

**Information Disclosure Report
(Form 56-1)**



Glow Energy Public Company Limited

31 May 2019

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1. Overview of the Business

1.1 Vision and Mission of the Company

Glow Vision

We are a leading power generation company providing sustainable and reliable energy solutions based on innovative use of diversified energy sources.

Glow Mission

Create value for our shareholders and customers in a sustainable manner through reliable products, profitable growth and knowledgeable employees with network of expertise.

Perform the business by developing and implementing environmentally and socially responsible projects while improving the quality of life of communities in areas where we do business.

1.2 Development of the Company and the group companies

Glow Energy Public Company Limited (“Glow Energy Plc.” or “the Company”) was incorporated as “The Cogeneration Public Company Limited” (“The Cogeneration Plc.”) in October 1993. ENGIE S.A. and its subsidiary through which it holds its stake in Glow Energy are hereafter collectively referred to as “ENGIE”, acquired its initial interest in Glow Company Limited. (“Glow Co., Ltd.”) in September 1997 and in Glow Energy Plc. in November 2000, after which the latter was de-listed. In December 2004, the Company’s majority shareholders adjusted their internal shareholding structure by acquiring shares of Glow Co., Ltd. Under the new structure, Glow IPP Company Limited (“Glow IPP”), Glow SPP 1 Company Limited (“Glow SPP 1”) and Glow Demin Water Company Limited (“Glow Demin”) became the Company’s subsidiaries.

In 2007, we formed two holding companies and one operating company: Glow IPP 2 Holding Company Limited (“Glow IPP 2 Holding”), Glow IPP 3 Company Limited (“Glow IPP 3”), and GHECO-One Company Limited (“GHECO-One”).

In September 2008, GHECO-One signed a long-term power purchase agreement with Electricity Generating Authority of Thailand (“EGAT”) and started construction of a 660 MW (Megawatts) coal fired project located in Map Ta Phut Industrial Estate (“MIE”). Glow Group owns a 65 percent stake in this project; WHA Industrial Development Public Company Limited. (“WHA”) owns the remaining 35 percent stake.

In May 2009, Glow Co., Ltd. acquired a 49 percent stake in Houay Ho Thai Company Limited (“HHTC”) and a 55 percent stake in Houay Ho Power Company Limited (“HHPC”) from ENGIE. HHTC is a holding company with a 25 percent stake in HHPC. Therefore, we effectively hold a 67.25 percent stake in HHPC. HHPC owns and operates a 152 MW hydro power plant in Attapeu province, Lao PDR.

In July 2011, the Company acquired 100 percent stake in Thai National Power Company Limited (“TNP”) from International Power Plc. (“IPR”), our major shareholder at that time, which later became 100 percent owned by ENGIE. TNP holds 100 percent stake in two subsidiaries; Thai National Power 2 Company Limited (“TNP 2”) and Rayong National Power Company Limited (“RNP”). TNP, TNP 2, and RNP

changed their names to Glow SPP 11 Company Limited (“Glow SPP 11” or “Glow SPP 11 Phase 1”), Glow SPP 12 Company Limited (“Glow SPP 12” or “Glow SPP 11 Phase 2”), and Glow SPP 13 Company Limited (“Glow SPP 13” or “Glow SPP 11 Phase 3”) respectively in December 2011. In 2013, Glow SPP 12 and 13 were merged with Glow SPP 11, in which today operates gas-fired cogeneration facilities generating and supplying electricity to EGAT under SPP scheme and electricity and chilled water to industrial customers in Siam Eastern Industrial Park (“SEIP”) (located in Pluak Daeng, Rayong).

In 2016, Eastern Seaboard Clean Energy Co., Ltd. (“ESCE”) was structured as a joint venture (at 33 percent each) between Glow IPP 3, WHA Energy Co., Ltd., and Suez (South East Asia) Ltd., ESCE holds 100 percent stakes in each of Chonburi Clean Energy Co., Ltd. (“CCE”), Rayong Clean Energy Co., Ltd. (“RCE”), and Glow Hemaraj Wind Co., Ltd. (“GHW”). In 2017, CCE was awarded a PPA for a waste-to-energy project (gross capacity of 8.6 MW).

In 2018, the PV solar rooftop project installed on the roof of the parking area at the factory of Michelin Siam Co., Ltd. (Michelin) in the WHA Saraburi Industrial Estate (“WHA SIL”) in Nong Khae, Saraburi province has completed construction and achieved COD. The rooftop solar system has an installed capacity of 867.24 kW. In February 2019, the solar rooftop project on the roof of the factory Continental Automotive (Thailand) Co., Ltd. in Amata City Industrial Estate at Rayong province has completed construction and started commercial operation. The system has an installed capacity of 999 kW.

In March 2019, Glow Energy, through Glow Co., Ltd., its subsidiary, has divested 100% in Glow SPP 1 to B.Grimm Power Service (Laem Chabang) Co., Ltd. Following the divestment, Global Power Synergy PCL (“GPSC”) completed the purchase of Glow Energy’s shares from ENGIE on 14 March 2019 resulting in GPSC holding 69.11% of total issued shares of Glow Energy.

In May 2019, GPSC made a Tender Offer to purchase Glow’s shares that were publicly traded in the the Stock Exchange of Thailand (“SET”) from minority shareholders. At the end of the Tender Offer Period, based on the report on the results of the Tender Offer by GPSC dated 24 May 2019, GPSC holds 95.25% of total number of outstanding shares in Glow Energy Plc.

The following timeline shows the key events in Glow Energy’s history and development

- October 1993:** Glow Energy incorporated under the name “The Cogeneration Public Company Limited”.
- February 1996:** The Cogeneration Plc. listed on the Stock Exchange of Thailand.
- April 1996:** The Cogeneration Plc.’s cogeneration plant began initial commercial operation.
- September 1997:** ENGIE formed a joint venture with WHA, in which each party shared a 50 percent stake in Glow Co., Ltd. (Formerly known as H-Power Company Limited). At the time, H-Power owned 100 percent of Glow SPP 1 (formerly known as Industrial Power Company Limited) and 51 percent of Glow IPP (formerly known as Bowin Power Company Limited).
- February 1998:** Glow SPP 1’s 124 MW cogeneration plant began commercial operation.

- March 1999:** Glow SPP 2/Glow SPP 3 (hybrid plant) began commercial operation.
- May 1999:** Glow Co., Ltd. acquired the remaining 49 percent stake in Glow IPP from International Generating Company Limited., increasing its interest to 100 percent.
- June 2000:** ENGIE increased interest in Glow Co., Ltd. to 75 percent.
- 2000-2004:** ENGIE progressively increased its interest in Glow Co., Ltd. to 100 percent in a series of transactions involving the indirect sale of a 5 percent stake in Glow IPP to WHA.
- November 2000:** ENGIE acquired a 62 percent stake in the Cogeneration from Sithe Pacific Holdings Limited.
- February/March 2001:** ENGIE increased its shareholding in the Cogeneration to 99 percent by purchasing Banpu's shares and conducting a tender offer for the remaining outstanding shares.
- August 2002:** The Cogeneration's shares delisted from the SET.
- January 2003:** Glow IPP's 713 MW plant in WHA Chonburi Industrial Estate 1 ("WHA CIE 1"), Bowin began commercial operation.
- May 2003:** Company name changed from The Cogeneration Public Company Limited to Glow SPP Public Company Limited.
- December 2004:** Glow SPP Public Company Limited ("Glow SPP Plc.") acquired 100 percent of Glow Co., Ltd. from ENGIE.
- February 2005:** Company name changed from Glow SPP Plc. to Glow Energy Plc.
- April 2005:** Glow Energy Plc. listed shares on the SET.
- September 2008:** Signed Power Purchase Agreement with EGAT and started construction of GHECO-One project in October 2008.
- May 2009:** Glow Co., Ltd. acquired 49 percent stake in HHTC and 55 percent stake in HHPC from ENGIE S.A. subsidiaries.
- November 2010:** Glow Energy's 115 MWeq (Megawatt Equivalent) coal-fired plant ("CFB 3") started commercial operation.
- December 2010:** SUEZ-Tractebel Energy Holding Cooperative U.A. was merged with GDF SUEZ Energy Asia, Turkey and Southern Africa B.V. holding 25 percent in Glow Energy.
- February 2011:** ENGIE merged its Energy International Business with International Power Plc. ("IPR"). Stake of Glow Energy held by ENGIE is part of the merger. After the

- combination, GDF SUEZ holds 70 percent of enlarged IPR.
- July 2011:** Glow Energy Plc. acquired 100 percent stake in TNP, which holds 100 percent stake in TNP 2 and Glow RNP.
- September 2011:** Glow Energy's 382 MWeq gas-fired cogeneration plant ("Phase 5") started commercial operation.
- December 2011:** TNP, TNP 2, and RNP changed names to Glow SPP 11, Glow SPP 12, and Glow SPP 13 respectively.
- June 2012:** ENGIE completed buyout of the minority shareholders of IPR.
- July 2012:** GHECO-One's 660 MW coal-fired IPP plant started commercial operation.
- August 2012:** Glow's 1.55 MW PV-Solar plant in Asia Industrial Estate at Rayong province started commercial operation.
- December 2012:** Glow SPP 12's 110 MW gas-fired cogeneration plant started commercial operation.
- June 2013:** Glow SPP 12 and Glow SPP 13 transferred their entire business to Glow SPP 11.
- August 2014:** The liquidation process for Glow SPP 12 and Glow SPP 13 was completed.
- April 2015:** Glow SPP 11's 19 MW new gas engine units (expansion of Glow SPP 11 Phase 3 plant) started commercial operation.
- October 2016:** Chonburi Clean Energy ("CCE") was awarded a waste-to-energy project (gross capacity of 8.6 MW). CCE is a joint venture (at 33 percent each) between Glow IPP 3, WHA Energy Co. Ltd., and Suez (South East Asia) Ltd.
- October 2016:** Glow Energy Myanmar Company Limited¹ is established, as a wholly-owned-subsubsidiary of Glow Co., Ltd.
- November 2017:** CCE's 8.6 MW waste-to-energy plant started construction, with commercial operations expected to start in November 2019.
- June 2018:** ENGIE signed an agreement with Global Power Synergy PCL to sell its entire (69.11%) stake in Glow Energy, subject to, among others, Energy Regulatory Commission ("ERC") approval.
- November 2018:** The PV solar rooftop project of 867.24 kW for Michelin Siam Co., Ltd. started commercial operations.
- December 2018:** ERC approved the acquisition by GPSC of the entire stake held by ENGIE in Glow Energy, subject to, among others, Glow Energy first divesting its entire stake in

¹ Glow Energy Myanmar Company Limited changed its name from ENGIE Myanmar Company Limited in October 2018.

Glow SPP 1.

February 2019 The PV solar rooftop project of 999 kW for Continental Automotive (Thailand) Co., Ltd. in Amata City Industrial Estate at Rayong province started commercial operations.

March 2019: Following the condition precedent set out by the ERC, Glow Energy, through Glow Co., Ltd., its subsidiary, has divested all shares in Glow SPP 1 to B.Grimm Power Service (Laem Chabang) Co., Ltd.

Following the divestment, GPSC completed the purchase of Glow Energy's shares from ENGIE on 14 March 2019 resulting in GPSC holding 69.11% of total issued shares of Glow Energy.

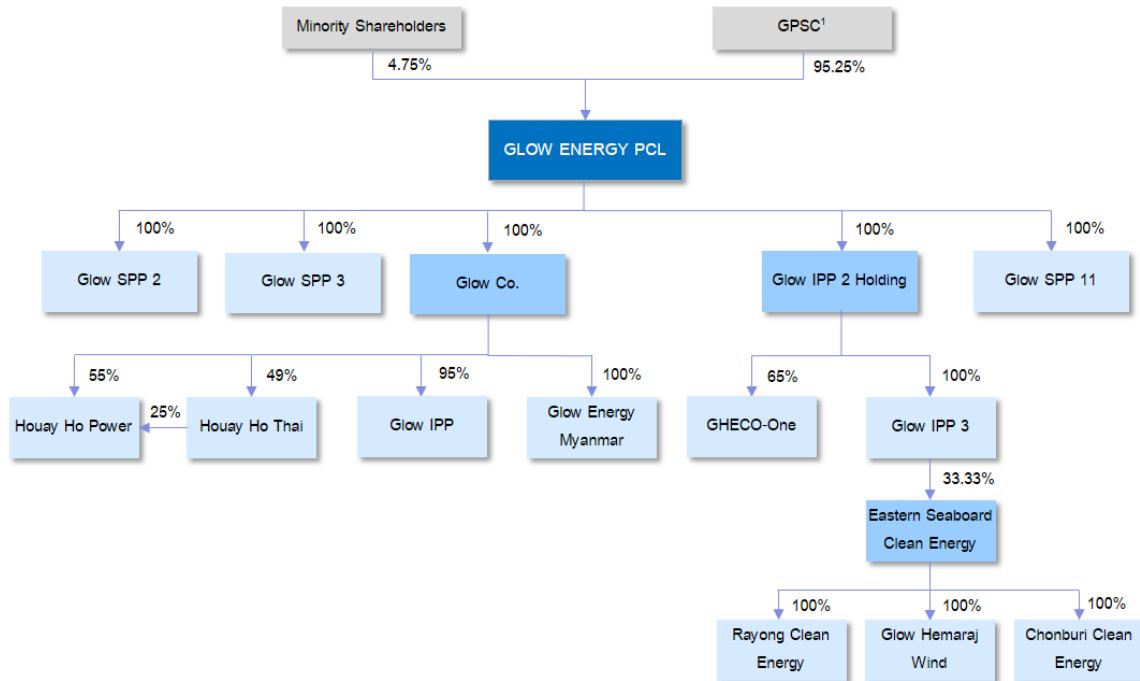
May 2019: GPSC made a Tender Offer to purchase Glow's shares that were publicly traded in the SET from minority shareholders. At the end of the Tender Offer Period, based on the report on the results of the Tender Offer by GPSC dated 24 May 2019, GPSC holds 95.25% of total number of outstanding shares in Glow Energy Plc.

1.3 Shareholding Structure of GLOW Group²

Glow Energy Public Company Limited, together with its subsidiaries, is one of the largest private electricity generators and provider of industrial utilities in Thailand, with operations in Thailand and the Lao People's Democratic Republic ("Lao PDR"). We operate Independent Power Producers ("IPP") and cogeneration facilities, most of which operate as Small Power Producers ("SPP") under Thailand's SPP program. Our core business is to produce and supply electricity to the Electricity Generating Authority of Thailand ("EGAT"), and to produce and supply electricity, steam, processed water and chilled water to industrial customers in the Map Ta Phut Industrial Estate ("MIE"), other industrial estates in the immediate vicinity of the MIE (together, the "MIE Area"), and Siam Eastern Industrial Park ("SEIP") in Pluak Daeng, Rayong.

² "Glow Group" mentioned in this attachment including 1) Glow Co., Ltd., 2) Glow SPP 2 Co., Ltd., 3) Glow SPP 3 Co., Ltd., 4) Glow SPP 11 Co., Ltd., 5) Glow IPP Co., Ltd., 6) Glow IPP 2 Holding Co., Ltd., 7) Glow IPP 3 Co., Ltd., 8) Glow Hemaraj Wind Co., Ltd., 9) Eastern Seaboard Clean Energy Co., Ltd., 10) Rayong Clean Energy Co., Ltd., 11) Chonburi Clean Energy Co., Ltd., and 12) Glow Energy Myanmar Co., Ltd.

The following diagram displays our current organizational and ownership structure as of 31 May 2019:



Note:

- 1) GPSC (Global Power Synergy Public Company Limited) directly holds a 41.09 percent in Glow Energy Plc. and holds its shares in Glow Energy Plc. through its wholly-owned subsidiary, GPSC Holding (Thailand) Co., Ltd. (formerly “ENGIE Holding (Thailand) Co., Ltd. ”), which holds a 54.16 percent in Glow Energy Plc.

Although separate companies within our corporate group own our key operating assets, we maintain a single and centralized management structure for all of our group’s companies and assets. This allows us to effectively monitor and coordinate our production facilities’ operations.

1.4 Relationships with Major Shareholders

Glow Energy Plc. is 95.25 percent held by and considered as part of GPSC.

Global Power Synergy Public Company Limited or GPSC is the power flagship of PTT Group, committed to energy security in support of growth of PTT Group and other industries. GPSC also seeks opportunities for investment in power projects both Thailand and abroad, while developing energy storage technology to become a global leading power company in innovation and sustainability. GPSC is listed in the Stock Exchange of Thailand (SET) and is represented in SET50 Index and SET100 Index To learn more about GPSC, please visit: www.gpscgroup.com

2. Business Descriptions

Glow Energy Plc. and its subsidiaries are one of the largest private electricity generators and providers of industrial utilities in Thailand. We operate Independent Power Producers (“IPP”) and cogeneration facilities, most of which also operate as Small Power Producers (“SPP”) under Thailand’s SPP program. Our core business is to produce and supply electricity to EGAT, and to produce and supply electricity, steam, processed water and chilled water to industrial customers in the MIE Area and SEIP.

We have operated in Thailand since 1993. Our principal production facilities are located in the industrial eastern seaboard of Thailand in Rayong and Chonburi Provinces. We also own hydroelectric plant in Lao PDR’s Attapeu Province. As of 31 March 2019, we had a total generating capacity of 3,084 MW of electricity, 1,116 tons per hour of steam, 5,292 cubic meters per hour of processed water and 3,400 refrigerated tons per hour of chilled water.

Electricity generation and sales are the most important components of our business, accounting for 84.1 percent of total revenues in 2018.¹ The generation and sale of steam is also a significant part of our business, accounting for 13.9 percent of total revenues in 2018. We currently own and operate nine production facilities. Their operating characteristics as of 31 March 2019, are:

- Glow IPP plant: Located in the WHA Chonburi Industrial Estate 1 (“WHA CIE 1”), 713 MW of electrical generating capacity;
- HHPC hydroelectric IPP plant: Located in Attapeu province, Laos PDR., 152 MW of electrical generating capacity;
- GHECO-One plant: Located in the Map Ta Put Industrial Estate (“MIE”), 660 MW of electrical generating capacity;
- Glow Energy cogeneration plants (“Phase 1&2”): Located in the Map Ta Phut Industrial Estate (“MIE”), 281 MW of electrical generating capacity; 550 tons per hour of steam; and 2,520 cubic meters per hour of processed water;
- Phase 3 cogeneration plants: Located in the MIE. The complex consists of:
 - Glow SPP 2/ Glow SPP 3 plant: 513 MW of electrical generating capacity; 190 tons per hour of steam; and 150 cubic meters per hour of processed water;
 - Glow Energy Phase 4 plant: 77 MW of electrical generating capacity; 137 tons per hour of steam and 2,050 cubic meters per hour of processed water;
 - Glow Energy CFB 3 plant: 85 MW of electrical generating capacity; 79 tons per hour of steam; and
 - Glow Energy Phase 5 plant: 328 MW of electrical generating capacity; 160 tons per hour of steam.

¹ Yearly information is presented instead of quarterly information in order to avoid misrepresentation of the business caused from periodic fluctuation that occurs during the year.

- Pluek Daeng cogeneration plants: Located in SEIP, consisting of:
 - Glow SPP11 Phase 1 plant (formerly known as Glow SPP 11 plant): 120 MW of electrical generating capacity; 2,200 refrigerated tons of chilled water;
 - Glow SPP11 Phase 2 plant (formerly known as Glow SPP 12 plant): 110 MW of electrical generating capacity; 1,200 refrigerated tons of chilled water;
 - Glow SPP11 Phase 3 plant (formerly known as Glow SPP 13 plant): 23 MW of electrical generating capacity; and
 - Glow SPP11 Phase 3 plant expansion: 19 MW of electrical generating capacity.
- Glow Energy Solar plant: Located in Asia Industrial Estate (“AIE”), 1.55 MW electrical generating capacity by photovoltaic technology (solar cells).
- Glow Energy Solar PV Rooftop: Located at Michelin’s factory in the WHA Saraburi Industrial Estate in Nong Khae, Saraburi province, 867.24 kW electrical generating capacity by polycrystalline silicon panels (Solar cells).
- Glow Energy Solar PV Rooftop: Located at Continental Automotive’s factory in the Amata City Industrial Estate in Rayong province, 999 kW electrical generating capacity by polycrystalline silicon panels (Solar cells).

In 2018, we had total consolidated revenues of THB 53,913 million and a net profit of THB 8,379 million. As of 31 December 2018, we had total assets of THB 104,428 million.

In the first quarter of 2019, we had total consolidated revenues of THB 12,982 million and a net profit of THB 1,901 million. As of 31 March 2019, we had total assets of THB 109,061 million.

(A) Revenue structure

We derive revenue primarily from sales of electricity to EGAT and sales of electricity, steam, clarified water, demineralized water and chilled water to industrial users in the MIE Area and SEIP. The following table breaks down our revenues by source for the periods indicated:

| Revenue (unit: million Baht) | FY2018 | FY2017 | % change |
|---|-----------------|-----------------|-------------|
| Revenue from Sales of Goods and Interest Earned from Financial Lease | | | |
| Electricity | | | |
| Sales to EGAT by IPPs | 14,601.1 | 13,408.7 | 8.9% |
| Sales to EGAT by Glow IPP | 1,577.0 | 1,581.3 | -0.3% |
| Sales to EGAT by GHECO-One | 12,293.6 | 11,109.0 | 10.7% |
| Sales to EGAT by HHPC ¹ | 730.4 | 718.5 | 1.7% |
| Sales to EGAT by SPPs ² | 13,924.7 | 13,747.7 | 1.3% |
| Sales to Industrial Customers | 16,180.9 | 15,722.9 | 2.9% |
| Interest earned from financial lease (Glow IPP) | 634.2 | 567.3 | 11.8% |
| Total | 45,341.0 | 43,446.6 | 4.4% |
| Steam | 7,514.3 | 6,984.7 | 7.6% |
| Other Products and Services | 465.9 | 447.2 | 4.2% |
| Total | 53,321.2 | 50,878.5 | 4.8% |
| Other Income | 592.2 | 1,658.8 | -64.3% |
| Total Revenue | 53,913.4 | 52,537.3 | 2.6% |

Notes: 1) Including sales of electricity to Electricite Du Laos (EDL)

2) Including revenues from electricity sales to PEA under VSPP scheme by Glow Energy Solar

| Revenue (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|---|-----------------|-----------------|--------------|
| Revenue from Sales of Goods and Interest Earned from Financial Lease | | | |
| Electricity | | | |
| Sales to EGAT by IPPs | 2,273.5 | 3,340.1 | -31.9% |
| Sales to EGAT by Glow IPP | 382.1 | 436.0 | -12.4% |
| Sales to EGAT by GHECO-One | 1,682.9 | 2,759.1 | -39.0% |
| Sales to EGAT and EDL by HHPC | 208.5 | 145.1 | 43.7% |
| Sales to EGAT by SPPs ² | 3,431.8 | 3,133.9 | 9.5% |
| Sales to Industrial Customers ³ | 4,037.5 | 4,011.5 | 0.6% |
| Interest earned from financial lease (Glow IPP) | 147.8 | 123.8 | 19.4% |
| Total | 9,890.6 | 10,609.3 | -6.8% |
| Steam | 1,940.6 | 1,751.3 | 10.8% |
| Other Products and Services | 110.6 | 114.1 | -3.1% |
| Total | 11,941.8 | 12,474.7 | -4.3% |
| Other Income | 1,039.7 | 552.5 | 88.2% |
| Total Revenue | 12,981.6 | 13,027.2 | -0.4% |

Notes: 1) Including sales of electricity to Electricite Du Laos (EDL)

2) Including revenues from electricity sales to PEA under VSPP scheme by Glow Energy Solar

3) Including revenues from electricity sales to industrial customers under solar rooftop scheme

(B) Business strategy

Our aim is to optimize profitability through operational excellence and value-creating growth in Thailand and neighboring countries. We have crafted a business strategy that takes into account three perspectives: commercial, operational and financial.

We have balanced our short-term and long-term objectives to create a well-defined set of priorities and action plans. For our existing operations, this involves enhancements in utilization, efficiency and reliability of existing generation units and distribution networks. This will assist us in reducing overall costs and improving profit margins. We also place strong emphasis on the timely completion of new facilities within their respective budgetary frameworks, optimizing capital costs, and strengthening of internal reporting systems and procedures. To further enhance customer satisfaction and service, in 2018 we have developed and implemented EnergyLens, a platform which supports customers to monitor their power and steam consumption effectively in real time. We are also focusing additional resources on sustainable growth in the areas of renewable energy. We have been providing rooftop solutions to existing and new industrial customers. In addition, our joint venture company (CCE) is currently building a waste-to-energy power plant in Chonburi. We will continue developing a highly motivated and competent team of Thai managers and staffs to support these efforts.

(1) Commercial perspective

From a commercial perspective, we are focused on: (i) growing our core business; (ii) proactively managing client relationships; (iii) optimizing fuel costs and securing fuel supply; and (vi), maintaining and enhancing our local knowledge and relationships.

(1.1) Pursue growth of our core business

We intend to grow our core business by simultaneously increasing our capacity to meet growing industrial demand for electricity and steam, and by positioning ourselves to compete successfully for opportunities to install new generating capacity in Thailand and in neighboring markets.

We are considering opportunities to expand our power business in Thailand, Cambodia, Laos, Myanmar and Vietnam. It is also our intention to continue to grow our cogeneration business both in Thailand and other parts of South East Asia.

To achieve this, we will focus on maintaining and enhancing our operations, providing reliable and high-quality services to existing customers and new customers, meeting all obligations under the EGAT Power Purchase Agreements, and monitoring changes in regulatory environments announced by government bodies (including regulators and policy makers). It is our belief that this will put us in a favorable position to bid for new electricity generation projects in Thailand and neighboring countries in the future.

(1.2) Proactively manage industrial customer relationships

Our industrial customer base is a key component of our business. The majority of our industrial customers in MIE Area are in the petrochemical industry, which relies upon a stable supply of electricity and steam to avoid start-up costs associated with interruptions that occur during production. Our Supply and Services reliability sets us apart from our competitors, and has made us the electricity and industrial utility supplier of choice in our markets. In particular, we target steam and high-load electricity customers who value reliability of supply. The majority of our industrial customers in SEIP are producers of automotive and motorcycle parts. With our reliability of supply and services, most factories in SEIP are our customers.

We place a high-degree of importance on strengthening relationships with existing customers, not only by providing them with a reliable supply of electricity and industrial utilities, but also by working closely with them to better understand their needs and enhance the provision of services. To do this, we use a variety of customer service based action plans designed to improve customer satisfaction. These action plans help us to understand each customer's respective needs, and improve supply reliability, communication, incident handling and problem solving. Recently, we had launched EnergyLens, a digital platform which allow customers to monitor their power and steam consumption real time through Web base and Mobile platform. We also offered solar rooftop solution to customers for energy saving.

We firmly believe that customer satisfaction is the key to retaining and expanding contracts with existing customers and also acquiring new customers.

(1.3) Optimize our fuel management by reducing fuel cost and ensuring supply availability

Our business is constantly exposed to fluctuations in the price and availability of fuel (and in particular coal). The nature of our business also requires that we have fuel supply arrangements that ensure sufficient supply at all times. We also seek to maintain prudent levels of back-up fuel supplies. Both these factors are critical to our ability to operate.

As such, we commit significant resources to fuel management. We are perpetually seeking opportunities to enhance our coal procurement arrangements to reduce coal and freight costs, which for certain parts of our business have a direct impact on our profitability. To do this, we will continue to examine our open positions on fuel costs. In accordance with our coal risk management policy and in line with our ongoing efforts to protect against fuel price fluctuations, we entered into a hedging agreement with coal suppliers, financial institutions, and other hedge providers in 2017 for part of the

coal to be delivered in 2018, and we may enter into similar hedging arrangements in the future. In addition, for SPP and IPP PPAs for coal-fired units with EGAT, changes in fuel costs are substantially passed through to EGAT through the indexation of the Energy Charge.

(1.4) Maintain and enhance local knowledge and relationships

Our core business is to generate and supply electricity and steam to customers in Thailand, and our business strategies reflect our long-term commitment to the country. In this light, we focus substantial resources on identifying and training key individuals to lead our company into the future. We also place a high priority on strengthening our institutional relationship with EGAT, the government, related government authorities, and regulators.

(2) Operational perspective

From an operational perspective, our focus is on:

(2.1) Maintaining and improving reliability, availability and capacity utilization

Our plant capacity utilization can be improved through capacity enhancement measures as well as by reducing the number of unplanned outages and days required for scheduled maintenance. We continually seek to improve our performance in all these areas through various measures, such as condition and performance monitoring, preventive and effective maintenance, and the reduction of forced outages through root cause analysis and enhanced operating procedures.

(2.2) Improving fuel consumption efficiency

As fuel is a major cost item, fuel efficiency is an important driver of our profitability. Our aim is to continually improve operational efficiency by optimizing dispatch, monitoring the performance of critical equipment and work processes, optimizing the coal mixing prior to feeding to the boilers as well as energy loss monitoring and mitigation.

(2.3) Reduce operational costs

It is our aim to minimize operational and maintenance costs without compromising plant reliability or contractual obligations to supply customers. We do this by ensuring the manner and timing at which costs are incurred is transparent and by exercising good judgment with respect to the need for those expenses. We use reliable systems and cost management procedures to ensure prudent cost management.

Since 2010, we have entered into long-term parts agreements with the original equipment manufacturers for the supply of gas turbine parts and reconditioning services to Glow IPP and Glow SPP 1 for the next three major inspections of each generating unit (approximately 8-9 years), which helps to reduce costs. In 2012, we have entered into another long-term parts and services agreement with IHI to cover the procurement of parts and inspection services scope for the three new gas turbines of Glow SPP11 Phase 2 plant. In 2017, we have entered in a new long-term service agreement for Glow Energy Phase 5 to supply both gas turbine parts and inspection services for a period of approximately the next 15 years. These long-term parts and services agreements secure availability and competitive prices of parts and services supplied by reputable gas turbine manufacturers.

(2.4) Execute projects effectively

We are, on an ongoing basis, either constructing new power plants to serve new customers' demand, implementing projects to enhance performance, and/or constructing new distribution lines to our customers. A dedicated team of employees handles these projects in an organized and prudent manner to avoid delay, poor performance and the financial consequences thereof.

(3) Financial Perspective**Maintain and improve our financial position**

Our focus on excellence also includes financial management. We actively evaluate opportunities to minimize the weighted average cost of capital by optimizing our capital structure while reducing our exposure to financial risks. We seek to mitigate foreign exchange risks by matching the currency costs and debt service payments with the currency, direct or indirect linkage, of free cash flow. We have a prudent but flexible interest rate risk management system that is managed by our experienced finance team in determining the amount and timing of fixing interest rates. In addition, we also seek to maximize long term shareholder value by actively monitoring our cash balance in conjunction with our capital expenditure plans.

We also seek to improve our management reporting systems and procedures by enhancing the reliability of these systems, and continually reviewing and documenting the processes involved therein. To do this, we use our Internal Control Management methodology.

The implementation of this methodology, developed for the internal control management governance, ensures compliance with our written and approved policies/procedures, as well as with the laws and regulations of the jurisdictions in which we operate.

The aforementioned laws and regulations seek to promote corporate responsibility, increase public disclosure, and improve the quality and transparency of financial reporting and auditing. They also make company executives explicitly responsible for establishing, evaluating, and monitoring the effectiveness of the company's internal control structure.

(C) Competitive strengths

We believe that our principal competitive strengths are:

(1) Critical Scale and Reliability of Operations

We believe that we have achieved a critical scale of operations in Thailand. As of 31 March 2019, Glow IPP has 2 electrical generators, GHECO-One has one supercritical electrical generator, our cogeneration facilities in MIE Area have an aggregate of 21 electrical generators and 16 steam generators, and our cogeneration facilities in SEIP have an aggregate of 12 electrical generators.

Our size is critical in particular to our competitiveness in MIE Area, as our cogeneration facilities in MIE Area are interconnected to provide a reliable supply of electricity and steam to our industrial customers. Our steam network is of a size that ensures a substantial reduction in the risk of supply interruption and pressure loss in the event that any one or more units fail.

The interconnection of our facilities provides us with a number of advantages: enabling us to dispatch our lowest-cost generating units and improve the reliability of our electricity and steam supply to customers; allowing us greater flexibility to coordinate and rotate maintenance schedules; and ensuring our customers greater flexibility when scheduling maintenance outages and in supplying peak start-up demand. Overall, these factors have together allowed our cogeneration facilities to maintain high reliability rates and reduce operating costs.

It is our assertion that, from our perspective, our competitors cannot replicate the scale of our cogeneration operations in the near term, giving us a distinct competitive advantage. The scale of our operations also allows us to capitalize on synergies between our various businesses, including but not limited to: (i) the presence of system redundancies that limit the risk of system of failure; (ii) the presence of economies of scale that improves profitability; (iii) more efficient spare parts management; (iv) improved operational expertise; (v) large-scale system automation; (vi) highly qualified, trained, and (vii) experienced personnel able to carry out tasks and procedures more effectively; and leverage with regard to suppliers.

Our size and long-term presence in the marketplace also allows us to attract a highly motivated and competent workforce that gives us key market expertise and credibility as a serious player in the Thai energy industry. We operate IPP and cogeneration facilities – most of which operate as SPPs under Thailand’s SPP program– giving us a major presence in two distinct sectors of the Thai electricity supply market.

Our business “footprint” in Thailand is diverse, which allows us to attract high-value commercial customers while simultaneously sustaining and increasing cooperation with public sector customers in Thailand. Additionally, our full or near-full ownership and sole operational control of our key assets enables us to control strategic business decisions and react quickly and in a coordinated manner to market developments. We are confident that a similar model could be replicated to develop new businesses in other countries within Glow’s perimeter.

(2) Strategic location and assets

(2.1) The MIE Area²

In addition to a critical scale of operations, the location and concentration of our assets also provides us with a key competitive advantage. We are the principal private electricity supplier and one of the largest industrial utilities suppliers in the MIE Area, the largest and most important industrial estate for petrochemical companies operating in Thailand.

We operate a centralized utility park that enables us to apply strategic resources in a focused manner reflected in operational strengths. Our presence in the MIE Area provides us with an established business presence in a key commercial area of Thailand. This has generated a number of significant opportunities to develop important business relationships with some of Thailand’s largest companies.

Our facilities are located centrally within the MIE and are surrounded by several key petrochemical producers. We have a supply infrastructure that connects our facilities to clients via an underground electrical network as well as an above-ground steam pipe network.

Our assets are also diversified. We operate both gas-fired and coal-fired generating units; sell to industrial customers as well as to EGAT; sell material amounts of both electricity and steam; and operate

² The MIE Area or Map Ta Phut Complex covers the area of MIE, AIE and WHA EIE.

IPP, SPP and non- SPP cogeneration facilities. Together, this diversified portfolio of products, customers and plants ensures our long-term competitiveness as a major player in the Thai energy supply market.

