Royal Police Cadet Academy Class 25
- Superintendent training course Class 35
- Senior Command course Class 25

Training

- Certificate in Top Executives in the Energy Education Program Class 10, Thailand Energy Academy (TEA)
- Director Certification Program (DCP) 224/2016, Thai Institute of Directors (IOD)
- Role of the Compensation Committee (RCC) 21/2016, Thai Institute of Directors (IOD)
- Role of the Nomination & Governance Committee (RNG) 8/2016, Thai Institute of Directors (IOD)
- Risk Management Committee Program (RMP) 6/2015, Thai Institute of Directors (IOD)
- Advanced Certificate Course in Public Administration and Law for Executives Class 6, King Prajadhipok's Institute
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives Class 19, King Prajadhipok's Institute
- The Rule of Law for Democracy course 4, College of the Constitution Court
- Bangkok Metropolitan Administration (BMA) Class 2, Institute of Metropolitan Development
- Thammasat Leadership Program (TLP) Class 12, Foundation of Thammasat Leadership Program
- Business Revolution and Innovation Network (BRAIN) 1/2017, The Federation of Thai Industries
- Capital Market Academy Leadership Program Class 27, Capital Market Academy (CMA)

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

Jun 23, 2014	Deputy Senior Inspector General, Office of Inspector General
Dec 27, 2011	Deputy Commissioner, Royal Thai Police
Feb 16, 2009	Metropolitan Police Commander Division 1
Oct 1, 2008	Metropolitan Police Commander Division 3
Dec 18, 2003	Metropolitan Police Commander Division 2



Mr. Surachai Kanasa
Independent Director
Chairman of the Investment Committee
Member of the Nomination and Remuneration Committee

Years
61

Date appointed as Director on July 20, 2017

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Master of Public Administration (Honors), Public Policy and Project Management, National Institute of Development Administration
- Bachelor of Political Science Program (First-class honors), Politics and Government, Thammasat University

Training

- IT Governance a Cyber Resilience Program (ITG) 8/2018, Thai Institute of Directors (IOD)
- Director Certification Program (DCP) 250/2017, Thai Institute of Directors (IOD)
- Ethical Leadership Program (ELP) 10/2017, Thai Institute of Directors (IOD)
- The National Defence Course (NDC) Class 49, Thailand National Defence College
- Capital Market Academy Leadership Program Class 13, Capital Market Academy (CMA)
- Executive Development Program Class 39, Ministry of Interior
- Institute of Administration Development (IAD) Class 37

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

Oct 1, 2015 - Sep 30, 2017	Provincial Governor of Pathum Thani, Office of the Permanent Secretary for Interior
Oct 1, 2013 - Sep 30, 2015	Provincial Governor of Phichit, Office of the Permanent Secretary for Interior
Oct 8, 2012 - Sep 30, 2013	Provincial Governor of Chanthaburi, Office of the Permanent Secretary for Interior
Nov 28, 2011 - Oct 7, 2012	Provincial Governor of Lamphun, Office of the Permanent Secretary for Interior
Dec 20, 2010 - Nov 27, 2011	Director – General of Community Development Department, Community Development Department, Ministry of Interior
Oct 1, 2010 - Dec 19, 2010	Acting in Position of Director – General of Department of Promotion of Local Administration, Department of Promotion of Local Administration, Ministry of Interior
Oct 1, 2009 - Sep 30, 2010	Provincial Governor of Samut Prakan, Office of the Permanent Secretary for Interior



Mrs. Tatchada Jitmahawong
Independent Director
Chairman of the Corporate Governance
and Sustainability Development Committee
Member of the Audit Committee

Years
61

Date appointed as Director on December 24, 2014

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Master of Business Administration, Kasetsart University
- Bachelor of Arts (Accounting) (Second-class Honors), Chiang Mai University

Training

- IT Governance a Cyber Resilience Program (ITG) 7/2018, Thai Institute of Directors (IOD)
- Boards that Make a Difference (BMD) 8/2018, Thai Institute of Directors (IOD)
- Ethical Leadership Program (ELP) 10/2017, Thai Institute of Directors (IOD)
- Successful Formulation & Execution the Strategy (SFE) 30/2017, Thai Institute of Directors (IOD)
- Risk Management Program for Corporate Leaders (RCL) 4/2016, Thai Institute of Directors (IOD)
- Advanced Audit Committee Program (AACP) 18/2015, Thai Institute of Directors (IOD)
- Director Accreditation Program (DAP) 114/2015, Thai Institute of Directors (IOD)
- Director Certification Program (DCP) 208/2015, Thai Institute of Directors (IOD)
- Financial Statements for Directors (FSD) 27/2015, Thai Institute of Director (IOD)

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

Jul 26, 2016 - Sep 30, 2017	Director of Public Sector Receipt and Disbursement Administration Division, The Comptroller General's Department, Ministry of Finance
2011 - 2016	Director of Office of Government Fiscal Management Information System, The Comptroller General's Department, Ministry of Finance
2007 - 2011	Specialist of Development Fiscal Management System, The Comptroller General's Department, Ministry of Finance
2005 - 2007	Head of Office of Secretary, The Comptroller General's Department, Ministry of Finance
1999 - 2005	Provincial Treasury, The Comptroller General's Department, Ministry of Finance
1997 - 1998	Head of Planning Division, The Comptroller General's Department, Ministry of Finance
1996 - 1997	Head of Internal Audit Group, The Comptroller General's Department, Ministry of Finance



Mrs. Asvini Tailanga
Independent Director
Chairman of the Risk Management Committee
Member of the Audit Committee

Years
66

Date appointed as Director on April 23, 2018

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Bachelor Degree, Faculty of Commerce & Accountancy, Chulalongkorn University
- Program for Management Development Graduate School of Business Administration, Harvard University (PMD61)
- Program for Families in Business From Generation to Generation, Harvard Business School, Harvard University

Training

- Corporate Governance for Capital Market Intermediaries (CGI) 11/2016, Thai Institute of Directors (IOD)
- Audit Committee Program (ACP) 18/2007, Thai Institute of Directors (IOD)
- Audit Committee Program (ACP) 15/2006, Thai Institute of Directors (IOD)
- Director Certification Program (DCP) 18/2002, Thai Institute of Directors (IOD)
- Capital Market Academy Leadership Program Class 1, Capital Market Academy (CMA)

Work Experience

Position in Other Listed Company

2017 - Present	Member, Appeal Committee, Thailand Futures Exchange Public Company Limited (TFEX)
2016 - Present	Director/Executive Director/Senior Executive Advisor, Thanachart Securities Public Company Limited
2013 - Present	Member, Product & Marketing Steering Committee, The Stock Exchange of Thailand
2000 - 2015	Managing Director, Thanachart Securities Public Company Limited
2009 - 2013	Chairman of Executive Board, Thanachart Securities Public Company Limited

Position in Other Non-Listed Company / Other Organization

2013 - 2016	Director, Association of Thai Securities Companies (ASCO)
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Mr. Oran Vongsuraphichet
Independent Director
Member of the Investment Committee
Member of the Nomination and Remuneration Committee

Years

49

Date appointed as Director on October 19, 2017

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Ph.D. (International Business), Asian Institute of Technology (AIT)
- Master of International Business & Information Technology, Asian Institute of Technology (AIT)
- Bachelor of Business Administration, Sukhothai Thammathirat Open University
- Diploma of Arts (Hotel Management, Billy Blue Hotel Management School, Sydney, Australia)

Training

- Director Certification Program (DCP) 230/2016, Thai Institute of Directors (IOD)
- Capital Market Academy Leadership Program Class 22, Capital Market Academy (CMA)
- Thailand Insurance Leadership Program Class 3, Office of Insurance Commission (OIC)

Work Experience

Position in Other Listed Company

Jan 2016 - Present	Director and Chief Executive Officer, Thai Reinsurance Public Company Limited
2012 - Present	Director, Falcon Insurance Public Company Limited
2014 - 2016	Director, Thai Reinsurance Public Company Limited
2013 - 2015	Director, President and Chief Operating Officer, Thai Reinsurance Public Company Limited
2012 - 2013	President and Chief Operating Officer, Thai Reinsurance Public Company Limited

Position in Other Non-Listed Company / Other Organization

2013 - Present	Director, Thaire Actuarial Consulting Company Limited
2013 - Present	Director, Thaire Services Company Limited
2012 - Present	Director, EMCS Thai Company Limited
2010 - Present	Director, Thong Thai Textile Company Limited
2010 - Jan 15, 2018	Director, V.A.S. Garment Company Limited
2010 - Jan 15, 2018	Director, Titan Sport Ware Company Limited
2013 - 2016	Director, Thaire Training Company Limited



Col. Premjiras Tanathaipakdee
Independent Director
Member of the Nomination and Remuneration Committee
Member of the Corporate Governance and Sustainability Development Committee

Years

45

Date appointed as Director on December 8, 2014

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Bachelor of Engineering (Industrial Engineering), Chulachomklao Royal Military Academy

Training

None

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

2015 - Present	Director, Universal Utilities Public Company Limited
2014	Staff Sub-Division, Royal Thai Army Headquarter
2010	Infantry Battalion Commander 3 Division 1 Guard (Queen's guard)
2009	Assistant Chief of Operations Staff Officer, Military Operation, 1 st Corps
2006	Assistant Chief of Operations, Division 6
2003	Company Commander, 1 st Army Area



Mr. Kritsada Sunkhamani
Director
Member of the Investment Committee
Member of the Risk Management Committee

Years

56

Date appointed as Director on November 30, 2017

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Bachelor of Engineering (Electrical Engineering), Prince of Songkla University

Training

- Advanced Master of Management Program (AMM) 2/2018, National Institute of Development Administration
- Anti-Corruption Strategic Management for Senior Executives 9/2018, The National Anti-Corruption Commission
- Public-Private Partnerships for Executive Program (PEP) 1/2016, Institute of Research and Development for Public Enterprises (IRDP)
- Leadership Succession Program (LSP) 1/2013, Institute of Research and Development for Public Enterprises (IRDP)
- Integrated Water Management for Executives class 2/2012, Thai Waterwork Association

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

Oct 1, 2018 - Present	Deputy Governor (Technical Affairs), Provincial Waterworks Authority
Nov 27, 2015 - Sep 30, 2018	Deputy Governor (Administration) /Acting in position Assistant Governor (Administration 1), Provincial Waterworks Authority
Oct 17, 2012 - Nov 26, 2015	Assistant Governor (Administration), Provincial Waterworks Authority
Dec 29, 2011 - Oct 16, 2012	Office of Operation 4, Provincial Waterworks Authority



Mr. Virgilio Jr. Cervantes Rivera
Director
Member of the Investment Committee

Years

57

Date appointed as Director on March 14, 2018

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Master of Economics, De La Salle University, the Philippines
- Bachelor of Commerce (Major in Economics), University of Santo Tomas, the Philippines
- Bachelor of Behavioral Science, University of Santo Tomas, the Philippines
- Advanced Management Program, Harvard Business School

Training

None

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

2018 - Present	Fellow and Member, International Water Association (IWA)
2015 - Present	Chief Operating Officer (COO), New Business Operations, Manila Water Company, Inc.
2015 - Present	President and CEO, Manila Water Philippine Ventures, Inc.
2015 - Present	President and CEO, Manila Water Asia Pacific, Pte., Ltd.
2005 - Present	Managing Director (Secondment to Manila Water Company, Inc.), Ayala Corporation.
Present	Director, Manila Water Asia Pacific, Pte., Ltd.
1999 - 2015	Group Director, Corporate Strategy And Development, Manila Water Company, Inc.



Miss Somchint Pilouk
Director

Years

57

Date appointed as Director on December 11, 2018

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- Doctor of Philosophy (Environmental Engineering and Management), Asian Institute of Technology (AIT)
- Master of Engineering (Executive), Asian Institute of Technology (AIT)
- Master of Engineering (Environmental Engineering), Kasetsart University
- Bachelor of Science (Occupational Health), Mahidol University

Training

- Metropolitan Development Program
- Executive Management with Business Development and Investment (Institute of Business and Industrial Development)
- A senior executive of the ruling Justice (The office of Administrative courts of Thailand)
- Politics and Governance in Democratic Systems for Executives (College of Politics and Governance King Prajadhipok's Institute)
- Public Economics Management for Executives (College of Politics and Governance King Prajadhipok's Institute)

Work Experience

Position in Other Listed Company

None

Position in Other Listed Company / Other Organization

Present	Governor, Industrial Estate Authority of Thailand
2016 - 2018	Deputy Governor (Special Affairs), Industrial Estate Authority of Thailand
2013 - 2016	Deputy Governor (Service and Environment), Industrial Estate Authority of Thailand
2012 - 2013	Assistant to Governor (Industrial Port), Industrial Estate Authority of Thailand



Mr. Jirayut Rungsrihong
Director and President & CEO
Member of the Investment Committee
Member of the Risk Management Committee

Years

52

Date appointed as Director on April 1, 2016

Company Shareholding (%) None

Family Relationship among Directors and Executives None

Education

- M.S. in Operations Research, George Washington University, USA
- Bachelor of Engineering (Computer), King Mongkut's Institute of Technology Ladkrabang

Training

- Director Certification Program (DCP) 60/2005, Thai Institute of Directors (IOD)
- Financial Institutions Governance Program (FGP) 4/2012, Thai Institute of Directors (IOD)
- Corporate Governance for Public Director, Class 10, King Prajadhipok's Institute
- The National Defence Course (NDC) Class 61, Thailand National Defence College
- Capital Market Academy Leadership Program Class 10, Capital Market Academy (CMA)
- Bangkok Metropolitan Administration (BMA) Class 1, Institute of Metropolitan Development
- Business Revolution and Innovation Network (BRAIN) 1/2017, The Federation of Thai Industries

Work Experience

Position in Other Listed Company

2013 - 2015	Independent Director/Audit Committee Member, Christiani & Nielsen (Thai) Public Company Limited
2005 - 2006	Managing Director, Bualuang Securities Public Company Limited
2004 - 2005	Managing Director, United Securities Public Company Limited

Position in Other Non-Listed Company / Other Organization

2018 - Present	Chairman of the Audit Committee, Index Living Mall Public Company Limited
May 16, 2017 - Present	Director, Universal Utilities Public Company Limited
2015	Advisor to Deputy Minister of Transport
2015	Chairman of the Board, Bangkok Metropolitan Administration's Pawnshop Office
2011 - 2014	Board Director, SME Development Bank of Thailand
2009 - 2011	Chief Executive Officer, CAT Telecom Public Company Limited
2009 - 2011	Vice President, The Telecommunications Association of Thailand Under the Royal Patronage
2006 - 2009	Chief Financial Officer, CAT Telecom Public Company Limited



ADVISOR TO THE BOARD OF DIRECTORS



Mr. Vicha Nilpetploy
Advisor to the Board
Advisor to the Investment Committee

Years
69

Date appointed as the Advisor to the Board on January 16, 2016

Company Shareholding (%) None

Family Relationship among Advisor to the Board and Executives None

Education

- Master of Political Science, Chulalongkorn University
- Bachelor of Laws, Ramkhamhaeng University

Training

None

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

2014 - Present	Working Group of Deputy Minister, Ministry of Interior
2008 - 2009	Deputy Director, Department of Lands
2006	Chief of Bangkok Metroplis Land Office
2004	Inspector General, Department of Lands



Gen. Trairat Rangaratna
Advisor to the Board
Advisor to the Audit Committee

Years
67

Date appointed as the Advisor to the Board on June 29, 2017

Company Shareholding (%) None

Family Relationship among Advisor to the Board and Executives None

Education

- Bachelor of Science Program, Chulachomklao Royal Military Academy (batch 22)
- Armed Forces Academies Preparatory School (batch 11)

Training

- Institute of Security Psychology (ISP) Class 79, National Defence Studies Institute Royal Thai Armed Forces Headquarters
- Advanced Security Management Program (ASMP) Class 3, National Defence College of Thailand
- Capital Market Academy Leadership Program Class 20, Capital Market Academy (CMA)
- The National Defence Course (NDC) Class 48, Thailand National Defence College
- Certificate in Top Executives in the Energy Education Program Class 10, Thailand Energy Academy (TEA)

Work Experience

Position in Other Listed Company

None

Position in Other Non-Listed Company / Other Organization

Present	Member of the National Legislative Assembly/The Energy Commission/ The Local Government Commission, The National Legislative Assembly
Present	Working Group of Deputy Minister for Ministry of Interior
2012 - Present	Chairman of the Advisor, Thailand Equestrian Federation
2016 - 2018	Town and Country Planning Committee, Department of Public Works and Town & Country Planning
2014 - 2016	Director/ Chairman of the Audit Committee/Chairman of the Following to Policy Sub-Committee, Provincial Waterworks Authority
1985 - 2012	Special Royal Guard, Royal Thai Aide-De-Camp Department



Mr. Siwa Sangmanee

Advisor to the Board

Advisor to the Risk Management Committee

Years

73

Date appointed as the Advisor to the Board on October 19, 2017

Company Shareholding (%) None

Family Relationship among Advisor to the Board and Executives None

Education

- Master of Public Administration, National Institute of Development Administration
- Bachelor of Arts (Political Science), Chulalongkorn University

Training

- Advanced Audit Committee Program (AAP) 18/2015, Thai Institute of Directors (IOD)
- Director Certification Program (DCP) 97/2007, Thai Institute of Directors (IOD)
- Executive Development Program class 20, Ministry of Interior
- The National Defence Course (NDC) Class 37, Thailand National Defence College
- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives class 6, Kingprajadhipok's Institute
- Capital Market Academy Leadership Program Class 12, Capital Market Academy (CMA)

Work Experience

Position in Other Listed Company

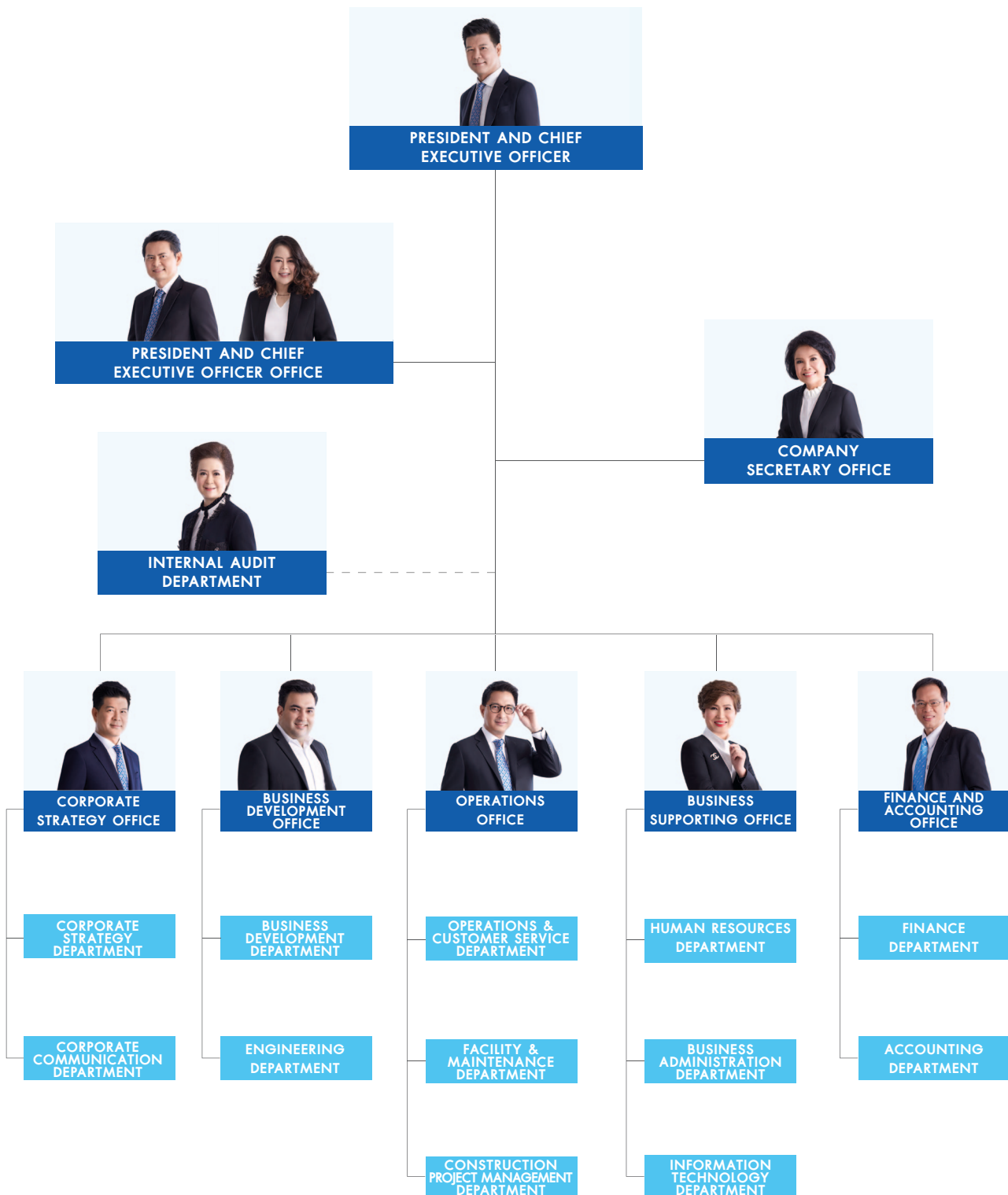
Jun 22, 2017 - Present	Chairman of the Audit Committee/Independent Director, International Research Corporation Public Company Limited
2013 - Present	Chairman of the Audit Committee/Independent Director, SEAFCO Public Company Limited
Apr 18, 2011 - Present	Chairman of the Audit Committee/Independent Director, Ubon Bio Ethanol Public Company Limited

Position in Other Non-Listed Company / Other Organization

Present	Advisor to the Deputy Ministry of Interior
Present	Committee Member, King Mongkut's Institute of Technology Ladkrabang
Sep 6, 2018 - Present	Independent Director, Prime Steel Mill Company Limited
Feb 26, 2009 - Jun 21, 2010	Chairman, Thailand Post Company Limited
Mar 31, 2008 - Jan 30, 2009	Director, Thailand Post Company Limited
Nov 30, 2006 - May 15, 2008	Chairman of Labor Relation Committee, Provincial Electricity Authority
Dec 12, 2006 - May 15, 2008	Director, Provincial Electricity Authority
Jan 1, 2007 - Aug 19, 2007	Member of Constitution Drafting Assembly
Nov 7, 2006 - Dec 7, 2007	Chairman, State Railway of Thailand



ORGANIZATION CHART





PROFILE OF EXECUTIVES



Mr. Jirayut Rungsrithong
President and Chief Executive Officer

Years
52

Education

- M.S. in Operations Research, George Washington University, USA
- Bachelor of Engineering (Computer), King Mongkut's Institute of Technology Ladkrabang

Training

- Director Certification Program (DCP) 60/2005, Thai Institute of Directors (IOD)
- Financial Institutions Governance Program (FGP) 4/2012, Thai Institute of Directors (IOD)
- Corporate Governance for Public Director, Class 10, King Prajadhipok's Institute
- The National Defence Course (NDC) Class 61, Thailand National Defence College
- Capital Market Academy Leadership Program Class 10, Capital Market Academy (CMA)
- Bangkok Metropolitan Administration (BMA) Class 1, Institute of Metropolitan Development
- Business Revolution and Innovation Network (BRAIN) 1/2017, The Federation of Thai Industries

Work Experience

2018 - Present	Chairman of the Audit Committee, Index Living Mall Public Company Limited
2017 - Present	Director, Universal Utilities Public Company Limited
2016 - Present	President and Chief Executive Officer Eastern Water Resources Development and Management Public Company Limited
2015	Advisor to Deputy Minister of Transport
2015	Chairman of the Board, Bangkok Metropolitan Administration's Pawnshop Office
2013 - 2015	Independent Director, Christiani & Nielsen (Thai) Public Company Limited
2011 - 2014	Board Director, SME Development Bank of Thailand
2009 - 2011	Chief Executive Officer, CAT Telecom Public Company Limited
2009 - 2011	Vice President, The Telecommunications Association of Thailand Under the Royal Patronage
2006 - 2009	Chief Financial Officer, CAT Telecom Public Company Limited
2005 - 2006	Managing Director, Bualuang Securities Public Company Limited
2004 - 2005	Managing Director, United Securities Public Company Limited
2002 - 2004	Managing Director, BT Securities Company Limited
1998 - 2002	Vice President, Lehman Brothers
1995 - 1998	Associate Director, UBS Warburg
1992 - 1995	Planning Engineer, Caltex Corporation USA



Mr. Cherdchai Pitiwacharakul
Executive (assigned to supervise the operations of the subsidiaries) and Managing Director of Universal Utilities Public Company Limited

Years
54

Education

- Master of Science (Information Technology), King Mongkut's Institute of Technology Ladkrabang
- Bachelor of Engineering, Khon Kaen University

Training

- The 4 Essential Roles of Leadership by PacRim Group (2018)
- Anti-Corruption: The Practical Guide, Thai Institute of Directors (IOD) (2017)
- DSTART UP, Sripatum University (2017)
- Strategic Marketing, Brand Building and Customer Relationship Management for Public & Private Enterprise Executives (Smart Marketing) Session 4/2015 by Institute of Research and Development for Public Enterprises (IRDP) (2015)
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2013 (Module 2)
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2012 (Module 1)
- Director Certification Program - DCP132 /2010
- Executive Development Program (EDP) Session 3 of 2009, Thai Institute of Directors (IOD)
- Integrated Water Management for Executives Session 2 by the Thai Waterwork Association (TWWA)
- Mini MBA Kasetsart University Session 21 (2002)
- Mini MIS Kasetsart University Session 2 (1997)

Work Experience

Eastern Water Resources Development and Management Public Company Limited

Oct 2015 - Present	Executive (assigned to supervise the operations of the subsidiaries) and Managing Director of Universal Utilities Public Company Limited
Sep 2013 - Oct 2015	Senior Vice President, Operations and Customer Service Department
Mar 2010 - Sep 2013	Vice President, Operations and Customer Service Department and Acting Managing Director, Universal Utilities Public Company Limited
Jan 2009 - Mar 2010	Vice President, Business Development Department
Aug 2008 - Jan 2009	Acting Managing Director, Universal Utilities Company Limited
Nov 2007 - Jan 2009	Vice President, Special Projects Department
Nov 2001 - Nov 2007	Vice President of Chachoengsao Operational Center and Acting Vice President of Rayong Operational Center


Mr. Charin Sony

Executive Vice President and Chief Business Development Officer (CBDO)

Years

38

Education

- Master of Commerce (Finance and International Business), The University of Sydney
- Bachelor of Economics (English Program) in Finance, Thammasat University

Training

- Director Certificate Program (DCP), Thai Institute of Directors (IOD), 2017
- Water Management Leadership Program, Federation of Thai Industries (FTI), 2017
- Non-Financial Disclosure and GRI Reporting for Executives (2017)

Work Experience

Eastern Water Resources Development and Management Public Company Limited

2017 - Present	Executive Vice President and Chief Business Development Officer (CBDO)
Jun - Oct 2017	Acting Executive Vice President, Corporate Strategy Office and Vice President, Corporate Strategy Department


Mr. Bordin Udol

Executive Vice President and Chief Operating Officer (COO)

Years

49

Education

- Master of Business Administration, Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Master of Science in Environmental Management, Houston University, USA
- Bachelor of Engineering, Chulalongkorn University

Training

- The 4 Essential Roles of Leadership, PacRim Group (2018)
- New Era of Governance & Internal Controls, EY Office Limited, 2018
- Emergency Response Planning 2018
- Safety and Occupational Health Committee (2018)
- Safety Officer at Executive Level (2018)

Work Experience

Eastern Water Resources Development and Management Public Company Limited

2017 - Present	Executive Vice President and Chief Operating Officer (COO)
2016 - 2017	Senior Vice President, Team Consulting Engineering and Management Company Limited
2014 - 2016	Deputy CEO, GMM One Digital TV, GMM Grammy Public Company Limited
	Managing Director, GMM One TV Company Limited
2001 - 2014	Managing Director, Utilities Business Alliance Company Limited
1996 - 2001	Project Manager, Nawarat Patanakarn Public Company Limited



Mrs. Wirawan Tharanont
Executive Vice President and Company Secretary

Years
59

Education

- MBA, Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Bachelor of Accountancy, Faculty of Commerce and Accountancy, Chulalongkorn University

Training

- The 4 Essential Roles of Leadership, PacRim Group (2018)
- New Era of Governance & Internal Controls, EY Office Limited (2018)
- Advanced Corporate Secretary Session 2/2017, Thai Listed Companies Association (Thai LCA)
- Company Reporting Program (CRP) Session 19/2017, Thai Institute of Directors (IOD)
- Executive Development Program (EDP) Session 2017, Thai Listed Companies Association (Thai LCA)
- Strategy Formulation to Execution, Thailand Management Association (TMA), 2016
- Director Certification Program (DCP) Session 192/2014, Thai Institute of Directors (IOD)
- Anti-Corruption: The Practical Guide (ACPG) Session 8/2014, Thai Institute of Directors (IOD)
- Management Development Program, Sasin Graduate Institute of Business Administration, Chulalongkorn University
- Organization Risk Management Program, Thai Listed Companies Association (Thai LCA)
- Corporate Secretary Program, Thai Institute of Directors (IOD)
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2013 (Module 2)
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2012 (Module 1)
- Laws for Public Service Organizations Course, King Prajadibhok's Institute (KPI)

Work Experience

Eastern Water Resources Development and Management Public Company Limited

2017 - Present	Executive Vice President and Company Secretary
2015 - 2017	Vice President, President and CEO Office, and Company Secretary
2013 - 2015	Vice President, Human Resources Department
2009 - 2013	Vice President, Corporate Affairs Department
2007 - 2008	Vice President, Internal Audit Department



Mrs. Thidarut Kraiprasit
Executive Vice President, Internal Audit Department

Years
55

Education

- Master of Business Administration (MBA), Kasetsart University
- Bachelor of Accounting, Thammasat University
- Certified Public Accountant (CPA)

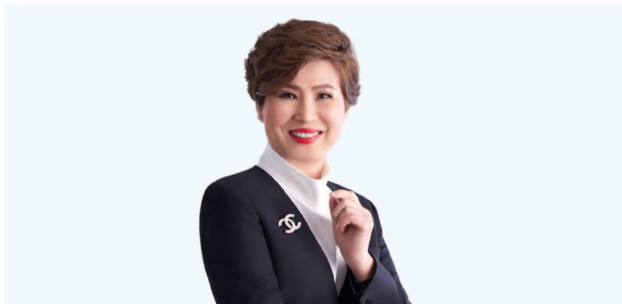
Training

- Board Reporting Program (BRP) Session 23/2017, Thai Institute of Directors (IOD)
- Strategic CFO in Capital Markets Program 2015
- Director Certification Program (DCP) Session 197/2014
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA.2012 & 2013 (Module 2)
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA.2012 & 2013 (Module 1)
- Audit Committee Program (ACP) Session 26/2009
- Executive Development Program (EDP) Session 4
- Advanced Certificate Course in Public Economics Management for Executives Session 5

Work Experience

Eastern Water Resources Development and Management Public Company Limited

2017 - Present	Executive Vice President, Internal Audit Department
2015 - 2017	Senior Vice President, Finance and Accounting Department
2009 - 2015	Senior Vice President, Internal Audit Department
2007 - 2008	Senior Vice President, Finance and Accounting Department
2004 - 2007	Senior Vice President, Finance and Human Resources Department



Miss Chinda Mahaisawariya
Executive Vice President and Chief Supporting Officer (CSO)

Years

56

Education

- Master of Development Administration (Social Development), National Institute of Development Administration (NIDA)
- Bachelor of Arts (General Management), Suan Dusit Rajabhat University

Training

- The 4 Essential Roles of Leadership, PacRim Group (2018)
- Board Nomination & Compensation Program (BNCP), Thai Institute of Directors (IOD), 2018
- Director Certificate Program (DCP), Thai Institute of Directors (IOD), 2018
- Fundamentals for Corporate Secretaries, Thai Institute of Directors (IOD), 2018
- New Era of Governance & Internal Controls, EY Office Limited, 2018
- Sustainability Strategy: Key Blueprint for Business Growth, Stock Exchange of Thailand (SET), 2017
- The Challenges of Administration Management Leadership, Ideal Forum, 2017
- The Supervisory Grid, GRID Business Solutions Company Limited (2016)
- Modern Executive Micro MBA, 2015
- Train the Trainers
- Anti-Corruption : The Practical Guide, Thai Institute of Directors (IOD) ACPG 13/2014
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2013 (Module 2)
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2012 (Module 1)
- Executive Development Program (EDP) 2011, Thai Institute of Directors (IOD)

Work Experience

Eastern Water Resources Development and Management Public Company Limited

2017 - Present	Executive Vice President and Chief Supporting Officer (CSO)
2015 - 2017	Vice President, Corporate Affairs Department
Feb - Jun, 2015	Acting Vice President, Corporate Affairs Department
2011 - 2015	Assistant Vice President, Corporate Affairs Department
2009 - 2011	Manager, Procurement Division, Corporate Affairs Department
2006 - 2009	Manager, Corporate Relations Division, Corporate Communication Department
2004 - 2006	Manager, Procurement Division, Corporate Affairs Department



Mr. Sombat Yusamart
Executive Vice President and Chief Financial Officer (CFO)

Years

48

Education

- Master of Business Administration, Kasetsart University
- Bachelor of Accounting, Kasetsart University
- Certified Public Accountant (CPA)

Training

- The 4 Essential Roles of Leadership, PacRim Group (2018)
- Techniques on Use of Accounting and Finance Information for Executives, Dharmniti Seminar and Training Co., Ltd., 2018
- New Era of Governance & Internal Controls, EY Office Limited (2018)
- Water Management Leadership Program Session 7, Water Institute for Sustainability, Federation of Thai Industries (FTI), 2017
- Anti-Corruption: The Practical Guide, Thai Institute of Directors (IOD), 2014
- Chief Financial Officer (CFO) Certification Program Session 16, Thailand Federation of Accounting Professions (TFAP), 2012
- Leadership Development Workshop by Executive Coaching Institute, Berkeley USA, 2012 (Module 1)
- Executive Development Program (EDP) Session 5, 2010

Work Experience

Eastern Water Resources Development and Management Public Company Limited

Oct 2017 - Present	Executive Vice President and Chief Financial Officer (CFO) and Deputy Managing Director, Administration, Universal Utilities Public Company Limited
Aug 2017 - Oct 2017	Vice President, Finance and Accounting Department and Deputy Managing Director, Administration, Universal Utilities Public Company Limited
2015 - 2017	Deputy Managing Director, Administration, Universal Utilities Public Company Limited
2011 - 2015	Vice President, Finance and Accounting Department
2009 - 2011	Assistant Vice President, Finance and Accounting Department
2009 - 2009	Acting Assistant Vice President, Finance and Accounting Department
2009 - 2011	Manager of Finance and Accounting (Secondment), Universal Utilities Public Company Limited
2007 - 2009	Manager of Accounting Division, Finance and Accounting Department
2005 - 2007	Manager of Administration and Accounting Department (Secondment), Global Water System Co., Ltd.
2003 - 2005	Manager of Budget and Finance Department



BOARD OF EXECUTIVES



Mrs. Namphon Rassadanukul
Senior Vice President, President and CEO office



Mr. Wiwat Charoensukrungruang
Vice President, Engineering Department



Mr. Suphatat Sabimarn
Vice President, Operations & Customer Service Department



Mr. Sokul Chuepakdee
Vice President, Construction Project Management Department



Miss Kanyanart Viraphandu
Vice President, Corporate Strategy Department



Miss Doungnat Pitak
Vice President, Human Resources Department



Miss Araya Ponvichai
Vice President, Business Administration Department



Miss Tharntip Photisorn
Vice President, Information Technology Department



Miss Suwanna Korcharoenrat
Vice President, Finance Department



Mr. Phanumart Preebua
Vice President, Accounting Department



Miss Suneewan Sudsawatvorakul
Assistant Company Secretary



Miss Chatkaew Poomarin
Manager, Public Relations Division and Acting Vice President, Corporate Communication Department



COMPANY POLICY AND BUSINESS OVERVIEW

VISION

“To be the leader in total water solutions of the country”

MISSIONS

1. To develop the security and maintain stability of water resources in response to the long-term water demand.
2. To expand the investment in water related business for continuous and sustainable growth.
3. To increase competitive advantages through technologies and innovations.
4. To develop human resources and improve management efficiency.
5. To be socially and environmentally responsible and establish good relationships with all stakeholders in accordance with corporate governance principles.

STRATEGIES

Operational Excellence Theme

- Strategy 1 - To enhance customer satisfaction with efficient and effective services (Effectiveness)
- Strategy 2 - To reduce costs of production, pumping and distribution, and internal processes (Cost Reduction)

Total Water Solutions Theme

- Strategy 3 - To provide total water solutions at appropriate prices and with quality assurance (Total Water Solutions)
- Strategy 4 - To conduct projects that provide long-term returns immediately (Monetization of Customer Assets)
- Strategy 5 - To develop a standard pricing structure (Standard Pricing Structure)
- Strategy 6 - To raise customer awareness about corporate products and services in terms of total water solutions (Customer Awareness)

Sustainability Theme

- Strategy 7 - To develop good relationships with major stakeholders (Stakeholders Engagement)
- Strategy 8 - To take responsibility for society, communities and the environment as well as corporate image (CSR & Corporate Image)
- Strategy 9 - To systematically manage risks and operate business with ethics (Risk Management & Ethics)

KEY CHANGES AND DEVELOPMENTS

2016

- In April 2016, the Company considered and nominated Mr. Jirayut Rungsrithong to the position of President and Chief Executive Officer according to the nomination procedures and criteria specified by the Corporate Governance and Nomination Committee. The matter was approved by the Board of Directors.
- In May 2016, the Office of the Securities and Exchange Commission (SEC) approved the request for an initial public offering (IPO) of the shares of Universal Utilities PCL. The Stock Exchange of Thailand (SET) approved the request for accepting the shares as listed securities on 30 May 2016. However, Universal Utilities PCL. did not yet conduct an IPO as it was still looking for an appropriate IPO period.
- In June 2016, TRIS Rating affirmed the company rating and the ratings on the senior unsecured debentures of the Company at “A+/Stable”. This reflected the Company’s solid financial status and its low business risk profile. Moreover, TRIS Rating affirmed the company rating of Universal Utilities PCL., a subsidiary, at “A-/Stable” based on its low business risk profile, the continuously growing demand in the tap water industry, and the constant cash flow.
- In June 2016, the Company received a full score of 100 for the second consecutive year according to the quality evaluation of the 2016 Annual General Meeting of Shareholders by the Thai Investors Association (TIA).
- In November 2016, the Company received a score of 96% or an “Excellent” rating (up from 94% last year) according to the 2016 Corporate Governance Reporting of Thai Listed Company (CGR) assessment.
- In November 2016, the Company was chosen as 1 of the 55 listed companies to be in the 2016 “Thailand Sustainability Investment” or “Sustainability Stock” list by the SET. The selection was based on the listed companies’ outstanding environmental, social and governance (ESG) performances.
- In December 2016, the Company received the 2016 Sustainability Report award in the category of “Recognition” from the CSR Club of the Thai Listed Companies Association (Thai LCA), the SEC, and the Thaipat Institute.