(2.2) The SEIP Area

The SEIP Area is located in industrial estate with a high concentration of automobile and motorcycle parts manufacturing. Our advantage is that we are the only private utilities supplier in the SEIP Area. We own generating units, power transmission lines and chilled water distribution pipeline. Any expansion of existing industrial users and/or new clients will likely choose our reliable utility supply.

(3) Established track record as a reliable supplier focusing on customer satisfaction

Having operated in Thailand since 1993, we have an established reputation as a reliable provider of electricity and steam. Reliability of supply is important to our industrial customers, especially in the petrochemical industry. As such, we focus on developing and constantly improving our supply reliability to differentiate ourselves from our competitors. For example, our generating park in the MIE Area is centralized and interconnected. We also have a dedicated transmission network. Our reliability of supply to industrial customers is further enhanced through the implementation of critical redundancies and underground cabling for electricity customers.

We also pride ourselves on providing a high level of customer service to clients, as we see customer satisfaction as a key driver to retaining and increasing business with existing clients, as well as acquiring new clients. Our strong track record of solid performance, particularly with industrial customers in the MIE Area and the SEIP Area, has strengthened our reputation.

That our core business is the generation and supply of electricity and steam helps differentiate us from our competitors, many of whom have a broader scale of operations and lack our specialization. This allows us to focus management resources on business development and operational excellence in a manner that our competitors cannot.

(4) Stability of revenues and cash flows

For MIE Area, most of our electricity and steam sales are made under long-term sales contracts with durations of approximately 15 years for industrial customers, and between 21 to 25 years for sales to EGAT. Although original term contracts with industrial customers have expired or are due to expire over the next few years, we have been able to extend majority of those agreements for additional 10-15 years terms. Thus, only about 1 percent of our current MWeq sold to industrial customers in MIE Area will expire within 2019 and we are currently negotiating to extend those contracts. For electricity supply contracts with industrial customers in SEIP, we have been able to extend majority of those agreements up to 10 years. In 2018, we were able to extend the contracts with industrial customer representing about 53MW of electricity, 167 tph of steam and 289 cubic meter of treated water in MIE Area.

The EGAT Power Purchase Agreements expire gradually through 2037 for SPPs and in 2028 for Glow IPP. The EGAT Power Purchase Agreement with GHECO-One will expire in 2037. This provides our business, as a whole, an element of stability and predictability that affords us some level of insulation from competition.

In addition, and as previously noted, most of our industrial customers are in the petrochemical industry and due to the nature of petrochemical production processes, they have relatively high load factors and stable levels of demand.

2.1 Products and Production Facilities

Our core business is the generation and supply of electricity to EGAT and the Provincial Electricity Authority (“PEA”), and the generation and supply of electricity and steam, with clarified, demineralized water and chilled water as secondary products, to industrial customers within the MIE Area and nearby industrial estates and SEIP.

2.1.1 Products

Electricity

We produce electricity for sale to EGAT, PEA (for our solar plant under the VSPP program) and to industrial customers. Electricity sold to EGAT, Thailand’s single wholesale buyer of electricity, is routed into EGAT’s national transmission system. EGAT sells this electricity to both the Provincial Electricity Authority and Metropolitan Electricity Authority (“PEA” and “MEA”), which distribute it through their respective distribution networks to end users throughout Thailand.

We also own and operate an interconnected system of supply sources and transmission lines. The various companies within GLOW Group have entered into contracts to sell electricity to industrial customers in the MIE Area and SEIP. Although the contracts of Glow Energy, Glow SPP 2 and Glow SPP 3 are principally with industrial customers in the MIE, each company also has additional industrial customers in the MIE Area. Glow SPP 11 sells to industrial customer in the SEIP area. Glow Energy Solar PV Rooftop sells to a customer in WHA SIL area and Amata City Industrial Estate. All electricity in MIE Area is supplied to customers through dedicated transmission lines. Our industrial customers use this electricity for a variety of industrial purposes, the majority of which are associated with petrochemical, petrochemical-related and automobile/motorcycle manufacturing and production processes.

Steam

We also supply steam to industrial customers in the MIE Area. Glow Energy, Glow SPP 2 and Glow SPP 3 sell to industrial customers in the MIE and AIE. Steam is sold to our customers at varying pressure levels and used for a multitude of industrial purposes. Due to the inherent limitations of transporting steam over long distances, most of our steam customers are located within four kilometres of steam generating facilities.

Processed water

We also sell clarified and demineralized water to industrial users in the MIE Area. Although this is not one of our group’s core businesses, it is complementary to our electricity and steam generation businesses. As such, we initially entered into the business to generate water for our own production purposes. We do, however, sell excess processed water to industrial customers.

Chilled water

Unlike in the MIE area, industries in the SEIP area do not require steam in their manufacturing processes. At the SEIP, we supply chilled water to industrial customers for cooling in their manufacturing processes. Chilled water is produced using steam generated from the SPP11 power plant through an absorption chiller.

2.1.2 Production facilities

The following table lists our production facilities' key capacity statistics as of 31 March 2019:

| Plant Name | Location | Production Capacity | | | | | Power Plant Commercial Operation Date |
|-------------------------------|---------------------|---------------------|-----------------|--------------------|----------------------------|-------------------|---------------------------------------|
| | | Electricity (MW) | Steam (tons/hr) | Chilled water (RT) | Processed Water (cu.m./hr) | | |
| Production Facilities | | | | Clarified | Demin | | |
| Glow IPP | WHA CIE 1 | 713 | - | - | - | - | Jan. 2003 |
| GHECO-One | MIE | 660 | - | - | - | - | Jul. 2012 |
| Houay Ho Power Plant | Laos ⁽¹⁾ | 152 | - | - | - | - | Sep. 1999 |
| Glow Energy Phase 1 | MIE | - | 250 | - | 1,110 | 230 | Jul. 1994 |
| Glow Energy Phase 2 | MIE | 281 | 300 | - | 900 | 280 | Apr. 1996 |
| Glow Energy Phase 4 | MIE | 77 | 137 | - | 1,500 | 550 | Jan. 2005 |
| Glow Energy Phase 5 | MIE | 328 | 160 | - | - | - | Sep. 2011 |
| Glow Energy CFB 3 | MIE | 85 | 79 | - | - | - | Nov. 2010 |
| Glow Energy Solar Plant | AIE | 1.55 | - | - | - | - | Aug. 2012 |
| Glow Energy Solar PV Rooftop | WHA SIL | 0.87 | - | - | - | - | Nov. 2018 |
| Glow Energy Solar PV Rooftop | Amata City IE | 0.99 | - | - | - | - | Feb. 2019 |
| Glow SPP 2/SPP 3 (Phase 3) | MIE | 513 | 190 | - | - | 150 | Mar. 1999 |
| Glow SPP 11 Phase 1 | SEIP | 120 | - | 2,200 | 300 ⁽²⁾ | 60 ⁽²⁾ | Oct. 2000 |
| Glow SPP 11 Phase 2 | SEIP | 110 | - | 1,200 | 200 ⁽²⁾ | 12 ⁽²⁾ | Dec. 2012 |
| Glow SPP 11 Phase 3 | SEIP | 23 | - | - | - | - | Oct. 2006 |
| Glow SPP 11 Phase 3 expansion | SEIP | 19 | - | - | - | - | Apr. 2015 |
| Total | | 3,084 | 1,116 | 3,400 | 4,010 | 1,282 | |

Source: Glow Energy

Notes: 1) Attapeu province, Lao People's Democratic Republic

2) Raw material for chilled water

Although separate legal entities within our corporate group own these plants, they are centrally managed through a single, coordinated management structure. This allows us to more effectively monitor and coordinate operations of our facilities and implement policies on a group-wide basis.

Glow IPP plant

Glow IPP plant is a natural gas-fired combined cycle plant that began commercial operation in January 2003. The plant, which generates and sells electricity to EGAT, operates as an independent power producer under Thailand's IPP program. The plant had an electrical generating capacity of 713 MW.

GHECO-One plant

GHECO-One plant located at MIE Area is a supercritical coal-fired thermal plant that began commercial operation in July 2012. The plant, which generates and sells electricity to EGAT, operates as an independent power producer under Thailand's IPP program. The plant has a net electrical generating capacity of 660 MW.

Houay Ho Power plant

Houay Ho Power plant is a hydro-power plant that began commercial operation in September 1999. The plant is located in Attapeu province, southern part of the Lao People's Democratic Republic. It has a net electrical generating capacity of 152 MW. The plant, which generates and sells electricity of 126 MW to EGAT and 2 MW to EDL, operates as an Independent Power Producer under Thailand's IPP program.

Glow Energy Phase 1 plant

Glow Energy Phase 1 plant, which began commercial operation in July 1994 and is located in the MIE, consists of a natural gas-fired "D" type boiler for steam generation and a water production plant. The plant is capable of generating 250 tons per hour of steam, 1,110 cubic meters per hour of clarified water, and 230 cubic meters per hour of demineralized water. Because this facility uses relatively inefficient boilers for steam generation, we do not enter into long-term steam supply contracts with respect to this facility. Instead, it is used primarily to satisfy short-term and start-up demand, provide excess capacity, and to strengthen our overall system reliability. The processed water generated by this facility is sold to industrial customers in the MIE.

Glow Energy Phase 2 plant

Glow Energy Phase 2 plant located in the MIE is a combined cycle natural gas-fired cogeneration plant that began commercial operation in April 1996. As of 31 December 2011, the plant had an electrical generating capacity of 281 MW and a steam generating capacity of 300 tons per hour. Electricity generated by this plant is sold both to EGAT and to industrial customers in the MIE. Steam is sold to industrial customers in the MIE. The Glow Energy Phase 2 plant is also equipped with water treatment facilities capable of producing 900 cubic meters per hour of clarified water and 280 cubic meters per hour of demineralized water, which are either consumed by the Glow Energy Phase 1 plant and/or sold to industrial customers in the MIE and nearby industrial estates.

Glow Energy Phase 4 plant

Glow Energy Phase 4 plant is a natural gas-fired cogeneration plant located in the MIE that began commercial operation in January 2005. The Glow Energy Phase 4 Plant has increased its clarified and demineralized water plant capacities since 2010 to serve additional demand in the area of MIE. Plant had an electrical generating capacity of 77 MW, steam generating capacity of 137 tons per hour, clarified water generating capacity of 1,500 cubic meters per hour, and demineralized water generating capacity of 550 cubic meters per hour. Electricity generated by this plant is wholly sold to EGAT Steam and processed water from the plant are sold to industrial customers in the MIE and nearby industrial estates.

Glow Energy Phase 5 plant

Glow Energy Phase 5 plant is located adjacent to the Glow SPP 3 plant in the MIE. The plant consists of gas turbine, heat recovery steam generator and steam turbine. It can generate electricity maximum of up to 382 MW, designed to have 328 MW of electricity and maximum of 160 tons per hours of steam. Electricity and steam produced from this unit are supplied to the existing Glow distribution networks. This unit is a relatively large cogeneration unit compared to the other cogeneration units we have in our fleet. Due to the size and its efficiency Glow Energy Phase 5 power plant is operated as a base load unit while other small cogeneration units are utilized to fulfill EGAT PPAs and balancing industrial load. The plant has been in commercial operations since September 2011.

Glow Energy CFB 3 plant

Glow Energy CFB 3 plant, which began commercial operation in November 2010, is located adjacent to the Glow SPP 3 plant in the MIE. The plant consists of coal-fired circulating fluidized bed boiler and steam turbine. The plant was designed for an electrical generating capacity of 85 MW at a steam generating capacity of 79 tons per hour or a 115 MWeq electrical generating capacity without steam extraction. Electricity and/or steam generated by Glow Energy CFB 3 plant are distributed to the current electricity and steam networks for our industrial customers in the MIE Area.

Glow Energy Solar plant

Glow Energy Solar plant is a photovoltaic solar power plant located at AIE that began commercial operation in August 2012. The plant generates and sells electricity to PEA. The plant has a net electrical generating capacity of 1.55 MW.

Glow Energy Solar PV Rooftop

Glow Energy Solar PV Rooftop is PV solar system installed on the roof of the parking area at Michelin's factory in the WHA Saraburi Industrial Estate in Nong Khae, Saraburi province. The plant began commercial operation in November 2018. The plant generates and sells electricity to Michelin Siam Co., Ltd. The plant has a net electrical generating capacity of 0.87 MW.

Another Solar PV Rooftop is installed on the roof of the factory Continental Automotive (Thailand) Co., Ltd. in Amata City Industrial Estate at Rayong province has completed construction and started commercial operation. The system has an installed capacity of 0.99 MW.

Glow SPP 2/Glow SPP 3 plant (Phase 3)

Glow SPP 2/Glow SPP 3 plant is a hybrid natural gas- and coal-fired cogeneration facility located in the MIE that began commercial operation in March 1999. Although we manage the plant as a single

generation facility, Glow SPP 2 owns the gas-fired generation portion of the facility and Glow SPP 3 owns the coal-fired portion.

The plant is divided into two parts: (i) two 35 MW gas turbines with two heat steam generating units; and (ii), two 222 MW hybrid cogeneration units, each comprising a steam turbine, two 35 MW gas turbines and two heat recovery units, and coal-fired circulating fluidized bed boiler. The Glow SPP 2/Glow SPP 3 plant had an electrical generating capacity of 513 MW, a steam generating capacity of 190 tons per hour and a demineralized water production capacity of 150 cubic meters per hour. Electricity generated by the Glow SPP 2/Glow SPP 3 plant is sold to EGAT and industrial customers in the MIE Area. The plant's steam and processed water are sold to industrial customers in the MIE and nearby industrial estates.

Glow SPP 11 Phase 1 plant

Glow SPP 11 Phase 1 plant is a natural gas-fired cogeneration plant located in the SEIP that began commercial operation in October 2000. The plant consists of two gas turbines, one steam turbine and an absorption chiller and electric chiller for a backup unit. The plant has electrical generating capacity of 120 MW and chilled water generating capacity of 2,200 refrigerated tons per hour. Electricity from the plant is partly sold to EGAT, while electricity and chilled water sold to industrial customers in the SEIP are transmitted via our own transmission network and chilled water pipelines, respectively.

Glow SPP 11 Phase 2 plant

Glow SPP 11 Phase 2 plant is a natural gas-fired cogeneration plant located in the SEIP that began commercial operation in December 2012. The plant consists of two gas turbines, one steam turbine, an absorption chiller and electric chiller for augmenting the gas turbines output. The plant has electrical generating capacity of 110 MW and chilled water generating capacity of 1,200 refrigerant tons per hour. Electricity from the plant is partly sold to EGAT, while electricity and chilled water sold to industrial customer in the SEIP are transmitted via our own transmission network and chilled water pipelines, respectively.

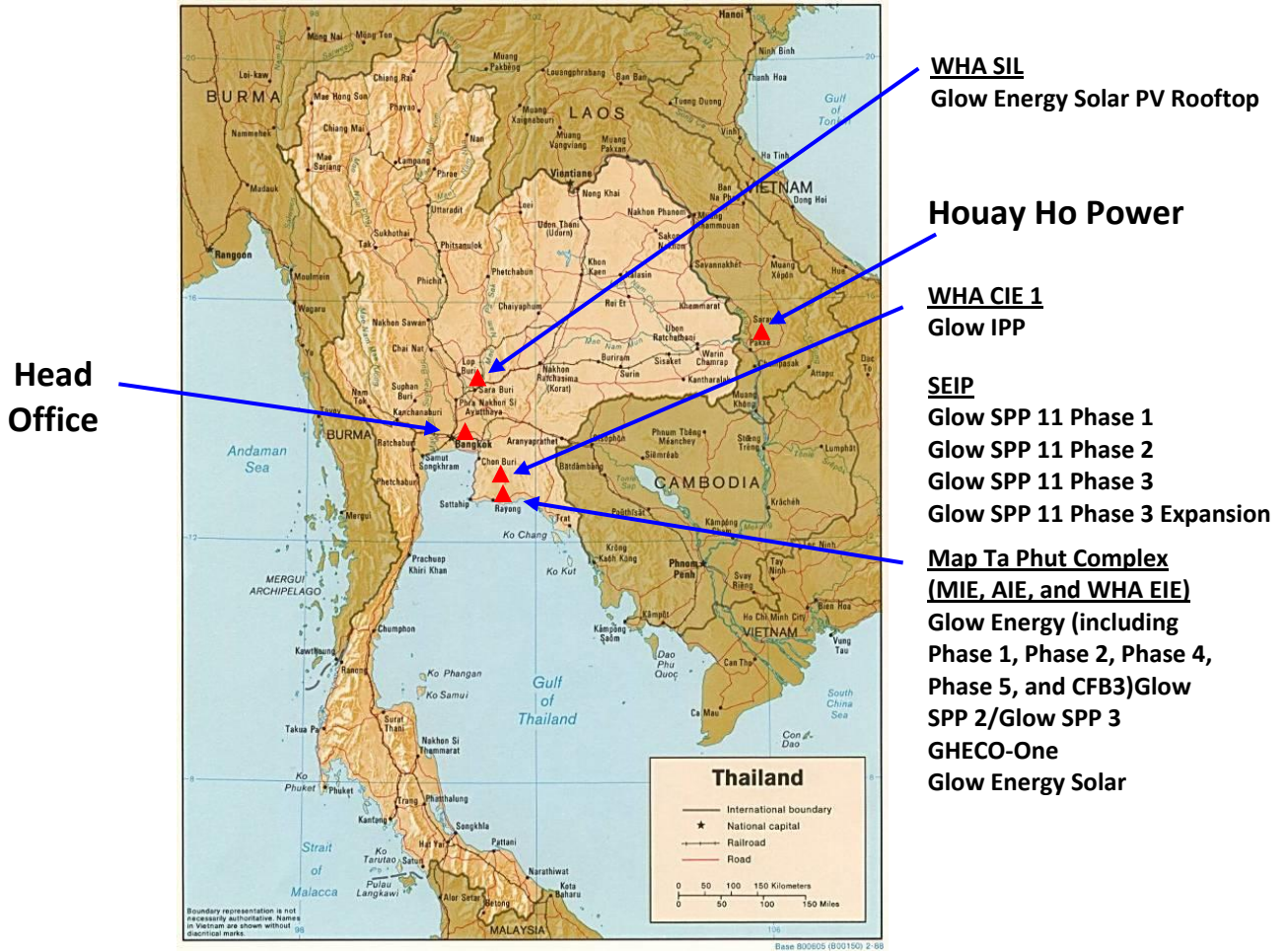
Glow SPP 11 Phase 3 plant

Glow SPP 11 Phase 3 plant consists of four electricity generating reciprocating gas-fired engines located in the vicinity of Glow SPP 11 plant, at the SEIP. The plant can generate a total output of 23 MW into the common network. All four engines were installed and commenced commercial operation in October 2006.

Glow SPP 11 Phase 3 plant expansion

Glow SPP 11 Phase 3 plant expansion consists of two electricity generating reciprocating gas-fired engines located in the vicinity of Glow SPP 11 plant, in SEIP. The plant can generate a total output of 19 MW into the common network. The two engines were installed and commenced commercial operation in April 2015.

Head Office and Plant Locations



2.1.3 Production processes

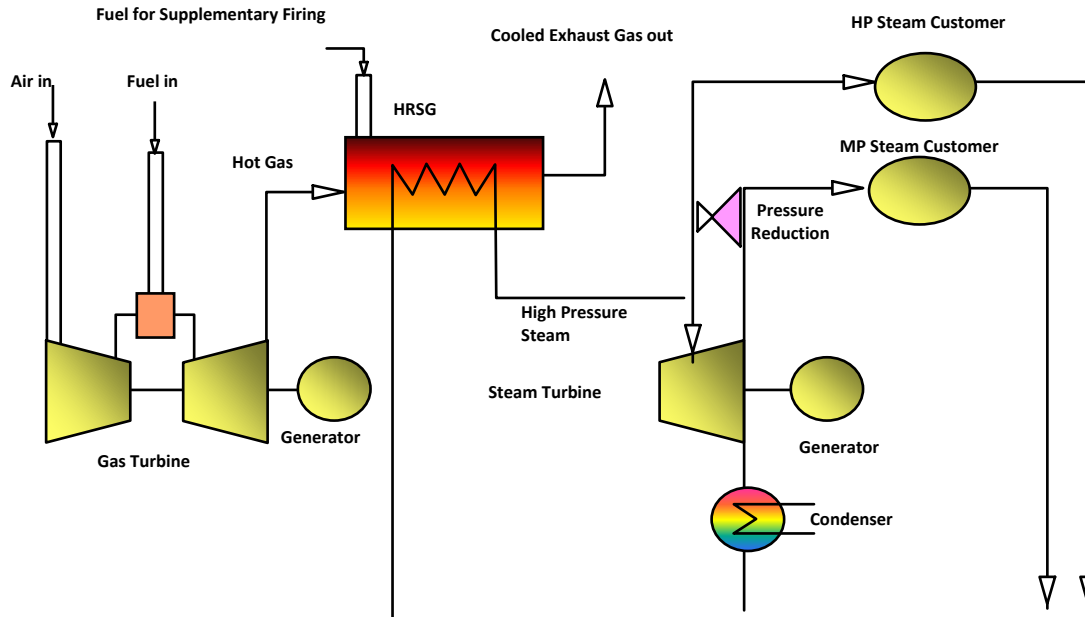
2.1.3.1 Production processes of electricity, steam and demineralized water

Production processes of electricity and steam

In the combined cycle gas turbine cogeneration process, air is compressed and combined with fuel (natural gas or diesel). This mixture is then passed into the combustion chambers of gas turbine generating units. The fuel’s ignition and combustion within these chambers generates high pressure and hot gas. The hot gas expands and is passed through the gas turbine, which turns electric generators that produce an electrical current and voltage. The turbine’s exhaust gases then pass through a heat recovery steam generator, where water is heated to generate steam. A portion of the steam generated by the heat recovery steam generator is supplied directly to customers requiring high-pressure steam. The remaining steam is passed through a steam turbine, driving another generator to produce electricity. Steam extracted from an intermediate stage of the steam turbine is sold to customers requiring medium pressure steam. Medium pressure steam is also supplied to customers through pressure reduction and attemperation of high-pressure steam.

The following simplified diagram illustrates the combined cycle gas turbine cogeneration process:

Combined Cycle Cogeneration Process



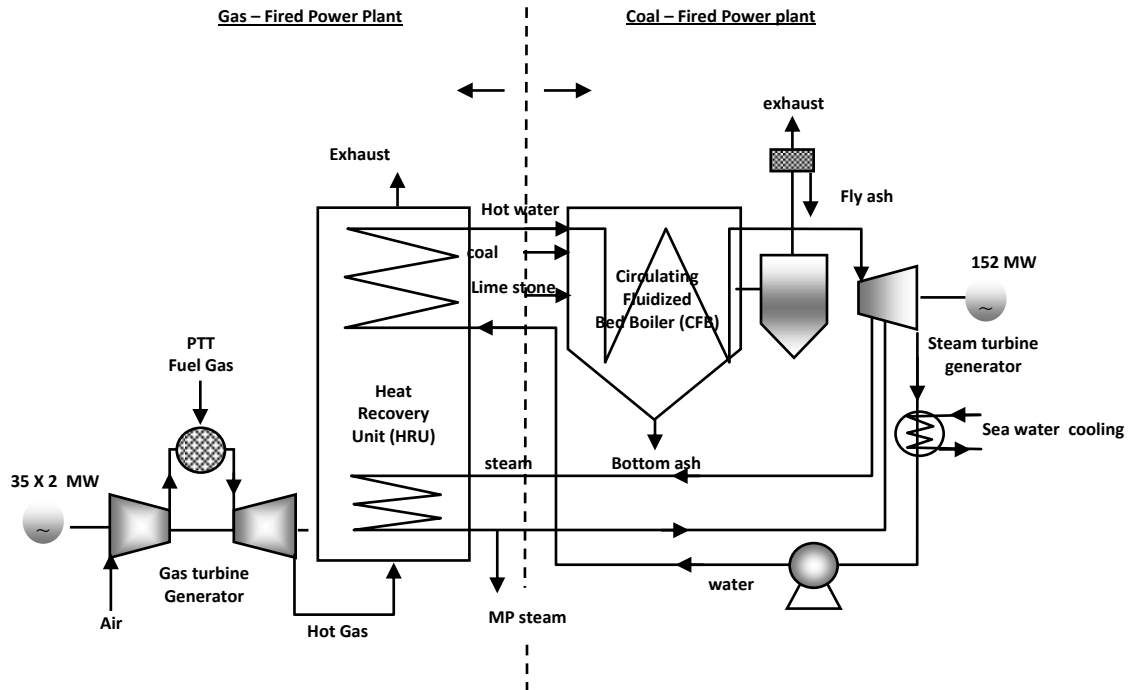
Our Glow IPP facility operates as a combined cycle electrical generating facility and produces electricity solely for EGAT.

Glow Energy operates as combined cycle cogeneration facilities, and produce both electricity and steam. Glow SPP 2 also has two stand-alone combined cycle cogenerating units, in addition to its "hybrid" facilities discussed below.

Our Glow SPP 2/SPP 3 plant employs a hybrid cycle cogeneration process, in which both gas turbines and steam turbines generate electric power and a circulating fluidized bed boiler generates steam. In contrast to our other electricity generation plants, which rely on gas as their primary fuel source, the Glow SPP 2/SPP 3 plant is fueled by both coal and gas. While the specific cycle arrangement used in this process is not common, the equipment used is standard in the international power generation industry. We chose to install a hybrid facility in order to increase our use of coal, a lower-cost fuel, and to reduce our reliance on natural gas as a fuel source.

The following simplified diagram illustrates the Glow SPP 2/SPP 3 plant's hybrid electricity generation process:

Hybrid Cogeneration Process



Production processes of processed water

Demineralized and clarified water is produced using relatively simple processes. To produce clarified water, raw water is pumped into a clarifier and treated using a combination of coagulation, flocculation, sedimentation and filtration processes. Coagulation involves adding a coagulant to the water (such as Aluminum Chlorohydrate) that causes fine particles to form as suspended material in the raw water. A flocculant (such as anionic polymer) is then added to aggregate these fine particles together so that they will sink (or agglomerate) to the bottom of the clarifier. This forms sediment, which is removed in the form of sludge and processed for further water removal. The clarified water is then taken off the top of the clarifier with minimal suspended solids and sent to sand filters. The final stage of this process is filtration, during which the water is filtered to remove any existing small particles that were not removed in the final sedimentation process. The final clarified water is then sold to customers or used internally for the production of demineralized water, service water or fire water.

Production of demineralized water from clarified water involves a chemical process. Clarified water is introduced into a series of deionization tanks called cation, anion and mixed bed exchange vessels. Once in these vessels, the water comes into contact with hydrogen and hydroxide ions present on the resin beads layered within these vessels. Over 99 percent of all ions in the water are removed as the water passes through the series of resin vessels. This is achieved through a chemical reaction whereby the cations in the water are exchanged for the hydrogen in the cation resin vessel, and the anions in the water are exchanged for hydroxide in the anion vessel. The resulting water is then "polished" in the mixed bed vessel to remove trace ions. The final effluent from the mixed bed vessel is essentially "pure" water.

We also use a reverse osmosis membrane technology to make demineralized water. In this process, the effluent water is also “polished” using a mixed bed resin vessel to produce essentially “pure” water. Demineralized water is used for internal steam production and also sold to customers for use in their various production processes.

2.1.3.2 Operational management

All of our facilities are managed under a single management structure that optimizes our operational performance by ensuring our ability to provide a high-quality, reliable supply of electricity and industrial utilities to our customers while simultaneously increasing profit margins. Although all of our plants are managed under a single organizational structure, Glow IPP plant, Houay Ho plant and GHECO-One plant are under a separate operational structure from our cogeneration facilities. This is primarily due to the fact that these plants are under the IPP program and sell entire electrical generation to EGAT directly through EGAT transmission network. The IPP plants are independently operated from dedicated control rooms.

Effective management of our facilities and operations is fundamental to our success. Our ability to increase revenue from existing customers is limited, as the revenue structure of most contracts fluctuates over the life of the contract due to the built-in adjustment mechanisms contained therein. The price structure of our long-term contracts does, however, allow us to capitalize on increases in efficiency that reduces operating costs.

As fuel is our major cost item, increases in operational efficiency (i.e. the quantity of fuel needed to supply a given amount of energy to our customers) contribute significantly to our profitability. We are therefore constantly seeking to improve operational efficiency by optimizing dispatch procedures, monitoring critical equipments, streamlining work processes, maximizing utilization of coal fired units and Glow Energy Phase 5 plant at MIE, and monitoring and mitigating energy loss.

Our key operational strategies are:

- **Improve reliability, capacity utilization and performance:** The reliability of electricity and steam generating units and their corresponding distribution networks is of critical importance to our industrial customers. In 2016, we have launched different technical, managerial and procedural activities to further improve our network reliability;
- **Operational cost reduction:** We seek to minimize operational and maintenance costs by ensuring the manner and timing at which costs are incurred are transparent and by exercising good judgment with respect to the need for those expenses. We also focus on improving cost management through reliable systems and cost control procedures; and
- **Project execution:** We are perpetually constructing new power plants and distribution lines to serve new customers and improving performance of existing plants and distribution systems for the benefit of existing customers. A dedicated team of employees handle these projects in an organized and prudent manner that is designed to avoid delays, ensure high performance and limit the financial consequences thereof.

2.1.3.3 Performance of our electrical generating facilities

Our ability to market and sell electricity hinges upon the effectiveness of our generating facilities operation. This requires us to focus on operational elements that include but are not limited to: the fuel efficiency of electricity generation processes; the percentage of time that our facilities are available to produce electricity; and the amount of time and number of unplanned outages experienced. For example, under the terms of our EGAT power purchase and power supply agreements, we are penalized for any failure to make our generation facilities available for dispatch and/or to supply electricity at certain times of the day at the contracted rates. Our EGAT power purchase agreements also contain contracted heat rates that penalize poor fuel efficiency and reward high fuel efficiency.

We measure the fuel efficiency of generating facilities by calculating their “heat rates”. Heat rates measures the amount of fuel required to produce one kWh of energy, and are converted at a standard rate for different types of fuel (i.e. natural gas, coal and diesel oil) into British thermal units (“BTUs”). A lower heat rate is indicative of a more efficient production process. The heat rates at our electricity generating units vary due to differences in equipment and design, and in part due to the varying generating capacities of the different fuel sources used. Generally, coal-fired plants have higher heat rates than natural gas-fired plants, and larger generating facilities produce electricity more efficiently, which results in lower heat rates.

We use the following measurements to gauge operational performance:

- **Availability Factor (“AF”):** the percentage of hours in a given period for which a unit was available for service, whether or not it was actually operated;
- **Planned Outage Factor (“POF”):** the percentage of hours in a given period for which a unit experienced planned outages. A planned outage is an outage, scheduled well in advance, incurred to perform testing, inspection or overhaul work. Planned outages typically occur once or twice per year;
- **Maintenance Outage Factor (“MOF”):** the percentage of hours in a given period for which a unit experienced maintenance outages. A maintenance outage is defined as a maintenance related outage that can be deferred for a period extending beyond the next weekend, but requires the unit to be removed from service prior to the next planned outage; and
- **Forced Outage Factor (“FOF”):** the percentage of hours in a given period for which the unit was in a forced outage. A forced outage is an outage that requires that the unit to be removed from service (a trip or a shutdown) before the end of the next weekend. A forced outage also results when an attempt to bring a unit into service is unsuccessful, which is also referred to as a starting failure.

The availability and outage factors for plants consisting of more than one turbine generator are based on the arithmetic average of the availability and outage factors of those generators. A high availability factor generally indicates that the facility is capable of generating during a large portion of the period measured, while a low unplanned outage factor, consisting of maintenance outages and forced outages, generally indicates that our facilities are well maintained and reliable.

The table below summarizes our electricity generating facilities' Availability Factor (AF) for the periods indicated.

| Availability Factor | Year ended 31 December, | | |
|------------------------------------|-------------------------|--------|-------|
| | 2016 | 2017 | 2018 |
| Glow IPP plant | 93.16 | 100.00 | 99.16 |
| GHECO-One plant | 91.52 | 86.76 | 96.71 |
| Glow Energy plant ⁽¹⁾ | 96.66 | 96.67 | 97.79 |
| Glow SPP 2 plant | 97.89 | 98.72 | 95.66 |
| Glow SPP 3 plant | 89.55 | 88.72 | 93.78 |
| Glow SPP 1 plant ⁽²⁾ | 96.97 | 94.37 | 90.96 |
| Houay Ho Power Plant | 80.68 | 86.42 | 91.20 |
| Glow SPP 11 Phase 1 Plant | 96.38 | 97.75 | 92.01 |
| Glow SPP 11 Phase 2 Plant | 98.22 | 98.10 | 90.45 |
| Glow SPP 11 Phase 3 Plant | 91.43 | 97.18 | 97.98 |
| Glow SPP11 Phase 3 Plant Expansion | 84.09 | 84.25 | 85.47 |

Source: Glow Energy

Notes:

- 1) Excludes Glow Energy Phase 1, which operates relatively inefficient boilers, is principally used for short-term and back-up supply purposes and includes Glow Energy Phase 5 plant.
- 2) On 13 March 2019, Glow SPP1 was divested from Glow Group to B.Grimm Power Service (Laem Chabang) Co., Ltd.

We believe that our system-wide performance is enhanced significantly by the interconnection of our cogeneration facilities, which allows us to back up individual facilities with multiple other facilities, greatly reducing the risk of supply interruptions to customers.

Our power and steam supply agreements with industrial customers typically contain conditional liquidated damages provisions that generally require us to compensate customers for service interruptions.

We have entered into back-up power purchase agreements with EGAT pursuant to which EGAT will supply us with electricity during periods in which we are unable to supply electricity to our industrial customers during outages. Pricing under these agreements is based on the standard PEA electricity tariff for large-scale electricity purchasers. As this is typically higher than the price at which we sell electricity to our industrial customers, we lose money when we are required to rely on these arrangements. In the past, we have not been required to rely on these back-up arrangements for any material length of time.

2.1.3.4 Utilization of production facilities

In addition to the performance indicators set out above, a key determinant of operating performance is the level at which generating facilities are operated. Generally, the closer a facility is to operate at full capacity, the more quickly we are able to recover investment costs and operate from a position of profitability.

A capacity factor is another measurement used to determine a facilities operating performance. A capacity factor, which is expressed as a percentage represents the net actual energy produced compared to nominal capacity in a given period.

The table below displays the capacity factor information for our electricity and steam production facilities:

| Capacity Factor ¹ | Year ended 31 December, | | |
|-------------------------------|-------------------------|--------|--------|
| | 2016 | 2017 | 2018 |
| Glow IPP plant ² | | | |
| Electricity | 4.58 | 0.56 | 0.61 |
| GHECO-One plant | | | |
| Electricity | 90.27 | 86.84 | 95.20 |
| Glow Energy (Phase 2) plant | | | |
| Electricity | 63.55 | 53.44 | 44.48 |
| Steam | 103.29 | 114.85 | 112.74 |
| Glow Energy (Phase 4) plant | | | |
| Electricity | 77.73 | 78.62 | 76.71 |
| Steam | 87.27 | 89.06 | 86.42 |
| Glow Energy (Phase 5) plant | | | |
| Electricity | 86.38 | 84.54 | 89.76 |
| Steam | 67.66 | 68.68 | 81.43 |
| Glow Energy (CFB 3) plant | | | |
| Electricity | 96.10 | 113.94 | 107.77 |
| Steam | 64.42 | 51.28 | 48.68 |
| Glow SPP 1 plant ³ | | | |
| Electricity | 73.11 | 71.64 | 70.38 |
| Steam | 51.07 | 51.46 | 46.47 |

| Capacity Factor ¹ | Year ended 31 December, | | |
|-------------------------------------|-------------------------|--------|--------|
| | 2016 | 2017 | 2018 |
| Glow SPP 2 plant | | | |
| Electricity | 58.26 | 63.42 | 61.73 |
| Steam | 37.23 | 48.10 | 49.35 |
| Glow SPP 3 plant | | | |
| Electricity | 67.00 | 68.19 | 70.41 |
| Steam | 293.01 | 263.84 | 276.35 |
| Houay Ho Power plant | | | |
| Electricity | 29.22 | 30.45 | 32.13 |
| Steam | - | - | - |
| Glow SPP 11 Phase 1 plant | | | |
| Electricity | 76.75 | 77.00 | 75.89 |
| Steam | - | - | - |
| Glow SPP 11 Phase 2 plant | | | |
| Electricity | 86.58 | 85.44 | 78.82 |
| Steam | - | - | - |
| Glow SPP 11 Phase 3 plant | | | |
| Electricity | 9.99 | 11.18 | 8.56 |
| Steam | - | - | - |
| Glow SPP 11 Phase 3 Plant Expansion | | | |
| Electricity | 27.54 | 25.83 | 29.91 |
| Steam | - | - | - |

Source: Glow Energy

Notes:

- 1) Excludes Glow Energy Phase 1, Glow Energy Solar and Glow Energy Solar PV Rooftop.
- 2) In 2016, 2017 and 2018, EGAT minimally dispatch GIPP, due to high reserve margin of the whole system.
- 3) On 13 March 2019, Glow SPP1 was divested from Glow Group to B.Grimm Power Service (Laem Chabang) Co., Ltd.

As noted above, one of our key competitive strengths is our system reliability, as reflected in our ability to offer industrial customers a secure and constant supply of industrial utilities.

The tables below display our cogeneration facilities' supply reliability data for the periods indicated:

MIE facilities' supply reliability data for our operation:

| Average reliability ^{1,2} , % | Year ended 31 December, | | |
|--|-------------------------|--------|--------|
| | 2016 | 2017 | 2018 |
| Electricity | | | |
| Glow Energy, Glow SPP 2, Glow SPP 3 | | | |
| 22 kV supply | 99.96 | 99.99 | 100.00 |
| 115 kV supply | 99.96 | 100.00 | 100.00 |
| Glow SPP 1 ³ | | | |
| 22 kV supply | 99.75 | 99.98 | 99.99 |
| 115 kV supply | 100.00 | 100.00 | 100.00 |
| Steam | | | |
| Glow Energy, Glow SPP 2, Glow SPP 3 | | | |
| High pressure supply | 99.75 | 99.97 | 100.00 |
| Medium pressure supply | 100.00 | 99.99 | 100.00 |
| Glow SPP 1 ³ | | | |
| Medium and low pressure supply | 100.00 | 100.00 | 99.99 |

Notes:

- 1) Reliability factor is a measurement of Glow's ability to perform its utility supply obligations under the conditions specified in its agreements with its customers during each contract year. Reliability factor in respect of each customer is generally calculated by taking the sum of the actual number of hours that Glow's utility is made available to that customer and equivalent partial available hours (calculated over partial restriction of utility supply) that Glow utility has made available to its customer during the period, divided by the total number of hours in such contract year (excluding force majeure events and schedule maintenance). Average reliability for each product is calculated by taking a mathematical average of the reliability factors in respect of each customer.
- 2) In 2016, the reliability of our networks was not up to Glow standards. An action plan has been developed and followed up. Some of the activities will continue in 2019. An asset management program specially for the network is being developed. Managerial activities are primary directed to the improvement of the network reliability.
- 3) On 13 March 2019, Glow SPP1 was divested from Glow Group to B.Grimm Power Service (Laem Chabang) Co., Ltd.

SEIP facilities supply reliability data for our operation:

| Average reliability, % | Year ended 31 December, | | |
|------------------------|-------------------------|-------|-------|
| | 2016 | 2017 | 2018 |
| Electricity | | | |
| Glow SPP11 | | | |
| 22 kV supply | 99.76 | 99.88 | 99.89 |

2.2 Market and Competition

2.2.1 Marketing and Sales

Our marketing and sales function is central to our business, as it allows us to maintain and strengthen our relationships with our existing customer base and acquire new customers for the growth of our business.

EGAT is our largest and most important customer. We strive to strengthen our relationship with EGAT by fully complying with the terms of our EGAT power purchase agreements and wherever possible working closely with EGAT to resolve differences or disagreements. We market our products to industrial customers on the basis of our ability to provide superior reliability. As noted earlier, this is of critical importance to industrial customers, particularly those in the petrochemical industry. It is our firm belief that our supply reliability is superior to that of our competitors.

Generally, we seek customers with high and stable load requirements for electricity, steam and chilled water. This enhances our ability to predict and manage load requirements while simultaneously allowing us to capitalize on our cogeneration facilities to achieve maximize efficiency. We price electricity, steam and chilled water sales to industrial customers using both an “avoided-cost model” and a “cost plus margin model” that allow us to more effectively price products and optimize profit margins.

We have a dedicated industrial sales department to identify potential business, both from new and existing customers. The department is also responsible for preparing and negotiating new sales agreements.

For MIE Area, we operate primarily under long-term contracts with a relatively small group of key, repetitive electricity, steam and water products customers. For SEIP Area, contracts term is shorter (2-10 years term); however, these customers have been repeated electricity and chilled water products customers similar to MIE Area. As such, we employ a dedicated account manager in our industrial customer relations department to manage relationships with existing customers. We maintain positive and professional working relationships by cooperating closely with customers. In addition, we strive to develop complementary services and products that we expect will benefit our customers in the future.

It is our philosophy that the quality of our products and services is directly related to our ability to understand and meet each customer’s unique needs. With this aim in mind, our marketing department works closely with our industrial sales and customer relations departments to prepare individualized customer action plans. Our customer relations department also handles contract management as well as technical and commercial complaints and incidents.

Together, these unique organizational characteristics help us to maintain a level of operational excellence and deliver high quality products and services consistently and reliably.

2.2.2 Customers

Our customer base is composed of both private and public sector clients that include EGAT and industrial customers.

2.2.2.1 EGAT

We sell a significant portion of the total electricity generated at our plants to EGAT, a state enterprise created under, and subject to, the Electricity Generating Authority of Thailand Act. EGAT is the dominant participant in the Thai electricity market. It owns and manages the majority of Thailand's electricity generating capacity, as well as the nation's transmission network. EGAT is also Thailand's largest electricity generator, with a total generating capacity of 14,566 MW as of 31 March 2019.

To date, we have not experienced any material problems with EGAT regarding payments for capacity made available and electricity delivered under existing EGAT power purchase agreements.

Sales to EGAT by Glow IPP and GHECO-One

General

We sell electricity to EGAT under long-term power purchase agreements. The contracts for EGAT power purchase agreements are different for IPPs ("IPP power purchase agreements") and SPPs ("SPP power purchase agreements"). Our IPP power purchase agreements have a term of 25 years from the IPPs' commercial operation date. The agreements stipulate that IPPs are responsible for financing, constructing and commissioning power plant facilities in compliance with agreed technical characteristics. The agreements also stipulate that IPPs are responsible for operating and maintaining these facilities upon their successful commission. EGAT has the exclusive right to dispatch the generation of electricity from our IPPs and GHECO-One into the transmission network (subject to certain minor limitations).

Payments

Under the IPP power purchase agreement we receive two principal types of payment from EGAT:

- **"Availability Payments,"** which EGAT is required to make if IPP plants are available to generate electricity with the agreed characteristics at agreed levels in response to dispatch instructions from EGAT, regardless of whether or a dispatch instruction is issued. These payments ensure a return on our investment in the facility and cover fixed operating and maintenance costs; and
- **"Energy Payments,"** which EGAT makes for electricity supplied to EGAT in response to dispatch instructions. These payments are designed to cover fuel, fuel transportation and variable operation and maintenance costs incurred by IPPs in the production of electricity supplied to EGAT.

We also earn an "added facility charge" from EGAT for Glow IPP, which is a payment used to reimburse Glow IPP for amounts advanced to EGAT to build new transmission facilities and cover other access costs incurred on behalf of EGAT to connect Glow IPP plant to EGAT's transmission grid.

Costs and pass-through

Under the IPP power purchase agreement, EGAT compensates IPPs for changes in fuel and fuel transportation costs in form of higher or lower energy payments. Although EGAT's payments to IPPs under the IPP power purchase agreement are denominated in THB, the portion of availability payments

with regard to our fixed capital investment, fixed operation and maintenance costs are indexed to THB per USD exchange rates and Consumer Price Index.

EGAT bears cost from increases in taxes (except for income taxes) or other changes in law that increase operating costs at IPP plants. Any reduction in taxes (except for income taxes) or other costs due to changes in law is also passed through to EGAT.

Force majeure

Our IPP power purchase agreement also contains extensive *force majeure* provisions constituting nine separate types of events, including:

- severe weather;
- plague;
- war;
- strikes;
- changes in law;
- failure to obtain government approvals (other than due to Glow IPP's failure or omission);
- accident, earthquake, sabotage, fire or explosion;
- expropriation; and
- a *force majeure* affecting the performance of any person that is party to a material maintenance, fuel supply, service or other contracts.

A separate term, "governmental *force majeure*", is defined to apply *force majeure* events of war, changes in law, failures to obtain government approvals and expropriation in which the action or inaction of the government is the controlling and/or contributing force.

Our IPP power purchase agreements provide that: (i) if IPPs are unable to make its generating facilities available due to a *force majeure* event that is not a governmental force majeure, EGAT is only required to make availability payments to IPPs to the extent IPPs' facilities are actually available; (ii) if EGAT is unable to perform its obligations due to a *force majeure* event that is not a governmental *force majeure*, it must for the first six months of the *force majeure* event, pay to IPPs their debt service costs and, after six months, it must, make full availability payments to IPPs (including for payments not made during the initial six months); and (iii) if a governmental *force majeure* prevents either IPPs or EGAT from performing the obligations under the agreement, EGAT is still required to make its availability payments to IPPs (subject to certain modifications in their calculation to reflect the fact that a *force majeure* may render the original calculation formula inapposite).

Force majeure can also give rise to termination rights under the IPP power purchase agreements. Either party may terminate the agreement if a *force majeure* event other than a

governmental *force majeure* event affects IPPs for a period exceeding one year. EGAT may terminate the agreement if a governmental *force majeure* affects either party for a period exceeding one year.

Certain termination provisions require EGAT to purchase IPPs' generating plant if EGAT terminates the agreement due to a *force majeure* event. This is the case for a non-governmental *force majeure* event that affects EGAT for more than one year and a governmental *force majeure* event affecting either party that continues for more than one year. The agreement contains a basic framework for the compensation to be paid in this situation.

Events of default

Our IPP power purchase agreements contain provisions for a number of events that could potentially lead to termination pursuant to an event of default or the occurrence and continuation of a *force majeure* event. The termination provisions for events of default provide both IPP and EGAT with the right to terminate the agreement after applicable cure periods in respect of the other party's event of default having expired.

Events of termination that entitle EGAT to terminate the agreement include: a payment default by IPPs; severe damage to IPPs' plants (as specified in the IPP power purchase agreement); the occurrence of specified insolvency-related events relating to IPPs; certain material deadlines being missed; certain changes in control of IPPs; and the consistent failure to achieve expected availability (to the degree specified in the IPP power purchase agreements). Events of termination that entitle IPP to terminate the agreement include: EGAT's payment default; EGAT's breach of a material provision of the IPP power purchase agreements; and certain insolvency events relating to EGAT.

Our IPP power purchase agreements contain specific provisions that ensure IPPs are paid a certain amount in the event that the agreement is terminated for reasons of *force majeure*. If any *force majeure* event (other than a governmental *force majeure*) affects IPPs and continues for more than one year, either IPPs or EGAT may terminate the agreement without any payment requirements.

If a *force majeure* event (other than a governmental *force majeure*) affects EGAT, continues for more than one year, and results in EGAT's termination of the agreement, EGAT is required to pay IPPs an amount equal to the sum of: (i) all amounts outstanding under IPPs' financing documents; (ii) IPPs' paid-up share capital and share premiums; and (iii) IPPs' retained earnings, less the amount of any related insurance proceeds received.

If a governmental *force majeure* event that affects either IPPs or EGAT continues for more than one year and results in EGAT's termination of the agreement, EGAT is required to pay an amount that: (i) is not less than all amounts outstanding under IPPs' financing documents; and (ii) takes into account the condition and historical performance of the plant, its remaining useful life, the economic value of the plant's generating capacity, the depreciated cost of the plant, IPPs' historical returns, and the nature and ability to cure the *force majeure* event.

Technical and other provisions

The IPP power purchase agreement sets forth pertinent terms such as: scheduled commercial operation dates and other critical milestones (all of which have been met); detailed operating characteristics the plant must achieve; damages in the event of delays in completion; testing protocols; step-in rights; and environmental requirements.

The Glow IPP power purchase agreement requires Glow IPP to maintain sufficient supplies of backup fuel. All IPP power purchase agreements require EGAT to provide standby electricity to IPP. The agreement also sets out specific liquidated damages for either party's failure to perform its obligations.

In addition, the IPP power purchase agreements also require that following any privatization, the privatized entity remains government owned or controlled, or, if neither, that it remains capable of performing the obligations of its predecessor.

Sales to EGAT by our SPPs

General

We also sell electricity to EGAT under a total of 9 SPP power purchase agreements. Our SPP power purchase agreements generally carry original terms of 21 to 25 years, under which we are responsible for financing the construction and commissioning of power plant facilities in compliance with the agreed technical characteristics set out in the SPP power purchase agreement and, thereafter, for operating and maintaining these facilities.

SPP power purchases are standard-form agreements with uniform substantive terms that apply to all SPPs. There was no opportunity for us to negotiate these agreements.

Payments

Under our SPP power purchase agreements, EGAT is obligated to make minimum monthly capacity payments (subject to monthly foreign exchange rate adjustments), which generally allow us to recover fixed capital expenditures and fixed operating costs. In contrast to IPP Power purchase agreements, under which our capacity and energy payments are calculated with regard to specific operating circumstances, capacity and energy payments for our SPPs are determined by the SPP program's specific guidelines without reference to our specific SPPs.

EGAT is required to purchase a minimum amount of energy from our SPPs. EGAT also pays us separately for the electricity that we actually generate on its behalf and that which is sold. EGAT has make-up rights that permit it to demand delivery of any electricity it pays for but does not use for a period of two years following any year in which it uses less electricity than its minimum purchase obligation.

Under the terms of the SPP power purchase agreements, our SPPs are entitled to reduce EGAT's minimum entitlement to facilitate sales to third parties. In the case of such a reduction, EGAT's fixed payment obligations are reduced by a corresponding amount and EGAT is entitled to a refund of any payments made (plus interest on such payments) for electricity not supplied.

Conversely, in most of our SPPs power purchase agreements, any failure by our SPPs to meet capacity requirements for a period of 18 months could lead to termination of the power purchase agreement by EGAT, but only with respect to the amount of capacity that we have failed to deliver, and require us to refund capacity payments in respect of the shortfall amount. For Glow Energy Phase 4 and Glow SPP 11 Phase 2, the condition set forth under the power purchase agreements for such failure of the SPPs to meet capacity requirement will be calculated based on the capacity which unable to meet for a period of 18 months during the past 24-month cycle ending on the present month.

Our SPPs are also required to generate and sell a certain amount of steam to meet certain condition set forth under the power purchase agreement. In most of our SPPs contracts, the condition will be based on the “thermal ratios”, which measure the ratio of thermal energy to electricity energy produced and “efficiency” requirements, which measure the ratio of energy output and fuel input. Any failure to generate the prescribed amounts of steam or power and steam to meet the thermal ratios or efficiency set forth in the power purchase agreement results in a reduction in payments to us. However, for Glow Energy Phase 4 and Glow SPP 11 Phase 2, the Agreements require SPPs to undertake the inspection of indicator used to measure capability of primary energy utilization in combined heat and power generation system (Primary Energy Saving - PES) and EGAT shall pay for Fuel Saving payment if SPPs can meet such requirement.

Costs and pass-through

Energy payments are subject to adjustments that reflect changes in natural gas and coal prices. These adjustments are uniform and applicable to all SPPs in Thailand rather than to our SPPs specifically, and therefore may not accurately reflect changes in our actual fuel costs. There is currently no material open position with respect to purchases of natural gas. There is, however, a significant coal pricing risk. The pass-through mechanisms do not incorporate the freight costs of coal shipments.

Force majeure

Under our SPP power purchase agreements, either party may claim *force majeure*. The occurrence of a force majeure can excuse a party’s non-performance under the agreement and can, under certain circumstances, result in the extension of the agreement to make up the *force majeure* period.

Force majeure includes:

- acts of government such as a change in energy policy;
- blockades or acts of enemies in warlike situations;
- riots, insurrections, sabotage, strikes, evictions, accidents, earthquakes, storms, fires, floods, plagues and explosions;
- a failure of the SPP to renew permits;
- expropriation; and
- any event constituting a *force majeure* under the SPP’s gas supply agreement with PTT.

The term governmental *force majeure* is defined to mean acts of government, blockades or acts of enemies in warlike situations, a failure of the SPP to renew permits and expropriation where the *force majeure* event has been caused by the government. Equipment breakdown is specifically stated not to constitute a *force majeure* event.

Under our SPP power purchase agreements, EGAT must continue making capacity payments to us in the case that it is affected by a *force majeure* event. In the case of any *force majeure* event affecting EGAT, or any governmental *force majeure* event affecting our ability to perform under the agreement

(other than a *force majeure* event relating to PTT), EGAT will continue making the capacity payments at the six months average of the previous capacity payment to us for a period not exceeding six months.

The agreements contain no further adjustments to payment provisions in the event of *force majeure*, meaning that we are not entitled compensation for our failure to supply electricity to EGAT in any other circumstances arising from a *force majeure* event. Where EGAT continues to make capacity payments during periods of *force majeure*, the relevant SPP power purchase agreement may be extended for a period equal to the *force majeure* period. During an extension period resulting from such circumstances, EGAT is only required to pay the energy payment for the purchase of electricity and not capacity.

Events of default

Under the SPP power purchase agreements, events of default include: payment default by either party; the SPP's inability to deliver electricity for more than 15 consecutive days (excluding permitted exceptions or circumstances for which EGAT is directly responsible); the SPP's non-compliance with material conditions as stipulated in the agreement; and the SPP's failure to meet stipulated standards of electricity to be delivered.

Technical and other provisions

To ensure that we meet our contracted capacity requirements, the SPP power purchase agreements impose financial penalties and disincentives for our failure to meet said capacity requirements. EGAT is also entitled to request additional electricity, which our SPPs are not obligated to provide and for which EGAT is required to pay relatively high rates.

The SPP power purchase agreements also contain change in law provisions which provide that, if there is a change in law which requires material changes to be made to the facility or has a material impact on expense or revenues, the details of such change shall be submitted to the appropriate regulatory body for a consideration on whether and how to amend the arrangements under the power purchase agreement appropriately.

Sales to EGAT by HHPC

General

We sell electricity to EGAT under a long-term power purchase agreement with a term of 30 years from the Commercial Operations Date ("COD") (the "Term"). The COD occurred on 3 September 1999.

Payments

Under the power purchase agreement, EGAT shall pay Energy Charges for each kWh of Net Electricity Output, which is dispatched and delivered from the facility during such period at the delivery point as measured by the Revenue Metering Equipment, with relevant assumptions to calculate and deduct the loss of delivery to the border of Thailand.

Costs and pass-through

There is no major fuel cost related to the operation of this hydro-power plant.

Force majeure

Under the power purchase agreement of HHPC, *force majeure* is broadly defined. It includes, but is not limited to, the following circumstances:

- war;
- sabotage and revolution;
- widespread strikes;
- radioactive explosion;
- fire, explosion, lightning, earthquake, storms, hurricane, flood, landslide or act of god;
- epidemic;
- closing borders and any transports; and
- changes in Law by Thai or Lao Governmental Authority.

Both EGAT and HHPC have the right to terminate this agreement in the event of: (i) Thai Political *Force Majeure* event or Lao Political *Force Majeure* and the effects of such *Force Majeure* event continue unremedied for more than 18 months; or (ii) any other *Force Majeure* event and the effects of such other *Force Majeure* event continue un-remedied for more than 36 months.

Events of default

HHPC power purchase agreement contains provisions for a number of events that could potentially lead to termination pursuant to an event of default or the occurrence and continuation of a *force majeure* event. The termination provisions for events of default provide both HHPC and EGAT with the right to terminate the agreement after applicable cure periods in respect of the other party's event of default having expired.

Events of termination that entitle EGAT to terminate the agreement include: a payment default by HHPC; HHPC's failure to achieve at least 300 GWh Available Output being not more than four years; HHPC's failure to deliver any bank guarantee in the form required; and HHPC's breach of a material provision resulting in a Material Adverse Effect. On the other hand, events of termination that entitle HHPC to terminate the agreement includes: a payment default by EGAT; and EGAT's breach of a material provision resulting in a Material Adverse Effect.

2.2.2.2 Industrial customers

In the MIE Area, our industrial customers are mostly large-scale industrial companies, comprised of mainly upstream and downstream petrochemical producers. Our industrial customers generally have strong business backgrounds and many of them are subsidiaries or affiliates of international corporations. In the SEIP Area, our industrial customers are mostly medium-scale industrial companies, consisting mainly of producers of (i) food packing; and (ii) automotive/motorcycle parts and related products. Sales to our industrial customers accounted for 44.8 percent of our total revenues in 2018.

Sales of electricity to our industrial customers accounted for 30.0 percent of our total revenues in 2018, while sales of steam and water together accounted for 14.8 percent¹. See “Risk Factors—We are highly dependent on a small number of industrial customers”.

In the MIE Area, we typically enter into contract terms of 15 years with industrial customers, although we can also accommodate shorter and longer contract periods. In the SEIP Area, we typically enter into contract terms of 2-10 years with industrial customers. This helps us stabilize cash flow and reduces future off-take risks. For electricity sales, most of the contracts are priced with reference to the PEA tariff, which contains adjustment mechanisms to account for changes in prevailing fuel costs (other than coal). Note that PEA tariff structure is periodically reviewed by ERC (and that one such review has been under study since 2017). The announcement of the new PEA tariff structure has been delayed and may be announced in 2019, that possibly have a material adverse effect on our business. For steam and chilled water sales, contracts are priced with reference to the customer’s avoided costs or Glow’s cost plus margin.

As of 31 March 2019, we were supplying: 738 MW of electricity to industrial customers under an aggregate of 83 power supply agreements; 1,166 tons per hour of steam to industrial customers under an aggregate of 34 steam supply agreements; 2,050 RT of chilled water to industrial customers under an aggregate of two chilled water supply agreements; and a total of 1,566 cubic meters per hour of clarified and demineralized water to industrial customers under an aggregate of 16 water supply agreements. Since 2018, we start supplying 1.58 MW of solar rooftop to industrial customer under 2 power supply agreements.

Our ten largest industrial customers for combined sales of all industrial utilities are:

- AGC Chemicals (Thailand) Company Limited;
- Covestro (Thailand) Company Limited;
- DOW Chemical Thailand Limited;
- JSR BST Elastomer Company Limited;
- PTT Global Chemical Public Company Limited;
- Siam Styrene Monomer Company Limited;
- Thai Polyacetal Company Limited;
- Thai Polycarbonate Company Limited;
- Thai Polyethylene Company Limited; and
- Vinythai Public Company Limited

¹ For the contribution from sales to industrial customers to total revenue throughout this chapter, yearly information is presented instead of quarterly information in order to avoid misrepresentation of the business caused from periodic fluctuation that occurs during the year.

Electricity

Electricity sales to our ten largest industrial customers accounted for 21.2 percent of our total revenues in 2018. Our largest industrial electricity customers in 2018 included:

- AGC Chemicals (Thailand) Company Limited;
- Covestro (Thailand) Company Limited;
- DOW Chemical Thailand Limited;
- Linde (Thailand) Public Company Limited;
- Map Ta Phut Olefins Company Limited;
- PTT Global Chemical Public Company Limited;
- Rayong Olefins Company Limited;
- Thai Polycarbonate Company Limited;
- Thai Polyethylene Company Limited; and
- Vinythai Public Company Limited

Power supply agreements with industrial customers are generally negotiated on a customer-specific basis, although most of the agreement use a similar form.

We typically price our sales of electricity to industrial customers by referencing to the prevailing retail tariff charged by PEA for industrial users and may include discount and transmission charge. The PEA tariff includes a base charge and a fuel transfer charge, or Ft. The current Ft structure is intended to cover fluctuations in the costs to EGAT of purchasing fuel to produce and purchase electricity, as well as, to a certain extent, transmission and distribution costs and other fluctuations including foreign exchange rate changes and inflation.

The price of electricity sold to most industrial customers usually includes a capacity and energy charge, the latter of which is adjusted in accordance with the Ft. The capacity charge is payable on a monthly basis and expressed as a fixed THB amount per kilowatt for peak demand. It represents a small portion of the overall electricity tariff and does not cover capital, fixed operation or maintenance costs.

The energy charge, which is also payable monthly, is expressed in THB per kWh and adjusted with reference to the PEA tariff. Discounts to the capacity charge, energy charge, or both are applied on a customer-specific basis depending on the load factor, contracted capacity, minimum take obligation, interconnection costs and other factors.

In the MIE Area, most of the contract term for power supply agreements are for a period of 15 years from the commercial operation date of the customer. Although a number of our original agreements have already expired or are to expire over the next few years, most of agreements were

extended for additional 10-15 years term. We have also secured several contracts with new industrial customers and for new projects of existing customers

Subject to the specific terms and conditions of the power supply agreements, we are required to supply up to the total contracted capacity and industrial customers are obliged to purchase minimum specified amounts of electricity (which mostly are expressed as a percentage of contracted capacity). In practice and normal situation, most of our industrial customers purchase electricity in amounts well in excess of their minimum take obligations.

We are liable under the terms of certain power supply agreements to pay liquidated damages for any failure to meet customer supply obligations. We entered into a back-up supply agreement with EGAT to meet supply obligations to industrial customers during planned and unplanned outages pursuant to which EGAT is required, in certain prescribed circumstances, to supply electricity to us.

For the electricity supply contract with industrial customers in the SEIP Area, most agreements were extended for period of 2-10 years. No liquidated damages are applied for power supply contracts with industrial customers in SEIP Area at the moment. In addition, half of the power supply contracts with industrial customer in SEIP do not have minimum take obligation.

Steam and chilled water

Steam and chilled water sale to our ten largest industrial customers (listed below) accounted for 14.0 percent of total revenues in 2018. Our largest industrial steam and chilled water customers in 2018 included:

- Bangkok Synthetics Company Limited;
- Covestro (Thailand) Company Limited;
- DOW Chemical Thailand Limited;
- JSR BST Elastomer Company Limited;
- PTT Global Chemical Public Company Limited;
- Siam Styrene Monomer Company Limited;
- Thai MMA Company Limited;
- Thai Polyacetal Company Limited;
- Thai Polycarbonate Company Limited; and
- Vinythai Public Company Limited

Steam supply agreements are generally negotiated on a customer-specific basis. In most cases, steam supply agreements are valid for a period of 15 years from the customer's commercial operation date. A number of our original agreements that have already expired or are to be expired over the next

few years were mostly extended for additional 10-15 years term. We have also secured several contracts with new industrial customers.

Similar to power supply agreements, steam supply agreements ensure customers that they will be provided with certain quantities of steam. We are liable under the terms of certain steam supply agreements to pay liquidated damages for any failure to meet contractually agreed upon steam supply obligations.

Industrial customers generally pay for steam that is delivered; for the capacity of the steam supply generated that is made available to them; for unreturned condensate; and for steam transmission. Often, these separate and unique but related components are expressed as a single “bundled” price. In some instances, the pricing structure of the steam supply agreement calculates each of these components separately. The steam price will typically be adjusted to reflect changes in certain indices, including the gas price and the Thai consumer price index.

Sales of chilled water to industrial customers are priced on an “avoided costs” basis. Chilled water supply agreements are structured so that industrial customers are charged based on equivalent refrigeration ton usage. The price of chilled water is mainly linked to electricity price and adjusted with reference to the PEA tariff.

Neither minimum take obligations nor liquidated damages are applied for chilled water supply agreements at the moment.

Processed water

Our major customers of clarified and demineralized water in 2018 included:

- AGC Chemicals (Thailand) Company Limited;
- Mitsubishi Electric Thai Auto Parts Company Limited;
- Polyplex (Thailand) Public Company Limited;
- PTT Global Chemical Public Company Limited;
- Siam Styrene Monomer Company Limited;
- Thai Plastic and Chemicals Public Company Limited;
- Thai Polyacetal Company Limited; and
- Thai Polycarbonate Company Limited

As with electricity and steam sales, water supply agreements are negotiated on a customer specific basis and carry a validity period of 15 years from the commercial operation date of the customer. In some cases, the water supply agreements are included as part of an overall utility agreement covering sales of both steam and water. Water supply agreements are structured similarly to electricity and steam supply agreements.

Sales of processed water to industrial customers are priced on a “cost plus margin” or “avoided costs” basis. Water supply agreements are typically structured so that industrial customers are charged for water delivered, for the capacity of water supply made available to them, and for transportation. These components are sometimes expressed as a single “bundled” price, and in other circumstances priced separately. The contracted price of water is mainly adjusted to reflect changes in the Thai consumer price index and raw water costs.

2.2.3 Contracted capacity

Our contracted capacity provides an indication of our generating facilities’ utilization levels. The following table includes the installed and contracted capacity of our generating facilities as of 31 March 2019:

| As of 31 March, 2019 | Installed Capacity (MW) | Contracted Capacity (MW) | No. of Contracts | |
|--------------------------------|--|-----------------------------|------------------|----|
| Cogeneration facilities | | | | |
| Electricity | 1,556 | EGAT: | 674 | 9 |
| | | Indust. Cust: | 738 | 83 |
| Steam ¹ | 1,116 | | 1,166 | 34 |
| Chilled Water | 3,400 | | 2,050 | 2 |
| Processed Water | 5,270 | | 1,566 | 14 |
| IPP facilities | | | | |
| Electricity | Glow IPP: 713 GHECO-One: 660 HHPC: 152 | EGAT-GIPP: | 713 | 1 |
| | | EGAT-GHECO-One: | 660 | 1 |
| | | EGAT-HHPC: | 126 | 1 |
| | | EdL-HHPC: | 1.5 | 1 |
| Glow Energy Solar | | | | |
| Electricity | 1.55 | PEA: | 1.55 | 1 |
| Solar rooftop | 1.86 | Indust. Cust | 1.58 | 2 |

Note:

- 1) Contracted capacity for steam is significantly lower than total installed capacity, as 250 tons per hour of the overall steam capacity is generated using Glow Energy Phase 1’s relatively inefficient package boilers, which are used principally for short-term and back-up supply purposes as opposed to long-term sales.

2.2.4 Competition

We do not currently face any competition with regard to electricity sales to EGAT, as these are contracted under long-term EGAT power purchase agreements. We do, however, expect increased levels of competition for future electricity generation projects when they arise. Our ability to compete effectively with other major global and Thai energy companies with regard to future projects will be a function of our ability to meet the projects' technical requirements and our previous performance under EGAT power purchase agreements.

For new industrial customers, our principal competitors are the PEA both in SEIP and MIE Area. However, in MIE Area, in addition to PEA, there are other companies operating electricity and steam co-generation plants in the MIE Area. These companies include: (i) Global Power Synergy Company Limited ("GPSC"); (ii) PTT Global Chemical utility division; (iii) Bangkok Cogeneration ("BCG"); (iv) B. Grimm Power Public Company Limited; (v) Indorama Group; and (vi) Star Petroleum Refining Company.

We are relatively insulated from direct competition for our existing customers for the following reasons: (i) we have long-term sales contracts with nearly all existing customers; (ii) we own the electrical transmission cables connecting directly to each of our customers' facilities and re-connection costs are high; (iii) our transmission and distribution system provides a reliable supply of power to each of our customers; and (iv) our proximity to customers purchasing steam coupled with the heat loss that occurs when steam is transported over long distances. We believe that certain of our competitors are also insulated from competition to a certain degree for some of these same reasons. We do, however, compete for new customers, the acquisition of which is important for the growth of our business.

We believe that the presence of Bangkok Cogeneration Company Limited and B. Grimm Power Public Company Limited will significantly increase the level of competition. The two competitors who prepare to construct new SPP cogeneration power plants to replace the existing PPAs which will soon be expired are pursuing to expand their industrial customers sales in the MIE Area See "Risk Factors—We face competition".

2.2.5 The electricity supply industry in Thailand

Certain of the information contained in this section has been extracted from sources which we generally believe to be reliable, including information made public by Thai government and private sector participants. Neither we nor the initial purchasers nor any of our or their respective affiliates or advisors have independently verified this information. Information contained in this section may not be consistent with other information compiled within or outside Thailand.

2.2.5.1 Overview

EGAT and private power producers are the principal generators of electricity for commercial sale in Thailand. EGAT sells all of the power that it generates independently, as well as that which it purchases from private power producers and from neighboring countries, to two state enterprises: the Metropolitan Electricity Authority ("MEA") and the Provincial Electricity Authority ("PEA"). The MEA and PEA distribute power to retail, commercial and industrial consumers throughout Thailand and own the electricity distribution networks in their respective regions of operation.

Although EGAT is the sole wholesale purchaser of electricity in Thailand, private power producers also produce and sell electricity directly to industrial users. As the national system operator,

EGAT owns, operates, maintains and develops Thailand's national wholesale electricity transmission network – the national electricity grid.

Private power producers in Thailand fall into three general categories: (i) producers that participate in, and sell electricity to EGAT under Thailand's Independent Power Producer program ("IPPs"); (ii) producers that participate in, and sell electricity to EGAT under Thailand's Small Power Producer program ("SPPs"); and (iii), producers that generate and sell electricity to industrial customers. While IPPs sell electricity exclusively to EGAT, private power producers participating in Thailand's SPP program typically sell a portion of their generated electricity to industrial customers. There are also companies in Thailand that produce electricity for their own internal consumption; however, for the purposes of discussion, these companies will not be considered as "private power producers".