2017

- In July 2017, TRIS Rating affirmed the company rating and the ratings on the senior unsecured debentures of the Company at “A+/Stable”. This reflected the Company’s solid financial status and its low business risk profile.
- In June 2017, the Company received a score of 94 according to the quality evaluation of the 2017 Annual General Meeting of Shareholders by TIA.
- In November 2017, the Company received a score of 90% or an “Excellent” rating according to the 2017 CGR assessment.
- In November 2017, the Company was chosen as 1 of the 65 listed companies to be in the 2017 “Thailand Sustainability Investment” or “Sustainability Stock” list by the SET. The selection was based on the listed companies’ outstanding performances in ESG aspects.

2018

- In March 2018, Electric Generating Public Company Limited (EGCO) sold 18.72% shares of EASTW to Manila Water Company Limited.
- In June 2018, the Company received a total score of 95 according to the quality evaluation of the 2018 Annual General Meeting of Shareholders by TIA.
- In July 2018, TRIS Rating affirmed the company rating and the ratings on the senior unsecured debentures of the Company at “A+/Stable”. This reflected the Company’s solid financial status and its continuous low business risk profile.
- In November 2018, the Company received a score of 95% or an “Excellent” rating according to the 2018 CGR assessment.
- In November 2018, the Company was chosen as 1 of the 79 listed companies to be in the 2018 “Thailand Sustainability Investment” or “Sustainability Stock” list by the SET. The list contained the stocks of the listed companies that achieved outstanding ESG performances, taking into account the stakeholders, society and the environment and having a management process to build sustainability.

SHAREHOLDING STRUCTURE OF THE BUSINESS GROUP

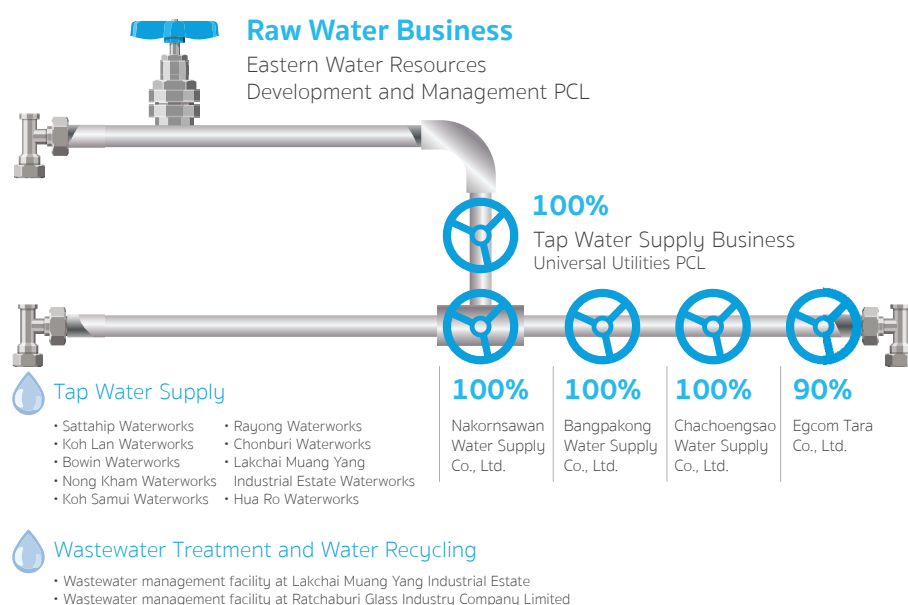
Policy on Division of Operations among Business Group Companies

The Company is mainly engaged in the business of supplying raw water to the industrial and consumer sectors while Universal Utilities PCL. is focused on the tap water business. In the case where the Company is needed to conduct a business or related-party transaction with Universal Utilities PCL., the boards of directors of both parties will consider the necessity and reasonableness of the transaction. The Company

will ensure that such transaction is taken on an arm's length basis and in the ordinary course of business using the cost-plus pricing approach. Both the Company and Universal Utilities PCL. will strictly comply with applicable rules and regulations of the Office of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET).

The Company currently holds 510 million shares (100%) in Universal Utilities PCL. with the right to one vote per share. The shareholding structure of the business group can be summarized in Diagram 1.

Diagram 1 Shareholding Structure of the Business Group



Universal Utilities PCL provides waterworks management services through concessions with government agencies and local administrative organizations. The company has 4 subsidiaries as per details in Table 1.

Table 1 Registered Capital and Shareholding Proportion of Universal Utilities PCL.

Company Name	Registered Capital (Baht Million)	Shareholding Proportion (%)
1. Nakornsawan Water Supply Co., Ltd.	40	100.00
2. Bangpakong Water Supply Co., Ltd.	40	100.00
3. Chachoengsao Water Supply Co., Ltd.	100	100.00
4. Egcom Tara Co., Ltd.	345	90.07

RELATIONSHIPS WITH BUSINESS GROUPS OF MAJOR SHAREHOLDERS

The Provincial Waterworks Authority (PWA) is a major shareholder of the Company with the largest shareholding proportion of 40.20%. It is also one of the major customers purchasing crude oil from the Company at approximately 13% of the total crude oil sales. One representative from the PWA has joined the Board of Directors. At board

meetings, for any agenda item that may involve a conflict of interest or a related-party transaction; the Company will comply with relevant regulations of the SET for the benefit of the Company and its shareholders as a whole. Any director who has a conflict of interest with respect to a particular agenda item will not be allowed to jointly make decisions for that agenda item.



NATURE OF BUSINESS

The Company's main income was from the sale of raw water, accounting for 56.25% of its total income. Its income from the sale of tap water and other income accounted for 40.95% and 2.80%, respectively. Details are as shown in Table 2 (Note to the Financial Statements No. 7).

INCOME STRUCTURE

Table 2 Income from Business Operations for 2016-2018

Unit : Baht Million

Products/Services	Company's shareholding (%)	Operations undertaken by:	2016	%	2017	%	2018	%
1. Raw water income	-	EW	2,696.43	61.09	2,452.05	56.28	2,393.82	56.25
2. Tap water income	100.00	UU	1,593.97	36.11	1,767.22	40.56	1,742.36	40.95
3. Office rental income	-	EW	86.57	1.96	88.77	2.04	84.81	1.99
4. Other income	-	EW	37.02	0.84	48.59	1.12	34.33	0.81
Total income			4,413.99	100.00	4,356.63	100.00	4,255.32	100.00

Remarks: EW : Eastern Water Resources Development and Management Public Company Limited

UU : Universal Utilities Public Company Limited



Remark: ¹ Industrial estates include the industrial estates owned/invested in by the Industrial Estate Authority of Thailand (IEAT) and the industrial parks/zones of the private sector

The Company's raw water distribution process is as shown in Diagram 3. Starting at the pump station, raw water is pumped from its source and transported to the head tank located at a higher level than the receiving station of the customer. The head tank controls the pressure of the water being sent through the pipeline to the water receiving station of the customer. Raw water is also stored in a reserve pond and is pumped intermittently to the head tank to increase the pressure of the water. Customers are responsible for installing water receiving stations and pipelines linked to the Company's main water pipeline

system for distribution of raw water for production and sale as tap water or industrial water. The Company monitors raw water quality by running real-time tests on its major water sources and using the Supervisory Control and Data Acquisition (SCADA) system. The Company collects water samples from its major water sources for monthly detailed analysis. The water analysis is conducted in a laboratory registered with the Department of Industrial Works to monitor changes in water quality and to inform the customers regularly of any findings.

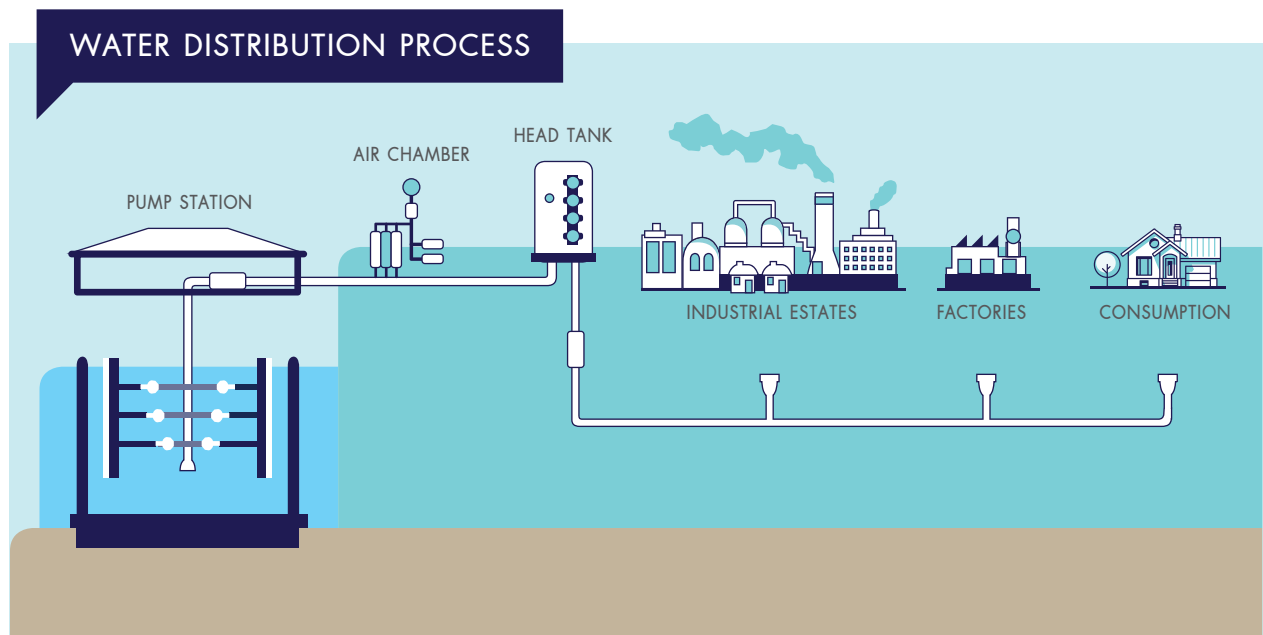


Diagram 3 The raw water distribution process from water sources to customers



MARKETING AND COMPETITION

The Company is the largest business operator in developing water pipeline systems and supplying raw water to industrial and general consumption users in the eastern seaboard areas of Thailand. The Company is equipped with the comprehensive, modern and efficient water grid and pumping systems that link key water sources in the eastern region and cover the eastern coastal areas in the 3 provinces. The Company has the capacity to supply raw water to sufficiently meet current and future demands of the local business operators in a Sustainability manner while other business operators still have limitations in terms of service areas, water source volumes and stability, and water distribution systems.

In 2018, the Company's sale of raw water totaled 249.75 million cubic meters. According to the proportion of the purchases, it was found that the Mab Ta Phud and the Pluak Daeng areas still experienced the average growth rate of 1-2% when compared to the previous year.

PRODUCTS AND SERVICES

The Company currently manages its main water pipelines in the eastern seaboard areas of Thailand. In 2018, the Company's total pipeline length was 491.8 kilometers capable of supplying 675 million cubic meters of raw water per year on average as per details shown in Table 3.

Table 3 Details of the Company's pipeline network

Water Pipeline System	Water Pipeline Diameter (mm.)	Water Pipeline Length (km.)	Average Water Supply Capacity (million cubic meters per year)
Prasae - Nong Plalai - Dok Krai - Mab Ta Phud - Sattahip	700 - 1,600	202.68	316
Nong Kor - Laem Chabang - Pattaya - Bang Pra	600 - 1,200	74.70	110
Nong Plalai - Nong Kor	700 - 1,350	73.61	134
Chachoengsao - Bang Pakong	600 - 1,500	60.10	65
Bang Pakong - Chonburi	700 - 1,400	80.71	50
Total		491.80	675



■ In 2018, the total pipeline length was **491.8** km.



★★★★★

■ Average water Supply Capacity **675** million cubic meters per year

PROJECTS UNDER CONSTRUCTION

1. The “Tubma Raw Water Reservoir” project is intended to add an additional supply of at least 47 million cubic meters of raw water to accommodate future water needs in Rayong. However, the contractor was unable to complete the project according to the contract requirements. As a result, the contract was terminated by the Company. After negotiating with the contractor, the Company rescheduled the project’s completion date to October 2020.



2. The “Nong Plalai - Nong Kho Pipeline 2” project (Pump Station Work) involves capacity enhancement of the Nong Plalai pump station in order to supply water to users in the Pluak Daeng - Bo Win area. The improved capacity will also support the water demand of the independent power plants (IPP). The project is currently being reviewed to ensure alignment with the supply of industrial water to the users. The project is expected to be completed within 2019.



RISK FACTORS

The Company realizes the importance of managing risks under changing business circumstances that may affect its business. As such, the Company studied internal and external environments and continuously complied with the enterprise risk management (ERM) framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) which is an international standard regarding risk management. By considering that risk management is a key element of all business processes and there must be interconnections between the different levels of the organizational structure, the Company stipulated an ERM policy to be complied with by all employees. In this regard, the Risk Management Committee and the Risk Management Division of the Corporate Strategy Department shall be responsible for supervising the overall risk management to ensure maximum effectiveness.

At the Company, organizational risks are managed systematically and risk management is integrated as part of its annual operational plans in order to ensure that risk management plans are effective and efficient and in line with business targets and strategies. In addition, operational risks are under the supervision of executives who are responsible for their respective operations. It is the joint responsibility of every function to manage and control risks to be at acceptable levels.

There are different types of risk factors according to changing circumstances which can be categorized as follows:

1. Risk from changes in natural disasters that may affect the Company's water source assets

The World Economic Forum (WEF)'s Global Risks Report 2018 states that there is high likelihood of the risks posed by abrupt climate change and failure to adapt to climate change. Such risks may impact the Company's water source assets.

The Company operates its business according to existing control measures through closely monitoring the water situation in the eastern region. Meetings were conducted to follow up on reports on water supply volume, natural water sources and preparedness for water shortages (Water War Room). Water diversion plans between different areas were prepared so that the water users were confident about the Company's ability to provide raw water to meet their needs.

2. Risk from the development of transportation infrastructures in the eastern region through road expansion along water pipelines

In 2018, the Company analyzed overall economic conditions and possible impacts of the Eastern Economic Corridor (EEC) Development Plan on its business operations. The analysis results revealed that such plan has positive consequences in terms of more business opportunities in the water industry. However, there are also potential risks from the development of transportation infrastructure projects including road expansion in areas under the Department of Highways and the Department of Rural Roads. This might affect the areas along the water pipelines and the distribution of water to the service users.

Currently, the Company adopted "hot tapping/wet tapping" technology as a control measure to prevent a disruption to its water distribution system. As a result, the Company was able to fix, maintain, or reroute its pipelines; or to install new pipelines to pump and deliver water to other areas without interrupting the water distribution system.

3. Risk from investment management

As the Company is expanding its business in the water industry and looking for new types of investment, it is exposed to the risk of investment projects yielding returns below targets or getting behind schedule.



Therefore, the Company has established regulations on investment criteria and compliance guidelines to support its screening, decision making, monitoring and supervision relating to investments. The Company has the so-called strategic investment management (SIM) process through which a dedicated Investment Committee has been established. The Investment Committee consists of members who are executives and have expertise in different fields of business. The duties of the Investment Committee include considering, reviewing and monitoring company investment reports as well as managing tasks that are key to the project completion in order to mitigate risks from project execution to be at controllable levels.

4. Risk from personnel development to support business growth

The Company has achieved rapid business growth through expanding its total water solutions business, seeking opportunities for new business investments, and adopting state-of-the-art technology and innovation in its operations. However, failure to develop people to have expertise and experience in a timely manner could affect the Company's business and achievement of long-term goals.

The Company must prepare its personnel to be ready to accommodate the implementation of strategic plans specific to respective functions through skills development and capacity building, organizational restructuring to support operations, manpower planning, key position planning, and individual development plans (IDP).

5. Compliance risk

Existing relevant laws and any amendments to policies, laws, rules and regulations of the government may affect business activities.

Therefore, the Company announced its compliance policy to ensure that its directors, executives and employees perform duties in compliance with laws and company rules and regulations. The Company established an organizational structure and roles and duties relating to the supervision of the compliance with laws and company rules and regulations according to the three lines of defense principle. A compliance unit was established as a central entity to supervise the compliance of different functions with laws and to monitor government bills to ensure that the Company's business undertakings are in accordance with new laws to be enforced in the future.

6. Risk from mobilizing funds to support business plan execution

Large-scale water management systems and industrial water business construction projects require high investment funds which must be mobilized in advance. In practicality, the Company monitors and manages business risks closely and pays special attention to the structuring of funds and financial ratios to be at appropriate levels. By continuously monitoring the changes in factors relating to funding activities, the Company believes that it will be able to obtain sources of funds for its future business expansion with appropriate financial costs.



GENERAL AND OTHER IMPORTANT INFORMATION

General Information

Company name	Eastern Water Resources Development and Management Public Company Limited
Business type	Development and management of raw water pipeline systems in the eastern coast areas of Thailand
Head office address	1 Vipavadeerangsit 5, Vipavadeerangsit Road, Jomphol, Jatujak, Bangkok 10900
Registration number	0107539000316 (formerly, BorMorJor.632)
Website	www.eastwater.com
Telephone	(662) 272-1600
Facsimile	(662) 272-1601-3, (662) 272-1692
Registered capital	Baht 1,663,725,149 divided into 1,663,725,149 ordinary shares, each with a par value of Baht 1 (As at 31 December 2018)
Paid-up capital	Baht 1,663,725,149 divided into 1,663,725,149 ordinary shares, each with a par value of Baht 1 (As at 31 December 2018)

List of companies in which the Company holds 10% or more of shares:

Company name	Universal Utilities Public Company Limited
Business type	Management of tap water supply and wastewater treatment systems through concession contracts, management service contracts and rental management contracts
Head office address	1, 18 th Floor, East Water Building, Vipavadeerangsit 5, Vipavadeerangsit Road, Jomphol, Jatujak, Bangkok 10900
Telephone	(662) 272-1688
Facsimile	(662) 272-1691
Registered capital	Baht 930,000,000 divided into 930,000,000 ordinary shares, each with a par value of Baht 1 (As at 31 December 2018)
Paid-up capital	Baht 510,000,000 divided into 510,000,000 ordinary shares, each with a par value of Baht 1 (As at 31 December 2018)

References

Securities Registrar (Ordinary Shares)	Thailand Securities Depository Co., Ltd. 93 Ratchadaphisek Road, Dindaeng Subdistrict, Dindaeng District, Bangkok 10400
Telephone	(662) 009-9000
Facsimile	(662) 009-9991
Auditor	PricewaterhouseCoopers ABAS Company Limited 179/74-80, 15 th Floor, Bangkok City Tower, South Sathorn Road, Sathorn District, Bangkok 10120
Telephone	(662) 844-1000
Facsimile	(662) 286-0500

Other Important Information None



SECURITIES AND SHAREHOLDERS

TOP 10 MAJOR SHAREHOLDERS

The Company's top 10 major shareholders as at the book-closing date of 28 December 2018 are listed below.

Rank	Shareholder's name	Number of shares	(%)
1	Provincial Waterworks Authority	668,800,000	40.20%
2	Manila Water (Thailand) Company Limited	311,443,190	18.72%
3	Industry Estate Authority of Thailand	76,000,000	4.57%
4	Mr. Min Thienworn	34,500,000	2.07%
5	Aberdeen Standard Small Cap Fund	30,226,600	1.82%
6	BNP Paribas Securities Services, London Branch	29,812,100	1.79%
7	Aberdeen Standard Long-Term Equity Fund	27,465,700	1.65%
8	Thanachart Low Beta Fund	25,181,300	1.51%
9	Aberdeen Standard Growth Fund	25,159,500	1.51%
10	Thanachart Prime Low Beta Fund	23,728,200	1.43%
	Other shareholders	411,408,559	24.73%
		1,663,725,149	100.00%

Source: Thailand Securities Depository Co., Ltd.

Remark: The first and the third shareholders were the major shareholders from the government sector while the second shareholder was a juristic person. All these 3 shareholders had a role in determining management policies and their representatives were proposed for appointment as directors at the Company's shareholders' meeting.



DIVIDEND POLICY

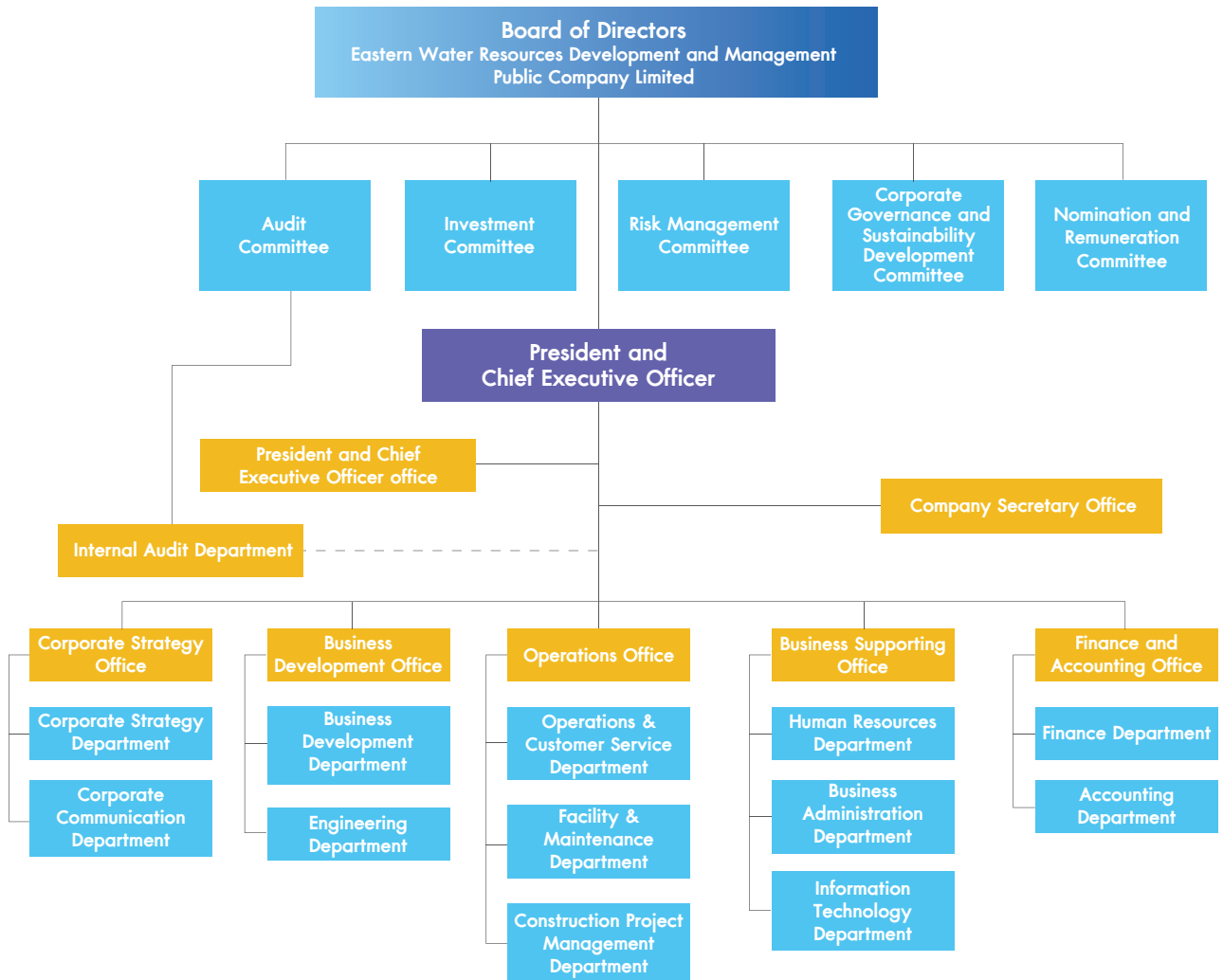
The Board of Directors set out the Company's shareholder dividend policy which must be proposed to the shareholders' meeting for consideration. According to the policy, the dividend payout ratio shall not be less than 30% of the Group's consolidated net profit after deductions of statutory reserves. Dividends shall be paid based on necessity and other considerations as deemed appropriate by the Company.





MANAGEMENT STRUCTURE

The Company's management structure consists of the Board of Directors which shall be responsible for complying with laws, the Company's objectives and articles of association, and resolutions of the shareholders' meetings. The Board of Directors shall have authority to take any actions as specified in the Company's memorandum of association and applicable laws. The Board of Directors established another 5 subcommittees to consider and review important matters, i.e. 1) The Audit Committee, 2) The Investment Committee, 3) The Risk Management Committee, 4) The Corporate Governance and Sustainability Development Committee, and 5) The Nomination and Remuneration Committee. The President and Chief Executive Officer is the top executive and responsible for supervising 5 offices, namely 1) The Corporate Strategy Office, 2) The Business Development Office, 3) The Operations Office, 4) The Business Supporting Office and 5) The Finance and Accounting Office. The Company has 13 departments and 2 Offices.



BOARD OF DIRECTORS

The Board of Directors consists of 12 members and is structured with appropriate checks and balances, with 8 members being independent directors, equivalent to two-thirds of the Board. The Audit Committee comprises 3 independent directors. The 2 independent directors, namely Mrs. Tatchada Jitmahawong and Mrs. Asvini Tailanga, have knowledge and experience in accounting and finance and are capable of reviewing the credibility of the financial statements.

The nomination and appointment of directors and independent directors is based upon consideration of knowledge and capabilities according to the director selection criteria. The Nomination and Remuneration Committee will consider and review the candidates' qualifications before submission to the Board of Directors for consideration and approval. The director skills matrix is prepared and used to support the consideration of the Board of Directors. It contains details of the persons with diversified qualifications in terms of skills, experience, capabilities, and specific characteristics that are required for the business operations. Three of the Company's directors are representatives of the shareholders from the Provincial Waterworks Authority (PWA), Manila Water (Thailand) Company Limited and the Industrial Estate Authority of Thailand (IEAT). They possess knowledge regarding water management and exercise prudence and caution in providing useful opinions for the Company's planning and operations. The profiles of the directors are as shown in Pages 18-23 of this report.

DIRECTORS' QUALIFICATIONS AND TERM OF OFFICE

According to the Company's 2018 revised version of the principles of good corporate governance, the directors must meet legal age requirements, not be older than 70 years, and have proper qualifications. They shall not possess prohibited characteristics as per the requirements of the Board of Directors, the securities and exchange law, the public limited company law, the anti-corruption law and other applicable laws. The term of office of the directors shall be as follows:

1. At every annual general meeting of shareholders, at least one-third of the directors shall vacate the office. If the number of the directors is not a multiple of three, the number nearest to one-third shall retire from the office. The directors retiring by rotation may be re-elected.
2. In case of a vacancy in the Board of Directors for reasons other than the expiration of the director's term of office, the Board of Directors shall select a person with suitable qualifications and having no prohibited characteristics under relevant laws to fill the vacancy at the next meeting of the Board of Directors, except in the case where the remaining term of office of such director is less than 2 months. The Board of Directors' resolution for the matter shall be passed by at least three-fourths of the remaining directors. The replacement director shall hold the office for

the remaining term of the director whom he/she replaces.

Any director wishing to resign from office shall submit a resignation letter to the Company. The resignation shall be effective from the date on which the resignation letter reaches the Company.

The shareholders' meeting may pass a resolution to remove a particular director prior to the expiration of his/her term of office with at least three-fourths of the total votes of the shareholders present at the meeting and having the right to vote, provided that the combined number of the shares shall not be less than one-half of the total shares held by the shareholders present at the meeting and having the right to vote.

3. An independent director shall hold the office for a maximum of 9 consecutive years from the date of first appointment to the position. In the case where that independent director will be re-appointed for another term, the Board of Directors shall consider the reasons for such matter.
4. The Company's directors may hold a directorship in no more than 5 other listed companies.
5. The President and CEO and other executives may hold a directorship in no more than 2 other listed companies.

ROLE AND DUTIES OF THE CHAIRMAN OF THE BOARD OF DIRECTORS

1. To supervise, monitor, and ensure that the performance of duties of the Board of Directors is efficient and meets the Company's main objectives and goals.
2. To ensure that all directors contribute to the promotion of a corporate culture of ethics and good corporate governance.
3. To convene and chair meetings of the Board of Directors as well as determine meeting agenda through having discussions with the President and CEO; to have measures to ensure that important matters are incorporated into the meeting agenda; and to cast a decisive vote in case of equal voting and act as chairman of meetings.
4. To allocate time for the management to conduct presentation and for the directors to discuss any key issues in a prudent and comprehensive manner. Also, to encourage the directors to exercise prudence in performing duties and express opinions freely.
5. To promote good relationships between the executive and the non-executive directors and between the Board of Directors and the management.

SEGREGATION OF DUTIES BETWEEN THE BOARD OF DIRECTORS AND THE MANAGEMENT

The duties of the Board of Directors and the management are clearly separated from each other. The Board of Directors shall not be involved in the duties of the

management to create checks and balances between management and supervision; and shall monitor the performance of the management to ensure that appropriate policies and processes are implemented in an effective manner.

According to the East Water Group's 2018 principles of good corporate governance, **"Matters of which proper implementation should be ensured"** shall refer to the matters of which the Board of Directors is mainly responsible for ensuring appropriate implementation. The Board of Directors must thoroughly understand and consider such matters as follows:

1. To determine the Company's main objectives and goals.
2. To cultivate a corporate culture of adhering to professional ethics and leading by example.
3. To supervise the structure and performance of duties of the Board of Directors to ensure effective and efficient achievement of the Company's main objectives and goals.
4. To nominate, develop and determine remuneration and evaluate performance of the President and CEO.
5. To determine a compensation structure that encourages employees to perform work in alignment with the organization's objectives and goals.

In considering and implementing such matters, the Board of Directors may assign the management to propose relevant information to the board for consideration.

"Matters to be jointly conducted with the management" shall refer to the matters to be jointly considered by the Board of Directors, the President and CEO and the management. In this regard, the management shall present relevant information to the Board of Directors for endorsement. The Board of Directors shall supervise and ensure that the overall policy is in alignment with the Company's main business objectives and goals. The management shall be assigned to take relevant actions and their work shall be monitored by the Board of Directors. The management shall report the results of operations to the Board of Directors for acknowledgement on a regular basis as appropriate.

- 1) To determine and review annual strategies, goals and action plans.
- 2) To ensure appropriateness and sufficiency of the risk management system and internal controls.
- 3) To determine the scope of authority to take actions according to the level of responsibility of the management.
- 4) To determine frameworks for resources allocation, development schemes and budgets such as personnel management plan and policy and information technology policy.
- 5) To follow up and evaluate the results of operations.
- 6) To ensure that financial and non-financial disclosure is reliable.

"Matters that should not be conducted by the Board of Directors" shall refer to the matters to be supervised

by the Board of Directors at the policy level. The President and CEO and the management shall be assigned to be mainly responsible for implementing such matters as follows:

- 1) To take relevant actions to ensure compliance with the strategies, policies and plans approved by the Board of Directors.
- 2) Matters subjected to prohibitions such as granting approval for transactions in which directors have a beneficial interest.

SEGREGATION OF DUTIES BETWEEN THE CHAIRMAN OF THE BOARD OF DIRECTORS AND THE PRESIDENT AND CEO

The Chairman of the Board of Directors and the President and CEO shall have appropriate knowledge, capabilities, experience, and qualifications. They shall not be the same person in order to create checks and balances. Their respective duties of supervision and management shall be separated from each other.

MEETINGS OF THE BOARD OF DIRECTORS

The Chairman of the Board of Directors will determine dates and times of meetings of the Board of Directors for the whole year in advance. The Board of Directors' meeting is held once a month so that the directors can allocate their time to attend the meeting. The Company Secretary shall send a meeting invitation letter, meeting agenda, and supporting documents to the directors at least 5 days in advance of the meeting. This is to ensure that the directors will have enough time to study the relevant information. An exception applies to urgent cases in which the Chairman of the Board of Directors endorses a particular matter as part of the meeting agenda and, to facilitate operations, any director who has a beneficial interest or any potential conflict of interest with regard to any agenda item shall abstain from providing opinions and voting or shall depart the meeting.

At meetings of the Board of Directors, the Chairman of the Board of Directors will allow all directors to express their opinions freely. The company secretary shall be responsible for preparing minutes of the meeting before submission to the Board of Directors for consideration within 7 business days. Afterwards, the Board of Directors shall adopt the minutes of the meeting in particular at the next meeting.

MEETING OF NON-EXECUTIVE DIRECTORS

On 11 December 2018, the Company held the Board of Directors' meeting with only non-executive directors present at the meeting to allow them to discuss issues relating to the operations of the Company, exchange ideas and opinions, and consider matters that were of interest of the directors, such as follow-up on the progress of the major construction projects, the strategies to expand business to ensure consistency with the corporate vision, the assessment results of the adequacy of internal controls according to the Securities and Exchange Commission (SEC)'s requirements, and the compliance rating.

List of directors and their meeting attendance in 2018 are as per the table below.

Name-Surname	Position	Attendance
1. Mr. Veerasak Kositpaisal ¹	- Independent Director - Chairman of the Board of Directors	9/9
2. Mr. Amorn Laohamontri	- Independent Director	14/14
3. Pol. Maj. Gen. Vichai Sangprapai	- Independent Director - Chairman of the Audit Committee - Chairman of the Nomination and Remuneration Committee - Member of the Corporate Governance and Sustainability Development Committee	12/14
4. Mr. Surachai Kanasa	- Independent Director - Chairman of the Investment Committee - Member of the Nomination and Remuneration Committee	13/14
5. Mrs. Tatchada Jitmahawong	- Independent Director - Chairman of the Corporate Governance and Sustainability Development Committee - Member of the Audit Committee	13/14
6. Mrs. Asvini Tailanga ²	- Independent Director - Chairman of the Risk Management Committee - Member of the Audit Committee	8/9
7. Mr. Oran Vongsuraphichet	- Independent Director - Member of the Investment Committee - Member of the Nomination and Remuneration Committee	12/14
8. Col. Premjiras Tanathaipakdee	- Independent Director - Member of the Nomination and Remuneration Committee - Member of the Corporate Governance and Sustainability Development Committee	9/14
9. Mr. Kritsada Sunkhamani	- Director - Member of the Investment Committee - Member of the Risk Management Committee	10/14
10. Mr. Virgilio Jr. Cervantes Rivera ³	- Director - Member of the Investment Committee	10/11
11. Miss Somchint Pilouk ⁴	- Director	0/0
12. Mr. Jirayut Rungsrithong	- Director - Member of the Investment Committee - Member of the Risk Management Committee	14/14

Remarks: ¹ The 2017 Annual General Meeting of Shareholders resolved to appoint Mr. Veerasak Kositpaisal to the position of director in replacement of Dr. Chanin Tinnachote who retired by rotation.

² The 2017 Annual General Meeting of Shareholders resolved to appoint Mrs. Asvini Tailanga to the position of director in replacement of Mr. Phaiboon Siripanoosathien who retired by rotation.

³ The Board of Directors resolved to appoint Mr. Virgilio Jr. Cervantes Rivera as director on 14 March 2018 in replacement of Mr. Chaipat Sahasakul.

⁴ The Board of Directors resolved to appoint Miss Somchint Pilouk as director on 11 December 2018 in replacement of Mr. Attaphol Chirawatchanya.

SCOPE OF AUTHORITY AND DUTIES OF THE BOARD OF DIRECTORS

In 2018, the Company revised its corporate governance principles by cancelling the Handbook of the Board of Directors and adopting the SEC's Corporate Governance Code containing details of the scope of authority and duties of the Board of Directors in 8 aspects:

- 1) To realize the role and responsibilities of the Board of Directors as a leader to create long-term value for the organization.
- 2) To determine the Company's main objectives and goals towards sustainability.
- 3) To promote efficiency of the Board of Directors.
- 4) To nominate and develop high-level executives and manage personnel.
- 5) To foster innovation and socially responsible business undertakings.
- 6) To ensure appropriate risk management systems and internal controls.
- 7) To maintain the reliability of financial statements and information disclosure.
- 8) To support engagement and communication with the shareholders.

AUTHORIZED SIGNATORY DIRECTORS

According to the articles of association of the Company, two authorized signatory directors are required to jointly affix signatures and the Company's seal so as to be binding on the Company.

PERFORMANCE EVALUATION OF THE BOARD OF DIRECTORS/SUBCOMMITTEES

The Company conducts performance evaluation for the entire Board of Directors and for individual directors once per year. In this regard, the directors will jointly

consider their achievements, problems and challenges they experienced throughout the year. There are 3 different performance evaluation forms:

- 1) Self-evaluation form for the Board of Directors
- 2) Self-evaluation form for each respective subcommittee
- 3) Self-evaluation form for an individual director

All subcommittee charters require that subcommittee members report their performance and any problems or challenges that caused them to fail to comply with the specified scope, authority and duties to the Board of Directors for acknowledgement once per year. After that, the Board of Directors shall analyze the summary of the performance evaluation results for further improvement of operational efficiency to ensure appropriateness and conformity with the good corporate governance principles.

The self-evaluation form for the Board of Directors contains 6 questions as follows:

1. Structure and qualifications of the Board of Directors
2. Role, duties and responsibilities of the Board of Directors
3. Meetings of the Board of Directors
4. Performance of duties as a director
5. Relationships with the management
6. Self-development of directors and development of executives

In conclusion, the average performance rating of the Board of Directors was 93.18%.

The self-evaluation form for each respective subcommittee contains 3 questions as follows:

1. Structure and qualifications of the respective subcommittee
2. Meetings of the respective subcommittee
3. Compliance with the scope of authority, duties and responsibilities

The performance ratings of the respective subcommittees are as follows:

The Company's subcommittees	Ratings (%)
1. Audit Committee	97.96
2. Investment Committee	92.62
3. Risk Management Committee	91.54
4. Corporate Governance and Sustainability Development Committee	98.19
5. Nomination and Remuneration Committee	96.17

Remarks: The names and the role and duties of the Corporate Governance and Sustainability Development Committee and the Nomination and Remuneration Committee were based on the revision as per the resolution of the Board of Directors' Meeting No. 12/2018 held on 11 October 2018.

The self-evaluation form for an individual director contains 3 questions as follows:

1. Structure and qualifications of the Board of Directors
2. Meetings of the Board of Directors

3. Role, duties and responsibilities of the Board of Directors

In conclusion, the average performance rating of all individual directors was 94.32%.

COMPANY EXECUTIVES

As at 31 December 2018, the Company had 8 executives as per the definition of executives in the Capital Market Supervisory Board's Notification No. TorChor.23/2551. The executives of the Company and its subsidiaries were knowledgeable and experienced. Details are as per the profiles in Pages 27-30 and the management structure in Page 26. The list of the executives is as follows:

Name	Position
1. Mr. Jirayut Rungsrithong	President and Chief Executive Officer
2. Mr. Cherdchai Pitiwacharakul	Executive (assigned to supervise the operations of the subsidiaries) and Managing Director of Universal Utilities Public Company Limited
3. Mr. Charin Sony	Executive Vice President and Chief Business Development Officer (CBDO)
4. Mr. Bordin Udol	Executive Vice President and Chief Operating Officer (COO)
5. Mrs. Wirawan Tharanont	Executive Vice President and Company Secretary
6. Mrs. Thidarut Kraiprasit	Executive Vice President, Internal Audit Department
7. Miss Chinda Mahaisawariya	Executive Vice President and Chief Supporting Officer (CSO)
8. Mr. Sombat Yusamart	Executive Vice President and Chief Financial Officer (CFO)

EWG's CORE Competency



SHARP

Stakeholder Focus

Holistic Thinking

Adaptability

Result Acceleration

Proactive & Creative Thinking

COMPANY SECRETARY

The Board of Directors appointed Mrs. Wirawan Tharanont as company secretary with authority and duties according to the Securities and Exchange Act B.E. 2535 (A.D. 1992). She shall be responsible for holding meetings of the Board of Directors and annual general meetings of shareholders as well as providing recommendations on compliance with applicable laws, rules and regulations to the Company's directors. Also, she shall be responsible for preparing and retaining a register of directors, minutes of meetings of the Board of Directors, minutes of shareholders' meetings, annual reports, beneficial interest reports, and securities holding reports of directors or executives. Moreover, she shall be responsible for supporting activities relating to the Board of Directors to ensure that they perform duties efficiently and effectively such as holding orientation and training sessions as well as disclosing data and information to relevant supervisory bodies within specified time frames.