According to information published by the Electricity Generating Authority of Thailand ("EGAT"), as of March 2019, Thailand's total electricity generation capacity was 42,620 MW compared to 43,373 MW in December 2018 (these figures only include electricity generated by private power producers sold to EGAT under the IPP or SPP programs). Of that amount, approximately 14,566 MW, or 34 percent, represents EGAT's capacity; approximately 14,949 MW, or 35 percent, represented IPP generating capacity; approximately 9,228 MW, or 22 percent, represented SPP generating capacity; and 3,878 MW, or 9 percent, was available to be imported from Laos and Malaysia.

In 2018, the total amount of electricity generated in Thailand was approximately 190,444 GWh. Of that amount, approximately 61,070 GWh, or 32 percent was generated by EGAT; approximately 54,494 GWh, or 29 percent, was generated by IPPs; and approximately 48,534 GWh, or 25 percent, was generated by SPPs. Additionally, a combined total of approximately 26,347 GWh of electricity was imported from Laos and Malaysia for sale within Thailand in 2018.

According to information made available by the EGAT, as of March 2019, the total electricity generating capacity of SPPs in Thailand supplying to the grid was 13,448 MW (9,799 MW "firm" and 3,649 MW "non-firm"). Of this, SPPs sold a total of production capacity 9,228 MW of electricity to EGAT (6,630 MW "firm" and 2,598 MW "non-firm"). Based on Glow Energy's capacity as of 31 March 2019, Glow Energy's SPP facilities represented approximately 7.87 percent of total SPP capacity and approximately 10.17 percent of sales under firm contracts by SPPs to EGAT.

2.2.5.2 Market dynamics

Between 2008 and 2018, peak power demand in Thailand increased at a compound annual growth rate of 1.64 percent, from approximately 22,568 MW in 2008 to approximately 28,338 MW in 2018, or at 0.7 times the compound annual growth rate of real Gross Domestic Product ("GDP") at 2.34 percent from 2008 to 2018.

The following table displays statistics regarding Thailand's Gross Domestic Product-Chain Volume Measures ("GDP-CVM"), as related to the country's total generation capacity, annual electricity production, and peak demand for electricity for the fiscal years indicated.

| Year ⁽¹⁾ | Installed Capacity | Change ⁽²⁾ | Peak Electricit Demand | Change ⁽²⁾ | Electricity Production | Change ⁽²⁾ | Real CVM ⁽³⁾ | Change ⁽²⁾ |
|---------------------|--------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|-------------------------|-----------------------|
| | (MW) | (%) | (MW) | (%) | (Gwh) | (%) | (THB billions) | (%) |
| 2008 | 29,891 | 4.8 | 22,568 | -0.1 | 148,221 | 0.8 | 7,710.3 | 1.7 |
| 2009 | 29,212 | -2.3 | 22,045 | -2.3 | 148,364 | 0.1 | 7,657.1 | -0.7 |
| 2010 | 30,920 | 5.8 | 24,010 | 8.9 | 160,138 | 7.9 | 8,232.4 | 7.5 |
| 2011 | 31,447 | 1.7 | 23,900 | -0.5 | 158,900 | -0.8 | 8,301.6 | 0.8 |
| 2012 | 32,600 | 3.7 | 26,121 | 9.3 | 175,085 | 10.2 | 8,902.8 | 7.2 |
| 2013 | 33,681 | 3.3 | 26,598 | 1.8 | 173,142 | 0.01 | 9,142.1 | 2.7 |
| 2014 | 34,668 | 2.9 | 26,492 | 1.3 | 177,199 | 2.3 | 9,232.1 | 1.0 |
| 2015 | 38,815 | 12.0 | 27,346 | 3.2 | 183,075 | 3.2 | 9,521.4 | 3.1 |
| 2016 | 41,556 | 7.1 | 29,619 | 8.3 | 186,152 | 1.7 | 9,841.0 | 3.4 |
| 2017 | 42,433 | 2.1 | 28,578 | -3.5 | 188,067 | -0.1 | 10,237.0 | 4.0 |
| 2018 | 43,372 | 2.2 | 28,338 | -0.8 | 190,444 | 1.3 | 10,659.7 | 4.1 |

Sources: PDP EGAT, Energy Policy and Planning Office (“EPPO”) and National Economic and Social Development Board (“NESDB”)

Notes:

- 1) Figures after 2006 are based on calendar year basis.
- 2) Year on year
- 3) Change basis from Real GDP to GDP(CVM) in year 2015

Demand for electrical power in Thailand experiences fairly predictable seasonal cycles. Annual peak demand generally occurs during the summer months (March through May) when yearly temperatures are highest. The lowest loads are generally experienced during the winter months (December and January), when temperatures are cool. In 2018, the peak demand on EGAT system, which occurred in April 2018, was 28,338 MW.

| Monthly Peak Generation in Thailand | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|-------------|-------------|-------------|-------------|-------------|
| | (MW) | (MW) | (MW) | (MW) | (MW) |
| January | 22,557 | 23,713 | 25,312 | 25,390 | 25,677 |
| February | 23,659 | 24,630 | 25,104 | 26,240 | 26,352 |
| March | 26,106 | 26,072 | 27,242 | 27,326 | 27,314 |
| April | 26,942 | 27,139 | 29,404 | 27,708 | 28,338 |
| May | 26,473 | 27,198 | 29,619 | 28,578 | 27,331 |
| June | 26,253 | 27,346 | 26,471 | 26,747 | 26,928 |
| July | 25,017 | 26,050 | 25,475 | 26,130 | 26,201 |
| August | 24,624 | 26,028 | 26,329 | 26,975 | 26,492 |
| September | 24,785 | 25,677 | 25,791 | 27,500 | 27,430 |
| October | 24,181 | 25,045 | 26,015 | 26,075 | 26,836 |
| November | 24,962 | 25,957 | 26,145 | 26,749 | 27,221 |
| December | 24,493 | 25,772 | 25,272 | 26,554 | 26,672 |
| Annual Peak | 26,942 | 27,346 | 29,619 | 28,578 | 28,338 |
| Annual Average | 25,004 | 25,881 | 26,515 | 26,831 | 26,899 |
| Annual Low | 22,557 | 23,713 | 25,104 | 25,390 | 25,677 |

Sources: EPPO and EGAT as of December 2018

The table below displays the power consumption breakdown for different categories of end users for the periods indicated.

| Year | Residential (GWh) | % of Total | Commercial (GWh) | % of Total | Industrial (GWh) | % of Total |
|--|----------------------|---------------|---------------------|---------------|---------------------|---------------|
| Electricity Consumption by Category | | | | | | |
| 2008 | 28,691.22 | 21.2 | 34,781.60 | 25.7 | 64,147.63 | 47.3 |
| 2009 | 30,256.50 | 22.4 | 35,683.54 | 26.4 | 60,873.53 | 45.0 |
| 2010 | 33,216.49 | 22.2 | 38,590.38 | 25.8 | 67,952.49 | 45.5 |
| 2011 | 32,799.46 | 23.5 | 39,077.39 | 27.9 | 67,784.91 | 48.5 |
| 2012 | 36,447.12 | 22.5 | 44,097.94 | 27.3 | 72,295.57 | 44.7 |
| 2013 | 37,657.38 | 22.9 | 48,797.09 | 29.7 | 72,535.61 | 44.1 |
| 2014 | 38,993.17 | 23.1 | 50,169.05 | 29.8 | 73,782.30 | 43.8 |
| 2015 | 41,285.78 | 23.6 | 52,986.77 | 30.3 | 74,772.63 | 42.8 |
| 2016 | 43,931.92 | 24.0 | 55,681.92 | 30.5 | 77,203.09 | 42.2 |
| 2017 | 44,373.96 | 24.0 | 45,100.02 | 24.4 | 87,771.98 | 47.4 |
| 2018 | 45,204.88 | 24.1 | 46,763.60 | 24.9 | 87,828.98 | 46.8 |

Source: EPPO

Note: The information in the above table excludes power consumed by “direct customers”, end users in the agricultural sector and others.

2.2.5.3 Structure of the electricity supply industry of Thailand

Thailand’s electrical supply industry is divided into three general segments, each with its own respective participants:

| Industry Segment | Key Participants |
|------------------|------------------------------|
| Generation | EGAT, IPPs, SPPs, Generators |
| Transmission | EGAT |
| Distribution | MEA, PEA |

In December 2003, the Cabinet approved a long-term plan to reform Thailand's electricity supply industry by adopting the "Enhanced Single Buyer" ("ESB") model, under which EGAT became Thailand's sole wholesale purchaser of electricity. Under this model, EGAT retained its generation and transmission responsibilities as Thailand's sole wholesale vendor and transporter of electricity (excluding certain industrial consumers in designated industrial estates possessing power purchase agreements with private power producers). The MEA and PEA also retained their respective roles as the sole distributors of electricity in the Bangkok metropolitan area and provincial areas, (excluding a limited number of large volume customers that are connected directly into EGAT's electricity grid).

The Ministry of Energy ("MoE") also remained the key decision-maker with regard to all energy sector matters. To improve transparency within the MoE, responsibility for all policy-making functions were transferred to the Energy Policy and Planning Office ("EPPO"). Additionally, EGAT's system operation function, which before 2003 was managed and monitored independently by EGAT, was brought under the monitoring authority of the MoE. Regulatory functions have been placed under the authority of the Energy Regulatory Commission ("ERC") – a new regulatory body established on 1 February, 2008. As a caveat, the ESB model also requires that a process of competitive bidding be used for the allocation of all new electricity generating capacity.

Electricity Generating Authority of Thailand ("EGAT")

The adoption of the ESB model has not resulted in any significant changes to EGAT's business operations. Under the ESB model, EGAT continues to generate electricity from its generating facilities, which, in 2018, accounted for approximately 32 percent of the total electricity generated in Thailand. EGAT remains the sole purchaser of electricity from IPPs, subsidiaries of its associated IPP companies – namely Ratchaburi Holdings ("RATCH") and Electricity Generation Company ("EGCO") – and neighboring countries. Additionally, EGAT continues to own and operate the national grid network and retains the sole right to sell electricity to the MEA and PEA on a wholesale basis.

Independent Power Producers ("IPP")

In 1994, the Thai government introduced an independent power producer ("IPP") program to commission the construction, ownership and operation of power plants by private sector participants, with EGAT agreeing to purchase the output of these plants once their construction had been completed. The program was designed to promote increased private sector participation in the power generation industry. Various government bodies including the National Energy Policy Office (or "NEPO", which is the predecessor to EPPO), and the National Economic and Social Development Board ("NESDB") were at that time given responsibility to review proposals from approximately 50 interested private sector producers.

In 2007, the Thai government opened a new round of IPP competitive bidding with an initial plan to purchase up to 3,200 MW of electrical generating capacity from private sector producers. After having received all the bids, a total of 4,400 MW was awarded to four bidders. This included 1,200 MW of capacity from coal-fired plants and 3,200 MW of capacity from natural gas fired plants, all with originally scheduled commercial operations ("SCOD") between 2011 and 2015. Until now, capacity from coal-fired plant of 540 MW could not be signed yet.

In 2012, government opened third round of competitive bidding with a plan to purchase 5,400 MW natural gas fired power generating capacity from private sector producers, with scheduled commercial operating dates between 2021 and 2026. The bidding resulted into the award of new IPP

contracts for 5,000 MW to one single bidder. Power purchase agreements for this capacity were signed in 2014 with SCOD scheduled in the period March 2021 to March 2023.

As of 2018, EGAT had signed power purchase agreements with 18 IPPs with a total projected contracted capacity of 19,949 MW which individual contracted capacities ranging from 350 MW to 2,500 MW. The table below lists the names, sizes, sponsors, and status of each of the IPP projects in Thailand.

| Project | Installed Capacity (MW) | Primary Fuel Type | Investors/ Shareholders ¹ | Commercial Operation Date |
|--|-------------------------|-------------------|---|---------------------------|
| 1. Ratchaburi Electricity Generating Co., Ltd. | 720 | Natural gas | Ratch Group Plc. ⁴ | 2000 |
| 2. Ratchaburi Electricity Generating Co., Ltd. | 720 | Natural gas | Ratch Group Plc. ⁴ | 2000 |
| 3. Ratchaburi Electricity Generating Co., Ltd. | 685 | Natural gas | Ratch Group Plc. ⁴ | 2002 |
| 4. Ratchaburi Electricity Generating Co., Ltd. | 675 | Natural gas | Ratch Group Plc. ⁴ | 2002 |
| 5. Ratchaburi Electricity Generating Co., Ltd. | 681 | Natural gas | Ratch Group Plc. ⁴ | 2002 |
| 6. Khanom Electricity Generating Co.,Ltd. | 930 | Natural gas | The Electricity Generating Plc. | June 2016 |
| IPP Program Participants (1st Round) | | | | |
| 7. Ratchaburi Electricity Generating Co.,Ltd. (formerly known as TECO) | 700 | Natural gas | Ratch Group Plc. ⁴ | July 2000 |
| 8. Global Power Synergy Co., Ltd. (formerly known as IPT) | 700 | Natural gas | Thai Oil Power ² PTT Global Chemical Plc. PTT Plc. | August 2000 |
| 9. Glow IPP Company Limited | 713 | Natural gas | Glow Co. Ltd. WHA | January 2003 |

| Project | Installed Capacity (MW) | Primary Fuel Type | Investors/ Shareholders ¹ | Commercial Operation Date |
|--|-------------------------|-------------------|---|---|
| 10. Eastern Power and Electric Company Limited | 350 | Natural gas | GMS Power Plc Marubeni Corp. TOTAL Gas and Power Thailand China Development Industrial SG Bangbor Power Holding | March 2003 |
| 11. BLCP Power Company Limited | 1,347 | Coal | Banpu Coal Power Electricity Generating Plc. | October 2006 for first unit, February 2007 for second unit |
| 12. Ratchaburi Power (Union Power Development Co., Ltd.) | 1,400 | Natural gas | Pai International Power (Mauritius) Ltd. Ratchaburi Alliances Co.,Ltd. Global Power Synergy Plc. Chubu Electric Power Company International B.V. Toyota Tsusho Corp. Saha-Union Plc. | March 2008 for first unit, June 2008 for second unit |
| 13. Gulf Power Generation Company Limited ³ | 1,468 | Natural gas | Gulf Electric Public Company Limited | May 2007 for first unit, March 2008 for second unit |
| IPP Program Participants (2nd Round) | | | | |
| 14. GHECO-One | 660 | Coal | Glow Energy Plc. WHA | July 2012 |
| 15. Gulf JP UT Co., Ltd. (formerly known as Siam Energy) | 1,600 | Natural gas | Gulf JP | June 2015 for first unit, December 2015 for second unit |
| 16. Gulf JP NS Co., Ltd. (formerly known as Power Generation Supply) | 1,600 | Natural gas | Gulf JP | June 2014 for first unit, December 2014 for second unit |

| Project | Installed Capacity (MW) | Primary Fuel Type | Investors/ Shareholders ¹ | Commercial Operation Date |
|--|-------------------------|-------------------|--------------------------------------|---------------------------|
| IPP Program Participants (3rd Round) | | | | |
| 17. Gulf PD Co., Ltd. | 2,500 | Natural gas | Independent Power Development | March 2023 for first unit |
| 18. Gulf SRC Co., Ltd. | 2,500 | Natural gas | Independent Power Development | March 2021 for first unit |

Source: ERC

Notes:

- 1) Principal investors/ shareholders as of December 2018.
- 2) Thai Oil Power shareholders include Thai Oil Plc 74 percent and PTT Plc 26 percent
- 3) Gulf Electric Public Company Limited's shareholders include Electricity Generating Plc. 50% and J-Power 49%
- 4) Ratch Group Plc. changed its name from Ratchaburi Electricity Generating Holding Plc. in April 2019.

Small Power Producers ("SPP")

In 1992, under a policy to promote greater participation by the private sector in the power generation industry, the Government introduced the SPP program under which EGAT was authorized to purchase power from privately held producers that either operate generating facilities powered by renewable sources, such as wind, solar, geothermal or agricultural residue, or that operate cogeneration plants.

Under the program, EGAT was originally authorized to purchase a maximum of 60 megawatts per SPP. These limits were later revised to an aggregate of 3,200 megawatts and a maximum of 90 megawatts per SPP. SPPs are not exclusive suppliers of EGAT and are also allowed to sell electricity to industrial customers.

In 2007, Thai government opened up a 2nd round of bidding to increase the total volume of electricity purchases from SPPs from the level of approximately 2,000 MW to 4,000 MW. Originally, the electricity supply from these new SPPs was expected to come online gradually between 2009 and 2016. The government decided to move forward the SPP SCODs following the delay of three IPP units' SCODs to be between 2015 and 2017. In addition, in 2010, 3rd round of bidding for new SPP licenses have been opened for combined output of another 3,500 MW.

According to information made publicly available by the EPPO and EGAT, there were a total of 150 SPP projects supplying power to EGAT's transmission grid as of March 2019. Of that total 93 SPP projects held 'firm contracts', which implies: (i) a firm obligation to sell and purchase electricity; (ii) a specified contracted capacity; and (iii), a total electricity production supplied of no less than 7,008 hours per year. For electricity generated using renewable energy, the annual hours must be no less than 4,672 hours per year.

According to information made publicly available by the EPPO and EGAT, as of March 2019, EGAT had agreed under firm contracts with 93 SPPs to purchase annually 6,630 MW and had also entered into non-firm agreements with 57 SPPs to purchase 2,598 MW.

As of 31 March 2019, Glow Energy's SPP facilities represented approximately 7.87 percent of total SPP capacity supplying power to EGAT's transmission grid and approximately 10.17 percent of sales under firm contracts by SPPs to EGAT.

Distributors

Electricity in Thailand is distributed by two state enterprises, the MEA and the PEA, which together accounted for approximately 99 percent of EGAT's sales in the year ending 31 March 2019. EGAT also transmits and sells electricity directly to various large volume customers, principally industrial users, as well as to electricity distributors in neighboring countries. Private generators often have their own distribution networks to supply industrial customers directly.

Metropolitan Electricity Authority ("MEA")

Established in 1958, the MEA is the state enterprise responsible for distributing electricity to retail and industrial consumers in the Bangkok metropolitan area and its two neighboring provinces (Nonthaburi and Samutprakarn). It provides services to approximately 28 percent of Thailand's population. The MEA purchases all of its electricity directly from EGAT.

Provincial Electricity Authority ("PEA")

Established in 1960, the PEA is the state enterprise responsible for distributing electricity to retail and industrial consumers in the 74 provinces not serviced by the MEA. It provides services to approximately 71 percent of Thailand's population. The PEA purchases all of its electricity from EGAT.

2.2.5.4 Regulatory framework

Since 1992, the NEPC and its secretariat, the NEPO (now the EPPO), have been the principal Government bodies responsible for formulating and implementing energy policy and regulating the power industry in Thailand. The principal duties of the NEPC consist of recommending national energy policies as well as national energy management and development plans to the Cabinet, and establishing the tariff structure for energy sales in Thailand. The NEPC is overseen by the Prime Minister, several ministers, and other senior government officials. The NEPO was originally the secretariat to the NEPC, but was renamed the Energy Policy and Planning Office ("EPPO") in 2002 and transferred to be under the authority of the Ministry of Energy.

The Ministry of Energy was created in 2002 pursuant to the Act for Reorganizing Government Ministries, at which point the NEPO was replaced by EPPO, which thereafter became a MoE department. The MoE, in consultation with the NEPC, is responsible for setting energy policy and regulating the energy sector through the EPPO. The MoE consists of two Offices (the Office of the Minister and the Office of the Permanent Secretary) and four departments (the EPPO, the Department of Mineral Fuels, the Department of Energy Business, and the Department of Alternative Energy Development and Efficiency). The MoE is authorized to formulate, make recommendations on, and oversee the implementation of, policies related to the country's present and future energy requirements. These policies include the management of the country's indigenous resources through the granting of

concessions to explore and produce natural gas in the Gulf of Thailand. In addition, the MoE is also responsible for the Government's restructuring of the energy industry (electricity and oil & gas).

Pursuant to the 9 December, 2003 Cabinet resolution, the government approved the establishment of a new regulatory body to be responsible for: (i) monitoring industry participants' operational and financial performance; (ii) regulating electricity tariffs; and (iii), monitoring and planning the country's energy requirements within the context of the nation's energy security and predicted economic growth. The National Energy Policy Council ("NEPC") was appointed the interim regulator pending the establishment of the such a new regulatory body.

On 24 August, 2004, the Cabinet passed a resolution approving the NEPC's recommendation to appoint the Energy Regulatory Commission ("ERC") as the interim regulatory body responsible for overseeing electricity industry operations as well as the NEPC. The Office of the Prime Minister issued a notification on 7 March, 2005 expanding the ERC authority and responsibilities to include: (i) regulating the tariffs of electricity industry operators; (ii) encouraging competition and preventing abusive monopolistic practices; (iii) inspecting the operations of the power network system operator; (iv) establishing the bidding and monitoring processes for the construction of new power plants; (v) regulating the operations of electricity providers; and (vi), performing any other necessary tasks related to the electricity industry's regulation.

On 22 November, 2005, the cabinet passed a resolution approving the NEPC's recommendation to appoint an interim regulatory body to oversee the electricity industry operations pending the establishment of the ERC. The interim regulators later resigned on 18 October, 2006, and their responsibilities were transferred to the EPPO pending the official establishment of an energy regulatory body.

The Energy Industry Act was promulgated on 10 December, 2007, paving the way for the establishment of a new independent regulatory body. The Energy Regulatory Commission ("ERC") was subsequently established on 1 February, 2008. This agency's key responsibility includes:

- Regulating the electricity and the gas supply industries;
- Regulating tariffs, standards and service quality;
- Ensuring competition and preventing abusive monopolistic practices;
- Protecting consumers and managing consumer complaints;
- Making recommendations to the NEPC regarding energy procurement policies, policies on the diversification of fuel sources, and best types of power generation to simultaneously ensure efficiency and energy security; and
- Consider the power development plan, investment in the electricity industry, natural gas procurement, and energy network system expansion.

2.2.5.5 Electricity tariff

The tariff structure for electricity sales in Thailand is determined by the ERC and subject to Cabinet approval. Tariff rates have historically been revised at three to five-year intervals. The current tariff structure consists of both a fixed and a variable component. The fixed, or base, component generally remains in effect for the duration of tariff structure, while the variable component is subject to adjustment every four months. There are also different tariff rates: a wholesale rate that EGAT charges to the MEA and the PEA, and a series of retail tariffs charged by the MEA and the PEA to end users.

Existing tariffs are based on a number of factors including but not limited to: forecast demand for electricity; fuel prices; EGAT; the MEA and PEA's expected operating expenses and capital expenditures; and a variety of other factors. The current tariff structure was designed, and tariff prices set at levels intended to permit EGAT, the MEA and the PEA to achieve certain financial ratios. Since 1990, the tariff structure in Thailand has consisted of base wholesale and retail tariffs that are fixed, and a variable component that is added to the wholesale and retail tariffs.

The tariff structure consists of:

- A wholesale, or "bulk supply" tariff that EGAT charges to the two state-owned electricity distributors - namely the MEA and PEA;
- A series of retail tariffs charged by the MEA and PEA to end users nationwide, and by EGAT to direct purchasers; and
- An FT adjustment, or surcharge, added to base tariffs.

The fixed or base components generally remain in effect for the duration of the tariff structure. The variable component or F_T is subject to adjustment every four months pursuant to an adjustment mechanism intended to adjust aggregate tariff levels to reflect: changes in the price of fuel; payments made by EGAT to IPPs; the impact of exchange rate fluctuations on EGAT, the MEA and PEA; inflation; and other relevant factors. The F_T adjustment is added into the base tariffs for a future four-month period and designed to provide consumers with reasonable tariff stability.

With effects from November 2015 onwards, ERC decided to incorporate the F_t of 0.4961 THB per kWh (F_t of May 2015) into the base tariff. Further changes were made to reflect (i) an adjustment of the Return On Invested Capital ("ROIC"); (ii) a "Claw-back" of unused investment budget amounts; (iii) a revision of the subsidy to household users; and (iv) a change in the distribution between peak and off peak tariffs. Since November 2018, ERC has decided to remove the subsidy to household users by halting 0.0258 THB/kWh. This will effect to current base tariff on energy charge.

The following table displays FT adjustments for the periods indicated:

| | Unit: THB per KWh | |
|---|----------------------------|--|
| | Total F_T | Increase / decrease in F_T amount |
| Ft adjustment since July 2011 Period | | |
| July 2011 – August 2011 | -0.0600 | |
| September 2011 – December 2011 | -0.0600 | 0.0000 |
| January 2012 – May 2012 | 0.0000 | +0.0600 |
| June 2012 – August 2012 | 0.3000 | +0.3000 |
| September 2012 – December 2012 | 0.4800 | +0.1800 |
| January 2013 – April 2013 | 0.5204 | +0.0404 |
| May 2013 – August 2013 | 0.4692 | -0.0512 |
| September 2013 – December 2013 | 0.5400 | +0.0708 |
| January 2014 – April 2014 | 0.5900 | +0.0500 |
| May 2014 – August 2014 | 0.6900 | +0.1000 |
| September 2014 – December 2014 | 0.6900 | 0.0000 |
| January 2015 – April 2015 | 0.5896 | -0.1004 |
| May 2015 – August 2015 | 0.4961 | 0.0935 |
| September – October 2015 | 0.4638 | -0.0323 |
| New tariff structure was applied since November 2015 | | |
| November – December 2015 | -0.0323 | -0.0323 |
| January 2016 – April 2016 | -0.0480 | |
| May 2016 – August 2016 | -0.3329 | -0.2849 |
| September 2016 – December 2016 | -0.3329 | -0.0000 |
| January 2017 – April 2017 | -0.3729 | -0.0400 |
| May 2017 – August 2017 | -0.2477 | +0.1252 |

| | Total F _T | Increase / decrease in F _T amount |
|--------------------------------|----------------------|---|
| September 2017 – December 2017 | -0.1590 | +0.0887 |
| January 2018 – April 2018 | -0.1590 | 0.0000 |
| May 2018 – August 2018 | -0.1590 | 0.0000 |
| September 2018 – December 2018 | -0.1590 | 0.0000 |
| January 2019 – April 2019 | -0.1160 | +0.0430 |
| May 2019 – August 2019 | -0.1160 | 0.0000 |

The average electricity price as of 31 December 2018 for 115 kV and 22 kV is shown below:

| Type of structure | | THB per kWh |
|------------------------------------|-------------------------|-------------|
| Schedule 4: Large General Service | TOU ¹ 115 kV | 3.1123 |
| | TOU 22 kV | 3.2349 |
| | TOD ² 115 kV | 3.2797 |
| | TOD 22 kV | 3.4004 |
| Schedule 3: Medium General Service | Normal 22 kV | 3.2787 |

Notes:

- 1) TOU: Time of Use
- 2) TOD: Time of Day

2.2.5.6 Energy dispatch

As the operator of Thailand's electrical system, EGAT is responsible for determining the volume of electricity respectively supplied by each individual generating facility to the national transmission network. EGAT selects generating units based primarily on each facility's marginal variable cost of generations, however, a number of other factors including environmental laws and standards as well as the stability and reliability of the electricity system are also taken into account.

2.2.5.7 Power Development Plan

The latest Power Development Plan of 2018 ("PDP 2018") was approved by NEPC on 24 January 2019 and endorsed by the cabinet 30 April 2019.

The PDP 2018 was formulated together with the planning and development of Thailand's energy infrastructure by region in accordance with a national energy policy that aims to ensure a secure self-supply of energy (i.e., energy security) in a cost-efficient and environmentally sound manner. The PDP,

together with power plant on government policy, firm base load power plant, the Energy Efficiency Development Plan and the Alternative Energy Development Plan, will address the future development of the Thai electricity industry for the period 2018 – 2037.

Overall, Thailand’s power production capacity will be increased from 46,090 MW in 2017 to 77,211 MW in 2037 or growth by 67% or average growth 3% per year. The PDP sets a target of new capacity by 56,431 MW, of which highlighted on renewable energy projects are planned to account for 20,766 MW, or about 37%, and new power plants are planned to account for 8,300 MW or 15%. In 2037, the power generating is expected to diversify fuel type by natural gas (53%), non-fossil fuels (34%), and coal/lignite (13%).

The content of Power Development Plan of 2018 (“PDP 2018”)

- Demand forecast of the 3 power authorities in 2018 -2037

| Year | PDP 2018 | |
|------|--------------|-----------|
| | Energy (GWh) | Peak (MW) |
| 2018 | 203,203 | 29,969 |
| 2022 | 236,488 | 35,213 |
| 2027 | 277,302 | 41,079 |
| 2032 | 320,761 | 47,303 |
| 2037 | 367,458 | 53,997 |

- Overview of capacity in 2018-2037

| Unit : MW | PDP 2018 |
|--|----------|
| Install capacity (as of December 2017) | 46,090 |
| New capacity during 2018-2037 | 56,431 |
| Retired capacity during 2018-2037 | -25,310 |
| Install capacity (as of year 2037) | 77,211 |

- New capacity of 56,431 MW during 2018-2037 classified by plant type as below

| Type of power plant | (Unit:MW) | |
|-------------------------------------|-----------|-----|
| | PDP 2018 | % |
| Renewable energy | 20,766 | 37% |
| Pump hydro-storage | 500 | 1% |
| Cogeneration | 2,112 | 4% |
| Combined cycle | 13,156 | 23% |
| Coal/lignite | 1,740 | 3% |
| Purchase from neighboring countries | 5,857 | 10% |
| New/replacement | 8,300 | 15% |
| Energy Efficiency Plan (EE) | 4,000 | 7% |

- Generating capacity in 2037 classified by fuel type as below

(Unit: %)

| Fuel type | PDP 2018 |
|-----------------|----------|
| Hydro | 10% |
| Renewable | 18% |
| Natural gas | 53% |
| Coal/lignite | 13% |
| Fuel oil/diesel | 0.03% |
| EE and Others | 6% |

2.2.6 Tariffs

Electricity sales tariffs vary for IPPs and SPPs, and in the case of SPPs, whether sales are being made to EGAT or industrial customers. While our IPPs' and SPPs' power purchase agreements contain specific pricing mechanisms related to electricity sales tariffs, our electricity sales to industrial customers are mostly based on the PEA retail tariff.

2.2.6.1 Electricity pricing for EGAT under Glow IPP's power purchase agreement

The price at which we sell electricity to EGAT under our IPPs power purchase agreement is comprised of the three components: availability payments; energy payments and an added facility charge.

Availability payment

The availability payment under IPP's power purchase agreement for any given period of time is calculated by multiplying IPP's base availability credit (expressed in THB per MWh) and Glow IPP's dependable contracted capacity (which is the maximum continuous net generating capacity measured in MW, up to the contracted capacity). The availability payment is subject to downward adjustments for reduced availability, short notice of reduced capability and dispatch failure. Additional availability payments are earned for temporary increases in capacity made available pursuant to a request by EGAT.

Energy payment

The energy payment consists of a fuel charge and a variable operation and maintenance charge. Under the Glow IPP's power purchase agreement, fuel charges vary depending on whether the facility is operated using a primary fuel (natural gas) or secondary fuel (diesel). The "primary fuel rate" and "secondary fuel rate" are determined in part by reference to our fuel procurement arrangements.

The primary fuel rate based on Higher Heating Value ("HHV") (agreed additional energy required to produce one additional MW of net electrical energy) applicable for each month, m , is determined in accordance with the PTT gas supply agreement and is equal to the generator unit's actual price of fuel (in THB per million Btu) under such gas supply agreement (less any applicable fixed tariff charge).

The secondary fuel rate for Glow IPP based on HHV applicable for each month m is determined on the basis of invoices relating to secondary fuel purchased by the electricity generator during such month m to replace the secondary fuel that was used during or prior to such month m for which the

generator has not yet been compensated for the cost of fuel, and is equal to the generator's actual price of fuel (in THB per million Btu) under the diesel fuel supply agreements (and include up to a 37-day carrying charge levied by the diesel fuel supplier).

Added Facility Charge

The Glow IPP power purchase agreement also includes an added facility charge through which we are reimbursed for loans made to EGAT to cover certain access-related payments. This charge is composed of costs associated with the construction of new transmission facilities to connect Glow IPP facilities to the EGAT transmission grid (including costs of procuring relevant access rights and right of way costs). It is reimbursed on a monthly basis over the term of the power purchase agreement.

2.2.6.2 Electricity pricing for EGAT under GHECO-One's power purchase agreement

The price at which we sell electricity to EGAT under our IPPs power purchase agreement is comprised of two components: availability payments and energy payments.

Availability payment

The availability payment under GHECO-One's power purchase agreement for any given period of time is calculated based on the payment for the availability and Contracted Operating Characteristics of the Generating Unit, and is derived by multiplying base availability credit (expressed in THB per MWh) and dependable contracted capacity. The availability payment is subject to downward adjustments for reduced availability, short notice of reduced capability and dispatch failure. Additional availability payments are earned for temporary increases in capacity made available pursuant to a request by EGAT.

Energy payment

The energy payment consists of a fuel charge and a variable operation and maintenance charge.

2.2.6.3 Electricity pricing for EGAT under our SPP power purchase agreements

The price at which we sell electricity to EGAT under our SPP power purchase agreements is comprised of two components: capacity payments and energy payments. For Glow Energy Phase 4 and Glow SPP 11 Phase 2, there is an additional component to the electricity payment, fuel saving payment.

Capacity payment

The capacity payment is a fixed charge payable regardless of usage and is set at: THB 302 per kW per month (excluding value-added tax) for electricity produced by our gas-fired units except Glow Energy Phase 4 and Glow SPP 11 Phase 2; and THB 422 per kW per month (excluding value-added tax) for electricity produced by our coal-fired units. In each case, the capacity payment is adjusted monthly to reflect changes in the THB per USD exchange rate, with 80 percent indexation for electricity produced by our gas-fired units and a 70 percent indexation for electricity produced by our coal-fired unit.

For Glow Energy Phase 4 and Glow SPP 11 Phase 2, the capacity payment is set at THB 383.66 per kW per month (excluding value-added tax). The capacity payment is also adjusted monthly to reflect changes in the THB per USD exchange rate, with 50 percent indexation.

As the Power Purchase Agreements for Glow Energy Phase 2 have expired, we have agreed with EGAT to extend our contracts for another three years. However, during such extension period, we do not receive capacity payment.

Energy payment

The energy payment is a fixed charge in THB per kilowatt hour regardless of usage and is currently set at: THB 0.85 per kWh for electricity generated by gas-fired units except Glow Energy Phase 4 and Glow SPP 11 Phase 2; and THB 0.62 per kWh for electricity generated by coal-fired units.

For Glow Energy Phase 4 and Glow SPP 11 Phase 2, the fixed energy payment is THB 1.70 per kWh.

The energy payment is subject to periodic adjustment, calculations for which differ slightly for gas and coal fired units. For gas-fired units, this adjustment is calculated based on the net energy delivered during the applicable period multiplied by increases in the cost of natural gas. For coal-fired units, this adjustment is calculated based on the net energy delivered during the applicable period multiplied by increases in the cost of coal. In both cases, the increases in fuel prices for natural gas and coal are calculated using base prices set in August 1995, while the Glow Energy Phase 4 and Glow SPP 11 Phase 2 are calculated using the gas base prices set in December 2006.

For Glow Energy Phase 2, the energy payment during three years extension period is based on the actual cost of natural gas in any month calculated based upon an agreed average plant heat rate.

Fuel Saving payment for Glow Energy Phase 4 and Glow SPP 11 Phase 2

The fuel saving payment is a fixed charge in THB per kilowatt hour regardless of usage and is currently set at: THB 0.36 per kWh, in case PES has value more than or equal to ten percent (10%).

2.2.6.3 Electricity pricing for EGAT under HHPC power purchase agreement

The price at which we sell electricity to EGAT under HHPC power purchase agreement consists of an energy payment only.

Energy payment

The energy payment accrues for each kWh of Net Electrical Output and is comprised of a USD component and a THB component.

2.2.6.5 Electricity pricing for industrial customers

Sales of electricity to industrial customers are generally priced with reference to the retail tariffs charged by the PEA. The tariff structure in Thailand has since 1990 consisted of base wholesale and retail tariffs, both of which are fixed, and a variable component that is added to the wholesale and retail tariffs.

Base tariff

The ERC announces the base tariff periodically. The current base tariff has been in place since November 2015. The rate varies for different types of end users. We price our power sales agreements in

MIE and SEIP Area by referencing the rate charged for “medium and large general services”. The applicable base tariff rates for this category of users are either charged a “time of use”, “time of day” or “normal” tariff. Since November 2018, ERC has decided to remove the subsidy to household users by halting 0.0258 THB/kWh. This will effect to current base tariff on energy charge, all of which are summarized in the tables below.

Time of Use Tariff

| | Demand Charge (THB per kW) | | Energy Charge (THB per kWh) | | Service Charge (THB per month) |
|-----------------------|-------------------------------|----|--------------------------------|--------|-----------------------------------|
| | 1* | 2* | 1* | 2* | |
| 69 kV and over | 74.14 | | 4.1025 | 2.5849 | 312.24 |
| 22 – 33 kV | 132.93 | | 4.1839 | 2.6037 | 312.24 |
| Below 22 kV | 210.00 | | 4.3297 | 2.6369 | 312.24 |

Notes:

- 1* On Peak: Monday – Friday from 09.00 am to 10.00 pm; and
- 2* Off Peak Monday – Friday from 10.00 pm to 09.00 am
Saturday – Sunday and normal public holiday (excluding substitution holiday).

Time of Day Tariff

| | Demand Charge (THB per kW) | | | Energy Charge (THB per kWh) | Service Charge (THB per month) |
|-----------------------|-------------------------------|-------|----|--------------------------------|-----------------------------------|
| | 1* | 2* | 3* | | |
| 69 kV and over | 224.30 | 29.91 | 0 | 3.1097 | 312.24 |
| 22 – 33 kV | 285.05 | 58.88 | 0 | 3.1471 | 312.24 |
| Below 22 kV | 332.71 | 68.22 | 0 | 3.1751 | 312.24 |

- 1* On Peak: Every day from 06.30 pm to 09.30 pm;
- 2* Partial Peak: Every day from 08.00 am to 06.30 pm (only the amount of maximum demand that is out of the On Peak period will be charged at this rate); and
- 3* Off Peak: Every day from 09.30 pm to 08.00 am.

Normal Tariff

| | Demand Charge (THB per kW) | Energy Charge (THB per kWh) | Service Charge (THB per month) |
|-----------------------|---------------------------------------|--|---|
| 69 kV and over | 175.70 | 3.1097 | 312.24 |
| 22 – 33 kV | 196.26 | 3.1471 | 312.24 |
| Below 22 kV | 221.50 | 3.1751 | 312.24 |

Billing demand is defined as the maximum 15-minute integrated demand during an on-peak and partial-peak period over the monthly billing period that is measured to the nearest full kilowatt discarding the fraction of 0.5 kW. A monthly minimum charge of any billing period shall not be less than 70 percent of the maximum billing demand charge for the preceding 12 months.

2.3 Service and Raw Material Supply¹

2.3.1 Raw material supply

Excluding hydropower plant in Laos and our Solar Power Plant in MIE Area, our principal raw materials are natural gas and coal, both of which are used as fuel to generate electricity and steam. Majority our electricity generating facilities in Thailand use natural gas as their principal fuel source, with the exception of our Glow SPP 2/Glow SPP 3 plant which uses both natural gas and coal, and our CFB 3 of Glow Energy and GHECO-One which use coal. Purchases of natural gas and coal together accounted for 76.8 percent of our total costs of goods sold, or 75.1 percent of our total expenses in 2018. Several of our gas-fired facilities are also designed to run on diesel fuel (alternative fuel), but diesel is much more expensive fuel.

2.3.1.1 Natural gas

Purchases of natural gas accounted for 54.5% percent of our total cost of goods sold in 2018. To date, we have not experienced any material disruptions of natural gas supplied by PTT, with which we have entered into ten separate gas supply agreements.

PTT enters into four principal types of gas supply agreements:

- IPPs gas supply agreements;
- SPPs gas supply agreements;
- cogeneration gas supply agreements; and
- industrial gas supply agreements.

The average price of natural gas for Glow IPP is calculated based on total payment (including Demand Charge and Delivery Charge) divided by total consumption, in terms of THB per mMBTU (excluding VAT), the average prices were 646.0 in 2016, 3,815.2 in 2017, and 3,413.5 in 2018. The high average prices are mainly due to minimal EGAT dispatch order resulting in low natural gas consumption (variable cost) while we were still subjected to the Demand Charge (fixed cost). However, if calculated based on total payment (excluding Demand Charge but including only Delivery Charge) divided by total consumption charge, in terms of THB per mMBTU (excluding VAT), the average prices were 203.1 in 2016, 204.4 in 2017, and 207.43 in 2018.

The average effective price before VAT of natural gas for our other generating facilities, expressed in terms of THB per mMBTU (excluding VAT), were 246.6 in 2016, 240.6 in 2017, and 263.3 in 2018.

The terms and pricing of these agreements differ significantly. Generally, gas prices for IPPs are the lowest, followed by SPPs, cogeneration facilities, and industrial gas supply (which is the highest gas price). Note that our IPP price (when including Demand Charge) as indicate above is higher than the other gas prices due to the high Demand Charge per unit while the consumption was low.

¹ Yearly information is presented throughout Part 2.3.1 – 2.3.2 instead of quarterly information in order to avoid misrepresentation of the business caused from periodic fluctuation that occurs during the year.

IPP gas supply agreement

PTT has a standard form gas supply agreement for sales of natural gas to all IPPs (the “IPP gas supply agreement”). Glow IPP’s gas supply agreement is a requirements-based contract with a 25-year term that follows this form. Under the terms of this agreement, Glow IPP is not subject to any minimum take obligations. PTT is, however, subject to a “reasonable endeavours” obligation to supply requested quantities of natural gas to Glow IPP.

Because all IPPs operating in Thailand sell all of their generated electricity to EGAT, (and EGAT controls when and to what extent such generation facilities are dispatched and consequently how much gas they consume), EGAT has entered into a master gas supply agreement with PTT. EGAT therefore assumes the take-or-pay obligation with respect to the gas supply agreements of Glow IPP and other IPPs. PTT’s “reasonable endeavours” obligation requires that it supply natural gas sufficient to meet each respective IPPs’ contractual delivery capacity (“CDC”), which may be changed by Glow IPP providing advance notice to PTT.

Pricing under the IPP gas supply agreement is standard for all IPPs and is fully passed through to EGAT as part of the energy charge under the EGAT power purchase agreements on the basis of a contracted heat rate. If PTT is not able to supply adequate quantities of gas, we are reimbursed (principally by EGAT) for our increased fuel costs. The technical specifications of the natural gas that PTT is required to deliver are set out in the IPP gas supply agreement.

SPP gas supply agreement

PTT has a standard form gas supply agreement that it uses for sales of natural gas to SPPs (the “SPP gas supply agreement”). The gas supply agreements between PTT and Glow Energy Phase 2, Glow Energy Phase 4, Glow SPP 2, Glow SPP 11 Phase 1 and Glow SPP 11 Phase 2 follow this form. Our SPP gas supply agreements have original terms of 21 years for Glow Energy Phase 2, Glow SPP 2 and Glow SPP 11 Phase 1 and original terms of 25 years for Glow Energy Phase 4 and Glow SPP 11 Phase 2, and require PTT to make available gas in the amount equal to the contractually stipulated daily contracted quantity (“DCQ”). Each year, we have the option to increase or decrease the DCQ by a maximum of 15 percent of the prior year’s DCQ, subject to a maximum DCQ stipulated in each contract. The terms of these agreements require that our respective SPPs purchase no less than 85 percent of the DCQ submitted to PTT each year.

The net annual contracted quantity (“Net ACQ”) is calculated by first establishing the Annual Contract Quantity (“ACQ”), which is the sum of each month’s Monthly Contract Quantity (“MCQ”) for a given year, from which is subtracted: (i) the volume of gas that PTT was unable to supply in accordance with the DCQ; (ii) the volume of gas we were unable to take due to *force majeure*; and (iii) the volume of gas we refused to accept due to quality or pressure shortfalls.

Even if we do not take all of our minimum required Net ACQ (85 percent) thereof, we are required to pay for it. We have a two-year make-up right in respect to any quantities paid for but not taken, which matches EGAT’s make-up rights in respect of its take-or-pay obligations under the EGAT power purchase agreements for our SPPs. Pricing under the SPP gas supply agreements is standard for all SPPs.

The SPP gas supply agreements require PTT to compensate us if it is unable to deliver natural gas at agreed levels provided that PTT was at fault for delivery failure, but only to the extent that this affects our generation of electricity for sales to EGAT. Although subject to certain ceilings, compensation amounts are calculated to equal the difference between the price of natural gas under the SPP gas supply

agreement and the price of diesel fuel. (As noted earlier, our facilities use diesel as a substitute fuel when unable to procure sufficient quantities of natural gas.) The technical specifications of the natural gas that PTT is required to deliver are set out in the SPP gas supply agreements.

Cogeneration gas supply agreement

PTT has a standard form gas supply agreement used for sales of natural gas to non-SPP cogeneration facilities (the “Cogeneration gas supply agreement”). The gas supply agreements between PTT and Glow Energy Phase 5 and Glow SPP 11 Phase 3 follow this form and have terms of 10 years and 15 years, respectively. Under these terms, PTT is required to make gas available in the amount equal to a specified mean daily contract quantity (“MDCQ”). For agreement with Glow Energy Phase 5, the MDCQ is subject to adjustment based upon the actual daily contract quantity (“ADQ”) over the preceding six-month period. The six-month average of the ADQ is then applied as the new MDCQ. There are no minimum take obligations under the Cogeneration gas supply agreements of Glow Energy Phase 5. However, for the agreement with Glow SPP 11 Phase 3, there is no automatic adjustment over the preceding six-month period as mentioned above. The DCQ is depending on the figure that we submit to PTT each year, which we have the option to increase or decrease the DCQ by a maximum of 15 percent of the submitted figure. There are monthly minimum take obligations under the Cogeneration gas supply agreements of Glow SPP 11 Phase 3 at the level of 100 percent. However, they also have 12-month period make-up account from the date of deposit under the agreement for us to utilize the quantities that we paid for but not taken. We also have one time right to adjust the DCQ by maximum of 15 percent of the DCQ for such year if we are subject to minimum take for three consecutive months.

Pricing is based on standard gas prices for cogeneration facilities, which is higher than prices paid by SPPs and those in the industrial power sector. In the case of any future decisions to re-enact industrial power sector gas pricing policies (or any gas pricing structure with prices lower than the current price for cogeneration facilities), PTT has agreed to allow gas sales for Glow Energy Phase 5 unit to fall under this new pricing structure. Additionally, if Glow Energy Phase 5 unit is contracted to sell electricity to EGAT under the SPP program, both parties have agreed to amend related agreements to reflect standard SPP gas supply agreements.

Industrial gas supply agreement

PTT has a standard form gas supply agreement for sales of natural gas to industrial customers (“Industrial gas supply agreements”). The gas supply agreements between PTT and Glow Energy follow this form. In early 2015, PTT introduced a new pricing structure (to replace the existing one) for the new industrial gas supply agreement. However, at the end of 2018, no agreement had been reached yet between PTT and industrial users on such new pricing structure.

Under this industrial gas supply agreement, PTT is required to make available quantities of natural gas equal to a specified mean daily contract quantity (“MDCQ”), which is subject to adjustments based upon the actual daily contract quantity (“ADQ”) over the preceding six-month period. The six-month average of the ADQ is then applied as the new MDCQ. There are no minimum take obligations under the Industrial gas supply agreements. Pricing is based on standard industry gas prices and incorporates a volume discount.

2.3.1.2 Coal

Purchases of coal accounted for 22.3 percent of our total cost of goods sold in 2018. We consume coal at the CFB 1&2 at Glow SPP 3 plant, CFB 3 at Glow Energy, and GHECO-One. In 2016, 2017, and 2018

our coal purchase (measured by mass) was approximately 3,725,366 tons, 3,480,346 tons, and 3,410,079 tons respectively. In 2018, for our CFBs, we purchased all of our coal consumption under medium-term contracts with international and Thai coal suppliers/traders. We purchased all of GHECO-One's coal consumption under medium-term contracts with two international coal suppliers.

Under each coal supply agreements, coal supplier is responsible for guaranteeing the quality of coal, by means of a Loading Port Certificate issued by an authorized surveyor, in accordance with the specifications set out in the coal supply agreement. If the quality standards are not met, we can either accept the non-conforming coal and make deductions from payments on terms specified in the coal supply agreement, or require such to replace the non-conforming coal.

Coal suppliers are also required to supply specific quantities of coal as set out in the coal supply agreement. If there is any shortfall in the quantity of coal supplied due to default by coal suppliers, they must compensate us for any additional cost incurred in acquiring the shortfall amount from another source. If necessary, we acquire the balance of our coal requirements through spot purchases from commodity traders or coal suppliers in the open market.

The prices of coal under coal supply agreements are expressed in USD per ton, and include both the FOB coal price and freight costs. For GHECO-One, the coal procurement cost is, in simplified terms, passed-through to EGAT at a pre-determined heat rate. However, for our cogeneration business, as the sale price of our products is not fully hedged for changes in coal prices, such changes directly impact our profitability. It is also important to note that freight prices are not pass-through costs under the terms of our SPP electricity sales agreements with EGAT, and are therefore absorbed entirely by us.

2.3.1.3 Diesel

Diesel oil is the back-up fuel for the natural gas turbines supplying electricity under our Glow IPP's electricity sales contracts. The close proximity of our facilities to the Rayong Refinery and Star Refinery, which are both located in the MIE Area, as well as the PTT oil depot in Sriracha district, Chonburi province, provides us with relatively convenient access to diesel oil.

Under the terms of its IPP power purchase agreement, Glow IPP is required to maintain backup supplies of diesel oil sufficient to generate contracted electricity amounts for three days. Note that for our GHECO-One facility, we use diesel oil for start-up purpose only and no requirement to maintain backup supplies of diesel oil as per Glow IPP's power purchase agreement. To date, we have not experienced any material disruptions in our natural gas supply and as such, have not been required to operate facilities using diesel oil, except under limited circumstances, and principally for testing.

2.3.1.4 Other raw materials

Glow SPP 1 Steam Supply Agreement

Glow SPP 1 plant is a natural gas-fired combined cycle cogeneration facility. The plant is located in the WHA EIE and began commercial operation in February 1998. The plant has an electrical generating capacity of 124 MW, a steam generating capacity of 90 tons per hour and a demineralized water production capacity of 70 cubic meters per hour. After divestment of the entire share in Glow SPP 1 from Glow to B.Grimm Power Service (Laem Chabang) Co., Ltd. on 13 March 2019, Glow entered into a Steam Supply agreement with Glow SPP1 where Glow purchases the steam from Glow SPP1 for the total steam production capacity of Glow SPP1 until 17 September 2021.

2.3.1.5 Raw water and other public utilities

Our GHECO-One, Glow Energy and Glow SPP 2/SPP 3 plants are located within the MIE, which is owned and administered by the Industrial Estate Authority of Thailand (“IEAT”), a state enterprise operating under the supervision of the Ministry of Industry. The IEAT was established under the Industrial Estate Authority of Thailand Act of 1979. The Act also established that the government, through the IEAT, must provide infrastructure and public utilities (raw water, waste treatment, etc.) to operators within its estates. IEAT is therefore responsible for providing our production facilities with water and other public utilities.

Sea-water, which is used as cooling water, is delivered through underground pipes from the harbour to our condensers and returned to the sea via a discharge canal. We produce the clarified and demineralised water used in operations at our own water treatment facilities.

Our Glow IPP and Glow SPP 1 facilities are located in industrial estates owned and administered by WHA. WHA provides basic utilities for operations located in their industrial estates, including raw and potable water, waste treatment, telephone connections and common utilities. In addition to payments for basic utilities, WHA charges an adjustable monthly fee for the management and maintenance of common utilities and facilities within its industrial estates.

Our Glow SPP 11 Phase 1, Glow SPP 11 Phase 2 and Glow SPP 11 Phase 3 facilities are located in SEIP. SEIP provides waste water treatment and other public utilities. East Water provides raw water.

2.3.1.6 Other raw materials

We use small amount of limestone sourced from Thailand in connection with our coal-fired facilities as well as various other chemicals to produce clarified and demineralised water. These chemicals include aluminium sulphate, sodium hydroxide, sodium hydrochlorite, hydrochloric acid and trisodium phosphate, all of which are primarily sourced and supplied in Thailand.

2.3.2 Maintenance

The maintenance of production facilities is a critical aspect of our business. Proper maintenance not only allows us to operate more efficiently, and thereby generate more electricity and steam using less fuel, but is also important to protect our facilities against major breakdowns and failures. Following fuel costs, maintenance costs are the most significant component of our operating expenses.

We manage plant maintenance with the primary aim of minimizing business disruptions. This includes coordinating maintenance outages with customers, as well as planning and scheduling maintenance activities to achieve maximum efficiency. We also strive to work within the parameters of our EGAT power purchase agreements, which provide allowances for scheduled maintenance.

We and other electricity generators typically enter into long-term service agreements with respect to certain components of our facilities. Although there is some variation in the terms of these long-term service agreements, they typically involve the use of a third party contractor to maintain, service, and supply spare parts for these components. The major material and long-term service agreements we have entered into include:

- **Glow Energy Phase 2:** Long-term maintenance services for Glow Energy’s gas turbines and related equipment, components and parts are provided by EthosEnergy (Thailand) Limited,

("EthosEnergy" formerly known as "Wood Group"). Our long-term service agreement with EthosEnergy took effect on 1 January 2005 and expires after 192,000 plant operating hours, or the completion of four maintenance cycles;

- **Glow SPP 2 and Glow Energy Phase 4:** The long-term maintenance arrangements for the natural gas-fired portion of our Glow SPP 2/SPP 3 plant and Glow Energy Phase 4 are substantively the same as those outlined above for Glow Energy;
- **Glow Energy and Glow SPP 3:** Have a maintenance contract with EGAT for 115 kV and 230 kV overhead transmission lines and a maintenance support agreement with MEA for all underground 115 kV and 22 kV transmission lines;
- **Glow IPP:** In 2010, we have entered into a long term Alstom GT26 gas turbine parts supply and reconditioning services agreement with Alstom (Switzerland). The agreement covers the period over the next three major inspections (approximately over 8-9 years) for each generating unit;
- **Glow Energy Phase 5:** In 2017, we have entered into a new long term maintenance services and parts supply agreement for the gas turbine Siemens 4000F model of the Phase 5 project with Ansaldo Energia S.p.A. and Ansaldo Energia Switzerland Limited Branch of Thailand. The agreement covers 141,000 Equivalent Operating Hours (approximately 15 years);
- **Glow SPP 11 Phase 1:** In early 2012, we have re-negotiated with EthosEnergy the existing long-term parts supply and maintenance services for the Glow Group's Frame 6B gas turbines (14 engines) by including the two Frame 6B gas turbines of Glow SPP 11 into the existing package (total of 16 engines). This agreement covers two major inspections per gas turbine (approximately 12 years) for Glow SPP 11;
- **Glow SPP 11 Phase 2:** In 2012, we have entered into a long term maintenance services and parts supply agreement for the gas turbine General Electric LM6000 gas turbines of the Glow SPP12 power plant with IHI Corporations. The agreement covers three gas turbines for the term of 50,000 Operating Hours per gas turbine (approximately over 9-10 years); and
- **Glow SPP 11 Phase 3:** In 2015, we have entered into a long term maintenance services and parts supply agreement for the Wärtsilä W20V34SG gas engines of Glow SPP 11 Phase 3 (Expansion) with Wärtsilä Singapore. The agreement covers two gas engines for the term of 38,376 Running Hours per each unit (approximately 9 years).

Any other maintenance is contracted on a project-specific basis. It should be noted that we often contract with the original equipment manufacturer for maintenance needs outside of those covered by existing long term maintenance arrangements, as the machinery and equipment we use is highly specialized.

2.3.3 Insurance

We currently have the following principal insurance policies:

All of our operational generating units are insured under one collective property damage and business interruption insurance policy. We have extended the current long-term agreement policy to 13 March 2021. The current policy covers all of the plants and relates to major machinery, plants and plant equipment.

Our property damage insurance covers, on an all-risks basis, any physical loss or damage to our property and any property which is in our care, custody and control, including machinery, plant, equipment, turbines, generators, boilers, electronic data processing equipment and property in transit. This policy contains standard exclusions that are customary in the international insurance market. The property damage insurance also covers the estimated new replacement value of insured assets.

Our business interruption insurance covers certain financial losses, including the loss of gross profit (as well as the loss of BOI tax privileges) and increased operating costs, (such as additional expenditures for the sole purpose of preventing or minimizing the loss of gross profit), incurred as a result of an interference or interruption to our business caused by damage to the insured property. The policy includes deductibles, waiting periods, exclusions and coverage extensions that are customary in the international insurance market.

Our business interruption insurance is based on an indemnity period of 12 months, except in the case of Glow SPP 3, Glow Energy CFB 3, Glow Energy Phase 5 and Glow IPP, which have indemnity period of 18 months and GHECO-One, which have indemnity period for 24 months. (The indemnity period for Glow SPP 3, Glow Energy CFB 3 may, subject to the risk assessment, be reduced to 15 months.) The policy has a combined property damage and business interruption insurance limit of USD 750 million per event, except for the plants located in the same area in Map Ta Phut comprising of Glow SPP2/SPP3 (Phase 3), Glow Energy CFB 3, Glow Energy Phase 4, Glow Energy Phase 5, and GHECO-One for which we procured the limit of indemnity for a combined property damage and business insurance of USD 1,570 million per event.

Glow also has partial terrorism coverage as a standalone package.

We also have an annual group-wide third-party liability insurance policy. This policy indemnifies the respective entities within Glow Group, as the insured party, against legal liability for: (i) bodily injury to any person; and/or (ii) damage to property, subject to a limit of USD 50 million per occurrence, and in aggregate with respect to product liability. Additionally, the USD 50 million limit is subject to Glow's group-wide application for the occurrence of a single event (in the case that a single event results in a claim to more than one covered entity). This policy contains standard exclusions that are customary in the international insurance market. The policy period is from 14 March 2019 until 13 March 2021.

We also have employer's liability insurance and property all-risk insurance for our head office facility, insurance policies relating to marine cargo and motor vehicle liability and a stand-alone operational insurance and third party liability for solar rooftop business for each project.

In addition to the insurance policies for operational generating units, there is also the insurance for the construction of the Industrial-Waste-to-Energy power plant of Chonburi Clean Energy Co., Ltd. ("CCE"), which is a joint venture company established by WHA Energy Co. Ltd., Glow IPP 3 Co., Ltd. and SUEZ (South East Asia) Limited. The insurance for CCE project is a combined insurance program to cover any physical loss or damage to property, financial loss and/or the loss of gross profit based on an indemnity period of 18 months, and legal liability to any third party with the limit of liability set at USD 25 million.

The insurance placement of CCE project consists of two phases as follows:

1. Insurance during the construction period. The construction period is about 26 months from 1 November 2017 to 31 December 2019; and
2. Insurance for the first year operation estimated from 1 January 2020 to 31 December 2020.

2.3.4 Environmental, health and safety management

Glow performs our business by implementing environmentally and socially responsible projects and commits to develop no more coal-fired units. To ensure legal compliance, it is also our commitment to control emission levels to meet, and, where possible, exceed all requirements of applicable standards at all times, to fully comply with all mitigation measures and monitoring programs required by the Environmental Impact Assessment (EIA) and the Environmental Health Impact Assessment (EHIA), and to meet the requirements of all standards established by the environmental regulations, site permits and corporate objectives. The environmental, health and safety management system (EHSMS) has maintained and continually improved to ensure safe and healthy workplaces of all Glow's premises. We are also liable for breaches of environmental laws and responsible for making any improvements and/or modifications to our facilities to ensure continued compliance with environmental laws.

Environmental aspect has always been among Glow's top priorities as a key player in the power utility industry. As the nature of the business, it is undeniable that our operations has the proportional impact on both local and global communities due to the consumption of natural resources as well as the air emissions, including Greenhouse Gases (GHG). Apart from being highly regulated by the national regulators in term of environmental and emission management, the seriousness and urgency of the climate change issue that has just been brought to light in this decade also drives our customers' demand towards low-carbon alternatives. We work continuously to supervise, control and improve our processes to ensure that regulated emissions from our operations are within and/or below stipulated maximum levels. We use Continuous Emission Monitoring Systems ("CEMS") to monitor emissions resulting from the combustion processes of our plants. We also monitor ambient air quality at several locations within the vicinity of our plants as required by EIA mitigation and monitoring programs. For each combustion process, we monitor and control oxides of nitrogen and sulphur and particulate matter. The temperature and the fuel/air ratio are controlled during the combustion process in order to maintain emissions within applicable limits.

Minimizing the environmental impacts of our coal-fired facilities is important to us. We use coal dust suppression systems and employ clean coal combustion technology and fabric filters to reduce emissions from coal-fired facilities. We periodically monitor the quality of effluent discharge and compare it to the EIA's mitigation and monitoring programs to ensure compliance with regulatory standards.

We are one of the first companies in the MIE to install environmental display board that report actual emissions to the public and IEAT. This is to demonstrate that our environmental reporting systems are transparent. For most of our emissions and discharge, we are well within regulatory requirements. We also participate in the "Environmental Good Governance Project", which is a program organized by Map Ta Phut Industrial Estate to reduce air emissions and industrial waste.

At the national level, all of our power plants in Map Ta Phut have all been operated in compliance and were certified by the Federation of Thai Industries (FTI) since 2016 as "Eco-Factory". In addition, all Glow Group power plants, including Glow SPP 11 in Pluakdaeng, Rayong Province and Glow IPP in Sriracha, Chonburi Province had received the Green Industry Awards from the Ministry of Industry. To meet "Green Industry" requirements means we have strong commitment towards operating our business

in an environmentally friendly way to achieve sustainability goals by developing and improving continuously on production process and environmental management including corporate social responsibility, both internally and externally, throughout the supply chain.

We have implemented various improvement projects to our facilities that are directly reducing greenhouse gas emissions (e.g. boiler efficiency improvement). We use state-of-the-art and environmentally friendly technology such as Supercritical Pulverized Coal Boiler Technology, a high-efficiency boiler system that consumes less fuel than conventional boilers, which results in lower emissions and lower energy use. Our replacement of conventional lighting fixtures to LED in our power plants received the formal recognition of reduced greenhouse gas (GHG) under Low Emission Support Scheme (LESS), the scheme of Thailand Greenhouse Gas Management (Public Organization) (TGO - Thailand's Designated National Authority for the Clean Development Mechanism).

Glow's power plants in Thailand had obtained the Carbon Footprint for Organization (CFO) certifications of our carbon footprint, which is an indicator for the quantity of GHG emitted (in tons of carbon dioxide equivalent) from all activities of the operations; such as fuel combustion, electricity use, waste management, and transportation. Moreover, we are taking steps beyond Carbon Footprint of Product (CFP) certification by obtaining the Carbon Footprint Reduction (CFR) label-the label given to a product that contributes less GHG than Glow's local competitors (i.e. baseline emissions). Glow's electricity, steam, clarified water, and demineralized water production from Glow Energy Phase 2 are CFR-certified as the first of each kind in Thailand.

In addition, Glow Energy Phase 1&2 had accredited its energy efficiency improvement project of changing from conventional lightings to LED under the Thailand Voluntary Emission Reduction Program (T-VER) program. The reforestation project of GHECO-One had received the Community Green Community Support Program awards from TGO.

Glow has the Waste Management Procedure established to provide guidelines of the operational control for all relevant parties with regards to permitting, collection, storage, transportation for treatment and disposal of managing industrial waste, including wastewater sludge, fly ash, bottom ash, and by-products to prevent environmental impacts. We prepare regular reports for government agencies on the disposal of our hazardous and non-hazardous waste, to ensure compliance with government regulations.

For the occupational health and safety management and policy, we committed to continue striving to reduce, and ultimately eliminate hazards and minimize the occupational health and safety risks by taking effective preventive and protective measures to provide safe and healthy workplace, achieving the best possible health and safety performance and developing correct safety behaviors. The occupational health and safety management is a key ingredient of our core values and is critical to all involved people who may be affected from our operations, including employees and contractors.

We consistently seek to identify significant workplace hazards and risks at all Glow's premises, appropriately apply safe control measures, provide safe and healthy workplace, and implement safe work processes to protect employees and contractors from inherent dangers.

The 5-year safety culture roadmap (2014-2018) had been launched and carried out various activities, including promotion of behavioural-based safety activities; contractor safety evaluation; stop work authority (SWA); and managing rule-breaking (MRB) tool for root cause analysis of occupational accidents and incidents at work.

2.4 Expansions and Potential Expansions

2.4.1 Industrial Waste to Energy

In partnership with Suez and WHA, Glow was awarded, in October 2016, a non-hazardous waste to energy project with a gross generating power capacity of 8.6 MW. Each of the three sponsors will hold an equal equity stake. The project is located in the WHA Chonburi Industrial Estate 1 and will sell all its output to the Provincial Electricity Authority (“PEA”) under a 20-year Power Purchase Agreement (“PPA”). PEA will purchase the power generated by the project at a tariff of THB 6.08 per kWh (of which THB 2.69 is annually adjusted to inflation) with an additional premium of THB 0.7 per kWh during the first 8 years of operation. The total investment cost is estimated at approximately THB 1,800 million. The plant must enter into commercial operation by the end of 2019.

As of 31 March 2019, this project is under construction.

2.4.2 SPP Replacement

In May 2016, the National Energy Policy Committee (“NEPC”) approved the policy that, under certain conditions, owners of cogeneration plants under the SPP scheme will be allowed to apply for replacement PPA’s with EGAT which must enter into effect after the expiry date of the existing PPA’s. The sales to EGAT under a replacement PPA are limited to the higher of 30 MW and 30 percent of the total power and steam generation capacity of the plant. The replacement PPA’s will have a duration of 25 years. Glow has at least five cogeneration units that are eligible under the SPP replacement scheme (at least four in Map Ta Phut and one in Pluak Daeng).

In January 2019, NEPC resolved to approve the replacement PPAs of gas and coal SPP that will be expired before and during 2025 (SPP Replacement Scheme). The contracted capacity under the SPP Replacement Scheme is under or equal to 30MW or 30% of installed capacity including steam. The duration of the PPAs is 25 years from the expiration of the expiring SPP PPAs. From the said NEPC resolution, seven of Glow’s PPAs are qualified for the SPP Replacement Scheme.

On 22 May 2019, Energy Regulatory Commission (ERC) issued an invitation to bid for the sale of electricity from expiring SPPs for the SPP Replacement Scheme, Glow submitted the seven bids for the following SPP PPAs:

- 2 bids for the PPAs of Glow Energy Phase 2
- 2 bids for the PPAs of Glow SPP 2
- 2 bids for the PPAs of Glow SPP 3
- 1 bid for the PPA of Glow SPP 11

The Company expects that the results of the bid will be announced within 30 August 2019.

Additionally, the NEPC resolution in January 2019 also allows the PPA extension for the SPP PPAs expiring in 2019-2021 in order for the SPPs to have adequate construction lead time. This results in two PPAs of Glow Energy Phase 2 being extended to the end of 2022.

3. Risk Factors

We are exposed to fluctuations in fuel prices.

Fuel is our most significant operating cost, accounting for 75.1 percent of our total expenses in 2018. Whether and to what extent we can pass fuel price fluctuations through to our electricity and steam customers depends on the specific terms of our sales agreements.

- Under the terms of Glow IPP's and GHECO-One's power purchase agreement with Electricity Generating Authority of Thailand ("EGAT"), which accounted for 26.9 percent of our total revenues in 2018, our fuel costs are passed through to EGAT at contracted heat rates.
- Under the terms of our SPP power purchase agreements with EGAT relating to our gas-fired facilities, which together accounted for 21.0 percent of our total revenues in 2018, our fuel costs are passed through to EGAT at contracted heat rates.
- Under the terms of our SPP power purchase agreements with EGAT relating to two of our coal-fired facilities (90 MW contracted capacity each), which together accounted for 4.8 percent of our total revenues in 2018, our fuel costs are only partially passed through to EGAT at contracted heat rates and at a certain coal price benchmark, as relating to our purchase of coal. The freight charges, which are an important component of fuel costs, are not passed through to EGAT. Increase in overall coal costs, including freight costs, may have an adverse effect on our profit margins.
- Under the terms of our power supply agreements with industrial customers, which together accounted for 30.0 percent of our total revenues in 2018, we mainly sell electricity at prices that are based on the retail electricity tariff charged by the Provincial Electricity Authority of Thailand ("PEA"), the state-owned electricity distribution authority for the areas of Thailand in which we operate. Although the PEA tariff is designed to reflect fluctuations in fuel prices through a fuel transfer charge ("Ft"), it does so by reference to a fuel index, which is not designed to and may not necessarily reflect our actual fuel costs since it only factors in the costs of coal (which we also use to generate up to 186 MW of electricity that we supply to our industrial customers to a very limited extent). In addition, the Ft does not always function as designed. See "—We price a portion of our electricity sales by reference to the PEA tariff, which does not reflect our actual costs and may not be adjusted as designed to reflect fluctuations in, among other things, fuel costs and inflation".
- Under the terms of our steam supply agreements with industrial customers, which together accounted for 13.9 percent of our total revenues in 2018, we sell steam based on prices that are indexed to fluctuations in the price of natural gas, but not coal (which we also use to produce the steam that we sell).