The Company encouraged the company secretary to obtain trainings and improve knowledge in laws and other relevant fields on a continuous basis from both the Thai Institute of Directors (IOD) and the Thai Listed Companies Association (TLCA). Her profile and experience are as shown in Page 29 of the Annual Report. In 2018, she attended the New Era of Governance & Internal Controls course and the Leadership Development Program course held by PacRim Group.

DIRECTORS' AND EXECUTIVE REMUNERATION

Directors' Remuneration

The Nomination and Remuneration Committee shall be responsible for considering remuneration for the Board of Directors and respective subcommittees at the initial stage before submission to the Board of Directors for consideration and endorsement and the shareholders' meeting for approval. The Company specified rates of remuneration for directors and respective subcommittee members in monetary and non-monetary forms including monthly remuneration, meeting allowance and remuneration based on corporate performance such as bonuses which were linked to the value created for the shareholders. In determining the criteria for paying remuneration, other appropriate considerations and factors were also taken into account, i.e. 1) Industrial practice, 2) Operating results and business size, 3) Directors' knowledge, capabilities and experiences, 4) Directors' role, duties and responsibilities and 5) Directors' individual performances. The directors' remuneration rates were at appropriate levels and fair and were designed to motivate and retain capable directors. In addition, bonus payments to the directors must be in line with dividend payments to the shareholders and should not be too high that the directors are not independent.

The Nomination and Remuneration Committee shall be responsible for considering and determining forms of remuneration for the President and CEO before submission to the Board of Directors for approval. The Nomination and Remuneration Committee shall also consider bonus and annual salary increment rates for the employees based on corporate performance, economic situations, and competitiveness.

The 2017 Annual General Meeting of Shareholders held on 23 April 2018 passed a resolution to approve the directors' remuneration in 2018 as follows:

1) Monetary Remuneration

1. Monthly Remuneration and Meeting Allowance for the Board of Directors and the Subcommittees

1.1 Remuneration for Directors

- Monthly remuneration of Baht 30,000/person.
- Meeting allowance of Baht 10,000/person/meeting paid according to the individual's attendance record.

The Chairman of the Board of Directors shall receive a monthly remuneration of Baht 45,000/month and a meeting allowance of Baht 15,000/meeting according to the individual's attendance record.

1.2 Remuneration for Members of the Audit Committee

- Monthly remuneration of Baht 10,000/person/month.
- Meeting allowance of Baht 10,000/person/meeting paid according to the individual's attendance record.

1.3 Remuneration for Members of Other Subcommittees

- No monthly remuneration.
- Meeting allowance of Baht 10,000/person/meeting paid according to the individual's attendance record.

2. Bonus for Directors: The 2017 bonus rate shall remain at 0.80% of the shareholders' dividends. The total bonus shall not exceed Baht 6 million and shall be distributed among the board members with the Chairman receiving an additional 50%. The rate of bonus shall be calculated on a prorata basis according to the length of time each director has served.

2) Non-Monetary Remuneration: The Company shall have no other forms of benefits.

Details of remuneration for the Board of Directors and the subcommittees for 2018 are shown in Table 4.

Table 4: 2018 Directors' Remuneration

Unit : Baht

Name	Meeting Allowance and Monthly Remuneration (Baht)						Bonus paid from 2017 business performance	Total
	Board of Directors	Audit Committee	Investment Committee	Risk Management Committee	Corporate Governance and Sustainability Development Committee	Nomination and Remuneration Committee		
1. Mr. Veerasak Kositpaisal ¹	507,000	-	-	-	-	-	-	507,000
2. Mr. Amorn Laohamontri	576,500	-	-	-	-	-	818,692	1,395,192
3. Pol.Maj.Gen. Vichai Sangprapai	480,000	310,000	-	-	120,000	20,000	545,794	1,475,794
4. Mr. Surachai Kanasa	490,000	-	110,000	-	-	70,000	246,729	916,729
5. Mrs. Tatchada Jitmahawong	490,000	304,999	-	-	110,000	-	545,794	1,450,793
6. Mrs. Asvini Tailanga ²	328,000	197,333	-	30,000	-	-	-	555,333
7. Mr. Oran Vongsuraphichet	480,000	-	90,000	-	-	60,000	110,654	740,654
8. Col. Premjiras Tanathaipakdee	450,000	-	-	-	100,000	50,000	545,794	1,145,794
9. Mr. Kritsada Sunkhamani	460,000	-	20,000	30,000	-	10,000	47,850	567,850
10. Mr. Virgilio Jr. Cervantes Rivera ³	387,000	-	60,000	-	-	-	-	447,000
11. Miss Somchint Pilouk ⁴	21,000	-	-	-	-	-	-	21,000
12. Mr. Jirayut Rungsritthong	500,000	-	110,000	55,000	-	-	-	665,000

Remarks: ¹ Mr. Veerasak Kositpaisal was appointed as a director on 23 April 2018.

² Mrs. Asvini Tailanga was appointed as a director on 23 April 2018.

³ Mr. Virgilio Jr. Cervantes Rivera was appointed as a director on 14 March 2018.

⁴ Miss Somchint Pilouk was appointed as a director on 11 December 2018.

In 2018, the Board of Directors assigned the relevant subcommittees to consider and propose opinions on determination of a water price rate structure with an aggregate remuneration of Baht 130,000.

Table 5: Remuneration for Directors Leaving the Board during 2018

Unit : Baht

Name	Meeting Allowance and Monthly Remuneration (Baht)						Bonus paid from 2017 business performance	Total
	Board of Directors	Audit Committee	Investment Committee	Risk Management Committee	Corporate Governance and Sustainability Development Committee	Nomination and Remuneration Committee		
1. Mr. Chaipat Sahasakul ¹	104,000	-	20,000	20,000	-	-	545,794	689,794
2. Dr. Chanin Tinnachote ²	153,000	87,666	-	-	30,000	-	545,794	816,460
3. Mr. Phaiboon Siripanoosathien ³	143,000	40,000	-	20,000	-	-	545,794	748,794
4. Dr. Verapong Chaiperm ⁴	150,000	-	-	-	-	-	545,794	695,794
5. Mr. Attaphol Chirawatchanya ⁵	179,000	-	-	10,000	-	-	-	189,000

Remarks: ¹ Mr. Chaipat Sahasakul resigned from the Board with effect on 14 March 2018.

² Dr. Chanin Tinnachote resigned from the Board with effect on 23 April 2018.

³ Mr. Phaiboon Siripanoosathien resigned from the Board with effect on 23 April 2018.

⁴ Dr. Verapong Chaiperm resigned from the Board with effect on 1 May 2018.

⁵ Mr. Attaphol Chirawatchanya resigned from the Board with effect on 7 December 2018.

Table 6 Shareholding by Directors as at 31 December 2018

No.	Name	Position	Number of Shares		
			31 December 2017	31 December 2018	+/- during 2018
1.	Mr. Veerasak Kositpaisal ¹ Spouse and minor child	Chairman	N/A -	- -	- -
2.	Mr. Amorn Laohamontri Spouse and minor child	Independent Director	- -	- -	- -
3.	Pol.Maj.Gen. Vichai Sangprapai Spouse and minor child	Independent Director	- -	- -	- -
4.	Mr. Surachai Kanasa Spouse and minor child	Independent Director	- -	- -	- -
5.	Mr. Oran Vongsuraphichet Spouse and minor child	Independent Director	- -	- -	- -
6.	Mrs. Tatchada Jitmahawong Spouse and minor child	Independent Director	- -	- -	- -
7.	Col. Premjiras Tanathaipakdee Spouse and minor child	Independent Director	- -	- -	- -
8.	Mr. Kritsada Sunkhamani Spouse and minor child	Director	- -	- -	- -
9.	Mr. Virgilio Jr. Cervantes Rivera ² Spouse and minor child	Director	N/A -	- -	- -
10.	Mrs. Asvini Tailanga ³ Spouse and minor child	Independent Director	N/A -	- -	- -
11.	Miss Somchint Pilouk ⁴ Spouse and minor child	Director	N/A N/A	- -	- -
12.	Mr. Jirayut Rungsritthong Spouse and minor child	Director	- -	- -	- -

Remarks: ¹ Mr. Veerasak Kositpaisal was appointed as Chairman of the Board of Directors on 23 April 2018.

² Mr. Virgilio Jr. Cervantes Rivera was appointed as a director on 14 March 2018.

³ Mrs. Asvini Tailanga was appointed as a director on 23 April 2018.

⁴ Miss Somchint Pilouk was appointed as a director on 11 December 2018.

Table 7 Shareholding by Directors Leaving the Board during 2018

No.	Name	Position	Number of Shares			Effective Date of Resignation
			31 December 2017	31 December 2018	+/-	
1.	Dr. Verapong Chaiperm	Director	-	-	-	1 May 2018
	Spouse and minor child		-	-	-	
2.	Mr. Chaipat Sahasakul	Director	-	-	-	14 March 2018
	Spouse and minor child		-	-	-	
3.	Dr. Chanin Tinnachote	Independent Director	-	-	-	23 April 2018
	Spouse and minor child		-	-	-	
4.	Mr. Phaiboon Siripanoosathien	Independent Director	-	-	-	23 April 2018
	Spouse and minor child		-	-	-	
5.	Mr. Attaphol Chirawatchanya	Director	-	-	-	7 December 2018
	Spouse and minor child		N/A	-	-	

Executive Remuneration

It was the Company's policy to pay remuneration to all employees at all levels appropriately. Short-term remuneration was based on annual corporate performance. Remuneration was also paid based on remuneration rates of companies in the same industry. The Company compared the wages and remuneration of its employees against those of employees of other organizations to ensure that the Company's remuneration structure was appropriate and competitive. In addition, consumer index information from government agencies such as the Ministry of Commerce and the Bank of Thailand was used to support the payment of wages and remuneration to the executives and employees.

The Company paid remuneration mainly based on key performance indicators (KPIs) used in evaluating the performance of its employees at all levels. The KPIs had to be consistent at organizational, functional, and individual levels to ensure that the operational goals were aligned with the corporate vision and missions.

Executive remuneration was considered directly based on performance and achievement of the organizational goals and strategies.

Remuneration Structure

The remuneration paid to the President & CEO and the first four executives consisted of the following components.

1. Fixed remuneration and benefits

- Salaries: A salary shall be paid based on scope of duties, responsibilities, experience, and skills and expertise. A salary is paid on a monthly basis and subjected to review every year. Salary rates shall be based on performance and salary rate adjustments in the labour market.
- Other Benefits: Other benefits are to provide security and safety for employees or assistance in times of sickness including medical insurance, life insurance, and provident funds.

2. Performance-based remuneration: This refers to an annual bonus which is paid based on corporate KPIs each year as considered and approved by the Board of Directors. These KPIs are based on various aspects including finance, process management, stakeholders, and learning and organizational development. The weight given to each aspect may vary from year to year.

The Company's remuneration

	CEO	Executives	Employees
Salaries	✓	✓	✓
Performance-based bonuses	✓	✓	✓
Provident funds	-	✓	✓

Summary of remuneration for the President & CEO and executives in 2018

Remuneration	2018 Eight executives ⁽¹⁾ (Baht)
Total salary	26,424,156
Bonuses ⁽²⁾	8,689,190
Provident funds (contributions)	1,819,973
Total	36,933,319

Remark: ⁽¹⁾ The 8 executives were the President & CEO, the SEVP assigned to oversee the operations of the subsidiaries, the EVP of the Internal Audit Department, the EVP and Company Secretary, the EVP of the Business Development Office, the EVP of the Operations Office, the EVP of the Business Supporting Office, and the EVP of the Finance and Accounting Office.

⁽²⁾ The bonuses of 2017 were paid in March 2018.

Shareholding by high-level executives as at 31 December 2018

No.	Name	Position	Number of Shares		
			31 December 2017	31 December 2018	+/-
1.	Mr. Jirayut Rungsrithong	President and Chief Executive Officer and Acting Executive Vice President, Corporate Strategy Office	-	-	-
	Spouse and minor child		-	-	-
2.	Mr. Cherdchai Pitiwacharakul	Executive (assigned to supervise the operations of the subsidiaries)	-	-	-
	Spouse and minor child		-	-	-
3.	Mr. Charin Sony	Executive Vice President, Business Development Office and Acting Vice President, Business Development Department	-	-	-
	Spouse and minor child		-	-	-
4.	Mr. Bordin Udol	Executive Vice President, Operations Office and Acting Vice President, Facility & Maintenance Department	-	-	-
	Spouse and minor child		-	-	-
5.	Mrs. Wirawan Tharanont	Executive Vice President and Company Secretary	-	-	-
	Spouse and minor child		-	-	-
6.	Mrs. Thidarut Kraiprasit	Executive Vice President, Internal Audit Department	600,000	600,000	0
	Spouse and minor child		-	-	-
7.	Miss Chinda Mahaisawariya	Executive Vice President, Business Supporting Office	-	-	-
	Spouse and minor child		-	-	-
8.	Mr. Sombat Yusamart	Executive Vice President, Finance and Accounting Office	-	-	-
	Spouse and minor child		-	-	-



PERSONNEL

2018 marked the first anniversary of the Company's organizational restructuring through the combination of all supporting functions into one shared service center (SSC). The objectives of the organizational restructuring are:

1. To ensure alignment with the organization's strategies
2. To ensure clear segregation of duties and appropriate lines of command

3. To enhance management efficiency
4. To achieve checks and balances
5. To support personnel development and career advancement

As at 31 December 2018, the Company had a total of 221 employees. Of this, 217 were permanent employees and 4 were contractual employees. Details are as follows:

Office	Number (Person)
President and CEO	5
Company Secretary	19
Internal Audit	8
Corporate Strategy	19
Business Development	22
Operations	66
Business Supporting	40
Finance and Accounting	42
Total	221



CORPORATE GOVERNANCE

The Company is strongly determined to being a leading provider of total water solutions in Thailand and developing itself to become a corporate governance champion as it believes that good corporate governance leads to fair management system, raises shareholders' confidence in investment, and creates trust in all groups of stakeholders. Good corporate governance also results in proper, efficient and effective management and promotes organizational competitiveness and sustainable growth.

CORPORATE GOVERNANCE POLICY

The Board of Directors formulated the corporate governance policy in writing on 1 August 2003 and assigned the Corporate Governance and Sustainability Development Committee to review the policy and guidelines on policy implementation at least once per year to ensure compliance with requirements of the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC). Results of the review must be submitted to the Board of Directors for consideration and approval.

In 2018, the Company conducted the 12th review of the corporate governance principles for its business group by referring to the SET's 2012 Corporate Governance Code for Listed Companies and the SEC's 2017 Corporate Governance Code for Listed Companies. After due consideration, the Board of Directors opined that the Company should be able to implement all of the corporate governance principles. Thus, the Corporate Governance and Sustainability Development Committee proposed the Company's Corporate Governance (CG) Code to the Board of Directors for consideration and approval at the Board of Directors' Meeting No. 14/2018 held on 11 December 2018. The Company's CG Code shall be used as a guideline and strictly complied with by the directors, executives and employees at all levels of the business group.

The Company prepared and disseminated its CG Code and Code of Conduct of the East Water Group through electronic media at www.eastwater.com and the Company's internal web for easy access and learning. New employees are also required to sign and acknowledge the Code of Conduct document on the date of orientation to affirm a commitment to comply with the Company's Code of Conduct. The Code of Conduct is one of the topics under the good corporate governance principles which must be complied with in alignment with the CG principles. Also, new directors are required to sign and acknowledge the Company's CG Code on the date of orientation.

In order to ensure that all employees have knowledge and understanding about rules, regulations and business ethics of the East Water Group and are able to perform duties correctly and properly, the Company requires that

all employees conduct a test regarding the good corporate governance principles and the anti-corruption policy through the Company's intranet system on an annual basis. The test results shall be used to evaluate the level of knowledge and understanding of the employees to further enhance communications and improve their knowledge and understanding such that they truly realize their duty to promote the good corporate governance practices within the organization. The Company shall always review and update such test to keep up with changing laws and regulations.

The Company always complies with the CG Code of the Group which contains the following 8 principles:

Principle 1 To realize the roles and responsibilities of the Board of Directors as a leader to create long-term value for the organization

The Board of Directors is appointed by the shareholders to be responsible for overall operations of the Company, to have authority to give instructions, grant approval and monitor the implementation of the Company's strategies, and to oversee business operations, risks, financial stability and the organizational structure. (Please refer to details of the scope of authority, duties and responsibilities of the Board of Directors in the section of "Management Structure".)

The Board of Directors' Meeting No. 10/2561 held on 17 August 2018 resolved to approve the vision, missions and strategies of the business group for 2019-2021 (the 3-year plan) as proposed by the management. The said vision, mission and strategies are aimed at strengthening the Company's competitiveness and operating results while taking into consideration any long-term impacts. The Company shall operate business with professional ethics, respect shareholders' rights, take responsibility for shareholders and other stakeholders, contribute benefits to society, improve or reduce negative effects on the environment, and be able to adapt to changing business factors. (Please refer to details of the vision, mission and strategies in the section of "Company Policy and Business Overview".)

Principle 2 To define key objectives and goals in support of business sustainability

The Board of Directors shall oversee and ensure that the Company has key objectives and goals in support of its sustainability. The Company's vision is to be the leader in total water solutions of the country. Its objectives are to secure security and stability of water sources, to grow its investment in the total water solutions business, and to achieve ongoing and sustainable development while taking responsibility for communities, society and the environment as well as establishing good relationships with its stakeholders. (Please refer to additional details in the section of "Company Policy and Business Overview".)

Principle 3 To enhance effectiveness of the Board of Directors

The Company established the structure of its Board of Directors in alignment with the public limited company law and the corporate governance principles of the Office of the SEC, especially in terms of size, composition and proportion of independent directors. That is, the Board of Directors of the Company consists of at least 5 members but not more than 12 members and independent directors must represent at least one-third of the Board members. In 2018, the Board of Directors consisted of 12 qualified members. Of this, 8 members or two-thirds of the total members were independent directors. The independent directors shall not be involved in the management and shall not be shareholders of the Company. In addition, 3 out of 8 independent directors served as members of the Audit Committee. The Chairman of the Board of Directors was also an independent director and did not serve as chairman or member of any subcommittee. He shall be responsible for supervising, monitoring and ensuring that the duty performance of the Board of Directors is efficient and meets the key objectives and goals of the organization.

The Board of Directors assigned the Nomination and Remuneration Committee to determine the criteria and method for nominating persons as directors in line with the requirements and to consider the remuneration of the Board of Directors and respective subcommittees before submission to the Board of Directors for endorsement and to the shareholders' meeting for approval. Remuneration payments shall be appropriate, adequate, fair, rewarding and able to retain qualitative directors as well as in line with interests of the shareholders and not too high that the directors cannot perform work independently. (Please refer to details of duties and responsibilities of the Nomination and Remuneration Committee according to its Charter at www.eastwater.com.)

The Company laid down a set of practices to enhance effectiveness of the Board of Directors. For example, the Board of Directors' meeting schedule shall be determined in advance for the entire year so that all directors can allocate time to attend the meetings together. The performances of the Board of Directors, the subcommittees and each individual director/committee member shall be evaluated and evaluation results shall be used for improving

each individual director/committee member's performance accordingly. The directors shall also attend relevant training courses in order to improve their knowledge and skills relating to their performance of duties as board members and committee members and determination of management policies for the subsidiaries. The Company has the policy to support its directors to attend trainings and knowledge development courses continuously in various fields such as corporate governance, risk management, internal control, water technology and relevant laws in order to help them efficiently perform duties and oversee business operations. The directors are encouraged to attend useful training courses hosted by the Thai Institute of Directors (IOD) and other reputable institutes.

Principle 4 To recruit and develop high-level executives and manage human resources

The Board of Directors assigned the Nomination and Remuneration Committee to be responsible for determining criteria and methods for nominating persons to the positions of President and Chief Executive Officer, top executives of affiliated companies, and chief officers of different functions. This is to ensure that high-level executives have knowledge, skills, experiences and characteristics that are required for driving the organization towards its goals. (Please see details of the nomination procedures in the section "Nomination and Appointment of Directors and Top Executives".)

The executives are encouraged to attend training courses with the Institute of Research and Development for Public Enterprises (IRDPE) and Executive Development Program (EDP) hosted by the Thai Listed Companies Association (Thai LCA). The employees also have their individual development plans (IDP).

Principle 5 To promote innovation and operate as a responsible business

The Board of Directors realizes the importance of and provides support for the creation of innovation to add value to the Company's business. Therefore, one of the Company's missions is to enhance its competitiveness through modern technology and innovation.

In addition, the Company has stipulated its work philosophy based on the concepts of accountability and equal treatment to gain trust from its stakeholders as follows:

(1) Shareholders

The Company realizes its shareholders' basic rights and always facilitates convenience to their exercising their rights, for example, the rights as stipulated in laws or the articles of association of the Company, the rights to attend shareholders' meetings and vote, the rights to express opinions freely, and the rights to give suggestions and comments on the Company's business operations as the real owners of the Company. The Company shall maintain its stable financial status and treat all shareholders equally irrespective of whether they are major or retail, individual or institutional, or Thai or foreign shareholders.

(2) Employees

The Company respects legal rights of all employees and provides a positive and safe work atmosphere for them. It also provides good welfare schemes and fair employment conditions comparable to market situations. At the Company, the efficient use of human resources is encouraged. The Company is regarded an equal opportunity employer, supporting its employees to take part in the operations and to have a strong commitment to performing duties. The Company laid down work guidelines for directors, executives and employees of the group companies in the Code of Conduct of the East Water Group. (Please refer to details of the Code of Conduct of the East Water Group available at www.eastwater.com.)

(3) Customers

The Company strives to meet customer expectations by providing water management services to satisfy the needs of all customers with due care and equitable treatment and solving problems relating to the services in a timely manner to ensure quality standards of services in all areas.

(4) Trading partners and creditors

The Company complies with contract conditions and provisions and discloses the true financial status of itself and its subsidiaries. The Company has never used the funds from its loans for other purposes than those specified in the loan agreements. The Company also laid down the policy to treat creditors with fairness and responsibility, containing practical guidelines on guarantee conditions, capital management, and default payments in a clear and concrete manner.

(5) Society and the environment

The Company operates business as a socially responsible organization. It respects and complies with laws, rules and regulations concerned. It also realizes the importance of complying with standards relating to occupational health, safety and environment to prevent any possible impact or damage to lives and properties of people, communities and the environment.

(6) Competitors

The Company complies with the principles of fair and legal competition. It shall not seek confidential information of its competitors through the use of fraudulent or inappropriate methods.

The Company has a number of communications channels through which its stakeholders can send their opinions, complaints or other matters as follows:

1. The Company's website: www.eastwater.com
2. E-mails:
 - Audit Committee: AC_EW@eastwater.com
 - President and CEO: CEO@eastwater.com
 - Company Secretary: Corporate_secretary@eastwater.com

3. Regular mails:

Audit Committee

Eastern Water Resources Development and Management Public Company Limited

East Water Building, 25th Floor, 1 Vipavadeerangsit 5 Vipavadeerangsit Road, Jomphol, Jatujak, Bangkok 10900

4. Opinion Box: Human Resources Department

Apart from the aforesaid channels, the Company established the investor relations division to receive opinions and complaints from its stakeholders and investors. The guidelines and procedures for handling complaints of stakeholders were clearly written in the Code of Conduct of the East Water Group. To preserve the rights and privacy of the complainants, the complainants will be protected and their personal information will be kept confidential.

Principle 6 To ensure that appropriate risk management systems and internal controls are in place

The Company's Risk Management Division is under the supervision of the Corporate Strategy Department. The Risk Management Division will coordinate with the Internal Audit Department which performs work independently in developing and reviewing the effectiveness and adequacy of the risk management systems and internal controls and submitting review reports to the Audit Committee. Such reports are also disclosed in the Annual Report. (Please refer to additional details in the section of "Internal Control and Risk Management".)

Principle 7 To ensure reliability of financial information and disclosure

The Company places importance to the disclosure of correct information according to requirements of relevant supervisory bodies. Also, it has developed various information disclosure channels that are easily accessible to all stakeholders. It emphasizes the importance of information disclosure and transparency of operations to its directors, executives and employees; and creates a mechanism to handle complaints appropriately and fairly for both complainants and subjects of complaints in the Code of Conduct of the East Water Group.

The boards of directors of the Company and its subsidiaries shall ensure that the management disseminates key information in a comprehensive and timely manner. Such key information includes financial reports or other non-financial explanations and analysis whether it is required by law or based on a voluntary basis. All information will be published through the system of the Stock Exchange of Thailand and via www.eastwater.com and www.uu.co.th in both Thai and English. The management always presents most up-to-date information and also provides contents to the investor relations division of the Company.

The Company assigned the Corporate Governance Division and the Financial Analysis and Investor Relations Division to disseminate its financial and general information

to its shareholders, investors, securities analysts, investment credit rating agencies, and supervisory bodies concerned through various channels. For example, relevant reports are submitted to the SET and the SEC and are published in the Company's website in the topic of "Investor Relations Information" for ease of access by interested persons.

If shareholders, investors and relevant parties have any inquiries, they can contact the Financial Analysis and Investor Relations Division at Tel. 0-2272-1600, Ext. 2438, 2411

or Email: IR@eastwater.com or the Company's website at www.eastwater.com.

In 2018, the Financial Analysis and Investor Relations Division held a number of activities to disseminate and explain information and allow participants to ask questions. The activities were also joined by the high-level executives to help answer the questions. The details can be summarized as follows:

Types of activities	Activities in 2018 (Unit : Time)
Press Meeting	1 time
Credit Rating Review	1 time
Company Visit	11 times
Conference Call	14 times
Opportunity Day	1 time
Site Visit	2 times

Principle 8 To support engagement and communication with the shareholders

The Company realizes its shareholders' basic rights and always facilitates convenience to their exercising rights, for example, the rights to buy, sell or transfer shares, the rights to the Company's share of profits, the rights to receive sufficient news and information through available channels and at proper times, the rights to attend and vote at shareholders' meetings, the rights to elect or remove directors, and the rights to receive updates of changes in the Company to support decision making.

The Company has the policy to encourage all shareholders to attend shareholders' meetings to equally exercise their rights at the meetings. The Company requires that an annual general meeting of shareholders be held once per year within 4 months from the last day of the accounting period of the Company. In the case where it is urgent to propose a meeting agenda item which is affecting or relevant to shareholders' interests or any conditions or rules or regulations or laws where it is mandatory to seek approval from the shareholders; the Company may convene an extraordinary general meeting of shareholders on a case by case basis.

In 2018, the Company held the 2017 Annual General Meeting of Shareholders on Monday 23 April 2018 at the Vibhavadi Ball Room A-B, Centara Grand at Central Plaza Ladprao. The Company had not convened any extraordinary general meeting. To facilitate convenience, the Company checked meeting documents in advance as well as provided information and answered inquiries.

The Company gave due care to the shareholders' meeting and facilitated convenience to the shareholders prior to the meeting date, for example:

- Allowing the shareholders to propose meeting agenda items to the shareholders' meeting and propose candidates for directors 3 months in advance from 1 October to 31 December 2017 through the SET's information system and the Company's website.
- Providing information of the meeting date and the meeting agenda for the 2017 AGM to the shareholders through the SET's information system and the Company's website at least 30 days prior to the meeting date.
- Submitting meeting invitation letters and meeting agenda details to the shareholders together with proxy forms for those unable to attend the meeting in Thai and English; as well as providing meeting documents to the shareholders at least 28 days prior to the meeting date and publishing relevant information in the newspaper for 3 consecutive days at least 3 days before the meeting date. The Company disclosed its meeting invitation letter and meeting supporting documents in its website 30 days before the meeting date.

On the date of the 2017 AGM, the Company facilitated convenience to its shareholders as follows:

- The e-voting program was adopted and the barcode system was used for the vote counting process.
- Three representatives from the legal firm and the shareholders at the meeting were asked to inspect the vote counting process at the meeting.

- Before the Meeting started, the Chairman of the Meeting informed about the voting and counting procedures for each agenda item. Before the Meeting passed a resolution for any agenda item, the Chairman would allow all shareholders to ask any question or give any comment about the Company's operations and advise the shareholders to discuss the particular matter within an appropriate time frame. The shareholders also had the equal rights to provide suggestions. The directors and executives gave clear answers to all questions before the meeting was asked to vote. For the election of directors, the Chairman asked the shareholders to vote in a separate ballot for each individual director.
- The Chairman informed the meeting of the voting results for each agenda item before proceeding with the next agenda item and before the end of the meeting. The Chairman conducted the meeting according to the Company's articles of association and in accordance with the order of the agenda items specified in the invitation letter. An exception applies in the case where the meeting resolves to change the order of the agenda items with a vote of not less than two-thirds of the number of the shareholders present at the meeting. There was no change in the order of the agenda items as specified in the AGM invitation letter. The meeting considered all agenda items and the Chairman informed the shareholders that the shareholders with at least one third of the total shares issued may ask the meeting to consider other business.

After the end of the 2017 AGM, the Company published the AGM resolutions through the SET's information system immediately within the same day of the meeting. The Company also prepared minutes of the meeting with important and comprehensive contents including resolutions of the meeting and clearly specified voting results as approval, disapproval and abstention. The said meeting minutes were posted in the Company's website and submitted to the SET within 14 days from the meeting date.

As for measures to prevent a conflict of interest, the Company stipulated operating guidelines for its employees to comply with. According to the guidelines, the employees shall perform duties with honesty and integrity, comply with laws and regulations, and put their own interest second to the interest of the Company. The employees shall not use internal information of the Company for personal gains. The directors, the high-level executives or the first 4 executives next to the top executive, and the holders of the positions equivalent to the fourth-ranking executive

positions shall report the shareholding status of themselves and related parties at the time of assuming the positions to the SEC within 30 days from the dates of first assuming the positions. They shall also report any change to the shareholding status within 3 days from the date of such change. Furthermore, directors, executives and permanent employees of the Company and their spouses and minor children are not allowed to buy and sell the Company's securities during the 1-month period prior to the disclosure of financial statements to the SET and during the 3-day period after the disclosure of financial statements to the SET.

The Company's AGM held in 2018 obtained a score of 95 from the Thai Investors Association. The Company also got an "Excellent" rating according to the 2018 Corporate Governance Reporting of Thai Listed Company (CGR) assessment by the Thai Institute of Directors. The rating was based on consideration of the corporate information published through the communications channel of the SET and other documents of the Company. Moreover, the Company was granted 2018 Sustainability Report award in the category of Recognition.

SUBCOMMITTEES

In 2018, after considering and reviewing the structures of the subcommittees to ensure appropriateness with the business and the Company's goal towards sustainability development, the Board of Directors approved the restructuring of the 5 subcommittees as follows: 1) Audit Committee 2) Investment Committee 3) Corporate Governance and Sustainability Development Committee 4) Risk Management Committee and 5) Nomination and Remuneration Committee.

1. Audit Committee

The Committee consists of 3 independent directors who have knowledge, capabilities and experiences in reviewing financial reports, internal controls, and auditing. They also have a true understanding in the Company's business and possess qualifications according to the Capital Market Supervisory Board's Notification and the Stock Exchange of Thailand's Notification Re: Qualifications and Scope of Operations of the Audit Committee B.E. 2558 (A.D. 2015). The list of the committee members is as follows:

- | | |
|-------------------------------------|----------|
| 1. Pol. Maj. Gen. Vichai Sangprapai | Chairman |
| 2. Mrs. Tatchada Jitmahawong | Member |
| 3. Mrs. Asvini Tailanga | Member |

Mrs. Thidarut Kraiprasit, EVP of the Internal Audit Department, acts as Secretary to the Audit Committee.

Duties and Responsibilities of the Audit Committee

The Audit Committee shall be responsible for reviewing financial reports of the Company and the adequacy of its internal controls and risk management systems. Also, the Committee shall review the compliance with laws, rules and regulations relating to the securities and exchange, related party transactions or transactions that may involve a conflict of interest to ensure correctness, completeness and transparency. Furthermore, the Committee shall review the anti-corruption process to ensure alignment with the guidelines of relevant supervisory bodies; review the internal process regarding receiving and supervising leads or tips and handling complaints; and consider and select auditors as well as stipulate audit fees. Please refer to details of the Charter of the Audit Committee at the Company's website.

The Company already put the annual operating results in the Report of the Audit Committee.

2. Investment Committee

The Investment Committee consists of 5 directors who have knowledge, capabilities and experiences in investment, project management, and economics and finance as follows:

1. Mr. Surachai Kanasa	Chairman
2. Mr. Oran Vongsuraphichet	Member
3. Mr. Kritsada Sunkhamani	Member
4. Mr. Virgilio Jr. Cervantes Rivera	Member
5. Mr. Jirayut Rungsrithong	Member

Mr. Charin Sony, EVP of the Business Development Office, acts as Secretary to the Investment Committee.

Duties and Responsibilities of the Investment Committee

The Investment Committee shall be responsible for considering the Company's investment policy, determining clear investment criteria, providing investment-related advice or recommendations to the management and the Board of Directors, and considering investment projects and providing comments to the Board of Directors as well as monitoring progress updates of key investment projects. In addition, the Committee has authority to approve procurement requests for investment projects according to the procedures of the Company and within specified limits. Please refer to details of the Charter of the Investment Committee at the Company's website.

The Company already put the annual operating results in the Report of the Investment Committee.

3. Corporate Governance and Sustainability Development Committee

The Corporate Governance and Sustainability Development Committee consists of 3 independent directors who have knowledge, capabilities, experiences and understanding about the Company's business as well as compliance supervision, corporate governance and sustainability development as follows:

1. Mrs. Tatchada Jitmahawong	Chairman
2. Pol.Maj.Gen. Vichai Sangprapai	Member
3. Col. Premjiras Tanathaipakdee	Member

Mrs. Wirawan Tharanont, EVP and Company Secretary, acts as Secretary to the Corporate Governance and Sustainability Development Committee.

Duties and Responsibilities of the Corporate Governance and Sustainability Development Committee

The Corporate Governance and Sustainability Development Committee shall have 2 main duties as follows:

- 1) Corporate Governance: To consider policies and practices regarding corporate governance, anti-corruption and business ethics of the group to ensure alignment with requirements of the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC) or supervisory bodies concerned. The Committee shall review such policies and practices at least once per year and monitor the implementation thereof.
- 2) Sustainability Development: To determine policies, strategies and action plans for sustainability through managing water supply based on sharing water sources with communities and maintaining balances in ecosystems. To build confidence among its stakeholders through transparent and auditable work processes according to the framework of the Global Reporting Initiative (GRI). To ensure that the management operates business with the concept of social and environmental responsibility and reflects such concept in its action plans to ensure that all entities comply with the key objectives, goals and strategies of the organization. Please refer to details of the Charter of the Corporate Governance and Sustainability Development Committee at the Company's website.

The Company already put the annual operating results in the Report of the Corporate Governance and Sustainability Development Committee.

4. Risk Management Committee

The Risk Management Committee consists of 3 directors who have knowledge, capabilities, experiences and understanding about the Company's business as well as have expertise in water business, finance, engineering, and information technology which are key drivers of the Company's achievement of its objectives as follows:

1. Mrs. Asvini Tailanga	Chairman
2. Mr. Kritsada Sunkhamani	Member
3. Mr. Jirayut Rungsritthong	Member

Mr. Jirayut Rungsritthong, President and CEO and Acting EVP of Corporate Strategy Office, acts as Secretary to the Risk Management Committee.

Duties and Responsibilities of the Risk Management Committee

The Risk Management Committee shall be responsible for determining and reviewing the risk management policy to ensure alignment with the objectives, goals and strategies as well as risk appetite. The Committee shall be responsible for supervising and supporting risk management actions that are in line with the risk management policy. Also, the Committee shall provide recommendations on and consider and endorse risk management plans; monitor and review risk factors; and communicate and provide advice regarding risk management to ensure consistent practices organization-wide. Please refer to the Charter of the Risk Management Committee at the Company's website.

The Company already put the annual operating results in the Report of the Risk Management Committee.

5. Nomination and Remuneration Committee

The Nomination and Remuneration Committee consists of 4 independent directors who have knowledge, capabilities and experiences in nomination and consideration of qualified persons, finance and performance evaluation as follows:

1. Pol.Maj.Gen. Vichai Sangprapai	Chairman
2. Mr. Surachai Kanasa	Member
3. Col. Premjiras Tanathaipakdee	Member
4. Mr. Oran Vongsuraphichet	Member

Miss Chinda Mahaisawariya, EVP of the Business Supporting Office, acts as Secretary to the Nomination and Remuneration Committee.

Duties and Responsibilities of the Nomination and Remuneration Committee

The Nomination and Remuneration Committee shall have 3 main duties as follows:

- 1) **Nomination:** The Committee shall consider the structures and compositions of the boards of directors of the group companies and consider qualifications of directors to ensure alignment with criteria of supervisory bodies. The Committee shall prepare the directors skills matrix and determine criteria and methods for nominating candidates for directors and committee members of the group companies, the President and CEO, and top executives of the affiliated companies. The Committee shall also ensure that there are orientation sessions for new directors. Furthermore, the Committee shall prepare and review individual development plans of the President and CEO and high-level executives as well as succession plans.
- 2) **Company Performance Evaluation:** The Committee shall consider criteria for evaluating the Company's annual performance to ensure alignment with the policies and missions assigned by the Board of Directors. The Committee shall also monitor and evaluate the performance comparable to the evaluation criteria and recommend guidelines and measures to improve operational efficiency. Additionally, the Committee shall consider the performance evaluation criteria of the directors and the President and CEO.
- 3) **Remuneration:** The Committee shall determine forms and criteria for paying remuneration for the Board of Directors and respective subcommittees, disclose the remuneration payment policy and criteria, and report the operating results to the Board of Directors. Please refer to details of the Charter of the Nomination and Remuneration Committee at the Company's website.

The Company already put the annual operating results in the Report of the Nomination and Remuneration Committee.