Because we cannot pass through all of the changes in our fuel costs to our customers, we are exposed to fluctuation in the prices of fuel (and in particular coal). If there are material increases in our cost of fuel and we are unable to pass these increases through to our customers, this will directly reduce our profit margins and could have a material adverse effect on our business, results of operations, financial condition and prospects.

We price a portion of our electricity sales by reference to the PEA tariff, which does not reflect our actual costs and may not be adjusted as designed to reflect fluctuations in, among other things, fuel costs and inflation.

Under the terms of our electricity supply agreements with our industrial customers, which together accounted for 30.0 percent of our total revenues in 2018, we mostly sell electricity at prices that are based on the retail tariff charged by the PEA. The PEA's tariffs are regulated by the Energy Regulatory Commission ("ERC") and take into account the electricity generation, purchase, transmission and distribution costs of the PEA, the Metropolitan Electricity Authority of Thailand ("MEA") and EGAT. Since our cost structure is different, the PEA tariff rates, and consequently the prices at which we sell electricity to our industrial customers, do not necessarily reflect our actual costs of producing and supplying this electricity.

The PEA tariff is designed to reflect fluctuations in fuel prices, inflation, foreign exchange rates and other factors by application of the Ft. However, the most significant component of the Ft, the fuel cost component, refers to a general fuel index that does not necessarily reflect our actual fuel costs and only factors in the cost of coal, which we also use to generate electricity that we supply to our industrial customers, to a limited extent. In addition, the Ft, which is normally adjusted only every four months, does not always function as designed. When the Ft adjustment is not applied or not fully applied to the PEA tariff in a rising fuel cost environment, the prices at which we sell electricity to our customers are not increased to reflect higher prevailing fuel prices, and consequently, our profit margins are reduced, and vice versa. For the foregoing reasons, our reliance on the PEA tariff could have a material adverse effect on our business, results of operations, financial condition and prospects.

We are highly dependent on EGAT.

EGAT is our largest and most important customer and is committed to purchasing electricity from us under our EGAT power purchase agreements, which are long-term contracts with durations from 21 to 25 years. The EGAT power purchase agreements are material to our business, accounting for 54.1 percent of our revenues in 2018. EGAT is the dominant participant in the Thai electricity market. In addition to being the single wholesale buyer and controlling all of the wholesale transmission of electricity in Thailand, EGAT is also Thailand's largest electricity generator. A number of our important contracts contain unclear terms which have led to disagreements with EGAT regarding the operation of our business, as discussed below in "—We have had a number of significant disputes with EGAT in the past" and which could result in further disputes in the future. Any material disputes or disagreements that we have with EGAT could have a material adverse effect on our business, results of operations, financial condition and prospects.

We are highly dependent on a small number of industrial customers concentrated in the petrochemical sector.

In addition to EGAT, we are also highly dependent on a small number of industrial customers. Our 10 largest industrial customers (which, for the avoidance of doubt, exclude EGAT) accounted for 30.9 percent of our total revenues in 2018 or 69.0 percent of total sales to industrial customers, whereas total sales to industrial customers accounted for 44.8 percent of our total revenue in 2018. A disruption of our relationship with one or more of our industrial customers could have a material adverse effect on our business, results of operations, financial condition and prospects. Further, our industrial customers are highly concentrated both geographically and in terms of industrial classification. Most of our industrial customers are located in the Map Ta Phut Industrial Estate ("MIE") or elsewhere within the MIE Area, accounting for 94.7 percent of our total sales to industrial customers. This exposes us to increased risk of regulatory changes in respect of

operation in MIE, an accident, natural disaster, infrastructure or other failure or breakdown disrupting the facilities of the MIE, the other industrial estates in which our industrial customers are located or the MIE Area generally.

In addition to their geographic concentration, many of our industrial customers are companies operating in petrochemical or petrochemical-related industries. This exposes them, and indirectly us, to the performance of the petrochemical sector. Many petrochemical products are commodities and the petrochemical industry is highly competitive. In addition, significant price fluctuations and business cyclicity are common in many petrochemical-related industries. These factors may affect our ability to conclude new agreements with these customers or negatively affect our demand and load factor, customer creditworthiness, the timing of our customers' expansions and thereby the terms on which we are able to reach any such new agreements and may, for these reasons or otherwise, have a material adverse effect on our business, results of operations, financial position and prospects.

Although we have successfully extended many of the long term contracts with industrial customers for which the initial term has expired or is due to expire, we cannot assure that we will be able to retain all contracts which are expiring in the medium term, or to find new customers to replace them on commercially reasonable terms. In addition, it is important to our business to maintain minimum levels of steam and chilled water sales in order to meet applicable generating efficiency requirements (and failure to do so could result in termination of certain of our SPP power purchase agreements with EGAT). If we are unable to retain our customers or to find new customers to replace them on commercially reasonable terms and along the product lines that we require, this could have a material adverse effect on our business, results of operations, financial position and prospects.

Under our power supply and steam supply agreements with industrial customers, our companies may be subject to liquidated damages liability in an event of interruption in the supply of power and/or steam and/or a failure to meet an annual guarantee of availability of power or steam, subject to the conditions indicated in each agreement, which may vary from one to another. We cannot predict whether liabilities will be incurred or not, and what the materiality of the potential liabilities, if any, would be.

We face competition.

We face competition, particularly with respect to our supply of electricity and steam from our cogeneration facilities to industrial customers in the MIE Area and in the Siam Eastern Industrial Park ("SEIP"). In the MIE Area industries have choices to purchase power from PEA, and for the case of power and steam from Bangkok Cogeneration Company Limited and B. Grimm Power Public Company Limited. Although our customers are parties to long-term agreements with us, we face competition with PEA, Bangkok Cogeneration Company Limited and B. Grimm Power Public Company Limited. In particular, the latter two competitors who prepare to construct new SPP cogeneration power plants to replace the existing PPAs which will soon be expired are pursuing to expand their industrial customer sales in the MIE Area. In SEIP, we compete with only PEA.

We are subject to significant contractual risks under our SPP power purchase agreements.

EGAT is our largest and most important customer, and sales to EGAT from our SPPs accounted for 25.8 percent of our total revenues in 2018 (see "— We are highly dependent on EGAT"). EGAT is the sole purchaser of wholesale electricity in Thailand. Due in part to the foregoing, our SPP power purchase agreements with EGAT are standard form contracts that we were not given an opportunity to negotiate. This means that these contracts are not tailored to our specific

operating circumstances and contain a number of ambiguous provisions. Certain of the terms of our SPP power purchase agreements from the first round of SPP contracts (COD before 2012) that we believe present risks to our business are as follows:

- A power purchase agreement may be terminated before the end of its term due to the default of either party and our only remedy may be to bring a claim in arbitration and prove damages;
- Although the power purchase agreements do not include liquidated damages provisions, penalties are imposed in the form of reduced capacity or energy payments from EGAT or refunds by us where (i) we supply less than the contracted capacity, (ii) we provide electricity for less than 7,008 hours in a year, (iii) the cogeneration efficiency is less than 45 percent or (iv) thermal energy accounts for less than 10 percent of our total energy sold;
- If a force majeure event affecting EGAT or a governmental force majeure event (as defined in the power purchase agreement) prevents us from supplying electricity to EGAT, EGAT will continue to make its capacity payment (the payment that is designed to allow us to recover our fixed costs for constructing and operating the power generating facility over the life of the contract) to us for only up to six months. In addition, failure by PTT to deliver gas to us is not considered to be a governmental force majeure event for these purposes, so in the event of a PTT supply failure, EGAT will only pay us for capacity actually made available and energy actually delivered; and
- Our SPP power purchase agreements with EGAT contain only a general commitment for both parties to negotiate in good faith to amend to our contractual arrangement in response to any adverse change in law, including changes in environmental standards, which provide us with only limited change-in-law protection. This is particularly relevant if new laws were to impose more stringent environmental conditions on our existing facilities, which could require significant operational and capital expenditure.

We also have operational SPP power purchase agreements with EGAT from the second round of SPPs. In 2009, we have entered into a 74 MW power purchase agreement (for Glow Energy Phase 4), which became operational in June 2012 and a 90 MW agreement (for Glow SPP 11 Phase 2), which became operational in December 2012. These agreements have some different terms, in addition to the general provisions described above, and certain new provisions, such as:

- The SPP requirement for thermal energy production and efficiency will be tested and reviewed once a year by a third party; and
- In case we do not meet the thermal energy production and/or efficiency requirement mentioned above, there is no penalty but we will not receive the fuel saving payment, which was introduced in the tariff.

These contractual risks could have a material adverse effect on our business, results of operations, financial condition and prospects.

We are subject to certain risks with respect to the expiry of our SPP power purchase agreements.

We sell to EGAT under 9 SPP power purchase agreements (including 2 SPP power purchase agreements which have been extended; see below). The total capacity so contracted currently

amounts to 674 MW. These power purchase agreements will expire in the period up to 2037 (latest expiry).

In January 2019, the National Energy Policy Committee (NEPC) has its resolution on the “SPP extension and replacement program” which the gas-fired and coal-fired SPP power purchase agreements expiring in the period up to 2025 can apply for the new PPA Replacement. For Glow, 7 out of the 9 SPP power purchase agreements would be eligible to submit the proposal for the new Power Purchase Agreements with Contracted Capacity of up to 30 MW. As the new PPAs only allow the Contracted Capacity to be up to 30 MW which is lower than our existing PPA (60-90 MW), the electricity revenue from EGAT would be reduced. It is to be noted that the proposal for the new Power Purchase Agreements under the SPP Replacement Scheme is subject to the EGAT Committee’s consideration and approval in accordance with the Regulation for Power Purchase announced by Energy Regulatory Commission (ERC).

On 22 May 2019, ERC announced the Invitation for submission of proposal for SPP replacement program. Glow Group submitted total of 7 applications for the SPP replacements including two power purchase agreement applications for Glow Energy Phase 2, two power purchase agreement applications for Glow SPP2 and two power purchase agreement applications for Glow SPP3 and one power purchase agreement application for Glow SPP11. We expect that the Acceptance of Power Purchase under this program shall be announced no later than 30 August 2019.

With respect to the existing Glow Energy Phase 2 power purchase agreements, we have entered into agreements which extend the term of the SPP power purchase agreements for Glow Energy Phase 2 for a period of 3 years since 2017, at a reduced (lower) tariff. According to the NEPC resolution in January 2019, both Glow Energy Phase 2 power purchase agreements shall be eligible for the extension of existing PPA up to the end of 2022. However, during these extension period, a dispute has arisen with EGAT with respect to the end date under the original SPP power purchase agreements and such dispute has been submitted to the Thai Arbitral Institution. The impact of this dispute would be the calculation of electricity payment during the dispute period (6 months). Please refer to section 5.1 for the current status of this dispute.

We operate in a highly regulated industry that is subject to change.

The regulatory framework applicable to electricity generating companies in Thailand has undergone significant structural changes in the past and may undergo significant changes in the future. In addition, there have been a variety of proposals for reform of the Thai electricity industry in the past which, once made, have subsequently been delayed, cancelled, or significantly modified prior to their implementation.

Thailand has been considering deregulation of the electricity industry for a number of years. The EGAT power purchase agreements for our SPPs do not contain any provisions dealing with the potential future privatization of EGAT or the restructuring of the electricity sector. We are unable to predict what impact deregulation or privatization would have on our contractual arrangements and on the electricity sector in Thailand in general. If such deregulation were to for example have the impact of abolishing the PEA tariff which is the reference price that we use to price our electricity sales to most of our industrial customers, we would likely have to renegotiate the pricing structure with our industrial customers, which we may not be able to do on reasonable commercial terms or at all.

As we operate a number of SPPs (and our companies account for a material portion of all SPP electricity sold to EGAT), which are higher-cost wholesale electricity generators compared to IPPs and many of EGAT’s generating facilities, we are exposed to regulatory changes that seek to

increase generating efficiency or to penalize high-cost generating facilities. This could take the form of changes in law and many of our key sales contracts do not contain specific mechanisms for compensating us in the event of adverse changes in law.

These or other regulatory or structural changes affecting the Thai electricity industry could require us to significantly change the way that we operate our business and could have a material adverse effect on our business, results of operations, financial condition and prospects.

We have had significant disputes with EGAT in the past.

In the past, we have been involved in discussions with EGAT regarding important aspects of our business. Although we do not characterize these as material disputes, we believe that, because of the structure of the Thai electricity supply industry and the nature of our power purchase agreements, we will likely continue to maintain an ongoing dialogue with EGAT to resolve these and similar types of issues in order to continue to clarify certain aspects of our contractual relationship. There is the potential for disputes to arise in connection with any such issues or points of discussion. As EGAT is our most important customer and disputes with EGAT may involve some of our most important contracts, any disputes that we may have with EGAT in the future may require us to materially change the way in which we operate our business and could have a material adverse effect on our business, results of operations, financial condition and prospects.

Our business operations are dependent on the availability of fuel.

Our business is dependent on the availability of fuel, in particular natural gas and coal. In 2018, purchases of natural gas accounted for 54.5 percent of our cost of goods sold and purchases of coal accounted for 22.3 percent of our total cost of goods sold. Shortages in natural gas or coal, or an inability of our suppliers to provide these fuels to us, could prevent some or all of our facilities from being able to generate electricity and steam, which could prevent us from fulfilling our contractual obligations.

We have entered into long-term natural gas supply agreements with PTT. Due to the structure of the Thai fuel supply industry (and notwithstanding the fact that some progress has been made towards the implementation of third party access for gas pipelines and LNG terminal infrastructure), PTT is currently still the only entity that is able to supply us with natural gas to allow us to operate our business. In the event that PTT fails to supply us with adequate quantities of natural gas under our gas supply agreements, we could face significant disruptions to our business. Although there is a compensation provision in the gas supply agreements between our SPPs and PTT which requires PTT to compensate us for its inability to deliver contracted quantities of natural gas to us, this compensation only extends to natural gas that we use to produce electricity to sell to EGAT and not to our industrial customers. Most of our gas-fired facilities are designed to be able to run on diesel fuel as an alternative fuel source, but we could incur significant costs and operating inefficiencies in switching to and operating by using diesel fuel. Moreover, our cogeneration facilities may not be able to operate on diesel fuel for sustained periods of time, as, when operating on diesel fuel, we consume diesel fuel faster than we are able to re-fill our diesel fuel storage tanks.

There is a risk of natural gas supply disruption resulting from defects in or the requirement for maintenance of the pipeline including the change in the quality of natural gas supply, over which we have no control. The current limitations on the supply of natural gas to the areas in which we operate, or any disruption in the supply of natural gas, or change in the quality of natural gas supply could have a material adverse effect on our business, results of operations, financial condition and prospects.

We have entered into medium term coal supply agreements with a number of international and Thai coal suppliers/traders to satisfy our coal requirements for our three CFBs and GHECO-One. Our coal risk management policy for our CFBs is to diversify our procurement to certain number of contracts with different expiry years, subject to market condition.

There is a risk of coal supply disruption resulting from various circumstances, including a situation where our medium-term coal supplier could not fulfill its obligations and we could not arrange substitute supply from our other suppliers or from the spot market. In such a situation, we also cannot be certain that the cost of substitute supply would be commercially competitive.

We are subject to significant contractual risks under our SPP gas supply agreements with PTT.

PTT is our largest and most important fuel supplier. As discussed under “—Our business operations are dependent on the availability of fuel”, we rely heavily on PTT for the supply of natural gas to our operating facilities. Purchases of natural gas, which were almost entirely purchased from PTT, accounted for approximately 54.5 percent of our total cost of goods sold in 2018. PTT is majority-owned by the government and currently has an effective monopoly with respect to supply of natural gas in Thailand. Due in part to the foregoing, our gas supply agreements with PTT are standard form contracts that we were not given an opportunity to negotiate. This means that, among other things, our gas supply agreements with PTT are not tailored to our specific operating circumstances and contain a number of ambiguous provisions. Although the terms of our PTT gas supply agreements vary from each other, certain terms contained in at least some of our PTT gas supply agreements that we believe present risks to our business are as follows:

- A gas supply agreement may be terminated before the end of its term due to the default of either party and our only remedy may be to bring a claim in arbitration and prove damages (rather than allowing us to require PTT to continue to supply gas to us pending resolution of the dispute);
- PTT only undertakes to use its “best efforts” to deliver the specified daily quantity and is not under an absolute obligation to deliver gas to us;
- The terms relating to PTT’s requirement to compensate us if PTT fails to deliver gas at contractually-designated specifications are unclear and, in any case, the amount of any compensation that it would pay to us is capped;
- Non-compliance with any term in a gas supply agreement by either party that is not remedied within 60 days of a notice of default thereof constitutes an event of default and enables the non-defaulting party to terminate the gas supply agreement; and
- Even though we design our units to be able to operate throughout the (wide) range of acceptable gas specifications, we cannot ensure that we would be able to operate if there were to be a change in the range of acceptable specifications, or that we would be fully compensated for modifications required in such a case.

These contractual risks could have a material adverse effect on our business, results of operations, financial condition and prospects.

We face risks with respect to opposition to further expansions in Map Ta Phut, the declaration of Map Ta Phut as a Pollution Control Zone, and the Administrative Court ruling in this respect.

In March 2009, the Rayong Administrative Court declared Map Ta Phut a “Pollution Control Zone”. This was later confirmed by the National Environmental Board. In June 2009 certain individuals together with some NGOs filed a petition to Central Administrative Court (“CAC”), claiming that certain permits issued after revision of the Thai constitution in 2007 were issued illegally, and requested that such permits be revoked. In addition, the claimants requested the CAC to provide temporary protection by suspending 76 projects in MIE Area. CAC’s ruling to order an injunction was enforced by the Supreme Administrative Court while reducing the number of suspended projects to 65. Although our operations have all necessary permits and are not included in the suspended projects, some of our existing and/or potential customers may have been affected by the court orders.

In June 2010, we learned from the Industrial Estate Authority of Thailand (“IEAT”) that The Stop Global Warming Association (“Plaintiff”) had filed a complaint with the CAC, and that GHECO-One’s and Glow SPP 3’s are in the list attached to the complaint (the “Second NGO Complaint”). Even though we are not named as a defendant, the complaint involved, among other things, a motion to suspend the projects named in the complaint.

In addition to the above cases, Stop Global Warming Association has filed a statement of claim to the Rayong Administrative Court against the competent authorities, namely Energy Regulatory Commission (“ERC”), Industrial Estate Authority of Thailand (“IEAT”), National Environment Board (“NEB”), Secretary of Office of Natural Resources and Environmental Policy and Planning (“ONEP”), alleging that such authorities unlawfully approved and granted permits to GHECO-One for operating a thermal plant in a pollution control area. The statement of claim also requests the court to order the relevant authorities to revoke any permits granted to GHECO-One and suspend any activities of GHECO-One. The court eventually ordered to include GHECO-One as a co-defendant of the case, since it is the owner of the power plant and could be affected by any court order and on verdict. Please refer to 5.2 for the current status of this dispute.

We are exposed to foreign exchange risk.

We are exposed to foreign exchange risk in a number of aspects. Many of our operating costs are denominated in (or, for instance in the case of our gas costs, partially indexed to) USD and other currencies. Most of our USD-denominated operating costs can be serviced by USD-linked income. However, our coal and coal freight costs are USD-based and we cannot fully pass the fluctuations in these costs (including as a result of currency fluctuations) through to our customers. Further, while our revenues are partially linked to the USD, a significant amount of our indebtedness is THB-denominated. We have typically had a substantial degree of USD content or linkage in cash flows (and thus normalized net earnings) available to distribute to shareholders and, if this continues to be the case, any appreciation of the THB compared to the USD would reduce the THB amount of dividend payments to our shareholders. For these reasons, significant fluctuations in exchange rates could have a material adverse effect on our business, results of operations, financial condition and prospects.

Our insurance coverage may not adequately protect us against possible risk of loss.

Our operations are subject to operating and other risks typically associated with electricity generation. Insurance markets are cyclical. As a result, we may at times be unable to obtain appropriate insurance on commercially reasonable terms or at all, which may subject us to potentially significant financial loss upon the occurrence of a large uninsurable event.

We have all-risk and business interruption, third party liability, terrorism and other insurance coverage. Our principal insurance covers loss arising out of physical loss or damage to our plants and generating machinery as well as financial loss resulting there from, but contains certain customary exclusions and deductibles. If we suffer a large uninsured or excluded loss or any insured loss suffered by us significantly exceeds our insurance coverage, our business, financial condition and results of operations may be materially adversely affected.

The operation of one of our subsidiaries is exposed to hydrology risk.

Houay Ho Power Company Limited (“HHPC”) is operator of a 152 MW hydro power plant in Attapeau province, Lao PDR., while Houay Ho Thai Company Limited (“HHTC”) is a holding company holding 25 percent stake of HHPC. Currently, we effectively hold 67.25 percent stake in HHPC, through both direct holding in HHPC and indirect holding through HHTC.

As for any hydro plant, HHPC’s operations are highly dependent on the amount of rainfall in any given year. In addition, the power purchase agreement with EGAT requires HHPC to sell a minimum amount of electricity per annum (although it does foresee the calling of a limited number of “drought years”), and not meeting this requirement may lead, among others, to a requirement to pay liquidated damages. For these and other reasons adverse rainfall conditions could materially affect the operations and results of HHPC.

We are exposed to (fresh water) drought risks in the Eastern Seaboard Areas (Chonburi and Rayong).

Power generation requires large volumes of fresh water for cooling of equipment and production of clarified water and demineralized water for internal usage and industrial consumptions. Lack of fresh water supply could lead to a shutdown of our power generation units. In recent years, low rainfall has been observed in a number of cases (2004, 2012 and, to a lesser extent, 2014 and 2015). Over the years, several meetings have taken place with all parties and multiple initiatives have been rolled out. Notwithstanding this, there is a residual risk of drought and reservoir levels need to be monitored on an ongoing basis.

4. Assets Used in Business Operations

4.1 Main fixed assets of the Company and its subsidiaries

As at 31 March 2019 and 31 December 2018, the Company and its subsidiaries had main fixed assets used in business operations with net book value of THB 71,313,281,443 and THB 73,894,974,440, respectively, detailed as follows:

| Category | Unit: THB | |
|---|------------------------|------------------------|
| | 31 March 2019 | 31 December 2018 |
| Land | 648,514,919 | 711,551,304 |
| Power and water plants | 118,572,648,826 | 124,860,423,030 |
| Machinery, tools and equipment | 658,084,052 | 680,459,121 |
| Building and Leasehold improvement | 501,220,329 | 527,150,800 |
| Furniture, fixture, office equipment and motor vehicles | 363,762,962 | 392,098,968 |
| Construction in progress | 196,622,599 | 507,200,003 |
| Total | 120,940,853,687 | 127,678,883,226 |
| <u>Less</u> Accumulated depreciation | (49,627,572,244) | (53,783,908,786) |
| Total net book value | 71,313,281,443 | 73,894,974,440 |

4.1.1 Land

| Category | Ownership | Net book value (THB) | |
|--------------------------|-------------|----------------------------|----------------------------|
| | | 31 March 2019 | 31 December 2018 |
| <u>The Company</u> | | | |
| 1.1 Land – no commitment | Owned | 81,250,000 | 81,250,000 |
| 1.2 Land - mortgaged | Lease | - | - |
| Total | | 81,250,000 | 81,250,000 |
| <u>Subsidiaries</u> | | | |
| 1.3 Land – no commitment | Owned/Lease | 567,264,919 ⁽¹⁾ | 630,301,304 ⁽¹⁾ |
| 1.4 Land - mortgaged | Owned | - | - |
| Total | | 567,264,919 | 630,301,304 |
| Grand total | | 648,514,919 | 711,551,304 |

4.1.2 Power and water plants

| Category | Ownership | Net book value (THB) | |
|--|-----------|-------------------------------|-------------------------------|
| | | 31 March 2019 | 31 December 2018 |
| <u>The company</u> | | | |
| 2.1 Plant and water plants – no commitment | Owned | 22,081,383,557 | 22,192,672,831 |
| 2.2 Plant and water plants – mortgaged | Owned | - | - |
| Total | | 22,081,383,557 | 22,192,672,831 |
| <u>Subsidiaries</u> | | | |
| 2.3 Plant and water plants – no commitment | Owned | 15,809,693,011 | 17,783,498,816 |
| 2.4 Plant and water plants – mortgaged | Owned | 32,128,444,462 ⁽¹⁾ | 32,235,011,723 ⁽¹⁾ |
| Total | | 47,938,137,473 | 50,018,510,539 |
| Grand total | | 70,019,521,030 | 72,211,183,370 |

Note:

- 1) All of the land, construction, machinery and equipment of the power plants of Houay Ho Power Company Limited and GHECO-One Company Limited have been mortgaged and pledged to secure their credit facilities obtained from financial institutions.

2) 4.1.3 Building and leasehold improvement

| Category | Ownership | Net book value (THB) | |
|--|-----------|-------------------------|--------------------|
| | | 31 March 2019 | 31 December 2018 |
| <u>The company</u> | | | |
| 3.1 Building and leasehold improvement – no commitment | Owned | 172,733,718 | 176,821,287 |
| 3.2 Building and leasehold improvement – mortgaged | Owned | - | - |
| Total | | 172,733,718 | 176,821,287 |
| <u>Subsidiaries</u> | | | |
| 3.3 Building and leasehold improvement – no commitment | Owned | 78,955,816 | 85,502,393 |
| 3.4 Building and leasehold improvement – mortgaged | Owned | - | - |
| Total | | 78,955,816 | 85,502,393 |
| Grand total | | 251,689,534 | 262,323,680 |

4.1.4 Machinery, tools and equipment

| Category | Ownership | Net book value (THB) | |
|--|-----------|-------------------------|--------------------|
| | | 31 March 2019 | 31 December 2018 |
| <u>The company</u> | | | |
| 4.1 Machinery, tools and equipment – no commitment | Owned | 19,081,817 | 19,719,276 |
| 4.2 Machinery, tools and equipment - mortgaged | Owned | - | - |
| Total | | 19,081,817 | 19,719,276 |
| <u>Subsidiaries</u> | | | |
| 4.3 Machinery, tools and equipment – no commitment | Owned | 130,686,773 | 134,364,060 |
| 4.4 Machinery, tools and equipment – mortgaged | Owned | - | - |
| Total | | 130,686,773 | 134,364,060 |
| Grand total | | 149,768,590 | 154,083,336 |

4.1.5 Furniture, fixture, office equipment and motor vehicles

| Category | Ownership | Net book value (THB) | |
|---|-----------|-------------------------|-------------------|
| | | 31 March 2019 | 31 December 2018 |
| <u>The company</u> | | | |
| 5.1 Furniture, fixture, office equipment and motor vehicles – no commitment | Owned | 6,754,640 | 7,149,570 |
| 5.2 Furniture, fixture, office equipment and motor vehicles – mortgaged | Owned | - | - |
| Total | | 6,754,640 | 7,149,570 |
| <u>Subsidiaries</u> | | | |
| 5.3 Furniture, fixture, office equipment and motor vehicles – no commitment | Owned | 40,410,131 | 41,483,177 |
| 5.4 Furniture, fixture, office equipment and motor vehicles – mortgaged | Owned | - | - |
| Total | | 40,410,131 | 41,483,177 |
| Grand total | | 47,164,771 | 48,632,747 |

4.1.6 Construction in progress

| Category | Ownership | Net book value (THB) | |
|--|-----------|---------------------------|----------------------------|
| | | 31 March 2019 | 31 December 2018 |
| <u>The company</u> | | | |
| 6.1 Construction in progress – no commitment | Owned | 52,877,156 | 60,757,859 |
| 6.2 Construction in progress – mortgaged | Owned | - | - |
| Total | | 52,877,156 | 60,757,859 |
| <u>Subsidiaries</u> | | | |
| 6.3 Construction in progress – no commitment | Owned | 104,446,961 | 191,615,355 |
| 6.4 Construction in progress – mortgaged | Owned | 39,298,482 ⁽¹⁾ | 254,826,789 ⁽¹⁾ |
| Total | | 143,745,443 | 446,442,144 |
| Grand total | | 196,622,599 | 507,200,003 |

Note:

1) See detail in respect of commitment in No. 4.1.2

4.2 Intangible Assets

As at 31 March 2019 and 31 December 2018, the Company and its subsidiaries have intangible assets for their business operations at net book value of THB 715,909,891 and THB 732,514,483, respectively, detailed as follows

| Main Category | Net book value (THB) | |
|---|-------------------------|--------------------|
| | 31 March 2019 | 31 December 2018 |
| Deferred right to use grid system | 41,001,519 | 43,691,134 |
| Deferred right to use transmission line | 151,529,157 | 165,159,473 |
| Deferred land leasehold right | 147,687,831 | 150,641,278 |
| Deferred right to use pipe rack | 7,208,641 | 7,551,391 |
| Deferred right of way | 91,363,318 | 95,211,086 |
| Deferred right to use gas pipeline | 39,295,431 | 40,280,282 |
| Deferred right to use dedicated berth | 165,147,871 | 168,732,847 |
| Computer software | 72,676,123 | 61,246,992 |
| Total net book value | 715,909,891 | 732,514,483 |

4.2.1 Deferred right to use grid system

Deferred right to use grid system represents right to use grid system of Glow SPP 2 Company Limited (“GSPP2”) and Glow SPP 3 Company Limited (“GSPP3”), whereby on 27 September 2000, both subsidiaries handed over and transferred the ownership of certain parts of the grid system to EGAT to comply with the power purchase agreement, under the regulation of purchasing electricity from small power producers.

4.2.2 Deferred right to use transmission line

Deferred right to use transmission line represents the costs paid by Glow IPP Company Limited (“GIPP”) for construction of transmission line in order to comply with the power purchase agreement, under the regulation of purchasing electricity from independent power producers. The ownership of the transmission line belongs to EGAT and GIPP has the right to use the transmission line over the period of the power purchase agreement of 25 years.

4.2.3 Deferred land leasehold right

Deferred land leasehold right represents fees paid by the Company, GSPP2, GSPP3 and GHECO-One Company Limited in relation to the leasehold right of land under the land lease agreements made with Industrial Estate Authority of Thailand (“IEAT”).

4.2.4 Deferred right to use pipe rack

Deferred right to use pipe rack mainly represents the fee paid by the Company for the right to lay the Company’s pipelines within Asia Industrial Estate under the Piperack Agreement dated 31 August 2009 and the fee paid for the right to lay the Company’s pipelines in GSPP3’s area under the Piperack Agreement dated 1 September 2012 and Amendment dated 11 December 2012.

4.2.5 Deferred right of way

Deferred right of way mainly represents the right under the Memorandum of Understanding dated 13 May 1998 and Amendment dated 11 May 2005 of Glow SPP 11 Company Limited (“GSPP11”) to use easement and right of way within the Siam Eastern Industrial Park (“SEIP”) for the construction, operation and maintenance of gas pipeline and network for the distribution of electricity, steam and other services over the period GSPP11 own land in SEIP.

4.2.6 Deferred right to use gas pipeline

Deferred right to use gas pipeline represents the costs of gas pipeline and all related facilities that was transferred to PTT Public Company Limited (“PTT”) by GSPP2 and GSPP11 in exchange for the right to use such assets throughout the term of the gas supply agreements.

4.2.7 Deferred right to use dedicated berth

Deferred right to use dedicated berth represents the costs of the dedicated berth that was transferred to IEAT by GSPP3 according to the condition as stipulated in the joint operation agreement and GSPP3 has the right to use the dedicated berth over the remaining term of the agreement for the period of 14 years.

4.2.8 Concession for undertaking electricity business

The Company received licenses for electricity generating, distribution system, and electricity sales as per following details:

On 11 June 2009, the ERC approved the electricity generation license for Glow IPP Co., Ltd. for the period of 18 years.

On 25 December 2009, the ERC approved the licenses for Glow SPP 2 Co., Ltd. Glow SPP 3 Co., Ltd. and Glow Energy Plc. (Phase 2, Phase 4.1, Phase 4.2, and CFB3) to operate the business of electricity generation, distribution system, and electricity sales for the period of 15 years, 15 years and 16 years respectively.

On 18 February 2010, the ERC approved the licenses for Glow SPP 11 Co., Ltd. Phase 1, to operate the business of electricity generation, distribution system, and electricity sales for the period of 16 years.

On 18 February 2010, the ERC approved the electricity generation license for Glow SPP 11 Co., Ltd. Phase 3 for a period of 25 years. ERC approved the expansion of Glow SPP 11 (with the additional gas engines) on 18 February 2015.

On 23 March 2011, the ERC approved the electricity generation license for Glow Energy Plc. (Phase 5) for a period of 13 years.

On 27 June 2012, the ERC approved the electricity generation license for Glow Energy Plc. (Solar) for a period of 10 years.

On 5 April 2012, the ERC approved the electricity generation license for GHECO-One Co., Ltd., for a period of 25 years.

On 18 September and 3 December 2012, the ERC approved the electricity generation license, and electricity sales license for Glow SPP 11 Co., Ltd. Phase 2, for a period of 25 years and five years, respectively.

4.2.9 Promotional privileges

The Company and its subsidiaries have been granted various promotional privileges under the Investment Promotional Act, B.E. 2520 by the Board of Investment for the generation and distribution of electricity, steam and water for industrial use.

Subject to certain imposed conditions, the privileges include the following:

- a) Permission to own land in order to carry on the promoted activities as the Board may deem appropriate.
- b) Exemption of import duty on machinery, materials and supplies imported for production for domestic sales as approved by the Board.
- c) Exemption of corporate income tax on net profit for a period of eight years commencing from the date of earning operating income. In cases where the business incurs a loss during that period of exemption, the loss incurred in such period can be taken as a deduction from net profit of the years after the period of exemption, not exceeding five years.
- d) Exemption of income tax on dividends paid from the profit of the promoted operation over the above corporate income tax exemption period.
- e) An allowance of fifty percent of the normal rate of corporate income tax on net profit for a period of five years after the expiry date of the corporate income tax exemption period as described in c) above.
- f) Permission to deduct double the cost of transportation, electricity and water supply for corporate income tax purpose for a period of ten years commencing from the date of earning operating income.
- g) Permission to deduct the cost of installation or construction of public utilities at the rate of 25 percent in addition to normal depreciation charges.

Glow IPP Company Limited has been granted all the above privileges, except e)- g).