Summary of attendance of subcommittees' meetings for 2018

Name-Surname	Number of attended meetings/Number of meetings				
	Audit Committee	Investment Committee	Risk Management Committee	Corporate Governance and Sustainability Development Committee	Nomination and Remuneration Committee
1. Pol.Maj.Gen. Vichai Sangprapai ¹	19/19	-	-	12/12	2/2
2. Mr. Surachai Kanasa	-	11/11	-	-	7/8
3. Mrs. Tatchada Jitmahawong ²	19/19	-	-	11/11	-
4. Mrs. Asvini Tailanga ³	12/13	-	3/3	-	-
5. Mr. Oran Vongsuraphichet ⁴	-	9/11	-	-	6/7
6. Col. Premjiras Tanathaipakdee	-	-	-	10/12	5/8
7. Mr. Kritsada Sunkhamani ⁵	-	2/5	3/3	-	1/1
8. Mr. Virgilio Jr. Cervantes Rivera ⁶	-	6/7	-	-	-
9. Mr. Jirayut Rungsrihong	-	11/11	4/5	-	-

Remarks: ¹ Pol.Maj.Gen. Vichai Sangprapai was appointed as Chairman of Nomination and Remuneration Committee on 11 October 2018.

² Mrs. Tatchada Jitmahawong retired by rotation as a director at the 2017 AGM and was reappointed as a director and to serve as chairman of the Corporate Governance and Sustainability Development Committee.

³ Mrs. Asvini Tailanga was appointed as a director on 23 April 2018 and was appointed as Chairman of the Risk Management Committee and Audit Committee on 10 May 2018.

⁴ Mr. Oran Vongsuraphichet was appointed as Chairman of Nomination and Remuneration Committee on 19 October 2017 and was appointed as Member of the Nomination and Remuneration Committee on 13 November 2018.

⁵ Mr. Kritsada Sunkhamani was appointed as a Risk Management Committee and Remuneration Committee on 10 May 2018 and was appointed as Member of the Investment Committee on 11 July 2018.

⁶ Mr. Virgilio Jr. Cervantes Rivera was appointed as a director on 14 March 2018 and was appointed as Member of the Investment Committee on 10 May 2018.

NOMINATION AND APPOINTMENT OF DIRECTORS AND TOP EXECUTIVES

In appointing directors, the Nomination and Remuneration Committee consisting of independent directors shall consider the qualifications of the candidates of the Group and those proposed by the shareholders to ensure that they are suitable for the nature of the Company's business. The Committee shall also consider the candidates' diversified skills, knowledge and expertise to ensure compliance with regulations specified by supervisory bodies as well as prepare the director skills matrix.

Furthermore, the Committee shall be responsible for considering and reviewing the criteria for independent directors' qualifications. In this regard, the Company stipulated the definition of independent directors in line with that in the Capital Market Supervisory Board's Notification No. TorChor. 39/2559 Re: Application for Approval and Granting of Approval for Offering of Newly Issued Shares.

The criteria and method for selecting candidates for appointment as directors are as follows:

- 1) The Company shall allow the shareholders to propose the names of candidates for election as directors for submission to the shareholders' meetings in advance between October and November of each year. Every shareholder shall have the equal right to propose the names of the candidates for directors at the shareholders' meeting.
- 2) The Nomination and Remuneration Committee shall consider and screen the names of the persons with appropriate qualifications and those proposed by the shareholders (if any) before submission to the Board of Directors for consideration and to the shareholders' meeting for approval.
- 3) The Board of Directors excluding any director with any beneficial interest shall consider the qualifications of each candidate proposed for a director carefully and submit the list of nominated candidates to replace the directors who will be retiring for rotation to the respective annual general meeting of shareholders for election.
- 4) At the shareholders' meeting, the election of each director shall be voted separately. The shareholders shall have the right to elect the nominated candidates for directors according to the number of directors to be elected at that particular meeting. Vote splitting is not allowed.

- 5) The candidates with the highest number of votes shall be elected. However, the number of elected candidates must not exceed the number of directors to be elected at that particular meeting. In the case where the two lower ranking candidates get a tie vote and this may cause the number of the elected candidates to exceed the number of directors to be elected at that particular meeting; the Chairman of the Meeting shall cast an additional vote to break the tie.
- 6) In the case where a director resigns from the office or there is a vacancy in the Board of Directors for other reasons, the Nomination and Remuneration Committee shall nominate a new candidate with appropriate qualifications to be appointed as a director at the Board of Director's Meeting to the Board of Directors for consideration and approval. The Board of Directors' resolution for this matter shall be passed by votes of no less than three-fourths of the number of the remaining directors.

Nomination of Top Executives

The Company stipulated the criteria for nominating candidates to the position of President and Chief Executive Officer. Generally, the Company shall select and appoint a person to the top executive position based on both internal and external pools of candidates. The candidates who possess qualifications according to the criteria shall be proposed to the Nomination and Remuneration Committee for consideration and endorsement before being submitted to the Board of Directors for approval.

In addition, the Nomination and Remuneration Committee shall be responsible for nominating candidates to the top executive positions of its affiliated companies by considering the Company's executives who have knowledge and experiences that would be beneficial to the operations of the Company and its affiliated companies. The nominated candidates shall then be submitted to the Board of Directors for consideration and appointment.

Director orientation

To support the performance of duties of directors, the Company facilitates orientation sessions for new directors so that they can understand its nature of business and operating guidelines as well as relevant information such as shareholding structure, past corporate performance, key construction projects, corporate governance practices, and relevant laws, rules and

regulations. The President and CEO and executive vice presidents will join the orientation to provide such information.

The Company Secretary prepares key documents including the Company's articles of association, the Company's regulations, the Corporate Governance Code of the East Water Group, the charters of different subcommittees, one-year meeting schedule of the Board of Directors' meetings, previous minutes of the Board of Directors' meetings and annual reports to support the efficient operations of the directors. Furthermore, the Company facilitated site visits for the directors to different places including the Rayong Operational Center, reservoirs, pump stations, and projects under construction.

Director development and training

It is the Company's policy to support its directors to attend trainings and knowledge development courses continuously in various fields such as corporate governance, risk management, internal control, water technology and relevant laws in order to help them efficiently perform duties and oversee business operations. The directors were encouraged to attend useful training courses hosted by the Thai Institute of Directors (IOD) and other reputable institutes. Experts were invited to provide lecture regarding CG Code 2017 and other new laws that are useful for the Company's business. Most of the directors attended the Director Certification Program (DCP) hosted by the IOD. In 2018, the directors attended the following trainings and seminars.

Name of Director	Training/Seminar	Institute
Mr. Veerasak Kositpaisal		
Mr. Amorn Laohamontri		
Col. Premjiras Tanathaipakdee		
Mr. Kritsada Sunkhamani	Lunch Talk "New CG Code & New Law"	EY Corporate Services Limited
Mrs. Asvini Tailanga		
Mr. Oran Vongsuraphichet		
Mr. Jirayut Rungsrihong		
Pol.Maj.Gen. Vichai Sangprapai	New Era of Governance & Internal Controls	EY Corporate Services Limited
	Lunch Talk "New CG Code & New Law"	
Mr. Surachai Kanasa	IT Governance and Cyber Resilience Program (ITG) 8/2018	Thai Institute of Directors (IOD)
	Lunch Talk "New CG Code & New Law"	EY Corporate Services Limited
Mrs. Tatchada Jitmahawong	IT Governance and Cyber Resilience Program (ITG) 7/2018	Thai Institute of Directors (IOD)
	Boards That Make a Difference (BMD) 6/2018	
	New Era of Governance & Internal Controls	EY Corporate Services Limited

SUPERVISION OF SUBSIDIARIES AND ASSOCIATES

The Company's Board of Directors has a supervisory mechanism that allows them to retain control of the management and to take responsibility for the operations of subsidiaries in order to preserve the interests of the Company's investment. For example, the Company appoints its high-level executives to be

directors or executives in the subsidiaries in order to take part in the management both at policy-making and operational levels. The appointment of the said high-level executives must be endorsed by the resolution of the Board of Directors' meeting.

The Company set out the policy principles governing the management of subsidiaries, details of which can be summarized as follows:

(1) Investment Policy

1) The subsidiaries must perform their duties responsibly by upholding the interests of the companies and their shareholders, considering investment returns that are appropriate and fair, and maintaining a stable financial status to secure their going concern and ability to grow as top priorities.

2) Once the boards of directors of the subsidiaries have approved any business operations, they must notify the Board of Directors of the Company.

3) If a subsidiary has any business that is considered to be a related party transaction or an acquisition/disposition of any significant asset or any other significant transaction such as approval for a capital increase/decrease or dissolution of a subsidiary, in order to comply with the Notification of the Securities and Exchange Commission, it must seek prior approval from the Board of Directors of the Company. Any major investment by a subsidiary must first be approved by its board of directors with a representative of the Company joining the board to consider the project before submission to the Board of Directors of the Company for further consideration.

4) The subsidiaries must provide reports of their operating results and key business operations along with a business sensitivity analysis and performance evaluation as compared to targets. The reports should contain any management comments or suggestions for use as guidelines to support formulation of policies or improvement of business operations of the subsidiaries for their continued development and growth.

(2) Central Administration Policy

1) The Company will appoint its high-level executives to help the management of the subsidiaries at policy and operational levels to ensure that the business operations are in the same direction as that of the core business for the utmost benefit of the whole group, that the policies and strategies are consistent, and that the subsidiaries can make profits in the future.

2) As regards internal controls, the subsidiaries must place importance on the management of risks and solving of problems identified from the assessment of the effectiveness and efficiency of internal controls by the Internal Audit Department in a timely manner. Regular reviews

on work systems must be done to mitigate risks to be at acceptable levels. Additionally, employee regulations and procurement procedures must be carried out with efficiency, speed, flexibility and consistent standards. The budgets for human resources management and employee welfare schemes must be consistent with the policies in the Company's Employee Handbook and be in line with and proportionate to the corporate performance of the subsidiaries.

(3) Finance and Accounting Policy for Subsidiaries

1) Financial Management and Administration

1.1 In financial sourcing, the subsidiaries must provide information about their loan needs by showing the sources of the needs in the form of investment projects to the Finance and Accounting Department of the Company at least 6 months prior to the beginning of the said projects. This is to provide sufficient time to consider options of funding sources with the best offers.

1.2 The announced dividend payments shall not be less than 30% of the consolidated net profit for each accounting period. An exception applies when there is a reasonable cause to use a portion of the cash dividends.

1.3 Key financial ratios must be maintained in strict compliance with the loan contract conditions and the Finance and Accounting Department must be informed of relevant information on a monthly basis.

2) Budgeting

2.1 Investment budget preparation and relevant actions must be undertaken according to each company's budgeting procedures and in line with the Company's budgeting regulations.

2.2 Budget preparation and review must be done according to specified time frames and information submission must be in line with the Company's operations.

2.3 Investment and operational budget spending shall be monitored and evaluated appropriately.

3) Accounting

3.1 Accounting practices must be in accordance with the accounting policies as per Thailand's accounting standards and under the regulation of a subsidiary of the parent company which is listed on the SET.

- 3.2 The financial statements of the subsidiaries to be submitted for the preparation of the consolidated financial statements must be reviewed by the appointed auditor of the group as endorsed by the Company's Board of Directors and approved by the annual general meeting of shareholders' resolution.
- 3.3 Submission of the subsidiaries' financial statements to the Company to prepare the consolidated financial statements must be done according to the timeline specified by the Finance and Accounting Department for each quarter.
- 3.4 Preparation of the books of accounts of the subsidiaries must be based on the chart of accounts of the general ledger system and the accounting software of the Company.
- 4) Taxation
 - 4.1 Tax preparation and filing shall be according to laws.
 - 4.2 In the case where there is a risk of significant tax issues, that subsidiary shall submit relevant information to the Finance and Accounting Department of the Company for acknowledgement immediately should an emergency arise. Summary reports on progress updates of relevant actions shall be prepared on a quarterly basis.
 - 4.3 The Company has taxation plans which are under direct responsibility of the Finance and Accounting Department. This is to ensure proper and complete tax filing as required by laws. New tax-related laws are also monitored regularly.

The Company does not have a shareholders' agreement to manage its subsidiaries and does not operate business as a holding company.

SUPERVISION OF INSIDER INFORMATION USE

The Company developed a policy on prevention against use of insider information. The policy is part of the good corporate governance principles of the Group and shall be complied with by all directors, executives and employees. Details of the policy can be summarized as follows:

(1) Policy on prevention against use of insider information

Executives and permanent employees of the Company as well as their spouses and minor children shall be prohibited from using non-public information of the organization for trading of securities for personal gains or for the benefit of any individual or any particular group of persons.

(2) Policy on trading of the Company's securities

Executives and permanent employees of the Company as well as their spouses and minor children shall refrain from buying, selling or transferring the Company's shares during the one-month period prior to the disclosure of the financial statements to the SET and during the three-day period after the disclosure of the financial statements to the SET. This is to allow the shareholders and the investors to have enough time to access and understand key contents of the Company's information and news or financial statements disclosed to the SET.

The directors and high-level executives must report their trading of the Company's shares at least 1 day before the trading transaction to the Board of Directors or the person designated by the Board of Directors.

The directors are required to report all of their purchases-sales of the Company's shares to Board of Directors' meetings for acknowledgement.

(3) Policy on business information of the group companies

Directors, committee members, executives, employees, supporting officers, and outsourced staff of the group companies or subsidiaries shall accept a commitment to complying with laws and professional ethics and shall not disclose any confidential information and documents or trade secrets.

AUDITOR'S FEE

1. Audit fee

The Company and its subsidiaries paid an audit fee of Baht 3,292,000 to the auditor of the Company and its subsidiaries for the past year. The audit fee for the Company only was Baht 1,200,000 and the out of package expense was paid to the auditor of the Company and its subsidiaries at the rate of no more than 2% of the audit fee.

2. Non-audit fee

The Company and its subsidiaries paid a non-audit fee relating to organizational development consultation amounting to Baht 4,400,000.

COMPLIANCE WITH THE GOOD CORPORATE GOVERNANCE PRINCIPLES – OTHER MATTERS

In 2018, the Company organized and attended seminars and activities relating to good corporate governance and anti-corruption to raise awareness among its directors, executives and employees about the importance of corporate governance and anti-corruption practices within the organization as follows:

- On 9 August 2018, the Company facilitated a training session in New CG Code 2017 and New Laws for its directors, executives and employees. The instructor of the training was an advisor from EY Corporate Services Co., Ltd.
- On 6 September 2018, the employees joined a seminar on the National Anti-Corruption Day 2018 under the topic of “Thai people know and fight against corruption” hosted by the Anti-Corruption Organization of Thailand.
- On 8 October 2018, the Company organized activities on the occasion of the 26th Anniversary of the East Water Group and the CG Day with Mr. Veerasak Kositpaisal, Chairman of the Board of Directors, giving a keynote address on “EWG and Sustainability Development” to the Company’s directors, executives and employees.
- On 7 November 2018, the Company hosted a training session for its directors, executives and employees in the topic of “Fighting against Corruption” with the guest speaker, Dr. Mana Nimitmongkol, Secretary-General of the Anti-Corruption Organization of Thailand.

To demonstrate its commitment to operating business under the principles of good corporate governance, the Board of Directors announced the use of “Corporate Governance Code” and “Business Code of Conduct” of the East Water Group which were revised and updated to ensure compliance with the relevant regulations of the Office of the Securities and Exchange Commission (SEC) in 2017. The said two codes must be used as a guideline for good corporate governance practices. All directors were required to sign to acknowledge the receipt of the Corporate Governance Code of the organization. The Company has continuously promoted its employees’ knowledge and understanding of corporate governance principles. New employees will be learning about such matter in their orientation and through a knowledge test about the Company’s business. The Company has posted the aforesaid documents in its website www.eastwater.com

FIGHTING AGAINST CORRUPTION

On 3 April 2015, the Company was certified as a member of Thailand’s Private Sector Collective Action Coalition Against Corruption (CAC). The project was originated by the Thai Institute of Directors (IOD) and received support from the government and the Office of the National Anti-Corruption Commission (NACC). In 2018, the Company’s CAC membership certificate was renewed according to the resolution of the CAC’s meeting to endorse the matter in Q3/2018 on 5 November 2018. The said certificate shall be valid for 3 years from the date of the resolution.

Since 2014, the Company has announced the use of the anti-corruption policy across the organization. It is required that the anti-corruption policy be part of the Corporate Governance Code applicable to the whole business group. This is to ensure that the whole group has uniform standards and practices of management. On 11 September 2018, the Board of Directors endorsed the review of the anti-corruption policy to ensure alignment with the Organic Act on Counter Corruption B.E. 2561 (2018) including the guidelines for CAC project evaluation and renewal of the CAC’s membership certificate.

The anti-corruption policy of the Company requires that personnel of the business group shall neither take actions nor be involved in all forms of corruption including giving/accepting bribes directly and indirectly. The personnel of the business group must comply with the guidelines in the policy encompassing various operating procedures such as political aid, charity donation, human resources management, procurement, and internal control systems. Moreover, since 2016, the Company has announced the policy on refraining from giving-accepting gifts as a guideline to be adopted by personnel across the business group. According to the policy, personnel at all levels should perform duties at their best using their knowledge and capabilities without expecting personal gains. The policy was also communicated to outside parties such as trading partners and building tenants.

The Company stipulated best practices regarding internal fraud and corruption for its directors, executives and employees in the anti-corruption policy and the business code of conduct of the East Water Group. The Charter of the Audit Committee was revised to include regular reviews of compliance with the anti-corruption policy. Details of the policy are available at www.eastwater.com.





CORPORATE SOCIAL RESPONSIBILITY (CSR)

The Company demonstrated a firm commitment to doing business according to the sustainability development principles. In so doing, the Company provided water management solutions by sharing water resources with local communities and maintaining a balance in the ecosystem in order to build confidence among its stakeholders. The Company also ensured that its work processes were undertaken with transparency and auditability. The CSR principles and practices were determined based on the Company's sustainability management policy.

Apart from complying with the good corporate governance principles, the Company paid attention and showed a duty of care to people in the local areas where it operated business by joining hands with them to improve their life to help society achieve sustainability through the following 3 types of activities: 1) Water utility promotion and environmental conservation, 2) Community well-being support and

3) Lifelong learning promotion. Additionally, the Company joined other activities with its stakeholders such as blood donation and religious events.

The Company disclosed its environmental, social and governance (ESG) performances in the 2018 Sustainability Report. The report contained details according to the framework of the Global Reporting Initiative (GRI) including the sections of analysis and selection of material aspects as well as stakeholder analysis. The report also explained how the Company incorporated stakeholders' interests and expectations in its operations. The report explained the Company's operations encompassing economic, social and environmental issues for the readers to understand the Company's direction of business development towards sustainability in the future. More details of the Company's Sustainability Report are available in the website www.eastwater.com.





INTERNAL CONTROL AND RISK MANAGEMENT

ASSESSMENT OF ADEQUACY OF INTERNAL CONTROL SYSTEM FOR 2018

The Audit Committee endorsed the internal control system assessment report of the management. Five components of the Company's internal control system were assessed, i.e. control environment, risk assessment, control activities, information and communication, and monitoring activities. Details are as follows:

CONTROL ENVIRONMENT

The Board of Directors and the management conducted reviews and revisions and announced the adoption of the latest version of the "Good Corporate Governance Principles (Corporate Governance Code) of the Business Group of Eastern Water Resources Development and Management Public Company Limited" to ensure alignment with the Office of Securities and Exchange Commission (SEC)'s 2017 Corporate Governance Code for Listed Companies as well as the "Code of Conduct of the East Water Group" to ensure compliance with the organizational anti-corruption policy and the guidelines of Thailand's Private Sector Collective Action Coalition Against Corruption (CAC). The aforesaid policies and disciplines must be regularly acknowledged, understood and adhered to by employees of the Group and shall be used as guidelines for conducting daily duties, making decisions, and treatment of trading partners, customers and outside parties. The work rules state that "The Group's Code of Conduct shall be regarded as part of the work rules. Any violation of the Code of Conduct shall be considered a disciplinary offence and shall be subjected to relevant disciplinary actions according to the Company's procedures or regulations. In addition, if such disciplinary offence is illegal, relevant legal actions shall be undertaken." Relevant provisions and punishments are explained to the executives and employees for their understanding and the Code of Conduct is given to all employees through orientation sessions for new hires. This is to ensure that everyone strictly adopts such guidelines in their operations. A knowledge test is conducted to evaluate the levels of knowledge and understanding of the employees regarding the good corporate governance principles and the anti-corruption policy on a yearly basis. The information is also available in the internal web and the official website of the Company.

The Company requires clear segregation of duties between the Board of Directors and the management. The Board of Directors shall not be involved in management duties in order to create a balance between management and supervision. Management activities shall be monitored to ensure that appropriate policies and procedures have been implemented efficiently and effectively. The Board of Directors has considered, nominated and appointed appropriate persons to the positions of high-level executives and set up subcommittees to perform duties according to the Corporate Governance Code of the Business Group of Eastern Water Resources Development and Management Public Company Limited and requirements of the Stock Exchange of Thailand (SET). The Board of Directors plays a major role in determining the corporate vision and 3-year strategies as well as annual action plans. The management shall prepare action plans in line with the long-term strategies for implementation, containing objectives, budgets, risk factors, main activities for each period of time, and expected results which can be measured in a concrete manner in order to meet overall goals.

The Company has a clear organizational structure to support achievement of its objectives and to ensure efficient internal control. There is segregation of duties between main business functions and supporting functions. The Internal Audit Department was established, directly reporting to the Audit Committee. The Executive Committee was set up to consider important issues before submission to the Board of Directors. Progress updates have been monitored through monthly meetings. Also, emphasis was put on checks and balances between the Board of Directors, management and shareholders. The Company has communication with investors and publishes and shares its information to the general public on a regular basis.

Apart from the above, the Company is committed to motivating, developing and retaining knowledgeable and capable people; and therefore has in place individual development plans (IDPs) and utilizes 360-degree performance evaluation form to improve employee's performance. The Company also has career path management policies and succession plans, especially for executive positions in key business functions. There are criteria for personal development and performance evaluation of talents to support succession plans of key

positions to ensure business continuity and achievement of the corporate vision. Performances of the executives and employees at all levels are also measured against key performance indicators (KPIs) of the Company.

RISK ASSESSMENT

The Audit Committee shall be responsible for the review of financial reporting together with the external and the internal auditors to ensure correctness and compliance with generally accepted accounting principles and adequacy of information disclosure.

The Risk Management Committee shall consider and review organizational risk management plans and supervise risk management results on a quarterly basis according to its Charter and the Risk Management Manual. The Committee shall promote the participation of the executives and employees in managing risks relevant to themselves through incorporating risks into their action plans, attending workshops to identify risks, analyzing risk factors and current control measures, and determining additional control measures appropriate and necessary for risk management. The Risk Management Division of the Corporate Strategy Department shall gather all information and communicate relevant matters to all employees. Risk management results shall be monitored and reported to the Risk Management Committee and the Board of Directors for consideration and advice on a quarterly basis. This is to ensure that the risk management process of the Company takes place on an ongoing basis. Furthermore, in formulating annual internal audit plans, the Internal Audit Department shall evaluate significant changes that may affect risk management and internal control to determine audit scope.

The Company communicates its risk management policies and guidelines to all employees for acknowledgement and compliance in order to cultivate an organizational culture that everyone plays a part in taking care of the organization through the agreed upon risk management process. Besides, the Company has a business continuity plan (BCP) and tests the plan annually in order to assure that the Company is able to operate business on a continuous basis and without any interruption should an emergency arise.

CONTROL ACTIVITIES

The Company announced a number of regulations and practices in various aspects such as procurement, budgeting, accounting and finance, investment and project management, contract management, and authority to take actions internally, in line with the principles of good internal control. There is segregation of duties and operations are cross-checked. Duties relating to granting approval, recording accounting transactions, information systems, and safeguarding of assets are separated from each other. The

Company was certified to meet quality standards “ISO9001: 2015” and “ISO 14001: 2015” whereby it is required to develop manuals and operating procedures for use as references in operations as well as to provide trainings for employees so that they can understand such standards and perform duties correctly in accordance with the operating procedures and methods.

Any related party transactions between the Company and its subsidiaries and other stakeholders shall be considered and approved properly. Should any significant related party transaction take place, the Internal Audit Department, the Audit Committee, the management and the auditor shall consider the transaction prudently and take actions according to requirements of the SET. Such related party information shall be disclosed in a note to the financial statements and reported to the Office of the SEC for acknowledgement. In voting on any related party transaction, any director with a conflict of interest shall abstain from voting on that particular matter. Moreover, the Company stipulated conflicts of interest guidelines as part of its Code of Conduct. In this regard, all directors, executives and employees at all levels shall avoid having a stake or being involved in any activity that may lead to a conflict of interest.

The Company supervises the operations of its subsidiaries consistently and regularly by assigning its people to be directors or executives in the subsidiaries to coordinate policies and ensure that all group companies operate in the same direction and according to the policies of the Board of Directors. The reports on progress updates of operations of each subsidiary shall be submitted to the Board of Directors for acknowledgement.

Additionally, the Company assigns the Company Secretary to be in charge of legal affairs and corporate compliance to ensure that the Company operates according to rules, regulations and the articles of association of the Company as well as applicable laws.

INFORMATION & COMMUNICATION

The Company provides sufficient key information and submits it in advance through various kinds of communications devices in order for use by the Board of Directors to support their decisions prior to their meetings. At meetings, responsible issue owners shall attend meetings to present details and answer questions of the Board of Directors.

The Company communicates information with stakeholders outside of the organization through the website at www.eastwater.com, the investor relations division (shareholders/investors), the customer relations management division (customers), the public relation division (mass media/communities), the Company Secretary Office (compliance function), government relation division

(government agencies). There are also special communications channels available for employees and outside parties to file reports, complaints or tips-leads regarding corruption or fraud (whistle-blower hotline) with the Company as follows:

E-mail : CEO@eastwater.com
 : AC_EW@eastwater.com
 Opinion Box : Human Resources Department
 Mail : Audit Committee
 Eastern Water Resources Development
 and Management Public Company
 Limited
 East Water Building, 25th Floor,
 1 Vipavadeerangsit 5, Vipavadeerangsit
 Road, Jomphol, Jatujak, Bangkok 10900

The Company has been using and developing its internal information and database systems constantly. The policy regarding the use of information technology and communications is included in the good corporate governance principles of the Group. This is to ensure that the employees have true understanding about the use of internal media under the internal control environment such as Internet, Intranet, emails, and telecommunications devices including telephones, facsimiles, signal receivers of the communication system between the head office and its branches, etc. The Company has also educated its people about the compliance with laws relating to information to prevent any violation of laws and damage to the organization, such as the Computer Crime Act B.E. 2550 (A.D. 2007).

The Company's policy regarding corporate business information is also included in the good corporate governance principles of the Group. According to the policy, it is required that directors, executives and employees of the Group and employees of the Group's contractors shall not disclose any confidential information and documents of the Group.

MONITORING ACTIVITIES

The Company requires that there shall be a system to monitor and report operating results, progress updates, and the problems and challenges of projects according to its corporate strategies to the Board of Directors for consideration and advice. The Internal Audit Department shall be responsible for monitoring the performance of the said projects to ensure that it meets specified targets as well as following up on the management's corrective actions as per recommendations by the Internal Audit Department. The results of corrective actions shall be submitted to the Audit Committee on a monthly basis and to the Board of Directors on a quarterly basis.

The Company places importance on internal audit to add value to the organization through its internal audit procedures. The Internal Audit Department shall design an audit plan using information from the risk-based audit of the Company's internal processes; review the internal control of every work process; and report audit results to the top executive and the Audit Committee on a year basis in order for the Board of Directors and the management to be confident about the Company's internal control in terms of efficiency, effectiveness, correctness, and reliability of financial and accounting information as well as other operational support information. The Company was certified for its compliance with international standards ISO 9001: 2015 (for quality management) and ISO 14001: 2015 (for environmental management) by relevant certification bodies governing the Company's operations.

After due consideration of the assessment of adequacy of internal control as aforesaid in all material respects, the Board of Directors agreed with the Audit Committee and the auditor that the Company's internal control system is sufficient and suitable for its business; that the Company has an adequate number of personnel to implement its internal control system, and that the system to monitor the operations of its subsidiaries is efficient and effective for sustainable business growth.

HEAD OF INTERNAL AUDIT

According to the organizational structure, the Internal Audit Department is directly attached to the Audit Committee. The Audit Committee together with the CEO shall evaluate the performance of the head of internal audit. According to the Charter of the Audit Committee, any appointment, transfer, termination of employment or merit considerations of the head of internal audit shall be endorsed by the Audit Committee. The current head of internal audit is Mrs. Thidarut Kraiprasit, EVP of the Internal Audit Office. According to the performance evaluation results, it can be concluded that the said person truly understands business activities and operations of the Company and is appropriate for the position of head of internal audit.

INTERNAL AUDIT DEPARTMENT

Details of Head of Internal Audit

Name-Surname	Mrs. Thidarut Kraiprasit
Position	Executive Vice President, Internal Audit Department
Education	• Master of Business Administration (MBA), Kasetsart University • Bachelor of Accounting, Thammasat University
Professional Certificate	• Certified Public Accountant (CPA)
Work Experience	Eastern Water Resources Development and Management Public Company Limited Present Executive Vice President, Internal Audit Department 2015 - July 2017 Senior Vice President, Finance and Accounting Department 2009 - 2015 Senior Vice President, Internal Audit Department 2007 - 2008 Senior Vice President, Finance and Accounting Department 2004 - 2007 Senior Vice President, Finance and Human Resources Department
Training	• Director Certificate Program (DCP) Session 197/2014 • Leadership Development Workshop by Executive Coaching Institute, Berkeley USA 2012 & 2013 (Module 1 & 2) • Audit Committee Program (ACP) Session 26/2009 • Executive Development Program (EDP) Session 4 • Advanced Certificate Course in Public Economics Management for Executives Session 5

HEAD OF COMPLIANCE

The Head of Compliance is Mrs. Wirawan Tharanont, Executive Vice President and Company Secretary. Her profile is available on Page 29. She is responsible for supervising and ensuring that the Company complies with laws and regulations of agencies governing its business operations.

RELATED PARTY TRANSACTIONS

DETAILS OF RELATED PARTY TRANSACTIONS

The Company and its subsidiaries undertook a number of related party transactions with the parties with possible conflicts of interest. The auditor provided details in the note to the financial statements no.34 for the year ended 31 December 2018. Details of the transactions are as follows:

Table 8 Income from sales of raw water and tap water between the business group and the major shareholders as well as sales volume and pricing policy information

Juristic Person with Possible Conflicts of Interest	Nature of Relationship	Nature of Transaction	Transaction Volume and Value	Necessity/Remark	Pricing Policy
1. Provincial Waterworks Authority (PWA)	- PWA was a majority shareholder of the Company as at 31 December 2018 with the shareholding proportion of 40.20% of the Company's registered and paid-up share capital. - Mr. Kritsada Sunkhamani was Deputy Governor (Technical Affairs) of PWA and a director of the Company.	Transaction volume Raw water sales volume (million cubic meters) Sales value (Baht million)	32.30	The Company sold raw water to PWA in Nong Kor-Laem Chabang-Pattaya-Bang Pra areas and Dok Krai-Mab Ta Phud-Sattahip areas.	- The Company sold raw water to PWA at the same price rates as those applicable to other consumers. There were clear written contracts. Any director with possible conflicts of interest shall not have the right to vote on water price rates.
			319.78		
2. Provincial Waterworks Authority (PWA)	- PWA was a majority shareholder of the Company as at 31 December 2018 with the shareholding proportion of 40.20% of the Company's registered and paid-up share capital. - Mr. Kritsada Sunkhamani was Deputy Governor (Technical Affairs) of PWA and a director of the Company.	Transaction volume Tap water sales volume (million cubic meters) Tap water sales value (Baht million)	0.88	The Company sold tap water to PWA in the Samui Island.	- The Company sold tap water to PWA at the agreed upon rates. Water price rates adjustments were according to the conditions in the concession agreements.
			54.36		
		Tap water sales volume (million cubic meters) Tap water sales value (Baht million)	6.57	The Company sold tap water to PWA in Pattaya.	
			122.96		

Juristic Person with Possible Conflicts of Interest	Nature of Relationship	Nature of Transaction	Transaction Volume and Value	Necessity/Remark	Pricing Policy
3. Industrial Estate Authority of Thailand (IEAT)	- IEAT was a shareholder of the Company as at 31 December 2018 with the shareholding proportion of 4.57% of the Company's registered and paid-up capital. - Miss Somchint Pilouk was Governor of IEAT and a director of the Company.	Transaction volume Raw water sales volume (million cubic meters) Sales value (Baht million)	88.65 975.15	The Company sold raw water to IEAT in Nong Kor-Laem Chabang-Pattaya-Bang Pra areas and Dok Krai-Mab Ta Phud-Sattahip areas.	- The Company sold raw water to IEAT at the same price rates as those applicable to other water users being state-owned industrial estates. There were clear written contracts. Any director with possible conflicts of interest shall not have the right to vote on water price rates and changes of water price rates applicable to IEAT.
4. Universal Utilities PCL.	- The Company held 100% shares in Universal Utilities PCL. and both parties shared the directors.	Transaction volume Raw water sales volume (million cubic meters) Sales value (Baht million)	6.72 40.31	The Company sold raw water to Universal Utilities PCL. (Chonburi Project) in Chachoengsao-Chonburi areas.	- The Company sold raw water to Universal Utilities PCL. (UU) at the same price rates as those applicable to other consumers. There were clear written contracts. Any director with possible conflicts of interest shall not have the right to vote on water price rates and changes of water price rates applicable to UU.

Juristic Person with Possible Conflicts of Interest	Nature of Relationship	Nature of Transaction	Transaction Volume and Value	Necessity/Remark	Pricing Policy
5. PWA and Universal Utilities PCL.	- Universal Utilities PCL. was a subsidiary of the Company and 100% of its registered and paid-up shares were held by the Company.	Transaction volume Tap water sales income Bangkok Water Supply Co., Ltd. - cubic meters - Baht million	13.33 148.80	Universal Utilities PCL. sold tap water to PWA. The water price rates and water price rate adjustments were according to the conditions in the concession agreements. Universal Utilities PCL. sold tap water to PWA according to concession agreements of Bangkok Water Supply Co., Ltd., Chachoengsao Water Supply Co., Ltd., Nakornsawan Water Supply Co., Ltd. and Egcom Tara Co., Ltd.	
		Chachoengsao Water Supply Co., Ltd. - cubic meters - Baht million	11.88 144.02		
		Nakornsawan Water Supply Co., Ltd. - cubic meters - Baht million	4.57 54.90		
		Rayong Waterworks - cubic meters - Baht million	18.59 213.88		
		Chonburi Waterworks - cubic meters - Baht million	12.31 135.34		
		Ratchaburi Waterworks - cubic meters - Baht million	14.24 356.30		

TABLE 9 RELATED PARTY TRANSACTIONS WITH SHAREHOLDERS AND SUBSIDIARIES FOR 2018

Company	Relationship	Related Party Transaction	As at 31 December 2018 (Baht)
PWA	Major shareholder	- Construction Revenue	209,070,733
		- Rental and Service Income	28,989,696
		- Sales and Service Costs	20,766,245
		- Administrative Expense	326,361
		- Accounts Receivable	211,441,229
		- Other Receivable	16,274
		- Accounts Payable	1,805,294
		- Other Payable	37,925,412
IEAT	Major shareholder	- Accounts Receivable	88,598,051
Universal Utilities PCL.	Subsidiary (The Company held 100% of the shares in UU and shared the directors with UU.)	- Interest Income	14,657,534
		- Rental and Service Income	52,524,306
		- Dividends	126,581,983
		- Other Revenue	10,974,300
		- Sales and Service Costs	214,628,463
		- Accounts Receivable	5,777,881
		- Other Receivable	9,419,406
		- Accounts Payable	20,155,729
Egcom Tara Co., Ltd.	Subsidiary of UU with the shareholding of 90.07% (An indirect subsidiary of the Company)	- Security Deposit	58,000
		- Administrative Expense	159,577

MEASURES AND PROCEDURES FOR RELATED PARTY TRANSACTION APPROVAL

As part of its business activities, the Company consistently enters into related party transactions with the parties with possible conflicts of interest. Therefore, to protect its investors, the Company has the policy and procedures for approving and undertaking such transactions. A Board of Directors' meeting with the Audit Committee members and the independent directors present at the meeting shall consider and approve any related party transactions that may cause conflicts of interest as follows:

- In considering any related party transactions according to criteria of the SET, it is required to comply with requirements of the SET and the Capital Market Supervisory Board correctly and completely. The transactions that require

consideration of the Board of Directors must be subjected to examination by the Audit Committee.

- In approving any related party transactions being undertaken on normal open market commercial terms (arm's length basis) without any influence from directors, executives or related parties; the management or Investment Committee as vested by the Board of Directors with the power to approve the transactions of such nature shall submit a summary report of all those related party transactions to the Audit Committee and the Board of Directors for acknowledgement. This is to ensure that the transactions are reasonable, for the maximum benefit of the Company, and in accordance with relevant procedures.

- If the value of a related party transaction meets the threshold which requires prior approval from the shareholders; the shareholder with a conflict of interest may attend the meeting to constitute a quorum of the meeting but cannot vote on such transaction. The basis for vote count for approving a related party transaction shall not include the shareholder with a conflict of interest. This requirement therefore does not have any impact on meeting quorum and voting.
- Any director or executive with a possible conflict of interest on any matter shall not have the right to vote on and shall not be allowed to attend the meeting or grant approval for such matter.
- To enter into any contract or related party transaction with its subsidiaries and related juristic persons and/or individuals, the Company shall consider the necessity and appropriateness of such contract by taking into account its

interests as the top priority. Pricing of the transaction between the two parties shall be based on normal open market commercial terms (on arm's length basis) and fair market prices. The transaction shall be based on the prices and conditions which would be applied if the transaction was between the two enterprises acting at arm's length. Without the said prices, the Company may refer to the prices of products or services offered to outside parties under the same or similar conditions. Otherwise, the Company may refer to the report of an independent appraiser hired by the Company as a guideline for determining the prices of any significant related party transaction. This is to ensure that the said prices are appropriate and for the benefit of the Company.



IMPORTANT FINANCIAL INFORMATION

FINANCIAL STATEMENTS

SUMMARY OF AUDIT REPORTS

1. A summary of certified public accounts' audit reports for the past 3 years

In the opinion of the auditor, the consolidated financial statements of Eastern Water Resources Development and Management Public Company Limited and its subsidiaries (the Group) and separate financial statements of Eastern Water Resources Development and Management Public Company Limited (the Company) present fairly, in all material respects, its consolidated and separate financial position, respectively, its consolidated and separate financial performance and its consolidated and separate cash flows in accordance with Thai Financial Reporting Standards (TFRSs).

2. A summary of the Company's financial position and performance for the past 3 years (2016-2018)

As the Company is a listed company on the Stock Exchange of Thailand (SET), investors can view its latest financial statements on the official website of the Office of the Securities and Exchange Commission (SEC) (www.sec.or.th), the official website of the SET (www.set.or.th) or the official website of the Company (www.eastwater.com).

A detailed summary of the financial position and performance is as follows:

A) Three-year Comparative Statements of Financial Position

A) Three-year comparative statements of financial position	As at 31 December 2018		As at 31 December 2017		As at 31 December 2016	
	Audited		Audited		Audited	
	Baht Thousand	%	Baht Thousand	%	Baht Thousand	%
Assets						
Current assets						
Cash and cash equivalents	578,213	2.87	37,478	0.19	185,531	0.93
Short-term investments	404,277	2.00	393,039	2.02	736,499	3.71
Trade and other receivables	444,237	2.21	407,424	2.09	420,745	2.12
Inventory	13,344	0.07	13,069	0.07	10,587	0.05
Other current assets	29,206	0.15	38,127	0.19	31,034	0.16
Total current assets	1,469,277	7.30	889,137	4.56	1,384,396	6.97
Non-current assets						
Investment property – net	177,633	0.88	185,929	0.95	193,923	0.98
Property, plant and equipment - net	14,382,227	71.41	14,228,392	73.03	14,062,211	70.81
Goodwill – net	103,283	0.51	103,283	0.53	103,283	0.52
Intangible assets – net	3,643,974	18.09	3,702,734	19.01	3,692,725	18.59
Deferred tax assets	21,936	0.11	22,234	0.11	24,051	0.12
Other non-current assets	342,572	1.70	350,907	1.80	399,806	2.01
Total non-current assets	18,671,625	92.70	18,593,479	95.44	18,475,999	93.03
Total assets	20,140,902	100.00	19,482,616	100.00	19,860,395	100.00

A) Three-year comparative statements of financial position (Continued)	As at 31 December 2018		As at 31 December 2017		As at 31 December 2016	
	Audited		Audited		Audited	
	Baht Thousand	%	Baht Thousand	%	Baht Thousand	%
Liabilities and Shareholders' Equity						
Current liabilities						
Short-term borrowings from financial institutions	814,000	4.04	83,000	0.43	1,600,000	8.06
Trade accounts payable	147,205	0.73	139,728	0.72	133,254	0.67
Payable for purchase of fixed assets	98,782	0.49	82,433	0.42	117,997	0.59
Current portion of long-term liabilities under finance lease agreements	2,121	0.01	1,600	0.01	1,407	0.01
Current portion of long-term borrowings from financial institutions	826,200	4.10	808,200	4.15	808,200	4.07
Corporate income tax payable	118,460	0.59	131,181	0.67	129,308	0.65
Accrued expenses	163,187	0.81	176,013	0.90	176,960	0.89
Other current liabilities	59,404	0.29	70,767	0.36	59,394	0.30
Total current liabilities	2,229,359	11.06	1,492,922	7.66	3,026,520	15.24
Non-current liabilities						
Long-term liabilities under finance lease agreements	1,785	0.01	2,637	0.01	435	-
Long-term borrowings from financial institutions	3,166,200	15.72	3,992,400	20.49	3,200,600	16.12
Debentures	2,397,955	11.91	2,397,562	12.31	2,397,185	12.07
Payable for purchase of fixed assets	862,204	4.28	-	-	-	-
Deferred tax liabilities	364,611	1.81	385,210	1.98	410,098	2.06
Employee benefit obligations	150,461	0.75	135,062	0.70	129,087	0.65
Long-term provisions	20,786	0.10	33,188	0.17	20,670	0.10
Other non-current liabilities	142,391	0.71	613,729	3.15	627,499	3.16
Total non-current liabilities	7,106,393	35.29	7,559,788	38.81	6,785,574	34.16
Total liabilities	9,335,752	46.35	9,052,710	46.47	9,812,094	49.40

A) Three-year comparative statements of financial position (Continued)	As at 31 December 2018		As at 31 December 2017		As at 31 December 2016	
	Audited		Audited		Audited	
	Baht Thousand	%	Baht Thousand	%	Baht Thousand	%
Shareholders' equity						
Registered share capital	1,663,725	8.26	1,663,725	8.54	1,663,725	8.38
Issued and paid-up share capital	1,663,725	8.26	1,663,725	8.54	1,663,725	8.38
Share premium	2,138,522	10.62	2,138,522	10.98	2,138,522	10.77
Retained earnings						
Appropriated-statutory reserve	166,500	0.83	166,500	0.85	166,500	0.84
Appropriated-concession reserve	351,481	1.75	298,762	1.53	236,323	1.19
Unappropriated	6,293,040	31.25	5,960,276	30.59	5,630,700	28.35
Other components of shareholders' equity	11,388	0.05	14,774	0.08	18,696	0.09
Non-controlling interests	180,494	0.89	187,347	0.96	193,835	0.98
Total shareholders' equity	10,805,150	53.65	10,429,906	53.53	10,048,301	50.60
Total liabilities and shareholders' equity	20,140,902	100.00	19,482,616	100.00	19,860,395	100.00
Book value per share (Baht/share)**	6.39		6.16		5.92	
Par value (Baht/share)	1.00		1.00		1.00	
Number of common shares outstanding at the end of the period (shares)	1,663,725,149		1,663,725,149		1,663,725,149	

Remark: **Calculated from the shareholders' equity of the parent company

B) Three-year Comprehensive Income Statements

B) Three-year comparative comprehensive income statements	For the year ended 31 December 2018		For the year ended 31 December 2017		For the year ended 31 December 2016	
	Audited		Audited		Audited	
	Baht Thousand	%	Baht Thousand	%	Baht Thousand	%
Revenues						
Sales - raw water	2,393,820	56.25	2,452,053	56.28	2,696,427	61.09
Sales - tap water	1,438,402	33.80	1,422,746	32.66	1,392,873	31.56
Construction revenue under concession agreements	232,571	5.47	275,652	6.33	118,258	2.68
Rental and service income	156,196	3.67	157,591	3.62	169,405	3.84
Other income	34,335	0.81	48,592	1.11	37,026	0.83
Total revenues	4,255,324	100.00	4,356,634	100.00	4,413,989	100.00
Expenses						
Costs of sales - raw water	944,244	22.19	935,250	21.47	1,150,387	26.06
Costs of sales - tap water	912,597	21.45	879,017	20.18	824,580	18.68
Construction costs under concession agreements	232,571	5.47	275,652	6.33	118,258	2.68
Costs of rental and services	129,898	3.05	134,629	3.09	138,797	3.14
Selling and administrative expenses	487,841	11.46	457,569	10.50	417,147	9.45
Finance costs	157,212	3.69	140,848	3.23	119,556	2.72
Income tax expense	261,187	6.14	301,654	6.92	326,656	7.40
Total expenses	3,125,550	73.45	3,124,619	71.72	3,095,381	70.13
Net profit for the year	1,129,774	26.55	1,232,015	28.28	1,318,608	29.87

B) Three-year comparative comprehensive income statements (Continued)	For the year ended 31 December 2018		For the year ended 31 December 2017		For the year ended 31 December 2016	
	Audited		Audited		Audited	
	Baht Thousand	%	Baht Thousand	%	Baht Thousand	%
Other comprehensive income (loss):						
<u>Items that will not be reclassified to profit or loss</u>						
Remeasurements of post-employment benefit obligations	-		3,371		-	
Income tax on items that will not be reclassified to profit or loss	-		(674)		-	
Total items that will not be reclassified to profit or loss	-		2,697		-	
<u>Items that will be reclassified to profit or loss</u>						
Assets transferred from customers	(3,386)		(3,390)		(3,398)	
Fair value of a available-for-sale investments recycled to profit or loss	-		(664)		(719)	
Income tax relating items that will be reclassified to profit or loss	-		133		144	
Total items that will be reclassified to profit or loss	(3,386)		(3,921)		(3,973)	
Other comprehensive income for the year - net of tax	(3,386)		(1,224)		(3,973)	
Total comprehensive income for the year	1,126,388		1,230,791		1,314,635	
Profit attributable to						
Owners of the parent	1,117,522		1,221,179		1,309,226	
Non-controlling interests	12,252		10,836		9,382	
Net profit for the year	1,129,774		1,232,015		1,318,608	
Total share of profits						
Owners of the parent	1,114,135		1,219,955		1,305,253	
Non-controlling interests	12,253		10,836		9,382	
Total gross profit for the year	1,126,388		1,230,791		1,314,635	

B) Three-year comparative comprehensive income statements (Continued)	For the year ended 31 December 2018		For the year ended 31 December 2017		For the year ended 31 December 2016	
	Audited		Audited		Audited	
	Baht Thousand	%	Baht Thousand	%	Baht Thousand	%
Unappropriated returned earnings brought forward	5,960,276		5,630,700		5,306,474	
<u>Less</u> Dividends paid	(732,039)		(831,862)		(748,677)	
<u>Add</u> Annual net profit	1,117,522		1,223,877		1,309,226	
<u>Less</u> Concession reserve	(52,719)		(62,439)		(236,323)	
Unappropriated retrained earnings carried forward	6,293,040		5,960,276		5,630,700	
Appropriated-statutory reserve	166,500		166,500		166,500	
Appropriated-concession reserve	351,481		298,762		236,323	
Retained earnings	6,811,021		6,425,538		6,033,523	
Earnings per share	0.67		0.73		0.79	
Par value (Baht/share)	1.00		1.00		1.00	
Number of common shares (shares)	1,663,725,149		1,663,725,149		1,663,725,149	

C) Three-year Comparative Cash Flow Statements (Audited)

Unit : Baht Thousand

C) Three-year Comparative Cash Flow Statements (Audited)	2018	2017	2016
Cash flows from operating activities			
Profit before corporate income tax	1,390,961	1,533,669	1,645,264
Adjustment to reconcile profit before corporate income tax to net cash provided by (paid from) operating activities			
Depreciation	432,019	393,619	379,473
Amortization	304,108	282,588	263,346
Income from amortization of assets transferred from customers	(3,386)	(3,390)	(3,398)
Loss on asset write-off	513	1,441	7,893
Impairment losses on concession rights	860	1,960	3,320
Gain on sale of short-term investments	(128)	(1,863)	(3,173)
Long-term provision	(589)	21,491	4,211
Employee benefit obligations	18,186	16,643	15,764
Interest income	(6,989)	(6,938)	(9,557)
Interest expense	155,970	139,811	118,260
Operating profit before change in operating assets and liabilities	2,291,525	2,379,031	2,421,403

Unit : Baht Thousand

C) Three-year Comparative Cash Flow Statements (Audited) (Continued)	2018	2017	2016
Changes in operating assets (increase)/decrease			
Trade and other accounts receivable	(36,813)	13,321	26,576
Inventory	(275)	(2,482)	(1,206)
Other current assets	27,834	2,093	2,908
Other non-current assets	(26,336)	16,766	(1,249)
Changes in operating liabilities increase/(decrease)			
Trade accounts payable	7,477	6,475	(677)
Accrued expenses	(16,978)	(819)	2,000
Other current liabilities	(13,252)	15,740	(4,405)
Employee benefit obligations-paid	(2,787)	(7,227)	(6,363)
Long-term provision-paid	(11,814)	(8,972)	(12,469)
Other non-current liabilities	(138,372)	(23,849)	41,339
Cash from operating activities	2,080,209	2,390,077	2,467,857
Income tax paid	(312,057)	(332,330)	(358,599)
Net cash from operating activities	1,768,152	2,057,747	2,109,258
Cash flows from investing activities			
Purchase of short-term investments	(1,067,580)	(1,154,426)	(1,134,876)
Proceeds from disposal of short-term investments	1,056,470	1,499,084	1,263,429
Cash received from interest	5,924	6,690	9,307
Proceeds from disposal of land, plant and equipment	18,158	2,288	180
Purchase of intangible assets	(244,406)	(305,155)	(101,777)
Purchase of investment property	(218)	(1,265)	(393)
Purchase of fixed assets and advance construction payments	(480,475)	(450,499)	(873,108)
Cash from construction payment refunds	529,238	-	-
Proceeds from bank guarantee	-	10,079	371,735
Interest paid capitalized in qualifying assets	(70,421)	(92,318)	(132,523)
Net cash used in investing activities	(253,310)	(485,522)	(598,026)
Cash flows from financing activities			
Increase in short-term borrowings from financial institutions	4,409,000	1,178,000	155,000
Payment of short-term borrowings from financial institutions	(3,678,000)	(2,695,000)	(155,000)
Proceed s from long-term borrowings from financial institutions	1,600,000	1,600,000	-
Payment of long-term borrowings from financial institutions	(2,408,200)	(808,200)	(752,200)
Payment of liabilities under financial lease agreements	(331)	(1,838)	(2,856)
Additional purchase of interests in a subsidiary	-	-	-
Dividends paid	(750,973)	(853,547)	(762,656)
Interest paid	(145,603)	(139,693)	(119,207)
Net cash used in financing activities	(974,107)	(1,720,278)	(1,636,919)

Unit : Baht Thousand

C) Three-year Comparative Cash Flow Statements (Audited) (Continued)	2561	2560	2559
Net increase (decrease) in cash and cash equivalents	540,735	(148,053)	(125,687)
Cash and cash equivalents at the beginning of the year	37,478	185,531	311,218
Cash and cash equivalents at the end of the year	578,213	37,478	185,531

Supplemental cash flow information

Non-cash related transactions:

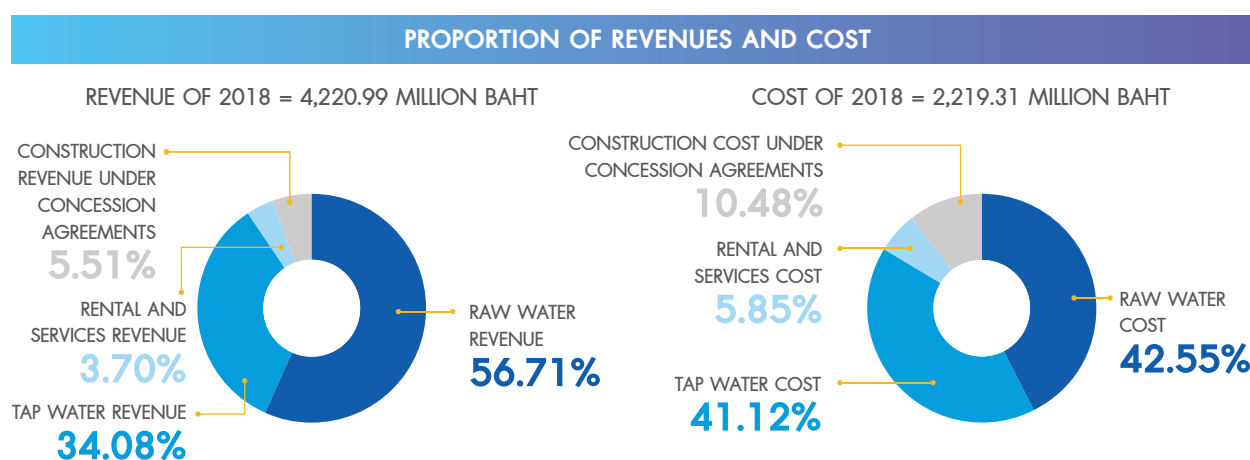
Purchase of fixed assets and intangible assets on payable	261,363	84,023	59,575
Refinance of long-term borrowings	-	4,232	-



MANAGEMENT DISCUSSION AND ANALYSIS

1. ANALYSIS OF FINANCIAL PERFORMANCE

In 2018, East Water Group had total consolidated sales and services income of 4,220.99 million Baht, decreased by 87.05 million Baht or 2.02% compared to 2017 due to the declining in raw water sales volume and net profit attributable to Equity holders of the parent company was 1,117.52 million Baht, decreased by 103.66 million Baht or 8.49%.



Income statement (MB)	For the three-month period				2018	2017	YoY	%
	Q4/2018	Q4/2017	YoY	%				
Total Sales and Services Revenue	1,050.08	1,039.90	10.18	0.98%	4,220.99	4,308.04	(87.05)	(2.02%)
Raw water revenue	588.09	566.33	21.76	3.84%	2,393.82	2,452.05	(58.23)	(2.37%)
Tap water revenue	361.96	353.34	8.62	2.44%	1,438.40	1,422.75	15.66	1.10%
Rental and services revenue	38.44	36.92	1.52	4.13%	156.20	157.59	(1.40)	(0.89%)
Construction revenue under Concession Agreements ⁽¹⁾	61.59	83.31	(21.73)	(26.08%)	232.57	275.65	(43.08)	(15.63%)
Costs of Sales and Services	577.61	584.67	(7.06)	(1.21%)	2,219.31	2,224.55	(5.24)	(0.24%)
Raw water cost	245.32	222.91	22.41	10.06%	944.24	935.25	8.99	0.96%
Tap water cost	241.09	242.29	(1.20)	(0.50%)	912.60	879.02	33.58	3.82%
Rental and services cost	29.61	36.16	(6.55)	(18.10%)	129.90	134.63	(4.73)	(3.51%)
Construction cost under Concession Agreements ⁽¹⁾	61.59	83.31	(21.73)	(26.08%)	232.57	275.65	(43.08)	(15.63%)
Gross profit	472.47	455.23	17.24	3.79%	2,001.68	2,083.49	(81.81)	(3.93%)
Other income	9.45	8.74	0.71	8.09%	34.34	48.59	(14.26)	(29.34%)
Selling and administrative expenses	151.65	156.44	(4.78)	(3.06%)	487.84	457.57	30.27	6.62%
Operating profit	330.27	307.54	22.73	7.39%	1,548.17	1,674.52	(126.34)	(7.55%)
Finance cost	54.83	35.03	19.79	56.50%	157.21	140.85	16.36	11.62%
Income tax expenses	35.20	47.54	(12.35)	(25.97%)	261.19	301.65	(40.47)	(13.42%)
Net profit	240.25	224.96	15.29	6.79%	1,129.77	1,232.02	(102.24)	(8.30%)
Net profit attributable to owner of the parent	236.49	222.55	13.94	6.27%	1,117.52	1,221.18	(103.66)	(8.49%)
Earnings per share (EPS)	0.14	0.13	0.01	6.27%	0.67	0.73	(0.06)	(8.49%)

Note: ¹⁾ Revenues and costs that were recognized when there was construction under concession agreements for tap water according to accounting standard TFRIC12

EBITDA (MB)	For the three-month period				2018	2017	YoY	%
	Q4/2018	Q4/2017	YoY	%				
Operating profit	330.27	307.54	22.73	7.39%	1,548.17	1,674.52	(126.34)	(7.55%)
Depreciation	127.12	103.90	23.22	22.35%	432.02	393.62	38.40	9.76%
Amortization	76.69	69.78	6.90	9.90%	300.72	279.20	21.52	7.71%
EBITDA	534.08	481.22	52.86	10.98%	2,280.92	2,347.33	(66.42)	(2.83%)

2. ECONOMIC SITUATION

Thailand's economy in Q4/2018 continuously grew. Export-oriented manufacturing businesses continuously expanded but domestic-oriented manufacturing was rather stable as slow recovery of private consumption and high household debt. Domestic industries remaining expanded and some large corporates invested in long-term big projects. For example; petroleum products business which having investment plan in Eastern part and food production. In term of business tourism continuously expanded in all region from both Thai and foreign tourists. Costs slightly rose due to wage hike and increasing in commodity prices, however decreasing of oil price in this quarter had good result to Cost of production.

In Q1/2019, Export sector will consistently grow. Meanwhile, domestic consumption will expand although household have risk from high level of debt. Cost of manufacture will be increasing as trade barriers and addition of policy interest rate in December 2018.

3. WATER SITUATION

As of 31 January 2019, the water supply situation in Chonburi and Rayong province is moderate. Water supply in the reservoirs was approximately to average water quantity of the past 10 years. The weather forecast of the Department of Meteorology was expected that the total rainfall in the Eastern part of Thailand will be lower than average level about 10%-20% during February – April. The average water in the reservoirs in Chonburi and Rayong were 62% and 75% of total capacity respectively.

Water Volume (Million Cu.M)	Chonburi		Rayong			
	Bangpra	Nongkho	Dokkrai	Nongplalai	Klongyai	Prasae
Water reserve	75.02	10.55	65.09	136.65	34.24	202.01
Percentage of total capacity	64%	49%	82%	83%	75%	68%
Average (2009-2018)	69.95	13.23	55.79	137.55	30.01	214.15
Above/(below) average (2009-2018)	5.07	(2.68)	9.30	(0.90)	4.23	(12.14)

4. SIGNIFICANT EVENTS

12 July 2018, TRIS Rating affirmed the company rating and senior unsecured debenture rating of Eastern Water Resources Development and Management PLC at "A+" with "stable" outlook, which reflects the company's financial strength as the key raw water provider with a comprehensive pipeline network in the Eastern Seaboard area, its high profitability, and reliable cash flows.

9 August 2018, The Board of Director's meeting No. 9/2561 had a resolution on the interim dividend payment, based on the operating results of six months end at 30 June 2018, at Baht 0.20 per share. The record date which shareholders had the right to receive the interim dividend was on 23 August 2018 and the dividend paid on 5 September 2018. Total dividend paid was Baht 332.75 million.

24 August 2018, EASTW and Gulf PD Co., Ltd. (Subsidiary of GULF) signed clarified water sales contract with 25 years period.

17 November 2018, EASTW was selected as 1 of 79 listed companies under Thailand Sustainability Investment in 2018 or “Sustainability stocks”, representing listed companies with outstanding environmental, social and governance performance as well as concern for stakeholders in both social and environmental aspects and sustainability management process.

21 November 2018, EASTW and Amata Water Co., Ltd. signed clarified water sales contract with 30 years period.

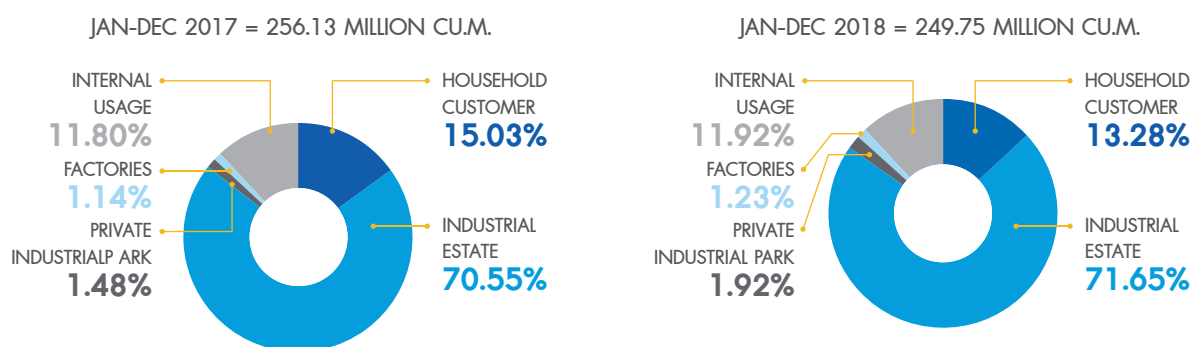
7 December 2018, EASTW was awarded the Sustainability Report Award 2018 by CSR Club in the Recognition category, the award for companies with outstanding commitment to ESG (Environment, Social and Governance).

5. RAW WATER BUSINESS

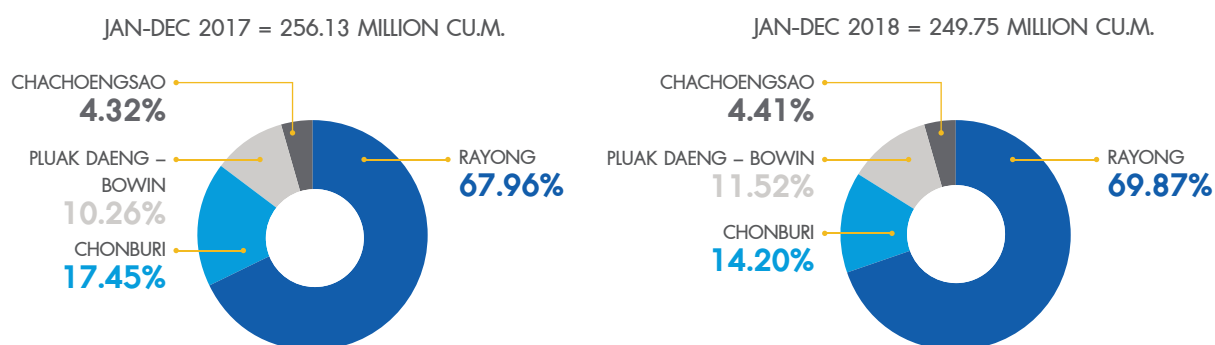
Raw water revenue in 2018 was 2,393.82 million Baht, decreased by 58.23 million Baht or 2.37% compared to 2017. Total water sales volume was 219.98 million Cu.M. (Excluding internal usage for tap water production of 29.76 million Cu.M.), decreased by 5.92 million Cu.M., or 2.62% due to the declining of raw water sales volume in Q1/2018 - Q2/2018 of the household customers. The average raw water tariff stayed at 10.88 Baht per Cu.M., increased by 0.03 Baht per Cu.M., or 0.25%, due to the declining portion of household customers, who paid lower tariffs than other customer groups.

Raw Water Volume (Million Cu.M)	For the three-month period				2018	2017	YoY	%
	Q4/2018	Q4/2017	YoY	%				
Total distribution volume	61.62	59.46	2.15	3.62%	249.75	256.13	(6.38)	(2.49%)
Internal usage for tap water	7.45	7.53	(0.08)	(1.09%)	29.76	30.23	(0.46)	(1.54%)
Net Raw Water Sales Volume	54.17	51.93	2.24	4.31%	219.98	225.90	(5.92)	(2.62%)

RAW WATER DISTRIBUTION BY CUSTOMER GROUP (INTERNAL USAGE FOR TAP WATER PRODUCTION IS INCLUDED)



RAW WATER DISTRIBUTION BY AREA (INTERNAL USAGE FOR TAP WATER PRODUCTION IS INCLUDED)



Gross Profit of Raw Water Business in 2018 was 1,449.58 million Baht, decreased by 67.23 million Baht or 4.43% as compared to 2017 due to the decreasing of household customers and the higher cost from purchasing raw water from private source, depreciation and amortization from investment to increase capacity and employee expenses. However, the company was able to save the electricity cost by 59.21 million Baht because the company has stopped transferring water from Nongplalai reservoir to Chonburi area in consistent with the sufficient water supply in Chonburi area. Therefore; gross profit margin of raw water business dropped to 60.55%

Major costs of raw water business (MB)	For the three-month period				2018	2017	YoY	%
	Q4/2018	Q4/2017	YoY	%				
Raw Water Revenue	588.09	566.33	21.76	3.84%	2,393.82	2,452.05	(58.23)	(2.37%)
Costs of Raw Water	245.32	222.91	22.41	10.06%	944.24	935.25	8.99	0.96%
Raw Water	28.12	28.24	(0.13)	(0.46%)	141.40	120.00	21.40	17.84%
Electricity	64.64	67.25	(2.61)	(3.88%)	268.64	327.85	(59.21)	(18.06%)
Depreciation	96.65	76.40	20.25	26.50%	326.09	300.73	25.36	8.43%
Maintenance	17.25	15.53	1.72	11.04%	59.18	56.80	2.38	4.19%
Others	38.67	35.48	3.19	8.99%	148.92	129.87	19.05	14.67%
Gross Profit	342.77	343.42	(0.65)	(0.19%)	1,449.58	1,516.80	(67.23)	(4.43%)
Gross Profit Margin	58.29%	60.64%			60.55%	61.86%		

6. TAP WATER BUSINESS

Tap water revenue in 2018 was 1,438.40 million Baht, increased by 15.66 million Baht or 1.10%. Total tap water sales volume was 96.55 million Cu.M., increased by 0.12 million Cu.M. or 0.13% compared to 2017.

Tap water sales volume (Million Cu.M)	For the three-month period				2018	2017	YoY	%
	Q4/2018	Q4/2017	YoY	%				
Tap water sales volume	5.18	5.18	(0.003)	(0.06%)	20.96	21.28	(0.32)	(1.48%)
Tap water sales volume Subsidiary	19.13	18.62	0.51	2.74%	75.59	75.15	0.44	0.58%
Total tap water sales volume	24.31	23.81	0.51	2.13%	96.55	96.43	0.12	0.13%

Gross Profit of Tap Water Business in 2018 was 525.80 million Baht, decreased by 17.92 million Baht or 3.30% compared to 2017. The reasons were from increasing in raw water cost as some concession had purchased raw water from private sources and depreciation and amortization which increased by 18.38 million Baht, representing a lower gross profit margin to 36.55%.

Major Costs of Tap Water Business (MB)	For the three-month period				2018	2017	YoY	%
	Q4/2018	Q4/2017	YoY	%				
Tap Water Revenue	361.96	353.34	8.62	2.44%	1,438.40	1,422.75	15.66	1.10%
Costs of Tap Water	241.09	242.29	(1.20)	(0.50%)	912.60	879.02	33.58	3.82%
Raw Water	45.67	40.86	4.81	11.77%	169.57	151.39	18.18	12.01%
Electricity	35.85	38.31	(2.46)	(6.42%)	143.82	148.99	(5.17)	(3.47%)
Chemical	8.73	7.80	0.92	11.84%	33.51	28.06	5.45	19.43%
Payroll, Outsource Expenses & Maintenance	64.77	71.26	(6.49)	(9.11%)	219.77	226.22	(6.45)	(2.85%)
Depreciation	81.32	71.10	10.22	14.37%	300.79	282.42	18.38	6.51%
Others	4.76	12.96	(8.20)	(63.26%)	45.14	41.94	3.20	7.62%
Gross Profit	120.87	111.05	9.82	8.84%	525.80	543.73	(17.92)	(3.30%)
Gross Profit Margin	33.39%	31.43%			36.55%	38.22%		

7. FINANCIAL POSITION ANALYSIS

Financial Position (MB)	As of 31 Dec 2018	As of 31 Dec 2017	Increased (Decreased)	%
Total Assets	20,140.90	19,482.62	658.29	3.38%
Total Liabilities	9,335.75	9,052.71	283.04	3.13%
Equity	10,805.15	10,429.91	375.25	3.60%
- Equity attributable to owners of the parents	10,624.66	10,242.56	382.10	3.73%

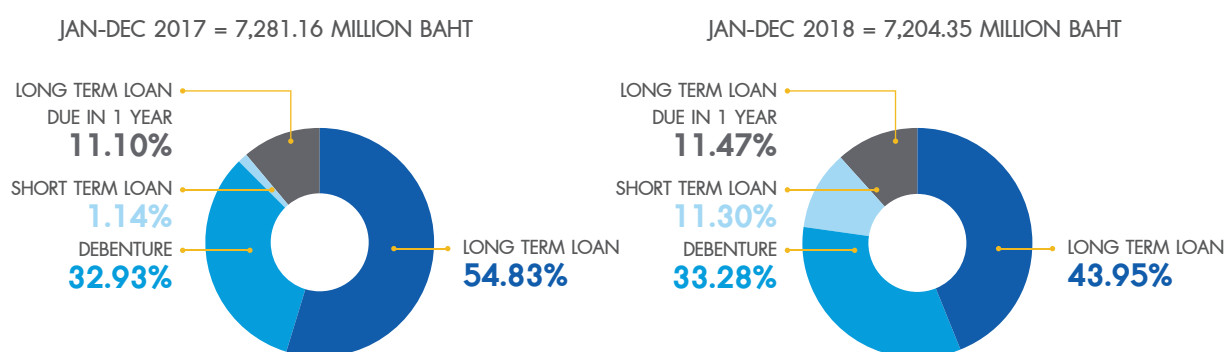
1) Assets At the end of year 2018, total assets were 20,140.90 million Baht, increased by 658.29 million Baht or 3.38% from the end of the year 2017 due to the changes in the following items:

- Cash and cash equivalents were 578.21 million Baht, increased by 540.74 million Baht due to EASTW was refunded in Tubma reservoir development project amount 529.24 million Baht.
- Property, plant and equipment were 14,382.23, increased by 153.84 mainly from the construction project during 2018.

2) Liabilities At the end of year 2018, total liabilities were 9,335.75 million Baht, increased by 283.04 million Baht or 3.13% from the end of the year 2017 due to changes in the following items:

- Short term loans from financial institutions were 814.00 million Baht, increased by 731.00 million Baht because the company had drawdown additional short term loan for working capital management.
- Long term loans from financial institutions were 3,116.20 million Baht, decreased by 826.20 million Baht from the repayment of long term loan as schedule in an amount of 808.20 million Baht.
- Payable for purchase of fixed assets increased in amount of 862.20 million Baht due to accounting record of payable in Tubma reservoir development project.
- Other non-current liabilities were 142.39 million Baht, decreased by 471.34 million Baht due to adjustment of the retention amount and advance payment for Tubma reservoir development project which recorded as Payable for purchase of fixed assets.

PROPORTION OF INTEREST BEARING DEBT



Note: According to the debentures and long-term loan agreements, the company was required to maintain its D/E ratio of not higher than 2.0 times. For the long-term loan agreements, there is additional condition to maintain DSCR of not less than 1.1 times.

3) Shareholder's Equity At the end of year 2018, Shareholders' equity attributable to owners of the parent was 10,624.66 million Baht, increased by 382.10 million Baht or 3.73% from the end of the year 2017, basically from the net profit of 2018 and dividend payment.

8. LIQUIDITY ANALYSIS AND FUNDING ADEQUACY

In 2018, the company had beginning cash and cash equivalents of 37.48 million Baht, whereby during the financial period, net cash was increased by 540.74 million Baht. This comprised of the following items:

- 1) **Net cash received from Operating Activities** totaling Baht 1,768.15 million Baht from the net income by net off with the changes in assets and liabilities from operations
- 2) **Net cash used in Investment Activities** amounted to 253.31 million Baht. This was mainly due to the investment in property, plant and equipment as well as advance payments for construction and the investment of concession asset, net off with refunded in Tubma reservoir development project amount 529.24 million Baht
- 3) **Net cash used in Financing Activities** amounting to 974.11 million Baht, mainly due to the repayment of long-term loan 808.20 million Baht, 750.97 million Baht for dividend payment and 145.60 million Baht for interest paid, net off with the additional short-term loan drawdown of 731.00 million Baht for working capital management.

9. KEY FINANCIAL RATIOS

Key Financial Ratios	As of 31 Dec, 2018	As of 31 Dec, 2017
Liquidity Ratio		
Current ratio (time)	0.66	0.60
Profitability Ratio⁽¹⁾		
Gross profit / total sales and services revenue (%)	50.19%	51.67%
Net profit / total sales and services revenue (%)	28.33%	30.55%
Performance Ratio		
Return on Equity (ROE) (%)	10.71%	12.15%
Return on Assets (ROA) (%)	5.64%	6.21%
Capital Structure and Debt Ratio		
Debt to Equity ratio (time)	0.88	0.88
Debt Service Coverage ratio (DSCR) (time)	2.19	2.26

Note: ⁽¹⁾ Gross profit and Net profit were excluded construction revenue under concession agreement and other income.

In 2018, East Water Group reported slightly lower profitability compared to the same period of 2017 because of the lower sales volume. Gross Profit Margin and Net Profit Margin was at 50.19% and 28.33% respectively, while Return on Equity (ROE) dropped to 10.71% and Return on Asset (ROA) was 5.64% which declined from 2017 due to the lower net profit. For the liquidity analysis, current ratio increased to 0.66 times because of the record of construction refund from Tubma reservoir development project. Debt to equity ratio was at 0.88 times and Debt service coverage ratio (DSCR) remained strong at 2.19 times.



eastwater

IN ITS TRANSITION FROM
RAW WATER
BUSINESS TO
TOTAL
WATER SOLUTIONS

EAST WATER HAS TRANSFORMED
ITSELF INTO A MODERN AND
CLEAR IMAGE AS A PROVIDER OF
SMART WATER
SERVICES

Mr. Jirayut Rungsrihong
President & CEO

Report on the Board of Directors' Responsibilities for Financial Statements

The Board of Directors of Eastern Water Resources Development and Management Public Company Limited is responsible for the preparation and disclosure of financial statements of the Company and its subsidiaries for the year ended December 31, 2018 which have been prepared in accordance with financial reporting standards under the Accounting Act B.E. 2543, and financial reporting requirements of the Securities and Exchange Commission under the Securities and Exchange Act B.E. 2535.

The Board oversees and reviews corporate governance as well as establishes and maintains a proactive risk management system and internal control system to ensure that accounting records are accurate, complete and timely, and that the Company's assets are properly safeguarded against fraud, operational irregularities, and other risks.

The Board considers the accounting policies pursued to be appropriate, and that they have been applied

consistently with adequate disclosure of important information in the notes to the financial statements. The Board has appointed an Audit Committee consisting of independent directors to provide effective and efficient oversight of the financial statements, the internal control system, and the internal audit. The Audit Committee's views are reported in its report in the Company's annual report. The Company's external auditor has reviewed and audited the financial statements and expressed an unqualified opinion in the auditor's report.

The Board is confident that the internal control system and the internal audit of Eastern Water Resources Development and Management Public Company Limited and its subsidiaries for the year ended December 31, 2018 represent the financial position, results of operations, and cash flows that give a true and fair view in accordance with Thai Financial Reporting Standards.



Mr. Veerasak Kositpaisal
Chairman



Mr. Jirayut Rungsritthong
President & Chief Executive Officer

CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

EASTERN WATER RESOURCES DEVELOPMENT AND
MANAGEMENT PUBLIC COMPANY LIMITED
31 DECEMBER 2018

Independent Auditor's Report

To the shareholders Eastern Water Resources Development and Management Public Company Limited

My opinion

In my opinion, the consolidated financial statements of Eastern Water Resources Development and Management 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 2018, and consolidated and separate financial performance and 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 2018;
- 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.

Emphasis of Matter

I draw your attention to Note 37 to the financial statements regarding compensation for the Company's pipeline connecting projects. Currently, the Company pays compensation at a preliminary rate because the government agency is considering a deal in which the Company will rent or manage the connecting projects. As a result, the government agency is reviewing the compensation rate and it may be subject to change. My opinion is not qualified in respect of this matter.

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: Assessment of the recoverable amount of goodwill. 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 this matter.

Key audit matter	How my audit addressed the key audit matter
Assessment of the recoverable amount of goodwill As at 31 December 2018, the Group had goodwill presented as an asset in the consolidated financial statements of Baht 103.3 million. The goodwill is from a subsidiary acquired an equity interest in a private company in 2015. The goodwill relates to operating results which are under an operating agreement. Therefore, future operating results and the remaining agreement period have a direct impact on impairment of the goodwill. Goodwill is required for impairment testing annually, by determining the recoverable amount of goodwill, according to the financial reporting standard. The management assessed the recoverable amount of goodwill by the calculation of value in use which involves an estimate of the future cash flows. An assessment of the recoverable amount of goodwill was determined to be a key audit matter because the amount of goodwill is material to the financial statements. The recoverable amount depends on assumptions which involve significant management's judgement, such as an estimate of the future cash flows the Group expects to derive from the asset, expectations about possible variations in the amount or timing of future cash flows, the time value of money, and the appropriate discount rates. The key assumptions of an estimate of the future cash flows are the selling price, sales volumes and discount rates as disclosed in Note 15, Goodwill.	I tested the calculation of value in use prepared by management. I inquired management about future operation plans. I tested the reasonableness of the estimate of the future cash flows by testing the assumptions as follows: • compared the forecast of operating results against actual historical data. • compared the selling price and sales volumes with information specified in the operating agreement and checked the future selling price adjustment. • analysed whether costs and expenses were in line with sales and consistent with actual historical amounts. • used my firm's valuation expert to evaluate the discount rate applied in the cash flows model. • performed a sensitivity analysis on key assumptions. Based on the procedures above, I found that the assumptions used by the management in the assessment of the recoverable amount of goodwill were reasonable.

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:

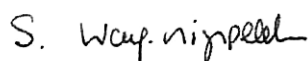
- Identify and assess the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. 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.