The privileges related to corporate income tax of the Company and its subsidiaries are summarized as follows:

| | Certificates Date | Expiry Date of Corporate Income Tax Exemption Period | Expiry Date of Corporate Income Tax Allowance Period |
|---|----------------------|--|--|
| The Plants obtained promotional privileges | | | |
| Glow IPP Co., Ltd. | Nov 1999 | Jan 2011 | N/A |
| Glow Energy Plc. | | | |
| Stage 1 | Jul 1994 | Apr 2003 | Apr 2008 |
| Stage 2 | Jun 1995 | Dec 2003 | Dec 2008 |
| Expansion project stage 1 | Mar 2004 | Jun 2012 | Jun 2017 |
| Expansion project stage 2 | Aug 2004 | Sep 2013 | Sep 2018 |
| CFB 3 | Jun 2007 | Dec 2017 | Dec 2022 |
| Phase 1 Water plant | Nov 2007 | - | - |
| Phase 5 | Feb 2009 | Feb 2019 | Feb 2024 |
| Solar | Aug 2012 | Jul 2020 | Jul 2025 |
| Solar Rooftop (Project 1) | May 2018 | Nov 2026 | Nov 2031 |
| Solar Rooftop (Project 2) | May 2018 | Jan 2027 | Jan 2032 |
| Glow SPP 2 Co., Ltd. | Nov 1996 | Jul 2005 | Jul 2010 |
| Glow SPP 3 Co., Ltd | Aug 1997 | Jul 2007 | Jul 2012 |
| GHECO-One Co., Ltd | Jul 2008 | Oct 2019 | Oct 2024 |
| Glow SPP 11 Co., Ltd Phase 1 | Mar 1999 | Aug 2008 | Aug 2013 |
| Glow SPP 11 Co., Ltd Phase 2 | Jul 2013 | Nov 2020 | Nov 2025 |
| Glow SPP 11 Co., Ltd Phase 3 | Jul 2013 | Oct 2014 | Oct 2019 |
| Glow SPP 11 Co., Ltd (Phase 3 Expansion) | Sep 2014 | Mar 2023 | Apr 2028 |

4.2.10 Rights under land lease agreement

| Description | Lessor | Lease Period | Objectives |
|---|--|---|--|
| Glow Energy Plc. | | | |
| 1. Partial Land Lease Agreement in Map Ta Phut Industrial Estate (Port) Dated 6 December 1996, Memorandum Dated 11 July 2003 – Phase 3 (No. 4/2539-NorPor) | Industrial Estate Authority of Thailand (“IEAT”) | 28 years | For installation of plant building and undertaking industrial business on generating power, steam and industrial water |
| 2. Land Lease Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 4 April 1994 – Phase 2 (No.2/2537-NorPor) | IEAT | 26 years and can be extended for another 20 years | For installation of plant building and undertaking industrial business on generating power, steam and industrial water |
| 3. Land Lease Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 5 June 2007 – Phase 1 (No.1/2550-NorPor) | IEAT | 13 Years | For installation of plant building and undertaking industrial business on generating power, steam and industrial water |
| 4. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 23 January 2007 – Underground cable (No.2/2550-NorPor) | IEAT | 28 Years and can be extended for another 20 years | For installation of Underground Transmission Line |
| 5. Land Lease Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 26 February 2019 Car Park (No.1/2562-NorPor) Phase 2 | IEAT | 3 Years extendable | For car parking |
| 6. Partial Land Lease Agreement in Map Ta Phut Industrial Estate Dated 19 December 2007 – Coal Stock Yard (No.2/2550-NorPor) | IEAT | 30 Years and can be extended for another 20 years | For installation of coal stock yard |

| Description | Lessor | Lease Period | Objectives |
|---|--------|--------------------|---|
| 7. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 17 March 2008– Underground cable to RIL (No. 4/2551-NorPor) | IEAT | 16 Years | For installation of underground cable |
| 8. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 8 December 2008 – Underground cable to RIL (No. 9/2551-NorPor) | IEAT | 16 Years | For installation of underground cable |
| 9. Partial Agreement of servitude Dated 7 October 2009 - Underground cable in AIE | AIE | 15 Years | For installation of underground cable |
| 10. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Rental Period Date 1 January 2019 – 31 December 2021- Pipe Bridge I-6 (in the Process of Signing the Contract) Phase 3 | IEAT | 3 Years extendable | For installation of pipe bridge at I-6 road |
| 11. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 15 December 2014– Pipe Rack (No. 12/2557-NorPor) | IEAT | 14 Years | For installation of pipe rack at I-2 road |
| 12. Partial Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 23 September 2011 – Underground Cable (No. 3/2554-NorPor) | IEAT | 13 Years | For installation of underground cable (115 kv bundle) |
| 13. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 15 December 2014– Pipe Bridge (No. 13/2557-NorPor) | IEAT | 14 Years | For installation of pipe bridge (for customer – Vinythai) |

| Description | Lessor | Lease Period | Objectives |
|--|--------|--------------------|--|
| 14. Partial Right of Way Agreement for industrial Purpose Map Ta Phut Industrial Estate Dated 8 March 2013 – Underground Cable (No. 3/2556-NorPor) | IEAT | 11 Years | For installation of underground cable (for customer – BST) |
| 15. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Rental Period Date 1 January 2019 – 31 December 2021 Underground Raw Water Pipeline (in the Process of Signing the Contract) Phase 2 | IEAT | 3 Years extendable | For installation of Underground Raw Water Pipeline |
| 16. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 22 September 2014– Underground Cable (No. 6/2557-NorPor) | IEAT | 10 Years | For installation of underground cable (for customer – Solvay) |
| 17. Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 26 March 2015 - Pipe Bridge (No. 4/2558-NorPor) | IEAT | 30 Years | For installation of pipe bridge (for customer – Solvay) |
| 18. Land Lease Agreement for Glow SPP1 Co., Ltd. for GIS Substation, Underground cable and Steam control system Dated 21 February 2019 | IEAT | 30 Years | The Location for GIS Substation ,Undergrad cable and Stem control |
| <p>Glow SPP 2 Co., Ltd.</p> <p>1. Partial Land Lease Agreement in Map Ta Phut Industrial Estate (Port) Dated 6 December 1996 – Phase 3(No. 4/2539-NorPor)</p> <p>2. Land Lease Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 13 August 1998 – Sub Station near Thasco Plant (No.1/2541-NorPor)</p> | IEAT | 28 Years | For installation of plant building and undertaking industrial business on generating power, steam and industrial water |
| | IEAT | 28 Years | For installation of substation |

| Description | Lessor | Lease Period | Objectives |
|---|--------|--|---|
| 3. Partial Land Lease Agreement in Map Ta Phut Industrial Estate Dated 19 December 2007 – Coal Stock Yard (No.2/2550-NorPor) | IEAT | 30 Years and can be extended for another 20 years | For installation of coal stock yard |
| 4. Right of Way Agreement Dated 1 January 2017 – Underground transmission system (No.EIE 003/2560) | EIE | 7 Years extendable | For installation of the underground transmission system |
| Glow SPP 3 Co., Ltd. | | | |
| 1. Partial Land Lease Agreement in Map Ta Phut Industrial Estate (Port) Dated 6 December 1996 – Phase 3 (No. 4/2539-NorPor) | IEAT | 28 Years | For installation of plant building and undertaking industrial business on generating power, steam and industrial water. |
| 2. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 23 January 2007 – Underground cable (No.2/2550-NorPor) | IEAT | 28 Years and it can be extended for another 20 years | For installation of Underground Transmission Line |
| 3. Partial Right of Way Agreement for Undertaking Business which are Beneficial to or Relates to Business Undertaking in Map Ta Phut Industrial Estate Dated 2 October 2000 –230 KV Transmission Line (No.1/2543-NorPor) | IEAT | 29 Years | For installation of 230 kV Transmission Line |
| 4. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 2 October 2000 – 230 KV Transmission Line (No.4/2543-NorPor) | IEAT | 29 Years | For installation of 230 kV Transmission Line |

| Description | Lessor | Lease Period | Objectives |
|---|--------|---|--|
| 5. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 2 October 2000 – 230 KV Transmission Line (No.5/2543-NorPor) | IEAT | 29 Years | For installation of 230 kV Transmission Line |
| 6. Joint Agreement to develop an area to construct a shipping berth in the Industrial Estate Dated 7 August 2000 – Coal Harbor (No.2/2543) | IEAT | 30 Years extendable | For development of area to construct a dedicated berth in Map Ta Phut Industrial Estate for transportation services of coals to be used in business of power plant and steam of the Company. |
| 7. Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 13 May 2019– Intake Sea Water (No. 006/2562 -SorTorRor) | IEAT | 3 Year extendable | For maintenance sea water intake structure for cooling system |
| 8. Partial Land Lease Agreement in Map Ta Phut Industrial Estate Dated 19 December 2007 – Coal Stock Yard (No.2/2550-NorPor) | IEAT | 30 Years and can be extended for another 20 years | For installation of coal stock yard. |
| 9. Right of Way Agreement in Map Ta Phut Industrial Estate (Port) Dated 30 September 2009 – Sea Water Intake underground tunnel (No.ForKorMor.TorLor.1/2552) | IEAT | 27 Years extendable | For installation of Sea Water Intake underground tunnel |
| 10. Right of Way Agreement in Map Ta Phut Industrial Estate (Port) Dated 30 September 2009 – Sea Water Discharge underground tunnel (No. ForKorMor.TorLor.2/2552) | IEAT | 25 Years extendable | For installation of Sea Water Intake underground tunnel |

| Description | Lessor | Lease Period | Objectives |
|--|--------|---------------------|---|
| 11. Land Lease Agreement for Industrial Purpose Dated 30 January 2003 – Underground cable in AIE | PTT | 16 Years | For installation of underground cable |
| 12. Agreement of servitude Dated 1 August 2005 - Underground cable in AIE | AIE | 14 Years | For installation of underground cable |
| 13. Partial Agreement of servitude Dated 7 October 2009 - Underground cable in AIE | AIE | 15 Years | For installation of underground cable |
| 14. Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 1 July 2009 – 230 KV Transmission Line (No.1/2552) | PTT | 20 Years extendable | For installation of 230 kV Transmission Line |
| 15. Partial Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 23 September 2011 – Underground Cable (No. 3/2554-NorPor) | IEAT | 13 Years | For installation of underground cable (115 kv bundle) |
| 16. Partial Right of Way Agreement for Industrial Purpose Map Ta Phut Industrial Estate Dated 8 March 2013 – Underground Cable (No.3/2556-NorPor) | IEAT | 11 Years | For installation of underground cable (for customer – BST) |
| GHECO-One Co., Ltd. | | | |
| 1. Partial Land Lease Agreement in Map Ta Phut Industrial Estate (Port) Dated 6 December 1996, Memorandum Dated 11 April 2008 – Phase 3 (No. 4/2539-NorPor) | IEAT | 28 Years | For installation of plant building and undertaking industrial business on generating power, steam and industrial water. |

| Description | Lessor | Lease Period | Objectives |
|--|--------|---|---|
| 2. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 2 October 2000 – Air right of 230 KV Transmission Line (No.1/2543-NorPor) | IEAT | 29 Years | For undertaking business on air right of 230 kV Transmission Line |
| 3. Partial Land Lease Agreement in Map Ta Phut Industrial Estate Dated 19 December 2007, Memorandum Dated 11 April 2008 – Coal Stock Yard (No.2/2550-NorPor) | IEAT | 30 Years and can be extended for another 20 years | For installation of coal stock yard |
| 4. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 2 October 2000 – 230 KV Transmission Line (No.4/2543-NorPor) | IEAT | 29 Years | For installation of 230 kV Transmission Line |
| 5. Partial Right of Way Agreement for Undertaking Businesses which are Beneficial to or Related to Business Undertaking in Map Ta Phut Industrial Estate Dated 2 October 2000 – 230 KV Transmission Line (No.5/2543) | IEAT | 29 Years | For installation of 230 kV Transmission Line |
| 6. Right of Way Agreement in Map Ta Phut Industrial Estate (Port) Dated 30 September 2009 – Sea Water Discharge underground tunnel (No. ForKorMor.TorLor.3/2552) | IEAT | 15 years extendable | For installation of Sea Water Discharge underground tunnel |
| 7. Right of Way Agreement in Map Ta Phut Industrial Estate (Port) Dated 19 March 2010 - Coal Handling System (No.2/2553-NorPor) | IEAT | 14 years extendable | For installation of coal handling system |

| Description | Lessor | Lease Period | Objectives |
|---|--------|---------------------|--|
| Chonburi Clean Energy Co., Ltd. 1. Land Lease Agreement in WHA Chonburi Industrial Estate 1 Dated 2 December 2016 – Power Plant (HRD 109/2559) Chonburi Clean Energy Co.,Ltd. | WHA | 25 years extendable | For installation of plant building and undertaking industrial business on generating power |

5. Disputes and Legal Proceedings

We are currently party to some pending litigations and engaged in the following disputes that could have adverse effect on our business:

5.1 EGAT

Glow Energy Public Co; Ltd. (Glow) is currently involved in a dispute with Electricity Generating Authority of Thailand (EGAT) regarding the different interpretation of a provision in respect of the expiry date of the term of the existing Power Purchase Agreement (PPA) for Glow Energy Phase 2 Project 1 for 90 MW under Small Power Producer (SPP) Scheme. Glow, as claimant, filed a Statement of Claim with the Thai Arbitration Institute (“TAI”) on 6 February 2018. EGAT, as Respondent submitted its statement of defense to the TAI on 26 July 2018. The matter is currently under arbitration proceedings. On 20 November 2018, the Arbitral Tribunal considered the Statement of Claim as amended and the Statement of Defense as amended, and then determined the points in dispute as agreed by both parties. The Arbitral Tribunal and the parties then established the preliminary procedural timetable for the proceedings. The list of witness and evidences were submitted to TAI on 28 February 2019 and the hearing of witnesses completed on 26 March 2019. Both the claimant and the respondent submitted their Closing Statement to TAI on 17 May 2019. It is expected that the award would be rendered by August 2019.

5.2 Stop Global Warming Association

Stop Global Warming Association (“Plaintiff”) filed the statement of claim to Rayong Administrative Court against the competent authorities, namely Energy Regulatory Commission (“ERC”), Industrial Estate Authority of Thailand (“IEAT”), National Environment Board (“NEB”), Secretary of Office of Natural Resources and Environmental Policy and Planning (“ONEP”), alleging that such authorities unlawfully approved and granted permits to GHECO-One for operating the thermal power plant in the pollution control area. The statement of claim also requests the court to order the relevant authorities to revoke any permits granted to GHECO-One and suspend any activities of GHECO-One. The court eventually ordered to include GHECO-One as a co-defendant of the case, since it is the owner of the power plant and could be affected by court order and verdict. All defendants of the cases prepared their statement of defenses and separately submitted the same to the court in October 2013. The Plaintiff’s statement to provide additional information to Rayong Administrative Court to counter our defence was accepted by Rayong Administrative Court and submitted to us on 5 June 2014. GHECO-One submitted its counter-statement to the Rayong Administrative Court on 5 August 2014. On 28 September 2018, GHECO-One has received the Court Order setting the ending date of the facts inquiry on 29 October 2018. On 29 October 2018, GHECO-One submitted the Closing Statement summarizing the case including updates with aspect to current operational data. It could be expected that the judgment will be rendered within one year after the court’s having received the Closing Statement i.e. around October 2019.

GHECO-One has applied and obtained all permits in accordance with relevant laws and regulations, and has operated its plant compliant with the requirements in the approved Environmental and Health Impact Assessment report and relevant permits.

5.3 Revenue Department

GHECO-One is currently involved in disputes and pending litigations with the Revenue Department. The issue is related to tax liability on unrealized FX gains/losses during construction, which derived from the translation of foreign currency denominated loans into THB accounting figure in the financial statements. The Revenue Department opinion's that FX gain during construction shall be taxable while FX loss shall be capitalized as cost of the plant and not be considered a taxable expense, whereas GHECO-One disagrees. However, in order to mitigate exposure to surcharges and penalties, GHECO-One re-filed tax applications to pay corporate income tax and surcharge derived from FX gain/loss during 2008-2011, while reserving its of position that such payment is not deemed as agreeing with Revenue Department's opinion. GHECO-One then started a litigation process to get refunds of disputed tax amounts for year 2008-2011 as follows:

5.3.1 Litigation for tax refund for years 2008-2009

In December 2013, GHECO-One started litigation process by submitting statement of claim to the Central Tax Court for tax and surcharge paid for years 2008-2009. This claim (for years 2008/2009) has been dismissed by the Central Tax Court on 30 September 2014. The Court has objected that, at the time of submission of this claim, the plaintiff (GHECO-One) had not have the right to file such claim since the matter was still going through an appeal at the level of the Revenue Department.

On 26 May 2016, GHECO-One re-submitted statement of claim to Central Tax Court for tax and surcharge paid for years 2008-2009. The Statement of Defense by the Revenue Department was submitted to the Central Tax Court on 19 September 2016. The first hearing for setting out the issue to consider in this case was on 16 January 2017. The hearing of witnesses commenced on 7 March 2017 and finished on 10 March 2017. The Central Tax Court, in its final judgment on 29 May 2017, ruled in favor of GHECO-One, and ordered that the Revenue Department shall return all tax and surcharges paid by the Plaintiff (in an amount of THB 129.56 million) with applicable interest on such amount. The Revenue Department submitted its appeal to the Court of Appeal for Specialized Cases on 27 July 2017. GHECO-One submitted its response to the appeal on 28 September 2017. The Central Tax Court has sent the case to the consideration of the Court of Appeal for Specialized Cases. On 2 July 2018, the Court of Appeal for Specialized Cases upheld the decision made by the Central Tax Court and ruled that the Revenue Department is to refund the corporate income tax and surcharges totaling Baht 129.56 million, but dismissed GHECO-One's request for interest. On 30 August 2018, GHECO1 filed the appeal against the verdict of the Court of Appeal for Specialized Cases, on the interest issue only, to the Supreme Court. The Revenue Department also filed the appeal against the verdict of the Court of Appeal for Specialized Cases to the Supreme Court on 6 September 2018. On 28 November 2018, GHECO1 filed the answer to the appeal of the Revenue Department. Currently, both appeals are pending the Supreme Court's acceptance of the appeals.

5.3.2 Litigation for tax refund for the year 2010

On 14 October 2014, GHECO-One filed a statement of claim for refund of tax for the year 2010 with the Central Tax Court. GHECO-One received the statement of defense on 9 January 2015. The date to determine the points for the case was on 9 March 2015. The hearing of all witnesses finished on 10

July 2015. The Court, in its final judgment on 12 October 2015, ruled in favor of GHECO-One, and ordered that the Revenue Department shall return all tax and surcharges paid by the Plaintiff (in an amount of THB 466.19 million) with applicable interest on such amount. Revenue Department has sought and obtained multiple extensions of the deadline to appeal against this verdict and finally submitted its appeal to the Supreme Court dated 8 March 2016. GHECO-One submitted the answer to the appeal on 8 June 2016. The Central Tax Court already sent the Court's file of this case which included all the petitions, all witness statements and all documentation evidences to the Supreme Court to consider the case on 10 June 2016. On 26 November 2018, the Supreme Court reversed the Central Tax Court's judgment and dismissed the Plaintiff's complaint. Thus, the Revenue Department does not have to return the tax to GHECO-One.

5.3.3 Litigation for tax refund for the year 2011

On 22 July 2016, GHECO-One filed a statement of claim for refund of tax for the year 2011 with the Central Tax Court in the amount of THB 41.475 million. The Statement of Defense by Revenue Department was submitted to the Central Tax Court on 10 November 2016. The first hearing for pre-consideration was set out on 28 November 2016. The first hearing for setting out the issue to consider in this case was scheduled by the Central Tax Court to be on 13 March 2017 and the hearing of witnesses commenced on 23 May 2017 and finished on 26 May 2017. On 20 July 2017, the Central Tax Court rendered its judgement and ruled that the Revenue Department is to refund the corporate income tax and surcharges totalling THB 32.15 million with interest. The Revenue Department submitted its appeal against the verdict of Central Tax Court to the Court of Appeal for Specialised Cases on 19 October 2017. GHECO-One submitted its response to the appeal on 27 December 2017. On 19 November 2018, the Court of Appeal for Specialised Cases upheld the decision made by the Central Tax Court and ruled that the Revenue Department is to refund the corporate income tax and surcharges totaling Baht 32.15 million but dismissed GHECO-One's request for interest.

The Revenue Department filed the writ of certiorari and an appeal to the Supreme Court on 18 December 2018. GHECO-One filed its objection to the writ of certiorari and the answer to such appeal on 12 March 2019. In respect of the dismissal of its request for the interest on tax refunds, GHECO-One filed the writ of certiorari, together with an appeal to the Supreme Court on 28 February 2019. Currently, both appeals are pending the Supreme Court's acceptance of the appeals.

6. General Information

| | |
|-----------------------------|---|
| Name | Glow Energy Public Company Limited |
| Initial | GLOW |
| Registered Number | 0107538000461 |
| Type of Business | Generate and supply of electricity, steam and processed water to industrial customers and electricity to Electricity Generating Authority of Thailand |
| Registered Capital | 14,828,650,350 Baht (as of 31 March 2019) |
| Paid up Capital | 14,628,650,350 Baht (as of 31 March 2019) |
| Head Office Location | 1 Empire Tower, 38 th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120 Telephone: 66 (0) 2670-1500-33 Fax: 66 (0) 2670-1548-9 Web Site: http://www.glow.co.th |
| Plant Location | 5, I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang District, Rayong 21150 Telephone: 66 (0) 3868-4078-80 Fax: 66 (0) 3868-4061 |
| Other References | |
| Registrar | Siam Commercial Bank Public Company Limited Registrar 1, 15 th Floor, North Wing, G Tower Grand Rama 9, 9 Rama 9 Road, Huaykwang, Bangkok 10310 Telephone: 66 (0) 2128-2324-9 Fax: 66 (0) 2128-4625 |
| Auditor | PricewaterhouseCoopers ABAS Limited ¹ Bangkok City Tower, 15th Floor, 179/74-80 South Sathorn Road, Yannawa, Sathorn, Bangkok, 10120 |

¹ PricewaterhouseCoopers ABAS Limited was appointed as an auditor for the Company and subsidiaries from 2019.

Other subsidiary companies that the Company holds shares of more than 50 percent**1. Glow Company Limited**

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Type of Business Provide management services, consultant services and management advisory for related companies

2. Glow IPP Company Limited

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Plant Location 42 Moo 8, CIE - 8 Road, WHA Chonburi Industrial Estate 1, Bowin, Sriracha District, Chonburi 20230
Telephone: 66 (0) 3834-5900-5
Fax: 66 (0) 3834-5906

Type of Business Generate and supply electricity to EGAT

3. Glow SPP 2 Company Limited

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Plant Location 11, I - 5 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang District, Rayong 21150
Telephone: 66 (0) 3869-8400-10
Fax: 66 (0) 3868-4789

Type of Business Generate and supply electricity and steam for industrial customers and electricity to EGAT

4. Glow SPP 3 Company Limited

| | |
|-----------------------------|--|
| Head Office Location | 1 Empire Tower, 38 th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120 Telephone: 66 (0) 2670-1500-33 Fax: 66 (0) 2670-1548-9 |
| Plant Location | 11, I - 5 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang District, Rayong 21150 Telephone: 66 (0) 3869-8400-10 Fax: 66 (0) 3868-4789 |
| Type of Business | Generate and supply electricity, steam, processed water to industrial customers and electricity to EGAT |

5. Glow IPP 3 Company Limited

| | |
|-----------------------------|--|
| Head Office Location | 1 Empire Tower, 38 th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120 Telephone: 66 (0) 2670-1500-33 Fax: 66 (0) 2670-1548-9 |
| Type of Business | Develop power generation projects |

6. Glow IPP 2 Holding Company Limited

| | |
|-----------------------------|--|
| Head Office Location | 1 Empire Tower, 38 th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120 Telephone: 66 (0) 2670-1500-33 Fax: 66 (0) 2670-1548-9 |
| Type of Business | Invest in other companies |

7. GHECO-One Company Limited

| | |
|-----------------------------|--|
| Head Office Location | 11, I - 5 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang District, Rayong 21150 Telephone: 66 (0) 3869-8400-10 Fax: 66 (0) 3868-4789 |
| Branch Office | 1 Empire Tower, 38 th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120 Telephone: 66 (0) 2670-1500-33 Fax: 66 (0) 2670-1548-9 |
| Plant Location | 11, I - 5 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang District, Rayong 21150 Telephone: 66 (0) 3869-8400-10 Fax: 66 (0) 3868-4789 |
| Type of Business | Generate and supply electricity to EGAT |

8. Houay Ho Power Company Limited

| | |
|-----------------------------|--|
| Head Office Location | Vieng Vang Tower (Unit 15), 5 th Floor, No. 502A, Boulichan Road, Dongpalan Thong Village, Sittasanak District, Vientiane Capital, Lao PDR Telephone: (856) 21 414932-3 Fax: (856) 21 414 934 |
| Plant Location | P.O. Box 661 Pakse, Lao PDR. Telephone: (856) 36 211720-1 Fax: (856) 36 211719 |
| Type of Business | Generate and supply electricity to EGAT and the Electricite Du Laos (“EDL”) |

9. Glow SPP 11 Company Limited

| | |
|-----------------------------|---|
| Head Office Location | 60/19 Moo 3, Siam Eastern Industrial Park, Mabyangporn, Pluak Daeng, Rayong 21140 Telephone: 66 (0) 3889-1324-8 Fax: 66 (0) 3889-1330 |
| Plant Location | 60/19 Moo 3, Siam Eastern Industrial Park, Mabyangporn, Pluak Daeng, Rayong 21140 Telephone: 66 (0) 3889-1324-8 Fax: 66 (0) 3889-1330 |
| Type of Business | Generate and supply electricity and chilled water for industrial customers and electricity to EGAT |

10. Glow Energy Myanmar Company Limited²

| | |
|--------------------------|--|
| Registered office | Room number 6004 Pyay Garden Office Tower, 346/354 Pyay Road, Sanchaung Township, Yangon |
| Type of Business | Technical and consultancy services in power sector |

² Glow Energy Myanmar Company Limited changed its name from ENGIE Myanmar Company Limited in October 2018.

Other affiliate companies that the company holds shares of less than 50 percent**1. Houay Ho Thai Company Limited**

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Type of Business Holding company

2. Glow Hemaraj Wind Company Limited

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Type of Business Develop waste-to-energy projects

3. Eastern Seaboard Clean Energy Company Limited

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Type of Business Holding company

4. Rayong Clean Energy Company Limited

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Type of Business Develop waste-to-energy projects

5.

5. Chonburi Clean Energy Company Limited

Head Office Location 1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Telephone: 66 (0) 2670-1500-33
Fax: 66 (0) 2670-1548-9

Type of Business Develop waste-to-energy projects

7. Capital and Shareholders

7.1 Registered capital and paid up capital as of 31 May 2019

Registered Capital : THB 14,828,650,350 divided by
Common Shares 1,482,865,035 shares and par THB 10 per share

Paid up Capital : THB 14,628,650,350 divided by
Common shares 1,462,865,035 shares and par THB 10 per share

7.2 Shareholders

The following table sets out our major shareholders as of 31 May 2019:

| Major Shareholders | Number of Shares | Percentage |
|---|----------------------|----------------|
| 1. GPSC Holding (Thailand) Co., Ltd. | 792,279,773 | 54.16% |
| 2. Global Power Synergy Public Company Limited | 601,055,043 | 41.09% |
| 3. Thai NVDR Co., Ltd. | 20,648,975 | 1.41% |
| 4. Yuanta Securities (Thailand) Company Limited | 3,849,000 | 0.26% |
| 5. State Street Europe Limited | 3,105,000 | 0.21% |
| 6. The Bank of New York Mellon | 3,009,900 | 0.21% |
| 7. Mr. Taweesak Veeraprasert | 1,619,798 | 0.11% |
| 8. Mr. Wichai Eakudomsin | 1,500,000 | 0.10% |
| 9. Government Savings Bank | 1,202,400 | 0.08% |
| 10. The Bank of New York (Nominees) Limited | 1,200,000 | 0.08% |
| 11. Others | 33,395,146 | 2.28% |
| | 1,462,865,035 | 100.00% |

7.3 Other securities

The following table displays our debentures which have not reached their maturity date as of 31 May 2019:

| Debenture | Amount (MTHB) | Coupon (percent) | Tenor (Yrs) / Maturity Date | Rating (by TRIS Rating) |
|-----------|---------------|---------------------------------------|--|-------------------------|
| GLOW190A | 1,400 | 4.77 percent Semi-annually Payment | 9.5 Years Maturity Date; on 8 October 2019 | AA- |
| GLOW218A | 5,555 | 5.00 percent Semi-annually Payment | 10 Years Maturity Date; on 31 August 2021 | AA- |
| GLOW259A | 4,000 | 3.95 percent Semi-annually Payment | 10 Years Maturity Date; on 3 September 2025 | AA- |
| GLOW265A | 3,000 | 2.81 percent Semi-annually Payment | 10 Years Maturity Date; on 18 May 2026 | AA- |

7.4 Dividend policy

Glow Energy's board of directors' decisions to declare dividends are, (in the case of annual dividends being available), subject to the approval of shareholders at each year's annual general meeting. Declarations of interim dividends, however, do not require shareholder approval.

Our Board of Directors' current policy with regard to annual dividends is to recommend to shareholders that dividends be distributed in an amount not less than 50 per cent of our net income for each year. This amount is normalized by excluding net foreign exchange gains or losses, deferred tax revenues or expenses, adjustment of financial lease accounting under TFRIC4 and revenue levelization under TFRS15, and deducting all specified reserves, and is subject to our investment plans and other considerations deemed appropriate by the board.

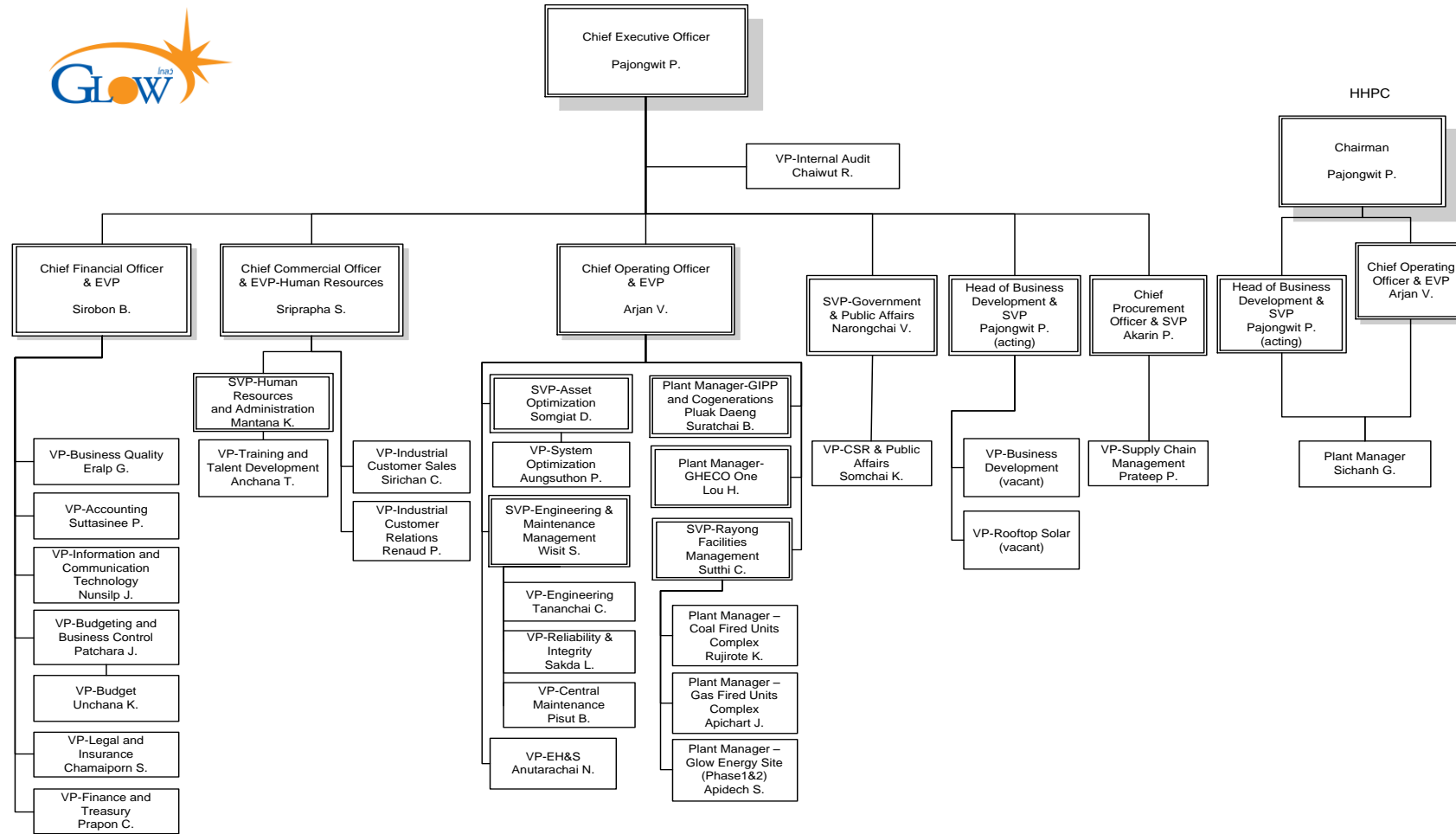
The Public Company Limited Act ("PLCA"), requires dividends to be distributed from our net income. It prohibits dividend payments if our retained earnings are negative, even when a positive annual net income is recorded. The PLCA also requires that we set aside a legal reserve equal to 5 percent of our annual net income until our total legal reserve is equal to at least 10 percent of our total registered capital. This can reduce the amount of net income available for dividend payments.

As of 31 March 2019, our registered capital was THB 14,828.7 million, our paid-up capital was THB 14,628.7 million, and our legal reserve was THB 1,598.3 million. Our total unappropriated retained earnings (company only) as of 31 March 2019 were THB 13,765.8 million.

The Board of Directors of our other subsidiaries can declare interim dividend payout, but must submit dividend proposals to shareholders for approval for distributing annual dividends.