Sukhumaporn Wong-ariyaporn
 Certified Public Accountant (Thailand) No. 4843
 Bangkok
 22 February 2019

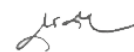
Eastern Water Resources Development and Management Public Company Limited
Statement of Financial Position
As at 31 December 2018

(Unit: Baht)

	Notes	Consolidated ☐		Separate ☐	
		financial statements		financial statements	
		2018	2017	2018	2017
Assets					
Current assets					
Cash and cash equivalents	8	578,213,162	37,477,981	540,945,900	4,620,675
Short-term investments	9	404,276,814	393,039,207	55,053,467	39,316,426
Trade and other receivables	10	444,237,325	407,424,378	299,579,642	273,841,873
Inventories	11	13,343,706	13,068,626	-	-
Other current assets		29,206,528	38,126,761	16,196,275	13,620,675
Total current assets		1,469,277,535	889,136,953	911,775,284	331,399,649
Non-current assets					
Investment in a subsidiary	12	-	-	510,000,000	510,000,000
Long-term loan to a subsidiary	34.4	-	-	1,600,000,000	-
Investment property - net	13	177,633,381	185,929,674	190,426,863	199,391,345
Property, plant and equipment - net	14	14,382,226,848	14,228,391,546	14,106,295,465	13,970,222,013
Goodwill	15	103,283,004	103,283,004	-	-
Intangible assets - net	16	3,643,973,788	3,702,733,589	54,184,108	50,150,870
Deferred tax assets	17	21,935,597	22,233,644	-	-
Other non-current assets	18	342,571,735	350,907,331	289,062,198	320,645,824
Total non-current assets		18,671,624,353	18,593,478,788	16,749,968,634	15,050,410,052
Total assets		20,140,901,888	19,482,615,741	17,661,743,918	15,381,809,701



(Mr. Jirayut Rungsritthong)
President & Chief Executive Officer

Mr. Sombat Yusamart
Executive Vice President and Chief
Financial Officer (CFO)

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Statement of Financial Position (continued)

As at 31 December 2018

(Unit: Baht)

	Notes	Consolidated □		Separate □	
		financial statements		financial statements	
		2018	2017	2018	2017
Liabilities and equity					
Current liabilities					
Short-term borrowings from financial institutions	19.1	814,000,000	83,000,000	580,000,000	10,000,000
Trade and other payables	20	147,205,473	139,728,150	101,460,062	97,283,425
Payable for purchase of fixed assets		98,782,240	82,432,874	89,186,017	73,737,745
Current portion of long-term liabilities under finance lease agreements	21	2,120,878	1,600,100	2,120,878	1,600,100
Current portion of long-term borrowings from financial institutions	19.2	826,200,000	808,200,000	634,000,000	616,000,000
Income tax payable		118,460,134	131,181,159	98,430,668	98,469,579
Accrued expenses	23	163,187,352	176,013,280	113,407,971	115,495,812
Other current liabilities		59,403,122	70,766,620	37,114,058	44,075,218
Total current liabilities		2,229,359,199	1,492,922,183	1,655,719,654	1,056,661,879
Non-current liabilities					
Long-term liabilities under finance lease agreements	21	1,785,186	2,636,601	1,785,186	2,636,601
Long-term borrowings from financial institutions	19.2	3,166,200,000	3,992,400,000	2,974,000,000	2,008,000,000
Debentures	19.3	2,397,954,566	2,397,562,352	2,397,954,566	2,397,562,352
Payable for purchase of fixed assets	36	862,203,611	-	862,203,611	-
Deferred tax liabilities	17	364,610,967	385,209,627	45,005,082	41,053,052
Employee benefit obligations	24	150,460,939	135,061,993	107,575,717	96,981,570
Long-term provisions	25	20,786,080	33,188,538	-	-
Other non-current liabilities	26	142,390,816	613,728,663	103,663,855	574,373,260
Total non-current liabilities		7,106,392,165	7,559,787,774	6,492,188,017	5,120,606,835
Total liabilities		9,335,751,364	9,052,709,957	8,147,907,671	6,177,268,714

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited
Statement of Financial Position (continued)
As at 31 December 2018
(Unit: Baht)

		Consolidated ☐		Separate ☐	
		financial statements		financial statements	
	Notes	2018	2017	2018	2017
Liabilities and equity (continued)					
Equity					
Share capital					
Registered share capital					
Ordinary shares, 1,663,725,149 shares					
of par Baht 1 each		1,663,725,149	1,663,725,149	1,663,725,149	1,663,725,149
Issued and paid-up share capital					
Ordinary shares, 1,663,725,149 shares					
of par Baht 1 each		1,663,725,149	1,663,725,149	1,663,725,149	1,663,725,149
Share premium		2,138,522,279	2,138,522,279	2,138,522,279	2,138,522,279
Retained earnings					
Appropriated - legal reserve	27	166,500,000	166,500,000	166,500,000	166,500,000
- concession reserve	27	351,481,143	298,762,142	52,222,751	39,316,426
Unappropriated		6,293,040,408	5,960,276,230	5,481,478,094	5,181,702,905
Other components of equity	28	11,387,974	14,774,228	11,387,974	14,774,228
Equity attributable to owners of the parent		10,624,656,953	10,242,560,028	9,513,836,247	9,204,540,987
Non-controlling interests		180,493,571	187,345,756	-	-
Total equity		10,805,150,524	10,429,905,784	9,513,836,247	9,204,540,987
Total liabilities and equity		20,140,901,888	19,482,615,741	17,661,743,918	15,381,809,701

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited

Statement of Comprehensive Income

For the year ended 31 December 2018

		(Unit: Baht)			
		Consolidated □		Separate □	
		financial statements		financial statements	
Notes		2018	2017	2018	2017
Revenues	34				
Sales - raw water		2,393,819,753	2,452,052,565	2,434,127,657	2,501,454,822
Sales - tap water		1,438,401,964	1,422,746,044	376,608,687	377,436,705
Construction revenue under concession agreements		232,570,908	275,652,329	-	-
Rental and service income		156,196,427	157,590,954	142,034,069	114,918,675
Total sales and service income		4,220,989,052	4,308,041,892	2,952,770,413	2,993,810,202
Other income	30	34,335,133	48,592,895	167,282,997	138,823,265
Total revenues		4,255,324,185	4,356,634,787	3,120,053,410	3,132,633,467
Expenses	34				
Cost of sales - raw water		944,243,793	935,249,669	973,079,878	964,190,281
Cost of sales - tap water		912,597,462	879,017,344	312,904,810	313,565,066
Construction cost under concession agreements		232,570,908	275,652,329	-	-
Cost of rental and services		129,897,602	134,628,908	106,860,741	86,390,504
Total cost of sales and services		2,219,309,765	2,224,548,250	1,392,845,429	1,364,145,851
Selling expenses		10,097,242	18,987,845	7,840,004	16,550,640
Administrative expenses		477,743,902	438,581,118	329,365,948	308,804,675
Finance costs		157,212,055	140,848,473	117,185,312	87,875,737
Total expenses		2,864,362,964	2,822,965,686	1,847,236,693	1,777,376,903
Profit before income tax		1,390,961,221	1,533,669,101	1,272,816,717	1,355,256,564
Income tax	32	(261,187,123)	(301,653,750)	(228,096,859)	(252,760,488)
Net profit for the year		1,129,774,098	1,232,015,351	1,044,719,858	1,102,496,076
Other comprehensive income :					
<i>Items that will not be reclassified subsequently to profit or loss</i>					
Remeasurements of post-employment benefit obligations	23	-	3,371,809	-	(7,734,133)
Related income tax	32	-	(674,361)	-	1,546,827
Total items that will not be reclassified subsequently to profit or loss		-	2,697,448	-	(6,187,306)
<i>Items that will be reclassified subsequently to profit or loss</i>					
Asset transferred from customers		(3,386,254)	(3,390,304)	(3,386,254)	(3,390,304)
Fair value of available-for-sale investments recycled to profit or loss		-	(663,994)	-	(663,994)
Related income tax	32	-	132,798	-	132,798
Total items that will be reclassified subsequently to profit or loss		(3,386,254)	(3,921,500)	(3,386,254)	(3,921,500)
Other comprehensive income for the year, net of tax		(3,386,254)	(1,224,052)	(3,386,254)	(10,108,806)
Total comprehensive income for the year		1,126,387,844	1,230,791,299	1,041,333,604	1,092,387,270

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited
Statement of Comprehensive Income (continued)

For the year ended 31 December 2018

(Unit: Baht)				
Note	Consolidated ☐		Separate ☐	
	financial statements		financial statements	
	2018	2017	2018	2017
Profit attributable to				
Owners of the parent	1,117,521,523	1,221,179,490	1,044,719,858	1,102,496,076
Non-controlling interests	12,252,575	10,835,861	-	-
	<u>1,129,774,098</u>	<u>1,232,015,351</u>	<u>1,044,719,858</u>	<u>1,102,496,076</u>
Total comprehensive income attributable to				
Owners of the parent	1,114,135,269	1,219,955,438	1,041,333,604	1,092,387,270
Non-controlling interests	12,252,575	10,835,861	-	-
	<u>1,126,387,844</u>	<u>1,230,791,299</u>	<u>1,041,333,604</u>	<u>1,092,387,270</u>
Earnings per share	33			
Basic earnings per share	<u>0.67</u>	<u>0.73</u>	<u>0.63</u>	<u>0.66</u>

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited
Statement of Changes in Equity
For the year ended 31 December 2018

Consolidated financial statements											(Unit: Baht)		
	Notes	Attributable to owners of the parent											
		Issued and paid-up share capital	Premium on share capital	Appropriated - legal reserve	Retained earnings		Other components of equity			Total owners of the parent	Non-controlling interests	Total equity	
					Appropriated - concession reserve	Unappropriated	Assets transferred from customers-net	available-for-sale investments	Total other components of equity				
Opening balance as at 1 January 2017													
- as previously reported		1,663,725,149	2,138,522,279	166,500,000	-	236,323,231	5,867,023,171	18,164,532	531,196	18,695,728	9,854,466,327	205,543,768	10,061,010,095
Appropriation of concession reserve	6	-	-	-	-	236,323,231	(236,323,231)	-	-	-	-	(12,709,503)	(12,709,503)
Opening balance as at 1 January 2017													
- as newly reported		1,663,725,149	2,138,522,279	166,500,000	-	236,323,231	5,630,699,940	18,164,532	531,196	18,695,728	9,854,466,327	193,834,205	10,046,300,592
Dividend paid	29	-	-	-	-	-	(831,861,737)	-	-	-	(831,861,737)	(17,324,370)	(849,186,107)
Appropriation of concession reserve for the year	27	-	-	-	-	62,438,911	(62,438,911)	-	-	-	-	-	-
Comprehensive income for the year		-	-	-	-	-	1,223,876,938	(3,390,304)	(531,196)	(3,921,500)	1,219,955,438	10,835,681	1,230,791,269
Closing balance as at 31 December 2017													
		1,663,725,149	2,138,522,279	166,500,000	-	298,762,142	5,960,276,230	14,774,228	-	14,774,228	10,242,560,028	187,345,756	10,429,905,784
Opening balance as at 1 January 2018													
- as previously reported		1,663,725,149	2,138,522,279	166,500,000	-	39,316,426	6,219,721,946	14,774,228	-	14,774,228	10,242,560,028	187,345,756	10,429,905,784
Appropriation of concession reserve	6	-	-	-	-	-	(259,445,716)	-	-	-	-	-	-
Opening balance as at 1 January 2018													
- as newly reported		1,663,725,149	2,138,522,279	166,500,000	-	298,762,142	5,960,276,230	14,774,228	-	14,774,228	10,242,560,028	187,345,756	10,429,905,784
Dividend paid	29	-	-	-	-	-	(732,038,344)	-	-	-	(732,038,344)	(19,104,760)	(751,143,104)
Appropriation of concession reserve for the year	27	-	-	-	-	52,719,001	(62,719,001)	-	-	-	-	-	-
Comprehensive income for the year		-	-	-	-	-	1,117,521,523	(3,386,254)	-	(3,386,254)	1,114,135,269	12,252,575	1,126,387,844
Closing balance as at 31 December 2018													
		1,663,725,149	2,138,522,279	166,500,000	-	351,481,143	6,260,046,498	11,387,974	-	11,387,974	10,624,656,063	180,493,571	10,805,150,524

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited
Statement of Changes in Equity (continued)
For the year ended 31 December 2018

Separate financial statements										(Unit: Baht)
Notes	Issued and paid-up share capital	Premium on share capital	Retained earnings			Other components of equity			Total equity	
			Appropriated - legal reserve	Appropriated - concession reserve	Unappropriated	Assets		Total other components of equity		
						transferred from customers-net	Available-for-sale investments			
Opening balance as at 1 January 2017										
	1,663,725,149	2,138,522,279	166,500,000	-	4,956,572,288	18,164,532	531,196	18,695,728	8,944,015,454	
29	-	-	-	-	(831,861,737)	-	-	-	(831,861,737)	
27	-	-	-	39,316,426	(39,316,426)	-	-	-	-	
	-	-	-	-	1,096,308,770	(3,390,304)	(631,196)	(3,921,500)	1,092,387,270	
Closing balance as at 31 December 2017										
	1,663,725,149	2,138,522,279	166,500,000	39,316,426	5,181,702,905	14,774,228	-	14,774,228	9,204,540,987	
Opening balance as at 1 January 2018										
	1,663,725,149	2,138,522,279	166,500,000	39,316,426	5,181,702,905	14,774,228	-	14,774,228	9,204,540,987	
29	-	-	-	-	(732,038,344)	-	-	-	(732,038,344)	
27	-	-	-	12,906,325	(12,906,325)	-	-	-	-	
	-	-	-	-	1,044,719,858	(3,386,254)	-	(3,386,254)	1,041,333,604	
Closing balance as at 31 December 2018										
	1,663,725,149	2,138,522,279	166,500,000	52,222,751	5,481,478,094	11,387,974	-	11,387,974	9,513,836,247	

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited

Statement of Cash Flows

For the year ended 31 December 2018

					(Unit: Baht)
		Consolidated □		Separate □	
		financial statements		financial statements	
	Notes	2018	2017	2018	2017
Cash flows from operating activities					
Profit before income tax		1,390,961,221	1,533,669,101	1,272,816,717	1,355,256,564
Adjustments to reconcile profit before income tax to net cash received (paid) from operating activities					
Depreciation	13,14	432,019,718	393,619,482	401,632,215	372,213,358
Amortisation of intangible assets	16	304,107,746	282,587,731	8,686,839	7,337,322
Income from amortisation of assets transferred from customers		(3,386,254)	(3,390,304)	(3,386,254)	(3,390,304)
Loss on disposal/write-off fixed assets		512,966	1,441,471	512,966	1,802,967
Impairment loss on concession right	16	860,000	1,960,000	-	-
Gain on sales of available-for-sale investments		(127,780)	(1,862,672)	(127,780)	(1,862,672)
Long-term provisions	25	(588,697)	21,490,806	-	-
Employee benefit obligations	24	18,185,685	16,642,870	12,681,831	10,035,301
Dividend income	30	-	-	(126,581,983)	(105,569,986)
Interest income	30	(6,989,137)	(6,938,348)	(16,301,893)	(1,154,879)
Interest expenses		155,969,725	139,810,617	115,904,051	86,837,881
Profit from operating activities before changes in operating assets and liabilities					
		2,291,525,193	2,379,030,754	1,665,836,709	1,721,505,552
Changes in operating assets (increase) decrease					
Trade and other receivables		(36,812,947)	13,321,220	(26,070,055)	17,279,746
Inventories		(275,080)	(2,481,644)	-	-
Other current assets		27,833,886	2,093,356	(2,440,217)	5,483,332
Other non-current assets		(26,335,970)	16,765,580	(3,246,245)	14,680,971
Changes in operating liabilities increase (decrease)					
Trade and other payables		7,477,323	6,474,591	4,176,637	(4,463,729)
Accrued expenses		(16,977,829)	(818,968)	(6,239,742)	(617,220)
Other current liabilities		(13,251,900)	15,739,721	(7,130,845)	15,581,509
Employee benefit obligations - paid		(2,786,739)	(7,226,643)	(1,755,398)	(6,956,347)
Long-term provisions - paid	25	(11,813,760)	(8,972,321)	-	-
Other non-current liabilities		(138,372,577)	(23,849,057)	(137,744,134)	(31,298,285)
Cash provided by operation		2,080,209,600	2,390,076,589	1,485,386,710	1,731,195,529
Income tax paid		(312,057,154)	(332,330,685)	(224,183,740)	(248,779,074)
Net cash provided by operating activities		1,768,152,446	2,057,745,904	1,261,202,970	1,482,416,455

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited
Statement of Cash Flows (continued)
For the year ended 31 December 2018

				(Unit: Baht)	
		Consolidated		Separate	
		financial statements		financial statements	
Notes		2018	2017	2018	2017
Cash flows from investing activities					
Purchase of short-term investments		(1,067,580,045)	(1,154,426,026)	(160,737,041)	(432,227,972)
Proceeds from disposal of short-term investments		1,056,470,219	1,499,084,104	145,127,780	760,862,672
Interest received		5,923,878	6,690,244	16,166,511	1,165,443
Dividend received	12	-	-	126,581,983	105,569,986
Proceeds from disposal of fixed assets		18,158,226	2,288,431	18,158,226	719,775
Purchase of investment property		(218,387)	(1,264,948)	(235,976)	(1,465,502)
Purchase of fixed assets and advance for construction		(480,475,196)	(450,499,162)	(428,993,527)	(381,833,121)
Purchase of intangible assets		(244,406,111)	(305,155,028)	(12,720,077)	(18,903,605)
Cash returned from construction project	36	529,238,341	-	529,238,341	-
Proceeds from bank guarantee		-	10,078,973	-	10,078,973
Interest paid capitalised in qualifying assets		(70,421,411)	(92,318,077)	(70,421,411)	(92,318,077)
Long-term loan made to a subsidiary		-	-	(1,600,000,000)	-
Net cash used in investing activities		(253,310,486)	(485,521,489)	(1,437,835,191)	(48,351,428)
Cash flows from financing activities					
Proceeds from short-term borrowings from financial institutions	19.1	4,409,000,000	1,178,000,000	3,560,000,000	903,000,000
Payment on short-term borrowings from financial institutions	19.1	(3,678,000,000)	(2,695,000,000)	(2,990,000,000)	(893,000,000)
Proceeds from long-term borrowings from financial institutions	19.2	1,600,000,000	1,600,000,000	1,600,000,000	-
Payment on long-term borrowings from financial institutions	19.2	(2,408,200,000)	(808,200,000)	(616,000,000)	(616,000,000)
Payment on liabilities under finance lease agreements	22	(330,637)	(1,837,899)	(330,637)	(1,837,899)
Dividend paid		(750,973,359)	(853,546,692)	(731,868,661)	(831,805,443)
Interest paid		(145,602,783)	(139,692,944)	(108,843,256)	(86,669,757)
Net cash generated (used in) financing activities		(974,106,779)	(1,720,277,535)	712,957,446	(1,526,313,099)
Net increase (decrease) in cash and cash equivalents		540,735,181	(148,053,120)	536,325,225	(92,248,072)
Cash and cash equivalents at the beginning of the year		37,477,981	185,531,101	4,620,675	96,868,747
Cash and cash equivalents at the end of the year	8	578,213,162	37,477,981	540,945,900	4,620,675
Supplemental cash flow information					
Non-cash transactions:					
Purchase of fixed assets and intangible assets on payable		261,362,526	84,022,686	251,766,301	73,737,745
Purchase of equipment under finance lease agreements		-	4,232,378	-	4,232,378

The accompanying notes on pages 111 to 163 are an integral part of these consolidated and separate financial statements.

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2018

1 General information

Eastern Water Resources Development and Management Public Company Limited (“the Company”) is a public limited company. It is incorporated in Thailand. The address of the Company’s registered office is as follows:

23rd - 26th Floors, East Water Building, No. 1 Soi Vipavadeerangsit 5, Vipavadeerangsit Road, Jomphol Sub-district, Chatujak District, Bangkok.

The Company is listed on the Stock Exchange of Thailand. For reporting purposes, the Company and its subsidiaries are referred to as the Group.

The principal business operations of the Company are development and management of the major water distribution pipeline systems in the Eastern Seaboard area of Thailand, supply of raw water, produce and supply of tap water.

The consolidated financial statements include the financial statements of the Company and the following subsidiaries:

Company's name	Nature of business	Country of incorporation	Ownership of interest	
			2018 %	2017 %
<u>Subsidiary held directly by the Company</u>				
Universal Utilities Public Company Limited	Production and supply of tap water, water loss treatment and investment in four tap water supply companies	Thailand	100	100
<u>Subsidiaries held by Universal Utilities Public Company Limited</u>				
Chachoengsao Water Supply Company Limited	Production and supply of tap water	Thailand	100	100
Bangpakong Water Supply Company Limited	Production and supply of tap water	Thailand	100	100
Nakornsawan Water Supply Company Limited	Production and supply of tap water	Thailand	100	100
Egcom Tara Company Limited	Production and supply of tap water	Thailand	90.07	90.07

These financial statements were authorised for issue on 22 February 2019 by the Company’s Board of Directors.

2 Accounting policies

The principal accounting policies adopted in the preparation of these financial statements are set out below.

2.1 Basis of preparation of financial statements

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 Professions 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 the accounting policy of available-for-sale investments.

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 critical accounting estimates, judgements and assumptions to the consolidated 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.

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2018

2 Accounting policies (continued)

2.2 New financial reporting standards and revised financial reporting standards

2.2.1 Revised financial reporting standards which are effective for annual periods beginning on or after 1 January 2018. These standards have significant changes and are relevant to the Group.

TAS 7 (revised 2017): Statements of Cash Flows, the amendments require additional disclosure of changes in liabilities arising from financing activities. This includes changes arising from cash and non-cash transactions.

TAS 12 (revised 2017): Income Taxes, the amendments clarify the accounting for deferred tax where an asset is measured at fair value and that fair value is below the asset's tax base. Specifically, the amendments confirm that:

- A temporary difference exists whenever the carrying amount of an asset is less than its tax base at the end of the reporting period.
- An entity can assume that it will recover an amount higher than the carrying amount of an asset to estimate its future taxable profit.
- Where the tax law restricts the source of taxable profits against which particular types of deferred tax assets can be recovered, the recoverability of the deferred tax assets can only be assessed in combination with other deferred tax assets of the same type.
- Tax deductions resulting from the reversal of deferred tax assets are excluded from the estimated future taxable

TFRS 12 (revised 2017): Disclosure of Interests in Other Entities, the amendments clarify that the disclosure requirements of TFRS 12 apply to interests in entities that are classified as asset held for sale according to TFRS 5 (revised 2017): Non-current Assets Held for Sale and Discontinued Operations, except for the disclosure of summarised financial information for subsidiaries, joint ventures or associates which are classified as non-current assets held for sale.

The above revised standards do not have a material impact on the Group except for disclosures.

2.2.2 Financial reporting standards are effective for annual periods beginning on or after 1 January 2019 and are relevant to the Group. The Group has not yet adopted these standards.

TAS 28 (revised 2018): Investments in associates and joint ventures, the amendments clarify that the election by venture capital organisations, mutual funds, unit trusts and similar entities to measure investments in associates or joint ventures at fair value through profit or loss should be made separately for each associate or joint venture at initial recognition.

TAS 40 (revised 2018): Investment Property, the amendments clarify that transfers to, or from, investment property can only be made if there has been a change in use that is supported by evidence. A change in use occurs when the property meets, or ceases to meet, the definition of investment property. A change in intention alone is not sufficient to support a transfer.

TFRS 2 (revised 2018): Share-based Payment, the amendments clarify;

- The measurement basis for cash-settled share-based payments, vesting conditions, other than market conditions, shall not be taken into account when estimating the fair value of the cash-settled share-based payment at the measurement date. Instead, vesting conditions, other than market conditions, shall be taken into account by adjusting the number of awards included in the measurement of the liability arising from the transaction.
- Where an employer is obliged to withhold an amount for the employee's tax obligation associated with a share-based payment and pay that amount to the tax authority, the whole award will be treated as if it was equity-settled provided it would have been equity-settled without the net settlement feature, and
- The accounting for modifications that change an award from cash-settled to equity-settled.

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2018

2 Accounting policies (continued)

2.2 New financial reporting standards and revised financial reporting standards (continued)

2.2.2 Financial reporting standards are effective for annual periods beginning on or after 1 January 2019 and are relevant to the Group. The Group has not yet adopted these standard. (continued)

TFRS 15: Revenue from Contracts with Customers, this is a new financial reporting standard for the revenue recognition and it will replace TAS 18 for sales of goods and services and TAS 11 for construction contracts. The new standard is based on the principle that revenue is recognised when controls of goods or services are transferred to customers. The standard permits either a full retrospective or a modified retrospective approach by adjusting the cumulative effect to the opening balance of retained earnings.

TFRIC 22: Foreign Currency Transactions and Advance Consideration, this interpretation provides guidance for determining the exchange rate to be used on the initial recognition of a related asset, expense or income where an entity pays or receives an advance consideration in a foreign currency. The interpretation requires an entity to use the exchange rate at the date on which an entity recognises the non-monetary assets, such as prepayments and advances, or non-monetary liability, such as deferred income arising from the advance consideration. If there are multiple advance payments or receipts of payments, the exchange rate is to be used on the date when each non-monetary asset or liability is recognised.

The Group's management assessed that these standards will not have a material impact to the Group.

2.2.3 The financial reporting standards relating to financial instruments are effective for annual periods beginning on or after 1 January 2020. The Group has not yet adopted these standards.

The financial reporting standards relating to financial instruments consist of the following standards:

TAS 32	Financial Instruments: Presentation
TFRS 7	Financial Instruments: Disclosures
TFRS 9	Financial Instruments
TFRIC 16	Hedges of a Net Investment in a Foreign Operation
TFRIC 19	Extinguishing Financial Liabilities with Equity Instruments

The above new standards will supersede the following standards:

TAS 101	Bad and Doubtful Debts
TAS 103	Disclosures in the Financial Statements of Bank and Similar Financial Institutions
TAS 104	Accounting for Troubled Debt Restructuring
TAS 105	Accounting for Investment in Debts and Equity securities
TAS 106	Accounting for Investment Companies
TAS 107	Financial Instruments: Disclosure and Presentation

TAS 32: Financial Instruments: Presentation, it provides the requirements for the presentation financial instruments as liabilities or equity and for offsetting financial assets and financial liabilities. It applies to the classification of financial instruments, from the perspective of the issuer, into financial assets, financial liabilities and equity instruments; the classification of related interest, dividends, losses and gains; and the circumstances in which financial assets and financial liabilities should be offset.

TFRS 7: Financial Instruments: Disclosures, it provides the requirements for the disclosure that are intended to enable users to evaluate the significance of financial instruments for an entity's financial position and performance, and to understand the nature and extent of risks arising from those financial instruments to which the entity is exposed during the period and at the end of the reporting period, and how the entity manages those risks.

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2018

2 Accounting policies (continued)

2.2 New financial reporting standards and revised financial reporting standards (continued)

2.2.3 The financial reporting standards relating to financial instruments are effective for annual periods beginning on or after 1 January 2020. The Group has not yet adopted these standards. (continued)

TFRS 9: Financial Instruments, it establishes principles for the classification, measurement and derecognition of financial assets and financial liabilities, impairment requirement and hedge accounting as follow:

- Classification and measurement:
 - Financial assets which are debt instruments are classified and measured into three categories, which are amortised cost, fair value through profit or loss and fair value through other comprehensive income. Classification of debt assets will be driven by the entity's business model for managing the financial assets and contractual cash flows characteristics of the financial assets.
 - Financial assets which are equity instruments shall be classified and measured at fair value through profit or loss. An entity can make an irrevocable election to recognise the fair value change in other comprehensive income without subsequent recycling to profit or loss.
 - Financial liabilities are classified and measured at amortised cost. An entity can choose to measure a liability at fair value through profit or loss when the conditions are met.
 - Derivatives are classified and measured at fair value through profit or loss.
- The impairment requirements relating to the accounting for an entity's expected credit losses on its financial assets measured at amortised cost, financial assets which are debt instruments measured at fair value through other comprehensive income, lease receivables, loan commitments and financial guarantee contracts. It is no longer necessary for a credit event to have occurred before credit losses are recognised. The entity always accounts for expected credit losses which involves a three stage approach. The stage dictates how the entity measures impairment losses and applies the effective interest rate method. Except for (1) trade receivables and contractual assets, which apply in TFRS 15 that are no significant financial components and (2) lease receivables that are permitted to measure by simplified approach for credit impaired consideration.

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2018

2 Accounting policies (continued)

2.2 New financial reporting standards and revised financial reporting standards (continued)

2.2.3 The financial reporting standards relating to financial instruments are effective for annual periods beginning on or after 1 January 2020. The Group has not yet adopted these standards. (continued)

- The objective of hedge accounting is to represent, in the financial statements, the effect of an entity's risk management activities that use financial instruments to manage exposures arising from particular risks that could affect profit or loss (or other comprehensive income, in the case of investments in equity instruments for which an entity has elected to present changes in fair value in other comprehensive income). This approach aims to convey the context of hedging instruments for which hedge accounting is applied in order to allow insight into their purpose and effect.

TFRIC: 16 Hedges of a Net Investment in a Foreign Operation, it clarifies the accounting treatment in respect of net investment hedging, provides guidance on identifying the foreign currency risks that qualify as a hedged risk. Clarifying that hedging instruments that are hedges of a net investment in a foreign operation may be held anywhere in the group not only by the parent. This includes the guidance on how an entity should determine the amount to be reclassified from equity to profit or loss for both the hedging instrument and the hedged item.

TFRIC: 19 Extinguishing Financial Liabilities with Equity Instruments, it provides the requirements for accounting treatment when the entity issues equity instruments to a creditor to extinguish all or part of a financial liability. The equity instruments issued shall be measured at fair value. The entity shall remove a financial liability (or part of a financial liability) from its statement of financial position when it is extinguished in accordance with TFRS 9. The difference between the carrying amount of the financial liability (or part of a financial liability) extinguished and the fair value of equity instruments issued shall be recognised in profit or loss.

The Group's management is currently assessing the impact of initial adoption of these standards.

2.3 Group Accounting

(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 of accounting 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 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 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 measurement 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 either in profit or loss or as a change to other comprehensive income. 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.

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
For the year ended 31 December 2018

2 Accounting policies (continued)

2.3 Group Accounting (continued)

(1) Subsidiaries (continued)

Intercompany transactions, balances and unrealised gains or losses 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 of non-controlling interests are also recorded in equity.

(3) Separate financial statements

In the separate financial statements, investments in subsidiaries are accounted for at cost less impairment. Cost is adjusted to reflect changes in consideration arising from contingent consideration. Cost also includes direct attributable costs of investment.

2.4 Foreign currency translation

(a) 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 financial statements are presented in Baht, which is the Company's functional and the Group's presentation currency.

(b) 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.

2.5 Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, deposits held at call with banks and other short-term highly liquid investments with maturities of three months or less from the date of acquisition.

2.6 Trade receivables

Trade receivables is 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.

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Notes to the Consolidated and Separate Financial Statements
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2 Accounting policies (continued)

2.7 Inventories

Inventories are stated at the lower of cost or net realisable value. Cost is determined by moving average basis. The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of the inventory, such as import duties and transportation charges, less all attributable discounts or rebates. Net realisable value is the estimate of the selling price in the ordinary course of business, less applicable variable selling expenses. Allowance is made, where necessary, for obsolete, slow moving and defective inventories.

2.8 Investments

Investments other than investments in subsidiaries, associates and joint ventures are classified into the following four categories. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

- (1) Investments that are acquired principally for the purpose of generating a profit from short-term fluctuations in price are classified as trading investments and included in current assets.
- (2) Investments with fixed maturity that the management has the intent and ability to hold to maturity are classified as held-to-maturity and are included in non-current assets, except for maturities within 12 months from the statement of financial position date which are classified as current assets.
- (3) Investments intended to be held for an indefinite period of time, which may be sold in response to liquidity needs or changes in interest rates, are classified as available-for-sale; and are included in non-current assets unless management has the intention of holding the investment for less than 12 months from the statement of financial position date or unless management needs to sell the investments to raise operating capital, in which case they are included in current assets.
- (4) Investments in non-marketable equity securities are classified as general investments.

All categories of investment are initially recognised at cost, which is equal to the fair value of consideration paid plus transaction costs.

Trading investments and available-for-sale investments are subsequently measured at fair value. The unrealised gains and losses of trading investments are recognised in profit or loss. The unrealised gains and losses of available for sale investments are recognised in other comprehensive income.

Held-to-maturity investments are carried at amortised cost using the effective interest method less impairment loss.

General 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 profit or loss.

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to profit or loss.

Eastern Water Resources Development and Management Public Company Limited
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2 Accounting policies (continued)

2.9 Investment property

Property that is held for long-term rental yields or for capital appreciation or both, and that is not for own use by the Group, is classified as investment property. Investment property also includes property that is being constructed or developed for future use as investment property.

Investment property is measured initially at its cost, including related transaction costs and borrowing costs. After initial recognition, investment property is carried at cost less any accumulated depreciation and any accumulated impairment loss.

Land is not depreciated on other investment properties is calculated using the straight line method to allocate cost to residual values over the estimated useful lives, as follows:

Building	20 and 35 years
Building improvement	10 years

Subsequent expenditure is capitalised to the asset's carrying amount only when it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance costs are expensed when incurred. When part of an investment property is replaced, the carrying amount of the replaced part is derecognised.

2.10 Property, plant and equipment

Land is stated at cost less any accumulated impairment loss. Plant and equipment are stated at cost less accumulated depreciation and any accumulated impairment loss.

Initial 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.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate cost to residual values over the estimated useful lives, as follows:

Pumping plants	20 and 35 years
Building	20 and 35 years
Leasehold and building improvements	5, 10 years but not more than leased term
Machinery and equipment	
- Water pipe	30 and 40 years
- Tap water production system	5 and 15 and 20 years
- Tools and equipment	5 years
Office equipment	3 and 5 years
Vehicles	5 years

The asset's useful lives, residual value and method of depreciation are reviewed, and adjusted if appropriate, at the end of each reporting period.

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

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

Eastern Water Resources Development and Management Public Company Limited
Notes to the Consolidated and Separate Financial Statements
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2 Accounting policies (continued)

2.11 Goodwill

Goodwill on acquisitions of subsidiaries is separately reported in the consolidated statement of financial position.

Goodwill is tested annually for impairment and carried at cost less accumulated impairment loss. Impairment loss on goodwill is 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 cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose, and identified according to operating segment.

2.12 Service concession arrangements

Service concession arrangements are arrangements between government (the grantor) and a private sector entity (an operator) which involve the operator constructing the infrastructure used to provide the public service or upgrading it and operating and maintaining that infrastructure for a specified period of time. The operator is paid for its services over the period of the arrangement. The grantor controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them, and at what price and the grantor control-through ownership, beneficial entitlement or otherwise - any significant residual interest in the infrastructure at the end of the term of the arrangement.

If the Group as the operator provides construction or upgrade services, revenue and costs relating to construction or upgrade services shall be accounted for based on the stage of completion on the construction contract. The consideration received or receivable by the operator shall be recognised at its fair value of a financial asset or an intangible asset.

The Group shall recognise a financial asset to extent that it has an unconditional contractual right to receive cash or another financial asset from or at the direction of the grantor for the construction services and recognise an intangible asset to the extent that it receives a right (a licence) to charge users of the public service. A right to charge users of the public service is not an unconditional right to receive cash because the amounts are contingent on the extent that the public uses the service. If the operator is paid for the construction services partly by a financial asset and partly by an intangible asset it is necessary to account separately for each component of the operator's consideration. Revenue and cost relating to operation services shall be recognised when service is provided by reference to the contract term.

Contractual obligations to maintain or restore infrastructure, except for any upgrade element, shall be recognised and measured at the best estimate of the expenditure that would be required to settle the present obligation at the end of the reporting period.

2.13 Intangible assets

Right from service concession arrangements

Right from service concession arrangements is the right from service concession arrangements to produce and supply tap water with the government as described in the accounting policies in Note 2.12. Right from service concession arrangements is amortised using the straight-line method over concession period and recorded in profit and loss.

Computer software

Expenditure on acquired computer software is capitalised on the basis of the costs incurred to acquire and amortised using the straight-line method over its estimated useful lives of 10 years.

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2 Accounting policies (continued)

2.14 Impairment of assets

Assets that have an indefinite useful life, 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 which 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. Non-financial assets other than goodwill that suffered an impairment loss are reviewed for possible reversal of the impairment at each reporting date.

2.15 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, associates and joint arrangements, 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.

2.16 Borrowings

Borrowings are recognised initially at the fair value of proceeds received, 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 profit and loss over the period of the borrowings. Interest expenses are recognised as expenses on an accrual basis by using the effective interest method.

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

(a) Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

Eastern Water Resources Development and Management Public Company Limited
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2 Accounting policies (continued)

2.17 Leases

Where a Group company is the lessee

Leases not transferring a significant portion of the risks and rewards of ownership to the lessee 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.

Leases of property, plant or equipment which substantially transfer 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 or the present value of the minimum lease payments. Each lease payment is allocated to the principal and to the finance charges so as to achieve a constant rate on the finance balance outstanding. The outstanding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to the statement of income 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 or the lease term.

Where a Group company is the lessor

Assets leased out under operating leases are included in property, plant and equipment and investment property in the statement of financial position. They are depreciated over their expected useful lives on a basis consistent with other similar property, plant and equipment owned by the Group. Rental income (net of any incentives given to lessees) is recognised on a straight-line basis over the lease term.

2.18 Employee benefits

The Group has employee benefits consist of post-employment benefits and other long-term benefits. The post-employment benefits consist of defined benefit plan and defined contribution plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. Other long-term benefits are the benefit which the Group will pay to employees up to the completion of service period.

2.18.1 Post-employment benefits

- **Defined contribution plan**

Provident fund

The Group operates a provident fund, being a defined contribution plan, which the assets are held in a separate trust fund. The provident fund is funded by payments from employees and by the Group. The Group contributes to a separate fund which is managed by an external fund manager in accordance with the provident fund Act. B.E. 2530. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expense when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Eastern Water Resources Development and Management Public Company Limited
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2 Accounting policies (continued)

2.18 Employee benefits (continued)

2.18.1 Post-employment benefits (continued)

- **Defined benefit plan**

Retirement benefit

Under Labour Laws applicable in Thailand and Group's employment policy, the severance pay will be at the rate according to salary and number of years of service which will happen in the future. The liability recognised in the statement of financial position in respect of defined benefit pension plan is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets, together with adjustments for unrecognised past-service costs. The defined benefit obligation is calculated 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 government bond interest rate that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximate to the terms of the related 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 included in retained earnings in the statement of changes in equity.

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

2.18.2 Other long-term benefit

The Group operates other long-term benefit for employees who complete the service year according to the Group's policy. The liability recognised in the statement of financial position in respect of other long-term benefit is present value of the other long-term benefit obligation at the end of the reporting period. The other long-term benefit is calculated by independent actuaries using the projected unit credit method.

Remeasurement gains and losses of other long-term benefit and past-service costs are recognised immediately in profit or loss.

2.19 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 has been reliably estimated. Where the Group expects a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. Provisions are not recognised for future operating losses.

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.

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2 Accounting policies (continued)

2.20 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and service after eliminating sales within the Group. The revenue recognition policy of each type of revenue is as follows:

(a) Sales

Sales of goods are recognised as revenue when significant risks and reward of ownership of goods have passed to the buyer. Sales are shown net of value-added tax, returns, rebates and discounts.

(b) Rental and service income

Rental income is recognised as revenue on a straight-line basis over the rental period.

Service income is recognised as revenue by the amount excluding value added tax when services have been rendered with reference to the stage of completion.

(c) Construction revenue is recognised by reference to the stage of completion.

(d) Interest and dividend income

Interest income is recognised on an accrual basis. Dividend income is recognised when rights to receive dividends are established.

(e) Other income

Other income is recognised on an accrual basis.

2.21 Dividend distribution

Dividend distribution to the Company's shareholders is recorded in the Group's financial statements in the period in which they are approved by the Company's shareholders or the Board of Directors in case of interim dividend.

2.22 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 Chief Executive Officer (CEO) that makes strategic decisions.

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3 Financial risk management

3.1 Financial risk factors

The Group's activities expose it to a variety of financial risks: credit risk and interest rates risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the financial performance of the Group. The financial risk management is discussed below.

3.1.1 Credit risk

The Group is exposed to credit risk primarily with respect to trade receivables and other receivable. The Group manages the risk by adopting appropriate credit control policies and procedures and therefore does not expect to incur material financial losses. Although the Group may expose to concentration risk due to their having a few large customers, however, those customers are in government sector. The management believes that such risk is therefore low. The maximum exposure to credit risk is limited to the carrying amounts of trade receivables and other receivables as stated in the statement of financial position.

3.1.2 Interest rate risk

The Group's exposure to interest rate risk, which is relate primarily to deposits with financial institutions and short-term and long-term borrowings arising from future movements in market interest rates, will affect the results of the Group's operations and its cash flows. Most of the Group's financial assets and liabilities bear floating interest rates or fixed interest rates which are close to the current market rate. The Group does not use the financial instruments which are derivative to manage exposure from fluctuation in interest rate.

3.2 Fair value estimation

The different levels of fair value estimation have been defined as follows:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: 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 3: Inputs for the asset or liability that are not based on observable market data.

The Group discloses the fair value measurement in related notes to the financial statements.

4 Critical accounting estimates, judgments and assumptions

Estimates, judgments and assumptions 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. Critical accounting estimates, judgments and assumptions are as follows:

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4 Critical accounting estimates, judgments and assumptions (continued)

4.1 Value in use

Value in use is the present value of the future cash flows expected to be derived from assets, discounted by discount rates. The cash flow projections, based on financial forecasts for the remaining useful lives of assets or concession periods that are approved by the management, are calculated based on estimated growth rates which do not exceed their capacity and customers' usage demand. Key assumptions used for value-in-use calculations are growth rates, expense to revenue ratio and gross margin rate. Management determines such rates based on past performance, expectations for market development, considering and business plan. The discount rates used are pre-tax and reflect specific risks relating to the business after the remaining useful lives. The value derived from the afore-mentioned method may vary due to changes in revenue structure, cost structure, discount rate, industrial conditions and economic conditions.

The Group assesses impairment loss of right from service concession arrangements at the cash-generating unit level being the concession contracts of each location. The recoverable amount is determined by the value in use method. The discounted net cash flows from continuing use of assets is calculated over the remaining concession period of each contract. The revenues are calculated from tap water volume usages and estimated growth rate based on customers' demands at each location which do not exceed their capacity. The tap water rate charge is based on an agreed price as stipulated in the contract. The Group applies a discount rate by pre-tax weighted average cost of capital at 10.89% per annum.

In addition, the Group tests annually whether goodwill has suffered any impairment. The recoverable amounts of cash-generating units have been determined based on value-in-use calculation. The calculation requires the use of estimates as described in Note 15.

4.2 Employee Benefits

The present value of defined benefit obligations and other long-term benefits depends on a number of factors that are determined on an actuarial basis using a number of assumptions. The assumptions used in determining the net cost (income) for obligations include inflation rate, future salary increases and the discount rate. Any changes in these assumptions will have an impact on the carrying amount of defined benefit obligations and other long-term benefits. 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 obligations. In determining the appropriate discount rate, the Group considers the appropriated rate by using government bond interest rate that is denominated in the currency in which the benefits will be paid, and that the terms to maturity approximate to the terms of the related liability.

The key assumptions for defined benefit obligations and other long-term benefit, based on current market conditions, are disclosed in Note 24.

4.3 Significant uncertainty

The Group has an uncertainty regarding to compensation rate of the two pipeline connecting projects which is disclosed in Note 37. Based on the Group's management judgement, the projected compensation is recorded in the financial statements using the best estimation of compensation rate based on the current information.

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.

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6 Adjustment of comparative figures

Appropriation of concession reserve

The Group represented concession reserve shown in the consolidated financial statements by including concession reserve of all subsidiaries. Concession reserve was previously presented in unappropriated retained earnings.

Comparative figures have been adjusted to conform with changes in presentation in the current period as follows:

	Consolidated financial statements		
	As previously reported	Increase/ (Decrease)	As newly reported
Items in the statement of financial position			
As at 1 January 2017			
Appropriated retained earnings - concession reserve	-	236,323,231	236,323,231
Unappropriated retained earnings - owners of the parent	5,867,023,171	(236,323,231)	5,630,699,940
As at 31 January 2017			
Appropriated retained earnings - concession reserve	39,316,426	259,445,716	298,762,142
Unappropriated retained earnings - owners of the parent	6,219,721,946	(259,445,716)	5,960,276,230

The adjustment above does not affect net profit, total comprehensive income and equity as previously presented.

The effects on retained earnings as at 1 January 2017 and 31 December 2017 do not have a material impact to the consolidated statement of financial position presented as comparative. The information as at 1 January 2017 has been presented in the statement of changes in equity. The Group, therefore, does not present the additional statement of financial position as at 1 January 2017.

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7 Operating segment information

The principal business operations of the Group are development and management of the major water distribution pipeline systems in the Eastern Seaboard area of Thailand. The reportable segment based on business activities comprises the supply of raw water, production and supply of tap water, waterworks management, and engineering services. Other business activities, such as office building rental, are aggregated under the segment "Others".

The business operations are only conducted in Thailand. Therefore, no geographic information is presented.

The Group accounts for inter-segment sales and transfer between segment as if the sales are made to third parties. The chief operating decision maker evaluates performance by segment operating profit.

The segment information is summarised as follows:

[illegible][illegible]

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7 Operating segment information (continued)

Information about major customers

The Group had major revenues from entities under the control of a government such as Provincial Waterworks Authority, Industrial Estate Authority of Thailand for supply of raw water, supply of tap water and engineering service and segments. The revenues for the year ended 31 December 2018 are Baht 2,773.3 million (2017: Baht 2,929.6 million).

8 Cash and cash equivalents

		(Unit: Baht)			
		Consolidated financial statements		Separate financial statements	
		2018	2017	2018	2017
Cash on hand		804,000	534,036	275,000	10,036
Deposits at banks	- current accounts	1,017,660	591,162	986,548	560,050
	- savings accounts	47,131,893	36,331,693	10,443,132	4,047,734
	- fixed accounts	529,259,609	21,090	529,241,220	2,855
		<u>578,213,162</u>	<u>37,477,981</u>	<u>540,945,900</u>	<u>4,620,675</u>

As at 31 December 2018, the interest rate of savings deposits of banks was 0.38% - 1.20% per annum (2017: 0.40% - 2.40% per annum). The fixed deposits with banks have maturity date within three months with interest rate at 0.80% - 1.75% per annum (2017: 0.75% - 1.60% per annum).

9 Short-term investments

		(Unit: Baht)			
		Consolidated financial statements		Separate financial statements	
		2018	2017	2018	2017
Fixed deposits		46,226,632	94,277,065	-	-
Deposits under the requirement					
of concession agreement		358,050,182	298,762,142	55,053,467	39,316,426
Total		<u>404,276,814</u>	<u>393,039,207</u>	<u>55,053,467</u>	<u>39,316,426</u>

As at 31 December 2018, fixed deposits with financial institutions have maturity dates during 6-12 months with interest rates at 0.75% - 1.60% per annum (2017: 0.90% - 2.40% per annum).

Deposits under the requirement of concession agreement are deposits for a reserve under the requirement of tap water concession agreement (Note 27).

Change in the short-term investments during the year is as follows:

		(Unit: Baht)			
		Consolidated financial statements		Separate financial statements	
		2018	2017	2018	2017
Opening net book amount		393,039,207	736,498,606	39,316,426	366,752,447
Addition during the year		1,067,580,045	1,154,426,026	160,737,041	432,227,972
Redeem during the year		(1,056,342,438)	(1,497,885,425)	(145,000,000)	(759,663,993)
Closing net book amount		<u>404,276,814</u>	<u>393,039,207</u>	<u>55,053,467</u>	<u>39,316,426</u>

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10 Trade and other receivables

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Trade receivables	420,604,028	386,475,779	271,768,181	244,043,329
Other receivables				
- Third parties	833,269	464,617	708,321	462,259
- Related parties (Note 34.2)	16,274	15,325	9,419,406	11,526,097
Prepayments	22,705,337	20,111,592	17,605,316	17,453,123
Others	78,417	357,065	78,418	357,065
	<u>444,237,325</u>	<u>407,424,378</u>	<u>299,579,642</u>	<u>273,841,873</u>

The detail of trade receivables is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Trade receivables - billed				
- Third parties	119,656,014	113,746,444	113,161,932	111,901,410
- Related parties (Note 34.2)	165,071,354	168,301,793	156,154,696	131,693,606
Total trade receivables - billed	<u>284,727,368</u>	<u>282,048,237</u>	<u>269,316,628</u>	<u>243,595,016</u>
Trade receivables - unbilled				
- Third parties	908,734	869,774	-	-
- Related parties (Note 34.2)	134,967,926	103,557,768	2,451,553	448,313
Total trade receivables - unbilled	<u>135,876,660</u>	<u>104,427,542</u>	<u>2,451,553</u>	<u>448,313</u>
	<u>420,604,028</u>	<u>386,475,779</u>	<u>271,768,181</u>	<u>244,043,329</u>

The aging analysis of the trade receivables-billed is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Within credit term	259,756,298	280,697,336	249,410,366	242,438,468
Overdue below 3 months	20,700,397	508,401	16,800,642	319,473
Overdue 3 - 6 months	2,531,467	837,160	1,372,018	837,075
Overdue 6 - 12 months	902,131	5,340	896,527	-
Overdue more than 12 months	1,452,228	615,153	1,452,228	615,153
	<u>285,342,521</u>	<u>282,663,390</u>	<u>269,931,781</u>	<u>244,210,169</u>
<u>Less</u> Allowance for doubtful accounts	<u>(615,153)</u>	<u>(615,153)</u>	<u>(615,153)</u>	<u>(615,153)</u>
	<u>284,727,368</u>	<u>282,048,237</u>	<u>269,316,628</u>	<u>243,595,016</u>

11 Inventories

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Spare parts and supplies	13,343,706	13,068,626	-	-
	<u>13,343,706</u>	<u>13,068,626</u>	<u>-</u>	<u>-</u>

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12 Investment in a subsidiary

Company	Nature of business	Country of incorporation	Separate financial statements					
			Paid-up share capital		Ownership of interest		Investment value	
			2018	2017	2018	2017	2018	2017
			Million Baht	Million Baht	%	%	Baht	Baht
Universal Utilities Public Company Limited	Produce and supply of tap water	Thailand	510	510	100	100	510,000,000	510,000,000
Total investment in a subsidiary							510,000,000	510,000,000
							126,581,983	105,569,986
							126,581,983	105,569,986

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13 Investment property - net

	(Unit: Baht)		
	Consolidated financial statements		
	Land	Building and building improvement	Total
At 1 January 2017			
Cost	45,859,440	225,133,006	270,992,446
<u>Less</u> Accumulated depreciation	-	(77,069,682)	(77,069,682)
Net book amount	<u>45,859,440</u>	<u>148,063,324</u>	<u>193,922,764</u>
For the year ended 31 December 2017			
Opening net book amount	45,859,440	148,063,324	193,922,764
Addition	-	1,264,948	1,264,948
Disposal	-	(36,281)	(36,281)
Depreciation charged	-	(9,221,757)	(9,221,757)
Closing net book amount	<u>45,859,440</u>	<u>140,070,234</u>	<u>185,929,674</u>
At 31 December 2017			
Cost	45,859,440	225,942,404	271,801,844
<u>Less</u> Accumulated depreciation	-	(85,872,170)	(85,872,170)
Net book amount	<u>45,859,440</u>	<u>140,070,234</u>	<u>185,929,674</u>
For the year ended 31 December 2018			
Opening net book amount	45,859,440	140,070,234	185,929,674
Addition	-	218,387	218,387
Disposal	-	(470,388)	(470,388)
Depreciation charged	-	(8,044,292)	(8,044,292)
Closing net book amount	<u>45,859,440</u>	<u>131,773,941</u>	<u>177,633,381</u>
At 31 December 2018			
Cost	45,859,440	225,253,014	271,112,454
<u>Less</u> Accumulated depreciation	-	(93,479,073)	(93,479,073)
Net book amount	<u>45,859,440</u>	<u>131,773,941</u>	<u>177,633,381</u>
Fair value	<u>109,140,872</u>	<u>176,619,638</u>	<u>285,760,510</u>

Depreciation expense of Baht 8.0 million (2017: Baht 9.2 million) was included in cost of rental and services.

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13 Investment property - net (continued)

	(Unit: Baht)		
	Separate financial statements		
	Land	Building and building improvement	Total
At 1 January 2017			
Cost	50,121,522	260,857,086	310,978,608
<u>Less</u> Accumulated depreciation	-	(89,288,841)	(89,288,841)
Net book amount	50,121,522	171,568,245	221,689,767
For the year ended 31 December 2017			
Opening net book amount	50,121,522	171,568,245	221,689,767
Addition	-	1,465,502	1,465,502
Reclassification	(2,096,974)	(10,941,266)	(13,038,240)
Disposal	-	(41,846)	(41,846)
Depreciation charged	-	(10,683,838)	(10,683,838)
Closing net book amount	48,024,548	151,366,797	199,391,345
At 31 December 2017			
Cost	48,024,548	244,513,893	292,538,441
<u>Less</u> Accumulated depreciation	-	(93,147,096)	(93,147,096)
Net book amount	48,024,548	151,366,797	199,391,345
For the year ended 31 December 2018			
Opening net book amount	48,024,548	151,366,797	199,391,345
Addition	-	235,976	235,976
Disposal	-	(508,273)	(508,273)
Depreciation charged	-	(8,692,185)	(8,692,185)
Closing net book amount	48,024,548	142,402,315	190,426,863
At 31 December 2018			
Cost	48,024,548	243,768,978	291,793,526
<u>Less</u> Accumulated depreciation	-	(101,366,663)	(101,366,663)
Net book amount	48,024,548	142,402,315	190,426,863
Fair value	116,368,664	190,844,706	307,213,370

Depreciation expense of Baht 8.7 million (2017: Baht 10.7 million) is included in cost of rental and services.

The fair value of investment property is assessed by valuer. Fair value of land is valued by market comparison approach. Land is valued by comparable sale price of land in close proximity, level 3 of fair values hierarchy (Note 3.2). Building and building improvement are valued by income approach, level 3 of fair values hierarchy (Note 3.2), due to the use of significant unobservable inputs such as rental rate per metres and estimated future profits.

Amounts recognised in profit and loss that are related to investment property are as follows:

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Rental and service income of building	67,569,948	71,707,004	73,131,602	79,520,325
Direct operating expense arising from investment property that generated rental income	(52,859,197)	(58,049,584)	(52,859,197)	(58,049,584)
	14,710,751	13,657,420	20,272,405	21,470,741

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14 Property, plant and equipment - net	Consolidated financial statements							(Unit: Baht)
	Land	Pumping plants	Buildings	Leasehold and building improvement	Machinery and equipment	Office equipment	Vehicles	
At 1 January 2017								
Cost	512,147,267	1,525,191,550	538,084,085	290,762,093	9,397,317,034	360,230,345	1,168,037	17,764,762,380
Less: Accumulated depreciation	-	(327,228,475)	(231,423,507)	(197,039,467)	(2,633,656,110)	(312,239,167)	(964,294)	(3,702,551,020)
Net book amount	512,147,267	1,197,963,075	306,660,578	93,722,626	6,763,660,924	47,991,178	203,743	14,062,211,360
For the year ended 31 December 2017								
Opening net book amount	512,147,267	1,197,963,075	306,660,578	93,722,626	6,763,660,924	47,991,178	203,743	14,062,211,360
Addition	-	190,000	1,486,115	2,964,817	49,520,384	12,000,532	1,899,065	570,620,382
Transfer	-	84,171,739	175,353	9,158,676	518,573,443	6,325,550	97,000	2,866,836
Reclassification	(14,045,000)	-	(161)	-	-	-	-	(14,045,000)
Disposal/write-off, net	-	(4,681,954)	(161)	(481,450)	(2,532,207)	(868,535)	-	(8,864,307)
Depreciation charged	-	(53,746,800)	(19,389,228)	(24,952,823)	(270,291,159)	(15,765,254)	(252,461)	(384,397,725)
Closing net book amount	498,102,267	1,223,896,060	288,932,657	80,411,846	7,058,931,385	49,683,471	1,947,347	14,228,391,546
At 31 December 2017								
Cost	498,102,267	1,602,569,582	539,728,053	300,100,041	9,952,991,337	364,016,561	3,164,102	18,287,158,456
Less: Accumulated depreciation	-	(378,673,522)	(250,795,396)	(219,688,195)	(2,894,059,952)	(314,333,090)	(1,216,755)	(4,058,766,910)
Net book amount	498,102,267	1,223,896,060	288,932,657	80,411,846	7,058,931,385	49,683,471	1,947,347	14,228,391,546
For the year ended 31 December 2018								
Opening net book amount	498,102,267	1,223,896,060	288,932,657	80,411,846	7,058,931,385	49,683,471	1,947,347	14,228,391,546
Addition	-	1,760,000	67,500	4,094,120	28,265,786	19,259,872	4,820,000	593,650,960
Transfer	-	373,942,302	15,623,579	43,275,250	3,263,510,897	5,096,586	-	(3,701,448,614)
Reclassification	-	-	-	(908,258)	499,040	908,258	-	(916,960)
Disposal/write-off, net	-	-	(161,610)	(952,227)	(7,667,106)	(20,029)	-	(14,923,272)
Depreciation charged	-	(57,410,563)	(20,538,871)	(23,532,177)	(302,185,750)	(18,285,879)	(2,022,186)	(423,975,426)
Closing net book amount	498,102,267	1,542,187,799	283,923,255	102,388,554	10,041,354,252	56,642,279	4,745,161	14,382,226,848
At 31 December 2018								
Cost	498,102,267	1,978,271,884	555,079,915	344,812,781	13,234,816,824	358,495,628	7,984,101	18,830,446,681
Less: Accumulated depreciation	-	(436,084,085)	(271,156,660)	(242,424,277)	(3,193,462,572)	(301,853,349)	(3,238,940)	(4,448,219,833)
Net book amount	498,102,267	1,542,187,799	283,923,255	102,388,554	10,041,354,252	56,642,279	4,745,161	14,382,226,848

Depreciation expense of Baht 397.1 million (2017: Baht 357.9 million) is charged in cost of goods sold and Baht 26.5 million (2017: Baht 26.5 million) is charged in administrative expenses.

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14 Property, plant and equipment - net (continued)

		Separate financial statements							(Unit: Baht)
	Land	Pumping plants	Buildings	Leasehold and building improvement	Machinery and equipment	Office equipment	Vehicles	Construction in progress	Total
At 1 January 2017									
Cost	392,858,127	1,528,051,874	500,875,823	263,553,253	9,246,303,183	317,081,209	1,090,095	5,135,128,475	17,384,942,039
Less Accumulated depreciation	-	(327,733,992)	(216,323,952)	(186,026,299)	(2,546,471,032)	(284,736,009)	(899,757)	-	(3,562,191,041)
Net book amount	392,858,127	1,200,317,882	284,551,871	77,526,954	6,699,832,151	32,345,200	190,338	5,135,128,475	13,822,750,998
For the year ended 31 December 2017									
Opening net book amount	392,858,127	1,200,317,882	284,551,871	77,526,954	6,699,832,151	32,345,200	190,338	5,135,128,475	13,822,750,998
Addition	-	190,000	1,486,115	1,480,426	27,825,913	8,892,392	-	463,368,077	503,242,923
Transfer	-	84,171,739	175,353	4,006,635	514,859,316	783,242	-	(603,996,285)	-
Transfer from investment property	2,096,974	-	10,693,349	247,917	-	-	-	-	13,038,240
Disposal/write-off, net	-	(4,681,954)	(161)	(100,995)	(2,494,004)	(3,514)	-	-	(7,280,628)
Depreciation charged	-	(53,746,801)	(19,389,228)	(22,257,633)	(255,805,876)	(10,225,982)	(104,000)	-	(361,529,520)
Closing net book amount	394,955,101	1,226,250,866	277,517,299	60,903,304	6,984,217,500	31,791,338	86,338	4,994,500,267	13,970,222,013
At 31 December 2017									
Cost	394,955,101	1,605,429,905	513,213,140	268,002,438	9,777,797,043	316,417,769	1,090,095	4,994,500,267	17,871,405,758
Less Accumulated depreciation	-	(379,179,039)	(235,695,841)	(207,099,134)	(2,793,579,543)	(284,626,431)	(1,003,757)	-	(3,901,183,745)
Net book amount	394,955,101	1,226,250,866	277,517,299	60,903,304	6,984,217,500	31,791,338	86,338	4,994,500,267	13,970,222,013
For the year ended 31 December 2018									
Opening net book amount	394,955,101	1,226,250,866	277,517,299	60,903,304	6,984,217,500	31,791,338	86,338	4,994,500,267	13,970,222,013
Addition	-	1,760,000	67,500	3,076,927	17,874,900	18,307,345	4,820,000	497,833,891	543,740,563
Transfer	-	373,942,302	15,623,579	28,768,257	3,222,022,986	2,421,490	-	(3,642,778,614)	-
Transfer from investment property	-	-	-	-	-	-	-	-	-
Disposal/write-off, net	-	-	(154,158)	(778,148)	(7,661,931)	(10,545)	-	(6,122,300)	(14,727,082)
Depreciation charged	-	(57,410,563)	(19,959,401)	(20,981,671)	(280,893,502)	(12,076,724)	(1,618,168)	-	(392,940,029)
Closing net book amount	394,955,101	1,544,542,605	273,094,819	70,988,669	9,935,559,953	40,432,904	3,288,170	1,843,433,244	14,106,295,465
At 31 December 2018									
Cost	394,955,101	1,981,132,207	528,580,045	298,420,163	13,010,032,998	310,152,270	5,910,095	1,843,433,244	18,372,616,123
Less Accumulated depreciation	-	(436,589,602)	(255,485,226)	(227,431,494)	(3,074,473,045)	(269,719,366)	(2,621,925)	-	(4,266,302,658)
Net book amount	394,955,101	1,544,542,605	273,094,819	70,988,669	9,935,559,953	40,432,904	3,288,170	1,843,433,244	14,106,295,465

Depreciation expense of Baht 369.4 million (2017: Baht 340.0 million) is charged in cost of goods sold and Baht 23.6 million (2017: Baht 21.5 million) is charged in administrative expenses.

As at 31 December 2018, the Company has office equipment under financial lease agreements with cost and net book value amounting to Baht 5.7 million and Baht 3.7 million, respectively (2017: Baht 5.9 million and Baht 4.7 million, respectively).

Borrowing costs of Baht 67.1 million (2017: Baht 92.4 million) arising from financing specifically entered into a pipeline constructing project and tap water production system are capitalised during the year and are included in "Addition". The Group uses capitalisation rates based on actual interest rate of borrowings at 2.62% - 4.18% per annum (2017: 2.33% - 4.18% per annum).

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15 Goodwill

Goodwill presented in the consolidated financial statements of Baht 103.3 million, is from the acquisition of equity interest in Egcom Tara Company Limited on 31 August 2015.

The Group tests impairment of goodwill. The recoverable amounts of cash-generating units have been determined based on the calculation of value-in-use. The calculation uses cash flow projections based on financial budgets covering the remaining concession period of tap water production acquiring from business acquisition. The significant assumptions are fixed minimum tap water volume and selling price with growth at 1.50% per annum which is an average of 10-year of consumer price index. The Group applies a pre-tax discount rate of weighted average cost of capital at 10.89% per annum.

The recoverable amounts of cash-generating units exceed carrying value by Baht 79.5 million. An increase in discount rate to 11.71% per annum or a reduction in tap water price growth rate to 0.78% per annum would remove the remaining headroom.

16 Intangible assets - net

	(Unit: Baht)		
	Consolidated financial statements		
	Right from service concession arrangements	Computer software	Total
At 1 January 2017			
Cost	4,827,288,227	64,135,680	4,891,423,907
<u>Less</u> Accumulated amortisation	(1,160,967,428)	(25,551,093)	(1,186,518,521)
<u>Less</u> Allowance for impairment	(12,180,000)	-	(12,180,000)
Net book amount	3,654,140,799	38,584,587	3,692,725,386
For the year ended 31 December 2017			
Opening net book amount	3,654,140,799	38,584,587	3,692,725,386
Addition	264,474,165	18,903,605	283,377,770
Amortisation charged	(275,250,409)	(7,337,322)	(282,587,731)
Transfer	(2,866,836)	-	(2,866,836)
Reclassification	14,045,000	-	14,045,000
Impairment charged	(1,960,000)	-	(1,960,000)
Closing net book amount	3,652,582,719	50,150,870	3,702,733,589
At 31 December 2017			
Cost	5,102,940,556	83,039,285	5,185,979,841
<u>Less</u> Accumulated amortisation	(1,436,217,837)	(32,888,415)	(1,469,106,252)
<u>Less</u> Allowance for impairment	(14,140,000)	-	(14,140,000)
Net book amount	3,652,582,719	50,150,870	3,702,733,589
For the year ended 31 December 2018			
Opening net book amount	3,652,582,719	50,150,870	3,702,733,589
Addition	232,570,908	12,720,077	245,290,985
Amortisation charged	(295,420,907)	(8,686,839)	(304,107,746)
Reclassification	916,960	-	916,960
Impairment charged	(860,000)	-	(860,000)
Closing net book amount	3,589,789,680	54,184,108	3,643,973,788
At 31 December 2018			
Cost	5,336,428,424	95,759,362	5,432,187,786
<u>Less</u> Accumulated amortisation	(1,731,638,744)	(41,575,254)	(1,773,213,998)
<u>Less</u> Allowance for impairment	(15,000,000)	-	(15,000,000)
Net book amount	3,589,789,680	54,184,108	3,643,973,788

Amortisation is included in the cost of goods sold Baht 296.4 million (2017: Baht 276.4 million) and administrative expenses Baht 7.7 million (2017: Baht 6.2 million).

The allowance for impairment of intangible assets of Baht 15.0 million as at 31 December 2018 is from service concession arrangement at Lan Island. Sales of tap water at this location are lower than the budget because there are other natural water resources that can be used in lieu of tap water.

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16 Intangible assets - net (continued)

	(Unit: Baht)
	Separate financial statements
	Computer software
At 1 January 2017	
Cost	64,135,680
<u>Less</u> Accumulated amortisation	<u>(25,551,093)</u>
Net book amount	<u>38,584,587</u>
For the year ended 31 December 2017	
Opening net book amount	38,584,587
Addition	18,903,605
Amortisation charged	<u>(7,337,322)</u>
Closing net book amount	<u>50,150,870</u>
At 31 December 2017	
Cost	83,039,285
<u>Less</u> Accumulated amortisation	<u>(32,888,415)</u>
Net book amount	<u>50,150,870</u>
For the year ended 31 December 2018	
Opening net book amount	50,150,870
Addition	12,720,077
Amortisation charged	<u>(8,686,839)</u>
Closing net book amount	<u>54,184,108</u>
At 31 December 2018	
Cost	95,759,362
<u>Less</u> Accumulated amortisation	<u>(41,575,254)</u>
Net book amount	<u>54,184,108</u>

Amortisation is included in the cost of goods sold Baht 1.1 million (2017: Baht 1.1 million) and administrative expenses Baht 7.6 million (2017: Baht 6.2 million).

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17 Deferred income tax

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

	Consolidated financial statements		(Unit: Baht) Separate financial statements	
	2018	2017	2018	2017
Deferred tax assets:				
Deferred tax assets to be recovered within 12 months	2,219,318	622,075	1,978,516	-
Deferred tax assets to be recovered after more than 12 months	48,081,335	42,784,670	21,997,516	19,842,419
	<u>50,300,653</u>	<u>43,406,745</u>	<u>23,976,032</u>	<u>19,842,419</u>
Deferred tax liabilities:				
Deferred tax liabilities to be settled within 12 months	25,619,362	25,619,362	-	-
Deferred tax liabilities to be settled after more than 12 months	367,356,661	380,763,366	68,981,114	60,895,471
	<u>392,976,023</u>	<u>406,382,728</u>	<u>68,981,114</u>	<u>60,895,471</u>

Presentation in the statement of financial position is as follows:

Deferred tax assets	<u>21,935,597</u>	<u>22,233,644</u>	<u>-</u>	<u>-</u>
Deferred tax liabilities	<u>364,610,967</u>	<u>385,209,627</u>	<u>45,005,082</u>	<u>41,053,052</u>

Change in deferred tax assets and liabilities is as follows:

	Consolidated financial statements						(Unit: Baht)
	Long-term provision	Allowance for doubtful accounts	Impairment of assets	Employee benefit	Tax loss	Others	Total
Deferred tax assets							
As at 1 January 2017	4,048,321	6,925,008	2,436,000	25,817,457	-	34,800	39,261,586
Transaction recorded in profit or loss	2,511,483	-	392,000	1,869,302	-	46,735	4,819,520
Transaction recorded in other comprehensive income	-	-	-	(674,361)	-	-	(674,361)
As at 31 December 2017	6,559,804	6,925,008	2,828,000	27,012,398	-	81,535	43,406,745
Transaction recorded in profit or loss	(2,472,705)	-	172,000	3,131,061	4,048,768	2,014,784	6,893,908
As at 31 December 2018	<u>4,087,099</u>	<u>6,925,008</u>	<u>3,000,000</u>	<u>30,143,459</u>	<u>4,048,768</u>	<u>2,096,319</u>	<u>50,300,653</u>

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17 Deferred income tax (continued)

	(Unit: Baht)		
	Consolidated financial statements		
		Fair value adjustment of available-for- sale investments	Total
	Intangible asset	Plant and equipment	
Deferred tax liabilities			
As at 1 January 2017	367,011,898	54,013,762	132,798
Transaction recorded in profit or loss	(21,524,641)	6,881,709	-
Transaction recorded in other comprehensive income	-	-	(132,798)
As at 31 December 2017	345,487,257	60,895,471	-
Transaction recorded in profit or loss	(21,492,348)	8,085,643	-
As at 31 December 2018	323,994,909	68,981,114	-
	(Unit: Baht)		
	Separate financial statements		
	Allowance for doubtful accounts	Employee benefit	Others
			Total
Deferred tax assets			
As at 1 January 2017	364,571	15,340,963	34,800
Transaction recorded in profit or loss	-	2,508,523	46,735
Transaction recorded in other comprehensive income	-	1,546,827	-
As at 31 December 2017	364,571	19,396,313	81,535
Transaction recorded in profit or loss	-	2,118,829	2,014,784
As at 31 December 2018	364,571	21,515,142	2,096,319
	(Unit: Baht)		
	Separate financial statements		
		Fair value adjustment of available-for- sale investments	Total
	Plant and equipment		
Deferred tax liabilities			
As at 1 January 2017	54,013,762	132,798	54,146,560
Transaction recorded in profit or loss	6,881,709	-	6,881,709
Transaction recorded in other comprehensive income	-	(132,798)	(132,798)
As at 31 December 2017	60,895,471	-	60,895,471
Transaction recorded in profit or loss	8,085,643	-	8,085,643
As at 31 December 2018	68,981,114	-	68,981,114

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18 Other non-current assets

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Advance for construction	277,822,805	309,216,839	277,822,805	309,216,839
Prepaid expenses	28,450,167	34,011,928	5,116,458	6,532,350
Deposit and retention	2,356,611	2,086,195	-	-
Other receivables	32,802,184	32,802,184	-	-
Allowance for doubtful accounts				
- other receivables	(32,802,184)	(32,802,184)	-	-
Refundable withholding tax	26,965,178	-	-	-
Others	6,976,974	5,592,369	6,122,935	4,896,635
	<u>342,571,735</u>	<u>350,907,331</u>	<u>289,062,198</u>	<u>320,645,824</u>

Other receivables of Baht 32.8 million are transactions between Universal Utilities Public Company Limited, a subsidiary, and a private company. These related to the fine from the production of tap water that did not meet the minimum volume. On 26 October 2015, the subsidiary's Board of Directors approved to record an allowance for doubtful accounts of a private company of Baht 32.8 million. This is because the subsidiary terminated a contract to purchase raw water with such company in 2015 and there is a potential for debt might not be collectable. On 17 February 2016, the subsidiary sued a private company regarding a breach of raw water purchase agreement and requested a private company to pay damages of Baht 37.5 million plus interest at 7.5% per annum. On 19 July 2017, the Civil Court ordered the defendant to pay the damages to the subsidiary in the amount of Baht 37.5 million plus interest at the rate of 7.5 percent per annum commencing from the filling date. At present, the subsidiary has filed a petition to appoint the bailiff due to the private company did not lodge an appeal within the deadline.

19 Borrowings

		(Unit: Baht)			
		Consolidated financial statements		Separate financial statements	
	Notes	2018	2017	2018	2017
Current					
Short-term borrowings from financial institutions	19.1	814,000,000	83,000,000	580,000,000	10,000,000
Current portion of long-term borrowings from financial Institutions	19.2	826,200,000	808,200,000	634,000,000	616,000,000
Total current borrowings		1,640,200,000	891,200,000	1,214,000,000	626,000,000
Non-current					
Borrowings from financial Institutions	19.2	3,166,200,000	3,992,400,000	2,974,000,000	2,008,000,000
Debentures	19.3	2,397,954,566	2,397,562,352	2,397,954,566	2,397,562,352
Total non-current borrowings		5,564,154,566	6,389,962,352	5,371,954,566	4,405,562,352
Total		7,204,354,566	7,281,162,352	6,585,954,566	5,031,562,352

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19 Borrowings (continued)

19.1 Short-term borrowings from financial institutions

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Promissory notes	814,000,000	83,000,000	580,000,000	10,000,000
	814,000,000	83,000,000	580,000,000	10,000,000

Promissory notes bear interest rate at fixed rate per annum. Principal is repayable at call.

Change in the short-term borrowings from financial institutions is as follows:

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
As at 1 January	83,000,000	1,600,000,000	10,000,000	-
Addition	4,409,000,000	1,178,000,000	3,560,000,000	903,000,000
Repayment	(3,678,000,000)	(2,695,000,000)	(2,990,000,000)	(893,000,000)
As at 31 December	814,000,000	83,000,000	580,000,000	10,000,000

19.2 Long-term borrowings from financial institutions

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Long-term borrowings from financial institutions	3,992,400,000	4,800,600,000	3,608,000,000	2,624,000,000
Less Current portion of long-term borrowings	(826,200,000)	(808,200,000)	(634,000,000)	(616,000,000)
Long-term borrowings from financial institutions - net	3,166,200,000	3,992,400,000	2,974,000,000	2,008,000,000

Change in the long-term borrowings from financial institutions is as follows:

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
As at 1 January	4,800,600,000	4,008,800,000	2,624,000,000	3,240,000,000
Addition	1,600,000,000	1,600,000,000	1,600,000,000	-
Repayment	(2,408,200,000)	(808,200,000)	(616,000,000)	(616,000,000)
As at 31 December	3,992,400,000	4,800,600,000	3,608,000,000	2,624,000,000

On 29 August 2018, The Company made long-term borrowing from a financial institution of Baht 1,600.0 million. The purpose of loan is for Universal Utilities Public Company Limited to settle the long-term borrowing of Baht 1,600.0 million. The borrowing period is six years with a fixed interest rate per annum. The repayment term is Baht 400.0 million per annum, starting from 2021.

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19 Borrowings (continued)

19.2 Long-term borrowings from financial institutions (continued)

	Credit limit Million Baht	Outstanding credit facilities		Consolidated financial statements		Separate financial statements	
		2018 Million Baht	2017 Million Baht	2018 Million Baht	2017 Million Baht	2018 Million Baht	2017 Million Baht
The Company							
a)	800.0	-	-	320.0	480.0	320.0	480.0
b)	2,000.0	-	-	800.0	1,200.0	800.0	1,200.0
c)	1,000.0	-	-	888.0	944.0	888.0	944.0
d)	1,600.0	-	-	1,600.0	-	1,600.0	-
The subsidiary							
a)	317.0	-	-	126.8	190.2	-	-
b)	644.0	-	-	257.6	386.4	-	-
c)	1,600.0	-	-	-	1,600.0	-	-
Total	7,961.0	-	-	3,992.4	4,800.6	3,608.0	2,624.0
<u>Less</u> Current portion				(826.2)	(808.2)	(634.0)	(616.0)
Long-term borrowings from financial institutions - net of current portion				3,166.2	3,992.4	2,974.0	2,008.0

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19 Borrowings (continued)

19.2 Long-term borrowings from financial institutions (continued)

Long-term loans of the Company

	Credit facility (Million Baht)	Date of agreement	Objective	Period	Interest rate	Repayment schedule
a)	800.0	20 March 2015	To invest in pipeline project	5 years	- At fixed rate per annum	Principal is repaid annually in 5 installments, beginning 23 March 2016. - The 1st - 5th instalment is Baht 160 million each
b)	2,000.0	20 March 2015	To refinance	5 years	- At fixed rate per annum	Principal is repaid annually in 5 installments, beginning 23 March 2016. - The 1 st - 5 th installments is Baht 400 million each
c)	1,000.0	5 June 2015	To invest in pipeline project	10 years	- At fixed rate per annum	Principal is repaid annually in 9 installments, beginning 5 June 2017. - The 1st - 2nd installments is Baht 56 million each - The 3rd - 4th installments is Baht 74 million each - The 5th - 6th installments is Baht 148 million each - The 7th installments is Baht 166.5 million - The 8th installments is Baht 185 million - The 9th installments is Baht 92.5 million
d)	1,600.0	28 August 2018	To provide loan to a subsidiary	6 years	- At fixed rate per annum	Principal is repayable in 4 annual installments, beginning 27 August 2021. The 1st - 4th installments is Baht 400 million each

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19 Borrowings (continued)

19.2 Long-term borrowings from financial institutions (continued)

Long-term borrowings of subsidiary - Universal Utilities Public Company Limited

	Credit facility (Million Baht)	Date of agreement	Objective	Period	Interest rate	Repayment schedule
a)	317.0	12 June 2015	To refinance	5 years	- At fixed rate per annum	Principal is repaid annually in 5 installments, beginning 12 June 2016.
b)	644.0	8 June 2015	To refinance	5 years	- At fixed rate per annum	Principal is repaid annually in 5 installments, beginning 10 June 2016.
c)	1,600.0	25 August 2017	To refinance	2 years	- BIBOR+fixed rate per annum	Principal is repaid at the end of second year on 29 August 2019.*

*The subsidiary settled the borrowings of Baht 1,600 million on 29 August 2018.

Long-term borrowings from financial institutions of the Group are unsecured loan. The Group is required to comply with certain conditions including debt to equity ratio not exceeding 2:1 and debt service coverage ratio not below 1.10.

The average interest rate of borrowings for the year 2018 was 2.70% (2017 : 2.92%).

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19 Borrowings

19.3 Debentures

Debentures comprise:

The first tranche is senior and unsecured debenture of Baht 1,200 million. Debenture has a maturity of 7 years with due in 2022. It bears interest at a fixed rate at 3.84% per annum. The interest will be paid semi-annually on 16 June and 16 December.

The second tranche is senior and unsecured debenture of Baht 1,200 million. Debenture has a maturity of 10 years with due in 2025. It bears interest at a fixed rate at 4.18% per annum. The interest will be paid semi-annually on 16 June and 16 December.

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Debenture tranche 1	1,200,000,000	1,200,000,000	1,200,000,000	1,200,000,000
Debenture tranche 2	1,200,000,000	1,200,000,000	1,200,000,000	1,200,000,000
<u>Less</u> Deferred debenture issuing costs	<u>(2,045,434)</u>	<u>(2,437,648)</u>	<u>(2,045,434)</u>	<u>(2,437,648)</u>
Debentures - net	<u>2,397,954,566</u>	<u>2,397,562,352</u>	<u>2,397,954,566</u>	<u>2,397,562,352</u>

Change in the debentures is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Balance as at 1 January	2,397,562,352	2,397,185,473	2,397,562,352	2,397,185,473
Amortisation of issuing cost	392,214	376,879	392,214	376,879
Balance as at 31 December	<u>2,397,954,566</u>	<u>2,397,562,352</u>	<u>2,397,954,566</u>	<u>2,397,562,352</u>

20 Trade payables

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Trade payables				
- Third parties	107,474,767	101,672,901	78,437,849	74,437,381
- Related parties (Note 34.2)	1,805,294	3,546,816	20,840,866	21,599,969
Other payables				
- Related parties (Note 34.2)	37,925,412	34,508,433	2,181,347	1,246,075
	<u>147,205,473</u>	<u>139,728,150</u>	<u>101,460,062</u>	<u>97,283,425</u>

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21 Finance lease liabilities

Finance lease liabilities - minimum lease payments:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Not later than 1 year	2,932,626	2,853,876	2,932,626	2,853,876
Later than 1 year but not later than 5 years	1,968,260	3,308,710	1,968,260	3,308,710
	4,900,886	6,162,586	4,900,886	6,162,586
<u>Less</u> Future finance charges on finance leases	(994,822)	(1,925,885)	(994,822)	(1,925,885)
Present value of finance lease liabilities	3,906,064	4,236,701	3,906,064	4,236,701

The present value of finance lease liabilities is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Not later than 1 year (short-term portion)	2,120,878	1,600,100	2,120,878	1,600,100
Later than 1 year but not later than 5 years (long-term portion)	1,785,186	2,636,601	1,785,186	2,636,601
	3,906,064	4,236,701	3,906,064	4,236,701

22 Reconciliation of liabilities arising from financing activities

	1 January	Cash flow		Non-cash	(Unit: Baht)
	2018	In	Out	transactions	31 December
					2018
Consolidated financial statements					
Short-term borrowings from financial institutions	83,000,000	4,409,000,000	(3,678,000,000)	-	814,000,000
Long-term borrowings from financial institutions	4,800,600,000	1,600,000,000	(2,408,200,000)	-	3,992,400,000
Debentures	2,397,562,352	-	-	392,214	2,397,954,566
Finance lease liabilities	4,236,701	-	(330,637)	-	3,906,064
Separate financial statements					
Short-term borrowings from financial institutions	10,000,000	3,560,000,000	(2,990,000,000)	-	580,000,000
Long-term borrowings from financial institutions	2,624,000,000	1,600,000,000	(616,000,000)	-	3,992,400,000
Debentures	2,397,562,352	-	-	392,214	2,397,954,566
Finance lease liabilities	4,236,701	-	(330,637)	-	3,906,064

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22 Reconciliation of liabilities arising from financing activities (continued)

	1 January 2017	Cash flow		Non-cash transactions	(Unit: Baht) 31 December 2017
		In	Out		
Consolidated financial statements					
Short-term borrowings from financial institutions	1,600,000,000	1,178,000,000	(2,695,000,000)	-	83,000,000
Long-term borrowings from financial institutions	4,008,800,000	1,600,000,000	(808,200,000)	-	4,800,600,000
Debentures	2,397,185,473	-	-	376,879	2,397,562,352
Finance lease liabilities	1,842,222	-	(1,837,899)	4,232,378	4,236,701
Separate financial statements					
Short-term borrowings from financial institutions	-	903,000,000	(893,000,000)	-	10,000,000
Long-term borrowings from financial institutions	3,240,000,000	-	(616,000,000)	-	2,624,000,000
Debentures	2,397,185,473	-	-	376,879	2,397,562,352
Finance lease liabilities	1,842,222	-	(1,837,899)	4,232,378	4,236,701

23 Accrued expenses

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Accrued bonus	56,479,130	69,941,979	36,710,020	44,987,165
Accrued compensation of project	50,055,214	48,908,775	50,055,214	48,908,775
Accrued utilities expenses	14,157,612	16,330,939	-	-
Others	42,495,396	40,831,587	26,642,737	21,599,872
	<u>163,187,352</u>	<u>176,013,280</u>	<u>113,407,971</u>	<u>115,495,812</u>

24 Employee benefit obligations

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Statement of the financial position				
Post-employment benefits	146,883,620	131,578,876	105,622,569	95,076,377
Other long-term benefits	3,577,319	3,483,117	1,953,148	1,905,193
Liability in the statement of financial position	<u>150,460,939</u>	<u>135,061,993</u>	<u>107,575,717</u>	<u>96,981,570</u>
Profit or loss:				
Post-employment benefits	17,459,392	16,223,992	12,233,551	9,963,089
Other long-term benefits	726,293	349,166	448,280	72,212
	<u>18,185,685</u>	<u>16,573,158</u>	<u>12,681,831</u>	<u>10,035,301</u>
Other comprehensive income				
Remeasurement for:				
Post-employment benefits	-	(3,371,809)	-	7,734,133
	<u>-</u>	<u>(3,371,809)</u>	<u>-</u>	<u>7,734,133</u>

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24 Employee benefit obligations

24.1 Defined benefit plan

The amount recognised in the statement of financial position is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Present value of funded obligations	146,883,620	131,578,876	105,622,569	95,076,377
Liability in the statement of financial position	146,883,620	131,578,876	105,622,569	95,076,377

Change in the defined benefit obligation over the year is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
At 1 January	131,578,876	125,261,380	95,076,377	74,921,158
Current service cost	13,511,296	12,053,752	9,365,270	7,285,163
Interest expense	3,948,096	4,170,240	2,868,281	2,677,926
Remeasurements:				
Loss from change in financial assumptions	-	4,415,980	-	2,979,407
Experience (gain)/loss	-	(7,787,789)	-	4,754,726
Transfer employees from (to) a subsidiary	-	-	(307,691)	8,992,684
Benefits paid	(2,154,648)	(6,534,687)	(1,379,668)	(6,534,687)
At 31 December	146,883,620	131,578,876	105,622,569	95,076,377

The principal of actuarial assumptions used for defined benefit plan is as follows:

	(Unit: % per annum)	
	2018	2017
Discount rate	3.0	3.0
Salary growth rate	5.0 - 10.0	5.0 - 10.0

	Impact on post-employment benefit obligations	
	Increase/ (decrease) in assumption (Baht)	
	2018	2017
Discount rate		
Increase 1%	(10,380,604)	(9,404,894)
Decrease 1%	12,195,759	11,049,436
Salary growth rate		
Increase 1%	11,670,644	10,573,678
Decrease 1%	(10,181,553)	(9,224,552)

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 assumptions, the same method has been applied as when calculating the post-employment benefit liability recognised within the statement of financial position which is the projected unit credit method.

The method and type of assumptions used in preparing the sensitivity analysis do not change comparing to the previous period.

The weighted average duration of the defined benefit obligation is 37.5 years. (2017: 38.5 years)

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24 Employee benefit obligations (continued)

24.2 Other long-term benefit

The amount recognised in the statement of financial position is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Present value of funded obligations	3,577,319	3,483,117	1,953,148	1,905,193
Liability in the statement of financial position	3,577,319	3,483,117	1,953,148	1,905,193

Change in the other long-term benefit obligation over the year is as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
At 1 January	3,483,117	3,825,907	1,905,193	1,783,660
Current service cost	615,384	605,454	383,252	354,284
Interest expense	110,909	127,614	65,028	66,974
Past service cost	-	-	-	-
Remeasurements:				
Loss from change in financial assumptions	-	306,087	-	182,756
Experience gain	-	(689,989)	-	(531,802)
Transfer employees from (to) a subsidiary	-	-	(24,595)	470,981
Benefits paid	(632,091)	(691,956)	(375,730)	(421,660)
At 31 December	3,577,319	3,483,117	1,953,148	1,905,193

The principal of actuarial assumptions used for other long-term benefit is as follows:

	2018	2017
Discount rate	3.0%	3.0%
Impact on other long-term benefits		
	Increase/ (decrease) in assumption (Baht)	
	2018	2017
Discount rate	Increase 1%	Increase 1%
	Decrease 1%	Decrease 1%
	(140,344)	(132,967)
	155,614	147,434

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25 Long term provisions

	(Unit: Baht)	
	Contractual obligations from service concession arrangements	
	Consolidated financial statements	
	2018	2017
At 1 January	33,188,538	20,670,053
Addition (reversal)	(588,697)	21,490,806
Utilised during the year	(11,813,761)	(8,972,321)
At 31 December	20,786,080	33,188,538

26 Other non-current liabilities

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Retention payables	125,261,843	231,914,544	86,476,882	192,501,141
Bank guarantee received	17,128,973	381,814,119	17,128,973	381,814,119
Rental guarantee received from a subsidiary (Note 34.2)	-	-	58,000	58,000
	<u>142,390,816</u>	<u>613,728,663</u>	<u>103,663,855</u>	<u>574,373,260</u>

27 Reserve

Reserve comprises:

1) Legal reserve

Reserve pursuant to section 116 of the Public Limited Companies Act B.E. 2535, the Company is required to set aside a legal reserve equal to at least 5 percent of its net profit for the year after deducting accumulated deficit brought forward (if any), until such reserve reaches 10 percent of the Company's registered share capital. The legal reserve is non-distributable.

2) Concession reserve

Reserve under the requirement of an amendment to tap water concession agreements which requires the Company to set aside a reserve equal to 10 percent of net profit for the year. The reserve shall be maintained by the fixed deposit at bank. This reserve is non-distributable. The Group has a policy to record a concession reserve on a quarterly basis from the net profit of each quarter.

28 Other components of equity

	(Unit: Baht)			
	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
At 1 January	14,774,228	18,695,728	14,774,228	18,695,728
Amortisation of assets transferred from customers	(3,386,254)	(3,390,304)	(3,386,254)	(3,390,304)
Fair value adjustment of available-for-sale investments transfer to profit or loss, net of tax	-	(531,196)	-	(531,196)
At 31 December	<u>11,387,974</u>	<u>14,774,228</u>	<u>11,387,974</u>	<u>14,774,228</u>

Assets transferred from customers since 1997 represent water distribution pipeline systems and water measured equipment in accordance with the water supply agreement. The Company records assets transferred from customers in equity and recognises as revenue over the useful life of assets.

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29 Dividends

Dividends declared during the year consist of the following:

	Approved by	Dividends Million Baht	Dividend per share Baht	Paid on
<u>Year 2018</u>				
Dividend for the year 2017	Annual General Meeting of the shareholders on 23 April 2018	399.3	0.24	18 May 2018
Interim dividend on operating results for the six-month period ended 30 June 2018	Board of Directors' meeting on 9 August 2018	332.7	0.20	5 September 2018
		<u>732.0</u>		
	Approved by	Dividends Million Baht	Dividend per share Baht	Paid on
<u>Year 2017</u>				
Dividend for the year 2016	Annual General Meeting of the shareholders on 18 April 2017	449.2	0.27	16 May 2017
Interim dividend on operating results for the six-month period ended 30 June 2017	Board of Directors' meeting on 31 August 2017	382.6	0.23	26 September 2017
		<u>831.8</u>		

30 Other income

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Interest income	6,989,137	6,938,348	16,301,893	1,154,879
Dividend income	-	-	126,581,983	105,569,986
Claims	12,943,267	12,550,037	9,442,845	3,968,819
Income from computer software	-	-	4,973,000	5,297,000
Gain on disposal of long-term investments	127,780	1,862,672	127,780	1,862,672
Others	14,274,949	27,241,838	9,855,496	20,969,909
	<u>34,335,133</u>	<u>48,592,895</u>	<u>167,282,997</u>	<u>138,823,265</u>

(Unit: Baht)

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31 Expenses by nature

Significant expenses by nature are as follow:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Salary and wages and other employee benefits	341,712,888	305,678,381	241,931,769	203,855,006
Depreciation and amortisation expenses	736,127,464	696,839,469	410,319,054	379,550,679
Rental and project compensation expenses	101,967,132	100,555,891	81,964,616	78,689,576
Raw materials and consumables used	33,733,940	28,119,836	-	-
Electricity expenses	454,431,098	510,440,747	301,185,981	351,937,816
Purchase of raw water	237,286,526	206,485,887	154,641,414	130,406,310
Purchase of tap water	-	-	54,284,909	53,861,053
Hiring and service expenses	256,684,273	231,417,629	69,244,399	49,550,305
Repair and maintenance	187,593,092	151,792,487	89,108,385	89,091,101
Loss on impairment of assets	860,000	1,960,000	-	-
Waterwork management expense	-	-	160,343,554	162,991,785
Expense for development of quality of life and environment	13,315,793	22,039,787	13,315,793	22,039,787
Finance cost	157,212,055	140,848,473	117,185,312	87,875,737

32 Income tax

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Current tax:				
Current tax on profit for the year	282,142,668	330,139,992	224,262,203	248,400,783
Adjustment in respect of prior year	(654,933)	(4,873,766)	(117,374)	33,254
Total current tax	281,487,735	325,266,226	224,144,829	248,434,037
Deferred tax:				
Items related to temporary differences	(20,300,612)	(23,612,476)	3,952,030	4,326,451
Total deferred tax	(20,300,612)	(23,612,476)	3,952,030	4,326,451
Total tax expense	261,187,123	301,653,750	228,096,859	252,760,488

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic tax rate of the home country of the Company as follows:

	Consolidated		Separate	
	financial statements		financial statements	
	2018	2017	2018	2017
Profit before tax	1,390,961,221	1,533,669,101	1,272,816,717	1,355,256,564
Tax calculated at a tax rate of 20% (2017: 20%)	278,192,244	306,733,820	254,563,343	271,051,313
Tax effect of:				
Income not subject to tax	(677,250)	(678,061)	(25,993,646)	(21,792,058)
Additional expenses deductible for tax	(20,991,272)	(8,935,128)	(3,163,576)	(3,031,006)
Expenses not deductible for tax purpose	5,318,333	9,406,885	2,808,112	6,498,985
Adjustment in respect of prior year	(654,932)	(4,873,766)	(117,374)	33,254
Tax charged	261,187,123	301,653,750	228,096,859	252,760,488

The effective tax rate for the consolidated and separate financial statements is 18.78% and 17.92%, respectively (2017: 19.67% and 18.65%, respectively).

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32 Income tax (continued)

The tax relating to component of other comprehensive income is as follows:

						(Unit: Baht)
Consolidated financial statements						
2018			2017			
Before tax	Tax (charge) credit	After tax	Before tax	Tax (charge) credit	After tax	
Fair value adjustment of: available-for-sale investments	-	-	(663,994)	132,798	(531,196)	
Actuarial gain/loss on remeasurement of post- employment benefit obligations	-	-	(3,371,809)	674,361	(2,697,448)	
Other comprehensive income	-	-	(4,035,803)	807,159	(3,228,644)	

						(Unit: Baht)
Separate financial statements						
2018			2017			
Before tax	Tax (charge) credit	After tax	Before tax	Tax (charge) credit	After tax	
Fair value adjustment of: available-for-sale investments	-	-	(663,994)	132,798	(531,196)	
Actuarial gain/loss on remeasurement of post- employment benefit obligations	-	-	7,734,133	(1,546,827)	6,187,306	
Other comprehensive income	-	-	7,070,139	(1,414,029)	5,656,110	

33 Earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to shareholders of the company by the weighted average number of ordinary shares in issue during the year.

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Net profit attributable to owners of the parent (Baht)	1,117,521,523	1,221,179,490	1,044,719,858	1,102,496,076
Weighted average number of ordinary shares in issue (Share)	1,663,725,149	1,663,725,149	1,663,725,149	1,663,725,149
Basic earnings per share (Baht)	0.67	0.73	0.63	0.66

There are no potential dilutive ordinary shares in issue for the years ended 2018 and 2017. Therefore, diluted earnings per share is not presented.

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34 Related parties transactions

Enterprises and individuals 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 an, indirectly or directly, interest in the voting power of the company that gives them significant influence over the enterprise, key management personnel, including directors and officers of the company and close members of the family of these individuals and companies associated with these individuals also constitute related parties.

In considering each related party relationship, attention is directed to the substance of the relationship, and not merely the legal form.

The Company is a public listed company. The first major shareholder is Provincial Waterworks Authority which owns 40.20% of the Company's share and has representative in the Company's board of directors.

Industrial Estate Authority of Thailand owns 4.57% of the Company's share and has representative in the Company's board of directors.

34.1 Transactions incurred during the year

	Consolidated		(Unit: Baht)	
	financial statements		Separate	
	2018	2017	2018	2017
<u>Sales - raw water</u>				
Major shareholders				
Provincial Waterworks Authority	319,780,672	371,704,222	319,780,672	371,704,222
Industrial Estate Authority of Thailand	975,151,100	949,078,900	975,151,100	949,078,900
Subsidiary				
Universal Utilities Public Company Limited	-	-	40,307,904	49,402,257
	<u>1,294,931,772</u>	<u>1,320,783,122</u>	<u>1,335,239,676</u>	<u>1,370,185,379</u>
<u>Sales - tap water</u>				
Major shareholder				
Provincial Waterworks Authority	<u>1,230,555,184</u>	<u>1,221,046,180</u>	<u>177,315,761</u>	<u>180,333,063</u>

Eastern Water Resources Development and Management Public Company Limited
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34 Related parties transactions (continued)

34.1 Transactions incurred during the year (continued)

	Consolidated financial statements		(Unit: Baht) Separate financial statements	
	2018	2017	2018	2017
<u>Construction revenue under concession agreement</u>				
Major Shareholder				
Provincial Waterworks Authority	209,070,733	160,539,445	-	-
<u>Interest income</u>				
Subsidiary				
Universal Utilities Public Company Limited	-	-	14,657,534	-
<u>Rental and service income</u>				
Major shareholder				
Provincial Waterworks Authority	28,989,696	27,421,925	-	-
Subsidiary				
Universal Utilities Public Company Limited	-	-	52,524,306	26,145,384
	28,989,696	27,421,925	52,524,306	26,145,384
<u>Dividend income</u>				
Subsidiary				
Universal Utilities Public Company Limited	-	-	126,581,983	105,569,986
<u>Other income</u>				
Subsidiary				
Universal Utilities Public Company Limited	-	-	10,974,300	11,421,831
<u>Cost of sales and cost of services</u>				
Major shareholder				
Provincial Waterworks Authority	20,766,245	22,351,662	8,286,461	9,034,818
Subsidiary				
Universal Utilities Public Company Limited	-	-	214,628,463	216,852,838
	20,766,245	22,351,662	222,914,924	225,887,656
<u>Administrative expenses</u>				
Major Shareholder				
Provincial Waterworks Authority	326,361	13,736	-	-
Subsidiary				
Egcom Tara Company Limited	-	-	159,577	-
	326,361	13,736	159,577	-

Pricing policy for selling of raw water, selling of tap water, rental and service income and other income is mutually - agreed prices as stipulated in the contracts.

Cost of sales and services are charged at mutually - agreed prices as stipulated in the contracts.

Eastern Water Resources Development and Management Public Company Limited
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34 Related parties transactions (continued)

34.2 Outstanding balances at end of the years

	Consolidated financial statements		(Unit: Baht) Separate financial statements	
	2018	2017	2018	2017
<u>Trade receivables - billed</u>				
Major shareholders				
Provincial Waterworks Authority	76,473,303	80,935,437	62,933,313	41,750,348
Industrial Estate Authority of Thailand	88,598,051	87,366,356	88,598,052	87,366,356
Subsidiary				
Universal Utilities Public Company Limited	-	-	4,623,331	2,576,902
	<u>165,071,354</u>	<u>168,301,793</u>	<u>156,154,696</u>	<u>131,693,606</u>
<u>Trade receivables - unbilled</u>				
Major shareholder				
Provincial Waterworks Authority	134,967,926	103,557,768	1,297,003	-
Subsidiary				
Universal Utilities Public Company Limited	-	-	1,154,550	448,313
	<u>134,967,926</u>	<u>103,557,768</u>	<u>2,451,553</u>	<u>448,313</u>
<u>Other receivables</u>				
Major shareholder				
Provincial Waterworks Authority	16,274	15,325	-	-
Subsidiary				
Universal Utilities Public Company Limited	-	-	9,419,406	11,526,097
	<u>16,274</u>	<u>15,325</u>	<u>9,419,406</u>	<u>11,526,097</u>
<u>Trade payables</u>				
Major shareholder				
Provincial Waterworks Authority	1,805,294	3,546,816	685,137	2,309,494
Subsidiary				
Universal Utilities Public Company Limited	-	-	20,155,729	19,290,475
	<u>1,805,294</u>	<u>3,546,816</u>	<u>20,840,866</u>	<u>21,599,969</u>
<u>Other payables</u>				
Major shareholder				
Provincial Waterworks Authority	<u>37,925,412</u>	<u>34,508,433</u>	<u>2,128,347</u>	<u>1,246,075</u>
<u>Rental guarantees</u>				
Subsidiary				
Universal Utilities Public Company Limited	-	-	58,000	58,000

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34 Related parties transactions (continued)

34.3 Key management compensation

Key management compensation can be categorised as follows:

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Short-term benefits	109,237,268	100,588,008	83,562,128	74,221,141
Post-employment benefits	5,916,718	5,265,292	4,576,386	3,468,440
Other long-term benefits	40,665	47,776	21,176	21,405
	115,194,651	105,901,076	88,159,690	77,710,986

34.4 Long-term loan to a subsidiary

Change in the long-term loan to a subsidiary is as follows:

	(Unit: Baht) Separate financial statements
Balance as at 1 January 2018	-
Addition	1,600,000,000
Balance as at 31 December 2018	1,600,000,000

On 29 August 2018, the Company made long-term loan to Universal Utilities Public Company Limited of Baht 1,600.0 million. The loan period is six years with fixed interest rate per annum. The repayment is Baht 400.0 million per annum, starting from 2021.

35 Commitments and contingent liabilities

35.1 Capital commitments

As at 31 December 2018, the Group had commitments in respect of construction in-progress and installation of the water distribution pipeline in the consolidated and separate financial statements totalling Baht 1,893.6 million and Baht 1,762.0 million, respectively (2017: Baht 525.4 million and Baht 418.5 million, respectively).

35.2 Operating lease commitments

The future aggregate minimum lease payments in respect of the lease of land, motor vehicles and computer under non-cancellable operating lease contracts are as follows.

	Consolidated financial statements		Separate financial statements	
	2018	2017	2018	2017
Within 1 year	18.7	21.7	9.6	11.0
1 to 5 years	17.5	25.1	5.7	11.0
More than 5 years	4.1	4.1	-	-
	40.3	50.9	15.3	22.0

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35 Commitments and contingent liabilities (continued)

35.3 Raw water and tap water purchase agreements and long-term service commitments

- 35.3.1 As at 31 December 2018 and 2017, the Group has commitment under an agreement to purchase raw water from the Royal Irrigation Department at the price as specified in a Ministerial Regulation. The agreement does not specify the expiring date.
- 35.3.2 As at 31 December 2018, the Group has commitment under the contract to purchase raw water from a private company with the minimum amount of Baht 483.2 million. (2017 : Baht 519.2 million).
- 35.3.3 As at 31 December 2018, the Group has commitments under the service agreement that the Group has to pay in the future of Baht 174.7 million (2017 : Baht 192.2 million).

35.4 Guarantees

- 35.4.1 As at 31 December 2018, the Group and the Company has contingent liabilities from letters of guarantee issued by local commercial banks to (1) the Provincial Electricity Authority for electricity consumption, (2) the Ministry of Finance for management and operation of the major water distribution pipeline systems in the Eastern Seaboard area, (3) the Provincial Water Authority and the Royal Irrigation Department for compliance to agreements, and (4) counterparty for bidding the project totalling Baht 243.0 million and Baht 147.4 million, respectively. (2017: Baht 191.4 million and Baht 93.6 million, respectively).
- 35.4.2 As at 31 December 2018 and 2017, the Group has contingent liabilities in respect of being a guarantor of subsidiaries for letters of guarantee issued by local commercial banks to those subsidiaries in a credit limit of Baht 200 million for guarantees of electricity consumption, tap water production and distribution and information records of water consumers.
- 35.4.3 As at 31 December 2018, the Company has contingent liabilities from letters of guarantee issued by local commercial bank to a financial institution for the construction of Tubma reservoir development project in credit limit of Baht 200 million.

36 Litigation

The Group has significant litigation cases as follows:

The Company

- 1) The Company engaged the contractor in the Tubma reservoir development project starting from 31 January 2012 to 15 July 2016. However, the construction is delayed and incomplete. On 12 October 2016, the Company was sued as a defendant in a lawsuit of a black case number 1668/2559 regarding a breach of a construction agreement. The contractor requested the Company to pay damages totalling Baht 480.9 million plus interest of 7.50% per annum, by claiming the Company that the delay in construction is the Company's fault. The Company has argued this claim and requested compensation for fines, damages and other rights which the Company can claim due to the delay. On 27 January 2017, the Company made a counterclaim to the Rayong Provincial Court and requested compensation, totalling Baht 1,746.8 million.

On 22 November 2018, the Company and the contractor signed a compromise at the Rayong Provincial Court. Therefore, the case is finalised. The contractor agreed to return the construction cost received after deduction the retention to the Company in an amount of Baht 1,051.79 million, comprising land of Baht 522.55 million and cash of Baht 529.24 million in order to guarantee the project to continue constructing. The remaining part of the construction would be continued and completed within 22 months after the contractor had been notified by the Company. Once the construction of the project has been completed, the Company would pay all the construction cost.

As at 31 December 2018, the Company has the construction in progress and payable of this project in the total of Baht 1,605.5 million and Baht 862.2 million, respectively.

Eastern Water Resources Development and Management Public Company Limited
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36 Litigation (continued)

The Company (continued)

- 2) The Company and Samed Utilities Company Limited which used to be a subsidiary, were sued for compensation and damages in a lawsuit of black case number Por 808/2558 regarding a breach of an agreement. The private company filed a complaint with the Civil Court requesting that the Company and the subsidiary be ordered to pay damages totalling Baht 30.9 million. On 17 November 2015, the Court made the decision that Samed Utilities Company Limited has to pay the private company Baht 20.5 million plus interest at 7.50% per annum and dismissed the case against the Company. On 17 March 2016, the Company lodged an appeal regarding the fine imposed on Samed Utilities Company Limited. On 22 December 2016, the Appeal Court delivered its verdict according to the Court of First Instance ordering Samed Utilities Company Limited to pay the private company, and to dismiss the case for the Company part. On 20 April 2017, Samed Utilities Company Limited filed a petition. This case is in process of consideration by the Supreme Court.

The subsidiary

- 3) On 25 February 2016, Universal Utilities Public Company Limited was sued in a lawsuit of black case number 570/2559 regarding the purchasing of raw water from a private company which the plaintiff claims that raw water was pumped from a well on the plaintiff's land. The plaintiff filed a complaint with the Chonburi Provincial Court requesting the subsidiary to return the raw water or to pay damages of Baht 49.8 million. On 29 March 2018, the Court dismissed the case. On 19 June 2018, the plaintiff appealed to the Court. The subsidiary filed a cross-appeal to the Court on 30 August 2018. On 24 January 2019, the Appeal Court dismissed the case. This case is in process of following the filing of the plaintiff's petition.

37 Project compensation

A government agency is considering a deal for the Company to rent/manage the 2 pipeline connecting projects ("projects") and adjust the compensation. A letter issued by this government agency stipulated the Company was to initially pay compensation for the projects at a percentage of the raw water sold from the commencing of the operating year (year 1998). In addition, if it is decided that a final rate is more than the rate at which the Company already paid, the Company is to make additional payment, in full, as a lump sum; while if the final rate is lower, the government agency agrees to pay back the surplus by offsetting it against the remuneration of the following years.

On 8 January 2010, the government agency issued a letter to the Company notifying it that a deal for the Company to rent/manage the projects and the adjusting of compensation must be processed in accordance with the Act on Private Participation in a State Undertaking B.E. 2535, whereby a committee has, under Section 13, authority to set the compensation rate and negotiate benefits with the Company in order to reach a preliminary conclusion. On 9 May 2011, the Committee under section 13 had a resolution to approve the Company's rental of a pipeline without auction.

In 2015, the Company and the government agency hold a meeting to agree on project compensation rate. On 21 July 2015, the Company sent a letter to the government agency to inform that the Company was willing to pay the compensation for the current year at a higher rate and keep the previous rate for the past years. Subsequently, the government agency issued a letter dated 14 October 2015 to the Company notifying that the compensation rate must be processed and considered in accordance with the Act on Private Participation in a State Undertaking B.E. 2556 and then submitted to the Cabinet for approval. In the meanwhile, the government agency accepted the temporary payment with the new compensation rate from the year 2015 onwards.

The Company records the project compensation by using the new compensation rate since the year 2015. The management considers that such rate is the best estimation based on the current information.

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38 Significant agreements

38.1 Concession arrangements

The Group has significant concession arrangements as follows:

- 1) Concession arrangements which the Group has to transfer assets to the grantor at the end of the concession period (BOOT)

No.	Arrangement title	Arrangement date	Signatories	Period	Classification of concession arrangement
1	Agreement to manage the water system at Sattahip Waterworks	28 July 2000	The Company and the Provincial Waterworks Authority	30 years from the date that the Provincial Waterworks Authority appointed the Company to manage Sattahip Waterworks (1 March 2001)	Intangible assets
2	Agreement to produce and sell tap water to the Provincial Waterworks Authority's Nakornsawan office, Nakornsawan Province	7 November 2000	Nakornsawan Water Supply Company Limited and the Provincial Waterworks Authority	25 years from the date of the first tap water sale (1 March 2003)	Intangible assets
3	Agreement to produce and sell tap water to the Provincial Waterworks Authority's Chachoengsao office, Chachoengsao Province	9 November 2000	Chachoengsao Water Supply Company Limited and the Provincial Waterworks Authority	25 years from the date of the first tap water sale (1 April 2003)	Intangible assets
4	Agreement to produce and sell tap water to the Provincial Waterworks Authority's Bangpakong office, Chachoengsao Province	9 November 2000	Bangpakong Water Supply Company Limited and the Provincial Waterworks Authority	25 years from the date of the first tap water sale (1 April 2003)	Intangible assets
5	Agreement to provide water works management services in Bo Win Municipal area	30 March 2004/ 5 August 2005	The Company and the Chaopraya Surasak Municipality / the Bo Win Sub-district Administrative Organisation	25 years from the date of the first tap water sale (11 March 2005)	Intangible assets
6	Agreement to provide water works management services at Koh Lan	17 September 2004	The Company and Pattaya City	15 years from the date of the first tap water sale (1 October 2006)	Intangible assets
7	Agreement to operate and manage waterworks system of the Nong Kham Sub-district Administrative Organisation	29 December 2010	Universal Utilities Public Company Limited and Nong Kham Sub-district Administrative Organisation	25 years from the date of the first tap water sale (4 January 2011)	Intangible assets
8	Agreement to operate and manage waterworks system in Huaro Sub-district area, Phitsanulok Province	28 March 2014	Universal Utilities Public Company Limited and Huaro Sub-district Municipality	30 years from the date of the first tap water sale under the agreement or new agreed date of tap water sale	Intangible assets

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38 Significant agreements (continued)

38.1 Concession arrangements (continued)

2) Concession arrangements which the Group has to transfer assets to the grantor when the construction is completed (BTO).

No.	Arrangement title	Arrangement date	Signatories	Period	Classification of concession arrangement
9	Revised agreement to manage water system of Sattahip Waterworks (Sattahip - Pattaya)	18 October 2004	The Company and the Provincial Waterworks Authority	30 years from the date that the Provincial Waterworks Authority appointed the Company to manage Sattahip Waterworks (1 March 2001)	Intangible assets
10	Agreement to produce and sell tap water to Rayong Waterworks, Rayong Province	14 March 2006	Universal Utilities Public Company Limited and the Provincial Waterworks Authority	25 years from the date of the first tap water sale (12 July 2006)	Intangible assets

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38 Significant agreements (continued)

38.1 Concession arrangements (continued)

- 3) Concession arrangements which the Group has no condition to transfer assets to the grantor but grantor has option to purchase the assets when the operator operates to the half of concession period.

No.	Arrangement title	Arrangement date	Signatories	Period	Classification of concession arrangement
11	Agreement to produce and sell tap water to Koh Samui Waterworks	7 July 2004	The Company and the Provincial Waterworks Authority	15 years from the date of the first tap water sale (12 May 2005)	Intangible assets
12	Agreement to produce and sell tap water to Chonburi Waterworks, Chonburi Province	3 June 2009	Universal Utilities Public Company Limited and the Provincial Waterworks Authority	20 years from the date of the first tap water sale (12 April 2010)	Intangible assets
13	Agreement to produce and sell tap water to Ratchaburi Waterworks, Rayong and Samut Songkram Province	7 April 2001	Egcom Tara Company Limited and the Provincial Waterworks Authority	30 years from the date of the first tap water sale 7 April 2001	Intangible assets

The significant terms of the concession arrangements as mentioned above are such as the operator has to provide construction, maintenance and management of the tap water production systems to meet quantity, quality and tap water price requirements. In some arrangements, the price will be increased by linking to a consumer price index.

Arrangements No. 1-6, No 9 and No 11, the Company has entered into a contract with Universal Utilities Public Company Limited to be the operator for the tap water production and the construction or improvement of infrastructure in the concession arrangements.

Eastern Water Resources Development and Management Public Company Limited
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38 Significant agreements (continued)

38.2 Other agreements

The Company

- 1) On 26 December 1993, the Company entered into an agreement with the Ministry of Finance to manage and operate the major water distribution pipeline systems in the Eastern Seaboard area. The contract term is 30 years, from 1 January 1994 to 30 September 2023 and the Company is required to pay a minimum of Baht 2 million per annum to the Ministry of Finance. In any years when the Company's revenues from the sales of raw water exceed Baht 200 million, the Company is required to pay the Ministry of Finance with a sharing benefit at a rate of 1 percent of sales of raw water from the Nong Khor and Dok Krai reservoirs. In addition, when the Company's annual rate of return on equity exceeds 20 percent, an additional sharing benefit at the rate of 15 percent of the return in excess of the paid 20 percent is to be paid to the Ministry of Finance. Nevertheless, the total sharing benefit should not exceed 6 percent of the value of the assets leased from the Ministry of Finance, as assessed following the passage of time.
- 2) On 9 August 2017, the Company entered into raw water purchase agreements with a private company for 10 years starting from 1 November 2017. The counterparties can extend the agreement for two times, not more than 10 years for each time (the maximum agreement period is 30 years). The Company agrees to purchase raw water at a minimum of 8 million cubic meters per year during the 1st-3rd year and 12 million cubic meters per year from the 4th year onwards.

39 Fair value of financial instruments

The fair value of financial instruments is as follows:

	Consolidated financial statements		(Unit: Million Baht) Separate financial statements	
	2018	2017	2018	2017
Long-term borrowings from financial institutions	3,881.6	4,644.1	3,501.6	2,487.9
Debentures	2,729.4	2,823.7	2,729.4	2,823.7

This fair value is categorised within level 3 (Note 3.2) which calculated by using the discounted future cash flow by market interest rate throughout the borrowing agreement period.

The majority of the Group's other financial asset and liabilities is short-term. The fair values are not materially different from the book value.

40 Impact from draft Amendment of Labour Protection Act

The draft amendment of Labour Protection Act, in December 2018, provides an increase in benefit of severance payment from 300 days to 400 days in case of employment termination of those employees who work continuously with the employer for more than 20 years.

Management will record the impact of the change in the financial statements when the Act is published in the Royal Gazette. Management has estimated that the employment benefit obligation will increase Baht 40.6 million in the consolidated financial statements and Baht 29.8 million in the separate financial statements. The aforementioned amount will be recognised in full in profit and loss when the Labour Protection Act is enacted.

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41 Information of usage and sales volume of raw water classified by distribution networks

A government agency, owner of the pipeline of distribution networks, requires the Company to disclose information about raw water usage and sales classified by distribution networks which is used for calculation of compensation as follows;

41.1 Usage and sales volume of raw water classified by distribution networks

	Separate financial statements			
	2018		2017	
	Volume Cubic Metres '000	Amount Baht'000	Volume Cubic Metres '000	Amount Baht'000
Total used volume of raw water				
Nong Pla Lai - Map Ta Pud Network	98,532	1,073,083	94,063	1,028,280
Dok Krai - Map Ta Pud Network	75,976	827,519	80,010	867,787
Chachoengsao - Chonburi Network	46,466	456,027	55,765	555,669
Nong Pla Lai - Nong Khor Network	28,772	305,656	26,291	279,778
Total	249,746	2,662,285	256,129	2,731,514
Less raw water used to produce tap water				
Dok Krai - Map Ta Pud Network	(15,484)	(153,289)	(16,858)	(166,890)
Nong Pla Lai - Nong Khor Network	(7,562)	(74,868)	(6,381)	(63,169)
Total sales of raw water	226,700	2,434,128	232,890	2,501,455

Sales of raw water from Chachoengsao - Chonburi Network consist of:

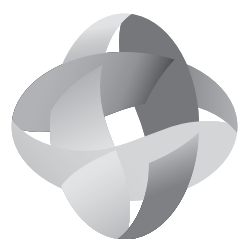
	(Unit: Baht'000) Separate financial statements	
	2018	2017
Nong Khor - Laem Chabang Network 1	247,958	332,702
Nong Khor - Laem Chabang Network 2	121,086	128,260
Chachoengsao Network	86,983	94,707
Total	456,027	555,669

41.2 Proportion of sales volume of raw water to end users

	(Unit: %) Separate financial statements	
	2018	2017
Industrial Estates	65	60
Waterworks Authority	14	16
Factories	21	24
Total	100	100

42 Events occurring after the statement of financial position

On 22 February 2019, a meeting of the Company's Board of Directors passed a resolution to propose that the Annual General Meeting of shareholders on 23 April 2019 adopts a resolution to pay a dividend of Baht 0.47 per share, or a total of Baht 781.9 million. According to the resolution of the Board of Directors on 9 August 2018, an interim dividend payment was made to shareholders on 5 September 2018 of Baht 0.20 per share, or a total of Baht 332.7 million from the earnings of the six months ended 30 June 2018. The remaining dividend payment of Baht 0.27 per share, or a total of Baht 449.2 million, will be paid and recorded after approval by the Annual General Meeting of shareholders.



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