8. Management Structure

Overview of Management Structure (as of 31 March 2019)



8.1 Board of Directors (information as of 7 May 2019)

| Name | Appointed as member of the Board since | Position |
|--|---|--|
| 1. Mr. Jan Franciscus Maria Flachet ¹ | 24 February 2014 | Chairman of the Board of Directors, and Chairman of Nomination and Remuneration Committee |
| 2. Mr. Brendan G.H. Wauters ² | 14 August 2014 | Director, Vice Chairman of the Board of Directors and Chief Executive Officer |
| 3. Mr. Anut Chatikavanij ³ | 9 November 2000 | Director |
| 4. Mr. Marc J.Z.M.G. Verstraete ⁴ | 11 November 2013 | Director |
| 5. Mrs. Supapun Ruttanaporn ⁵ | 28 October 1999 | Independent Director, and Audit Committee member |
| 6. Mrs. Saowanee Kamolbutr | 26 April 2016 | Independent Director, Chairman of Audit Committee member, and Nomination and Remuneration Committee member |
| 7. Prof. Dr. Borwornsak Uwanno | 25 March 2013 | Independent Director |
| 8. Mrs. Csilla Kohalmi-Monfils ⁶ | 9 May 2014 | Director |
| 9. Mr. Paul Francis Maguire ⁷ | 26 April 2017 | Director, and Nomination and Remuneration Committee member |
| 10. Mr. Devarajen Mooroooven ⁸ | 26 April 2017 | Director |
| 11. Mr. Benoit Rene Mignard ⁹ | 9 November 2017 | Director |
| 12. Mr. Jukr Boon-Long | 24 April 2018 | Independent Director, and Audit Committee member |
| 13. Mr. Geert A. Bunkens ¹⁰ | 25 February 2019 | Director |
| 14. Mr. Julien Ocean Pochet ¹¹ | 15 February 2019 | Director |
| 15. Mr. Chen Namchaisiri ¹² | 14 March 2019 | Director, and 1st Vice Chairman |
| 16. Mr. Veerasak Kositpaisal ¹³ | 14 March 2019 | Director, and 2nd Vice Chairman |
| 17. Police General Aek Angsanant ¹⁴ | 14 March 2019 | Director, and Chairman of Nomination and Remuneration Committee member |

| Name | Appointed as member of the Board since | Position |
|--|--|---|
| 18. Mr. Kowit Chuengsatiansup ¹⁵ | 15 March 2019 | Director |
| 19. Mr. Chayun Tantivasadakarn ¹⁶ | 15 March 2019 | Director |
| 20. Mr. Payungsak Chartsutipol ¹⁷ | 23 April 2019 | Chairman of the Board of Directors |
| 21. Mr. Chawalit Tippawanich ¹⁸ | 23 April 2019 | Director and Nomination and Compensation Committee member |
| 22. Mrs. Patareeya Benjapolchai ¹⁹ | 23 April 2019 | Independent Director and Audit Committee member |
| 23. Mr. Somkiat Masunthasuwun ¹⁷ | 23 April 2019 | Director |
| 24. Mrs. Boobpha Amornkiatkajorn ²⁰ | 7 May 2019 | Director |

Notes:

- 1) Resigned from Chairman of the Board of Directors and Chairman of the Nomination and Remuneration Committee on 14 March 2019 and resigned from member of the Board of Director on 23 April 2019.
- 2) Resigned from member of the Board of Directors, Vice Chairman of the Board of Directors and Chief Executive Officer on 15 March 2019.
- 3) Resigned from member of the Board of Directors on 7 May 2019.
- 4) Resigned from member of the Board of Directors on 25 February 2019.
- 5) Resigned from member of the Board of Directors and Audit committee member on 23 April 2019.
- 6) Resigned from member of the Board of Directors on 14 March 2019.
- 7) Resigned from member of the Board of Directors and Nomination and Compensation Committee member on 14 March 2019.
- 8) Resigned from member of the Board of Directors on 15 February 2019.
- 9) Resigned from member of the Board of Directors on 18 March 2019.
- 10) Appointed to be member of the Board of Directors on 25 February 2019 and resigned on 14 March 2019.
- 11) Appointed to be member of the Board of Directors on 15 February 2019 and resigned 15 March 2019.
- 12) Appointed to be member of the Board of Directors on 14 March 2019, and appointed as 1st Vice Chairman on 7 May 2019 and resigned on 7 May 2019.
- 13) Appointed to be member of the Board of Directors on 14 March and appointed as 2nd Vice Chairman on 7 March 2019.
- 14) Appointed to be member of the Board of Directors and Chairman of Nomination and Compensation on 14 March 2019.
- 15) Appointed to be member of the Board of Directors on 15 March 2019 and resigned on 23 April 2019.
- 16) Appointed to be member of the Board of Directors on 15 March 2019.
- 17) Appointed to be member of the Board of Directors on 23 April 2019 and appointed as Chairman of the Board of Directors on 7 May 2019.
- 18) Appointed to be member of the Board of Directors on 23 April 2019 and Nomination and Compensation Committee member on 7 May 2019.
- 19) Appointed to be member of the Board of Directors and Audit Committee member on 23 April 2019.
- 20) Appointed to be member of the Board of Directors on 7 May 2019.

8.1.1 Authorized Directors¹

Any two directors listed below are authorized to jointly sign company documents, which must also be affixed with the Company's seal.

Mr. Veerasak Kositpaisal, Mr. Payungsak Chartsutipol, Mr. Chawalit Tippawanich and Mr. Somkiat Masunthasuwun.

8.1.2 Scope of authority and responsibilities of the Board of Directors

- The Company's Board of Directors perform their duties in accordance with laws, objectives and articles of association of the Company, regulations of the SET as well as in accordance with the resolutions of Shareholders' Meeting. The Board of Directors may authorize one or more Directors or any person to act on its behalf.
- The Board of Directors has the power to make decisions, oversee, monitor and make recommendations to the directions, strategies, activities and operations of the Company, except in the following cases, for which an approval from the Shareholders' Meeting has to be obtained beforehand:
 - any activity that laws/regulations and/or articles of association of the Company, has specified that it must have approval from the Shareholders' meeting first;
 - any undertaking of any related transaction which shall comply with relevant laws/regulations of the Stock Exchange of Thailand ("SET") and the Securities and Exchange Commission ("SEC"); and
 - any acquisition or disposal of the assets which shall comply with relevant laws/regulations of the Stock Exchange of Thailand ("SET") and the Securities and Exchange Commission ("SEC").
- The Board of Directors has the authority to declare payment of interim dividends from time to time if it deems that the Company has enough profit and available cash flow to do so.
- The Board of Directors approves the vision, mission, key strategies and policies of GLOW Group each year, and has followed up and monitored progress of strategy implementation periodically.
- The Board of Directors has a policy to encourage the Board members to attend ongoing professional education programs, and assures the Board members participate in accredited Directors training programs.
- The Board of Directors ensures that any new Director appointed receives relevant corporate documents, manuals, guidelines to introduce GLOW Group, and the roles and responsibilities of being a Director of a listed company.

¹ Information as of 22 May 2019, the date the resignation of Mr. Chen Namchaisiri was officially registered.

8.1.3 Board meeting

The Board of Directors holds at least four fixed and confirmed meetings each year, respectively scheduled for February, May, August and November, during which the quarterly financial statements are considered. Extraordinary meetings may be arranged if and when necessary. In 2019, Board of Directors meetings have been scheduled in advance (Such initial schedule being provided in November 2018). For each board meeting, clear agendas and supporting documents for the matters to be considered during the meeting are submitted to each board member, typically at least seven days in advance. This is designed to provide each board member with sufficient time to study important information before attending the meeting. Each board member can openly discuss and express his/her opinion during board meetings. The Chairman of the Board of Directors collects and summarizes information addressed during the meeting.

The Company Secretary is responsible for organizing and facilitating the board meetings and the board committee meetings, recording the meeting's minutes in writing, and performing any other actions specified in the Securities and Exchange Act (Fifth Amendment) B.E. 2559 or related laws and regulations, including notifications from the Capital Market Supervisory Board.

As of 7 May 2019, the Board of Directors organized three ordinary meetings and nine extraordinary meetings. Moreover, the Company has encouraged non-executive Directors to hold at least one meeting during the year to discuss and exchange opinions with respect to good Corporate Governance. The participation of each director is summarized below:

The attendance of the Directors as of 7 May 2019

| Name | Position Holding since | Participation / Total Meeting | | | | Total Attendance vs Total no. as of 7 May 2019 meetings |
|--|------------------------|-------------------------------|------------------------------------|-----------------------------------|------------------------------------|---|
| | | Ordinary Meeting (3 meetings) | | Extraordinary Meeting (9 meeting) | | |
| | | Present at the meeting | Present via VDO or Call Conference | Present at the meeting | Present via VDO or Call Conference | |
| 1. Mr. Jan Franciscus Maria Flachet ¹ | 24 February 2014 | - | 1 | 5 | - | 6/9 |
| 2. Mr. Brendan G.H. Wauters ² | 14 August 2014 | 2 | - | 6 | - | 8/8 |
| 3. Mr. Anut Chatikavanij ³ | 9 November 2000 | 2 | - | 8 | - | 10/11 |
| 4. Mr. Marc J.Z.M.G. Verstraete ⁴ | 11 November 2013 | - | - | 1 | 2 | 3/6 |
| 5. Mrs. Supapun Ruttanaporn ⁵ | 28 October 1999 | 2 | - | 9 | - | 11/11 |
| 6. Mrs. Saowanee Kamolbutr | 26 April 2016 | 3 | - | 9 | - | 12/12 |
| 7. Prof. Dr. Borwornsak Uwanno | 25 March 2013 | 2 | - | 9 | - | 11/12 |

| Name | Position Holding since | Participation / Total Meeting | | | | Total Attendance vs Total no. as of 7 May 2019 meetings |
|---|---------------------------|----------------------------------|--|---|--|--|
| | | Ordinary Meeting (3 meetings) | | Extraordinary Meeting (9 meeting) | | |
| | | Present at the meeting | Present via VDO or Call Conference | Present at the meeting | Present via VDO or Call Conference | |
| 8. Mrs. Csilla Kohalmi-Monfils ⁶ | 9 May 2014 | - | - | 4 | - | 4/7 |
| 9. Mr. Paul Francis Maguire ⁷ | 26 April 2017 | - | 1 | 5 | - | 6/8 |
| 10. Mr. Devarajen Mooroooven ⁸ | 26 April 2017 | - | - | - | - | 0/4 |
| 11. Mr. Benoit Mignard ⁹ | 9 November 2017 | - | - | 4 | 1 | 5/9 |
| 12. Mr. Jukr Boon-Long | 24 April 2018 | 3 | - | 9 | - | 12/12 |
| 13. Mr. Geert A. Bunkens ¹⁰ | 25 February 2019 | - | - | 1 | - | 1/1 |
| 14. Mr. Julien Ocean Pochet ¹¹ | 15 February 2019 | - | - | 4 | - | 4/4 |
| 15. Mr. Chen Namchaisiri ¹² | 14 March 2019 | 2 | - | 3 | - | 5/5 |
| 16. Mr. Veerasak Kositpaisal ¹³ | 14 March 2019 | 2 | - | 3 | - | 5/5 |
| 17. Police General Aek Angsanant ¹⁴ | 14 March 2019 | 2 | - | 3 | - | 5/5 |
| 18. Mr. Kowit Chuengsatiansup ¹⁵ | 15 March 2019 | 1 | - | 2 | - | 3/3 |
| 19. Mr. Chayun Tantivasadakarn ¹⁶ | 15 March 2019 | 1 | - | 2 | - | 3/4 |
| 20. Mr. Payungsak Chartsutipol ¹⁷ | 23 April 2019 | 1 | - | - | - | 1/1 |
| 21. Mr. Chawalit Tippawanich ¹⁸ | 23 April 2019 | 1 | - | - | - | 1/1 |
| 22. Mrs. Patareeya Benjapolchai ¹⁹ | 23 April 2019 | - | - | - | - | 0/1 |
| 23. Mr. Somkiat Masunthasuwun ¹⁷ | 23 April 2019 | 1 | - | - | - | 1/1 |
| 24. Mrs. Boobpha Amornkiatkajorn ²⁰ | 7 May 2019 | - | - | - | - | - |

Notes:

- 1) Resigned from Chairman of the Board of Directors and Chairman of the Nomination and Remuneration Committee on 14 March 2019 and resigned from member of the Board of Director on 23 April 2019.
- 2) Resigned from member of the Board of Directors, Vice Chairman of the Board of Directors and Chief Executive Officer on 15 March 2019.

- 3) Resigned from member of the Board of Directors on 7 May 2019.
- 4) Resigned from member of the Board of Directors on 25 February 2019.
- 5) Resigned from member of the Board of Directors and Audit Committee member on 23 April 2019.
- 6) Resigned from member of the Board of Directors on 14 March 2019.
- 7) Resigned from member of the Board of Directors and Nomination and Compensation Committee member on 14 March 2019.
- 8) Resigned from member of the Board of Directors on 15 February 2019.
- 9) Resigned from member of the Board of Directors on 18 March 2019.
- 10) Appointed to be member of the Board of Directors on 25 February 2019 and resigned on 14 March 2019.
- 11) Appointed to be member of the Board of Directors on 15 February 2019 and resigned 15 March 2019.
- 12) Appointed to be member of the Board of Directors on 14 March 2019, appointed as 1st Vice Chairman on 7 May 2019 and resigned on 7 May 2019.
- 13) Appointed to be member of the Board of Directors on 14 March and appointed as 2nd Vice Chairman on 7 May 2019.
- 14) Appointed to be member of the Board of Directors and Chairman of Nomination and Compensation on 14 March 2019.
- 15) Appointed to be member of the Board of Directors on 15 March 2019 and resigned on 23 April 2019.
- 16) Appointed to be member of the Board of Directors on 15 March 2019.
- 17) Appointed to be member of the Board of Directors on 23 April 2019 and appointed as Chairman of the Board of Directors on 7 May 2019.
- 18) Appointed to be member of the Board of Directors on 23 April 2019 and Nomination and Compensation Committee member on 7 May 2019.
- 19) Appointed to be member of the Board of Directors and Audit Committee member on 23 April 2019.
- 20) Appointed to be member of the Board of Directors on 7 May 2019.

The attendance of the Audit Committee as of 7 May 2019

| Name | Position | Position Holding since | Participation / Total Meeting | | Total Attendance vs Total no. as of 7 May 2019 meetings |
|---|----------------------|------------------------|-------------------------------|-----------------------------------|---|
| | | | Ordinary Meeting (2 meetings) | Extraordinary Meeting (1 meeting) | |
| | | | Present at the meeting | Present at the meeting | |
| 1. Mrs. Supapun Ruttanaporn ¹ | Independent Director | 28 October 1999 | 1 | 1 | 2/2 |
| 2. Mrs. Saowanee Kamolbutr | Independent Director | 26 April 2016 | 2 | 1 | 3/3 |
| 3. Mr. Jukr Boon-Long | Independent Director | 24 April 2018 | 2 | 1 | 3/3 |
| 4. Mrs. Patareeya Benjapolchai ² | Independent Director | 23 April 2019 | - | - | 0/1 |

Notes:

- 1) Resigned from member of the Board of Directors and Audit Committee member on 23 April 2019.
- 2) Appointed to be Audit Committee member as a replacement of Em. Prof. Supapun Ruttanaporn on 23 April 2019.

The attendance of the Nomination and Remuneration Committee as of 7 May 2019

| Name | Position | Position Holding since | Participation / Total Meeting | | | | Total Attendance vs Total no. as of 7 May 2019 meetings |
|--|------------------------|------------------------|-------------------------------|------------------------------------|------------------------------------|------------------------------------|---|
| | | | Ordinary Meeting (2 meetings) | | Extraordinary Meeting (3 meetings) | | |
| | | | Present at the meeting | Present via VDO or Call Conference | Present at the meeting | Present via VDO or Call Conference | |
| 1. Mr. Jan Franciscus Maria Flachet ¹ | Non-executive Director | 24 February 2014 | 1 | - | 2 | 1 | 3/4 |
| 2. Mr. Paul Francis Maguire ² | Non-executive Director | 26 April 2017 | 1 | - | 2 | - | 3/4 |
| 3. Mrs. Saowanee Kamolbutr | Independent Director | 24 April 2018 | 2 | - | 3 | - | 5/5 |
| 4. Police General Aek Angsanant ³ | Non-executive Director | 14 March 2019 | 1 | - | - | - | 1/1 |
| 5. Mr. Chawalit Tippawanich ⁴ | Non-executive Director | 7 May 2019 | - | - | - | - | - |

Notes:

- Resigned from Chairman of the Board of Directors and Chairman of the Nomination and Remuneration Committee on 14 March 2019 and resigned from member of the Board of Director on 23 April 2019.
- Resigned from member of the Board of Directors and Nomination and Compensation Committee member on 14 March 2019.
- Appointed to be member of the Board of Directors and Chairman of Nomination and Compensation on 14 March 2019.
- Appointed to be member of the Board of Directors on 23 April 2019 and Nomination and Compensation Committee member on 7 May 2019.

Training Program of the Director as of 7 May 2019

| Director | Training Program |
|-----------------------------|--|
| 1. Mr. Vitthaya Vejajiva | Audit Committee Forum (IOD), Class 1/ 2017 |
| 2. Mrs. Saowanee Kamolbutr | Audit Committee Forum (IOD), Class 1/2017 |
| 3. Mrs. Supapun Ruttanaporn | TFRS15 Training, Department of Accountancy, Chulalongkorn University |

8.2 Management team

The Management team is comprised of 36 individuals:

| Name | Position |
|---|--|
| 1. Mr. Pajongwit Pongsivapai ¹ | Chief Executive Officer, and Executive Management Committee Member |
| 2. Mrs. Sriprapha Sumruatruamphol | Chief Commercial Officer and Executive Vice President - Human Resources, and Executive Management Committee Member |
| 3. Mrs. Sirobon Boontaworn | Chief Financial Officer and Executive Vice President, and Executive Management Committee Member |
| 4. Mr. Arjan van den Broek | Chief Operating Officer and Executive Vice President, and Executive Management Committee Member |
| 5. Mr. Narongchai Visutrachai | Senior Vice President – Government and Public Affairs, and Executive Management Committee Member |
| 6. Mr. Pajongwit Pongsivapai ² | Head of Business Development and Senior Vice President |
| 7. Mr. Akarin Prathuangsit | Chief Procurement Officer and Senior Vice President, and Executive Management Committee Member |
| 8. Mr. Wisit Srinuntawong | Senior Vice President – Engineering and Maintenance Management, and Executive Management Committee Member |
| 9. Mr. Louis Stephen Holub | Plant Manager – GHECO-One |
| 10. Mrs. Mantana Kunakorn | Senior Vice President – Human Resources and Administration |
| 11. Mr. Sutthi Chuesook | Senior Vice President – Rayong Facilities Management |
| 12. Mr. Suratchai Bangluang | Plant Manager-GIPP and Cogenerations Pluak Daeng |
| 13. Dr. Somgiat Dekrajangpetch | Senior Vice President – Asset Optimization |
| 14. Mrs. Chamaiporn Soonthorntasanapong | Vice President – Legal and Insurance |
| 15. Mr. Anutarachai Nathalang | Vice President – Environmental, Health and Safety |

| | |
|------------------------------------|---|
| 16. Mr. Sakda Lacharochana | Vice President – Reliability and Integrity |
| 17. Ms. Sirichan Chotchaisathit | Vice President – Industrial Customer Sales |
| 18. Mr. Tananchai Chairsakaew | Vice President - Engineering |
| 19. Mr. Prateep Puthamrugsa | Vice President – Supply Chain Management |
| 20. Mr. Somchai Klinsuwanmalee | Vice President – CSR and Public Affairs |
| 21. Mr. Apichart Jamjuntr | Plant Manager – Gas Fired Units Complex |
| 22. Mr. Renaud Pilleul | Vice President – Industrial Customer Relations |
| 23. Mr. Sichanh Gnabandith | Plant Manager –HHPC |
| 24. Ms. Suttasinee Pengsupaya | Vice President – Accounting |
| 25. Mr. Chaiwut Rattanapornsinchai | Vice President – Internal Audit |
| 26. Mr. Eralp Gullep | Vice President – Business Quality |
| 27. Mr. Rujirote Kasirerk | Plant Manager – Coal Fired Units Complex |
| 28. Mr. Apidech Siriphornopphakhun | Plant Manager – Glow Energy Site (Phase1&2) |
| 29. Mr. Pisut Boonvongsobhon | Vice President – Central Maintenance |
| 30. Mrs. Unchana Kittipiyakul | Vice President – Budget |
| 31. Mrs. Patchara Jaroonvuthitham | Vice President – Budgeting and Business Controlling |
| 32. Ms. Anchana Tidsadikhun | Vice President – Training and Talent Development |
| 33. Mr. Aungsuthon Puboonterm | Vice President – System Optimization |
| 34. Mr. Nunsilp Janvarin | Vice President – Information and Communication Technology |
| 35. Mr. Prapon Chinudomsab | Vice President – Finance and Treasury |
| 36. Ms. Duangporn Kijlertbunjong | AVP-Corporate Affairs and Company Secretary |

Note:

- 1) Appointed to be Chief Executive Officer since 16 March 2019
- 2) Acting Head of Business Development and Senior Vice President since 15 March 2019

8.2.1 Report of Changes in Securities Holdings of Directors and Executive Management Committee as of 7 May 2019:

| Directors / Executives | Ordinary shares (shares) | | |
|--|--------------------------|------------------|-------------------------------------|
| | As at 1 January 2019 | As at 7 May 2019 | Increase/(Decrease) during the year |
| Directors | | | |
| 1. Mr. Jan Franciscus Maria Flachet ¹ <i>Spouse and minor children</i> | - - | - - | - - |
| 2. Mr. Brendan Wauters ² <i>Spouse and minor children</i> | - - | - - | - - |
| 3. Mr. Anut Chatikavanij ³ <i>Spouse and minor children</i> | - - | - - | - - |
| 4. Mr. Marc J.Z.M.G. Verstraete ⁴ <i>Spouse and minor children</i> | - - | - - | - - |
| 5. Mrs. Supapun Ruttanaporn ⁵ <i>Spouse and minor children</i> | - - | - - | - - |
| 6. Mrs. Saowanee Kamolbutr <i>Spouse and minor children</i> | - - | - - | - - |
| 7. Prof. Dr. Borwornsak Uwanno <i>Spouse and minor children</i> | - - | - - | - - |
| 8. Mrs. Csilla Kohalmi-Monfils ⁶ <i>Spouse and minor children</i> | - - | - - | - - |
| 9. Mr. Paul Francis Maguire ⁷ <i>Spouse and minor children</i> | - - | - - | - - |
| 10. Mr. Devarajen Mooroooven ⁸ <i>Spouse and minor children</i> | - - | - - | - - |
| 11. Mr. Benoit Rene Mignard ⁹ <i>Spouse and minor children</i> | - - | - - | - - |
| 12. Mr. Jukr Boon-Long <i>Spouse and minor children</i> | - - | - - | - - |
| 13. Mr. Geert A. Bunkens ¹⁰ <i>Spouse and minor children</i> | - - | - - | - - |
| 14. Mr. Julien Ocean Pochet ¹¹ <i>Spouse and minor children</i> | - - | - - | - - |
| 15. Mr. Chen Namchaisiri ¹² <i>Spouse and minor children</i> | - - | - - | - - |
| 16. Mr. Veerasak Kositpaisal ¹³ | - | - | - |

| Directors / Executives | Ordinary shares (shares) | | |
|--|--------------------------|------------------|-------------------------------------|
| | As at 1 January 2019 | As at 7 May 2019 | Increase/(Decrease) during the year |
| <i>Spouse and minor children</i> | - | - | - |
| 17. Police General Aek Angsanant ¹⁴ <i>Spouse and minor children</i> | - - | - - | - - |
| 18. Mr. Kowit Chuengsatiansup ¹⁵ <i>Spouse and minor children</i> | - - | - - | - - |
| 19. Mr. Chayun Tantivasadakarn ¹⁶ <i>Spouse and minor children</i> | - - | - - | - - |
| 20. Mr. Payungsak Chartsutipol ¹⁷ <i>Spouse and minor children</i> | - - | - - | - - |
| 21. Mr. Chawalit Tippawanich ¹⁸ <i>Spouse and minor children</i> | - - | - - | - - |
| 22. Mrs. Patareeya Benjapolchai ¹⁹ <i>Spouse and minor children</i> | - - | - - | - - |
| 23. Mr. Somkiat Masunthasuwun ¹⁷ <i>Spouse and minor children</i> | 100 - | 100 - | - - |
| 24. Mrs. Boobpha Amornkiatkajorn ²⁰ <i>Spouse and minor children</i> | - - | - - | - - |
| Management | | | |
| 1) Mr. Arjan van den Broek <i>Spouse and minor children</i> | - - | - - | - - |
| 2) Mrs. Sriprapha Sumruatruamphol <i>Spouse and minor children</i> | 30,000 - | 30,000 - | - - |
| 3) Mr. Pajongwit Pongsivapai <i>Spouse and minor children</i> | - - | - - | - - |
| 4) Mr. Narongchai Visutrachai <i>Spouse and minor children</i> | - - | - - | - - |
| 5) Mr. Akarin Prathuangsit <i>Spouse and minor children</i> | - - | - - | - - |

Notes:

- 1) Resigned from Chairman of the Board of Directors and Chairman of the Nomination and Remuneration Committee on 14 March 2019 and resigned from member of the Board of Director on 23 April 2019.
- 2) Resigned from member of the Board of Directors, Vice Chairman of the Board of Directors and Chief Executive Officer on 15 March 2019.
- 3) Resigned from member of the Board of Directors on 7 May 2019.
- 4) Resigned from member of the Board of Directors on 25 February 2019.
- 5) Resigned from member of the Board of Directors and Audit committee member on 23 April 2019.

- 6) Resigned from member of the Board of Directors on 14 March 2019.
- 7) Resigned from member of the Board of Directors and Nomination and Compensation Committee member on 14 March 2019.
- 8) Resigned from member of the Board of Directors on 15 February 2019.
- 9) Resigned from member of the Board of Directors on 18 March 2019.
- 10) Appointed to be member of the Board of Directors on 25 February 2019 and resigned on 14 March 2019.
- 11) Appointed to be member of the Board of Directors on 15 February 2019 and resigned 15 March 2019.
- 12) Appointed to be member of the Board of Directors on 14 March 2019, appointed as 1st Vice Chairman on 7 May 2019 and resigned on 7 May 2019.
- 13) Appointed to be member of the Board of Directors on 14 March and appointed as 2nd Vice Chairman on 7 May 2019.
- 14) Appointed to be member of the Board of Directors and Chairman of Nomination and Compensation on 14 March 2019.
- 15) Appointed to be member of the Board of Directors on 15 March 2019 and resigned on 23 April 2019.
- 16) Appointed to be member of the Board of Directors on 15 March 2019.
- 17) Appointed to be member of the Board of Directors on 23 April 2019 and appointed as Chairman of the Board of Directors on 7 May 2019.
- 18) Appointed to be member of the Board of Directors on 23 April 2019 and Nomination and Compensation Committee member on 7 May 2019.
- 19) Appointed to be member of the Board of Directors and Audit Committee member on 23 April 2019.
- 20) Appointed to be member of the Board of Directors on 7 May 2019.

8.2.2 Scope of Authority and Responsibilities of the CEO

The Company's Chief Executive Officer (the "CEO") has the authority to supervise, manage, and perform all normal business operations excluding the following matters, which require the approval of either the Board of Directors or Shareholders:

- Authorization of internal and general power of attorneys;
- Amendment of the Company's Articles of Association;
- Any merger, separation or general modification to the Company' structure;
- Dissolution of the Company;
- Increase, decrease or transfer of the Company's registered capital;
- Taking a lien or any other security on the Company's assets;
- Any material change to the Company's main agreements, (i.e. Power Purchase Agreement with EGAT, Gas Supply Agreement, Coal Supply Agreement, and EPC Contracts);
- Negotiation and execution of documents related to the opening of credit lines with banks for any amount exceeding the amount allotted in the daily management powers as granted by the Board to the CEO;
- Commencement or discontinuance of any business;
- Removal and appointment of CEO;
- Approval of long-term strategic plans; and
- Approval of annual budget.

8.3 Company Secretary

The Board of Directors has appointed Ms. Duangporn Kijlertbunjong as the Company Secretary in February 2015.

8.4 Remuneration

8.4.1 Remunerations of the Board of Directors

A resolution was passed concerning the remuneration of the chairman and other non-executive members of the Board during the 23 April 2019 Annual General Shareholders' Meeting. The resolution was based on taking into account the profit of the Company, number of factors compared within the same industry together with the business expansion. The remuneration of Directors for the year 2019 as below:

(Unit: THB)

| | Fixed Remuneration (Per Year) | Meeting Allowance (Per Meeting) | Other Privilege |
|------------------------------|--|--|------------------------|
| Chairman | 489,500 | 112,200 | None |
| Non-Executive members | 489,500 | 112,200 | None |

8.4.2 Remunerations for Committees

The Annual General Meeting of Shareholders dated 23 April 2019 approved the Meeting Allowances for the Audit Committee and Nomination and Remuneration Committee, taking into account the profit of the Company, number of factors compared within the same industry together with the business expansion, as listed in the table below:

(Unit: THB)

| | Fixed Remuneration (Per Year) | Meeting Allowance (Per Meeting) | Other Privilege |
|--|--|--|------------------------|
| The Audit Committee | | | |
| Chairman | 165,000 | 44,000 | None |
| Members | 110,000 | 37,400 | None |
| The Nomination and Remuneration Committee | | | |
| Chairman | 55,000 | 30,800 | None |
| Members | 55,000 | 22,000 | None |

Remunerations of the Directors as of 7 May 2019:**(Unit: THB)**

| Directors | Meeting allowance and Fixed remuneration | | | Total remuneration ¹ |
|--|--|-----------------|---------------------------------------|---------------------------------|
| | Board of Directors | Audit Committee | Nomination and Remuneration Committee | |
| 1. Mr. Jan Franciscus Maria Flachet ² | 561,000 | - | 92,400 | 653,400 |
| 2. Mr. Brendan G.H. Wauters ³ | - | - | - | - |
| 3. Mr. Anut Chatikavanij ⁴ | 1,122,000 | - | - | 1,122,000 |
| 4. Mr. Marc J.Z.M.G. Verstraete ⁵ | 224,400 | - | - | 224,400 |
| 5. Mrs. Supapun Ruttanaporn ⁶ | 1,234,200 | 74,800 | - | 1,309,000 |
| 6. Mrs. Saowanee Kamolbutr | 1,346,400 | 132,000 | 154,000 | 1,632,400 |
| 7. Prof. Dr. Borwornsak Uwanno | 1,234,200 | - | - | 1,234,200 |
| 8. Mrs. Csilla Kohalmi-Monfils ⁷ | 448,800 | - | - | 448,800 |
| 9. Mr. Paul Francis Maguire ⁸ | 561,000 | - | 66,000 | 627,000 |
| 10. Mr. Devarajen Mooroooven ⁹ | - | - | - | - |
| 11. Mr. Benoit Rene Mignard ¹⁰ | 336,600 | - | - | 336,600 |
| 12. Mr. Jukr Boon-Long | 1,009,800 | 112,200 | - | 1,122,000 |
| 13. Mr. Geert A. Bunkens ¹¹ | 112,200 | - | - | 112,200 |
| 14. Mr. Julien Ocean Pochet ¹² | 448,800 | - | - | 448,800 |
| 15. Mr. Chen Namchaisiri ¹³ | 561,000 | - | - | 561,000 |
| 16. Mr. Veerasak Kositpaisal ¹⁴ | 561,000 | - | - | 561,000 |
| 17. Police General Aek Angsanant ¹⁵ | 561,000 | - | 92,400 | 653,400 |
| 18. Mr. Kowit Chuengsatiansup ¹⁶ | 336,600 | - | - | 336,600 |

| Directors | Meeting allowance and Fixed remuneration | | | Total remuneration ¹ |
|--|--|-----------------|---------------------------------------|---------------------------------|
| | Board of Directors | Audit Committee | Nomination and Remuneration Committee | |
| 19. Mr. Chayun Tantivasadakarn ¹⁶ | 336,600 | - | - | 336,600 |
| 20. Mr. Payungsak Chartsutipol ¹⁸ | 224,400 | - | - | 224,400 |
| 21. Mr. Chawalit Tippawanich ¹⁹ | 112,200 | - | - | 112,200 |
| 22. Mrs. Patareeya Benjapolchai ²⁰ | - | - | - | - |
| 23. Mr. Somkiat Masunthasuwun ¹⁸ | 112,200 | - | - | 112,200 |
| 24. Mrs. Boobpha Amornkiatkajorn ²¹ | - | - | - | - |
| Grand Total | 11,332,200 | 319,000 | 404,800 | 11,607,761 |

Notes:

- 1) The total remuneration is excluded the 2019 fixed remuneration of the directors.
- 2) Resigned from Chairman of the Board of Directors and Chairman of the Nomination and Remuneration Committee on 14 March 2019 and resigned from member of the Board of Director on 23 April 2019.
- 3) Resigned from member of the Board of Directors, Vice Chairman of the Board of Directors and Chief Executive Officer on 15 March 2019.
- 4) Resigned from member of the Board of Directors on 7 May 2019.
- 5) Resigned from member of the Board of Directors on 25 February 2019.
- 6) Resigned from member of the Board of Directors and Audit committee member on 23 April 2019.
- 7) Resigned from member of the Board of Directors on 14 March 2019.
- 8) Resigned from member of the Board of Directors and Nomination and Compensation Committee member on 14 March 2019.
- 9) Resigned from member of the Board of Directors on 15 February 2019.
- 10) Resigned from member of the Board of Directors on 18 March 2019.
- 11) Appointed to be member of the Board of Directors on 25 February 2019 and resigned on 14 March 2019.
- 12) Appointed to be member of the Board of Directors on 15 February 2019 and resigned 15 March 2019.
- 13) Appointed to be member of the Board of Directors on 14 March 2019, appointed as 1st Vice Chairman on 7 May 2019 and resigned on 7 May 2019.
- 14) Appointed to be member of the Board of Directors on 14 March and appointed as 2nd Vice Chairman on 7 May 2019.
- 15) Appointed to be member of the Board of Directors and Chairman of Nomination and Compensation on 14 March 2019.
- 16) Appointed to be member of the Board of Directors on 15 March 2019 and resigned on 23 April 2019.
- 17) Appointed to be member of the Board of Directors on 15 March 2019.
- 18) Appointed to be member of the Board of Directors on 23 April 2019 and appointed as Chairman of the Board of Directors on 7 May 2019.
- 19) Appointed to be member of the Board of Directors on 23 April 2019 and Nomination and Compensation Committee member on 7 May 2019.
- 20) Appointed to be member of the Board of Directors and Audit Committee member on 23 April 2019.
- 21) Appointed to be member of the Board of Directors on 7 May 2019.

8.4.3 Remuneration of the Management team

The total remuneration paid by the Company to the 37 individuals of the management team during fiscal year 2018, including salary and provident fund payments as well as other types of remuneration such as bonuses, totaled THB 258,433,875.²

8.5 Human Resource Management

As of 31 March 2019, there were a total number of 781 people employed by the Company, as indicated below:

| Company | Employees | | |
|-------------------------------|-------------|------------|------------|
| | Head Office | Plants | Total |
| Glow Energy Plc. | - | 104 | 104 |
| Glow Co., Ltd. | 147 | 208 | 355 |
| Glow IPP Co., Ltd. | - | 39 | 39 |
| Glow SPP 2 Co., Ltd. | - | 60 | 60 |
| Glow SPP 3 Co., Ltd. | - | 28 | 28 |
| Glow SPP 11 Co., Ltd. | - | 35 | 35 |
| GHECO-One Co., Ltd. | - | 84 | 84 |
| Houay Ho Power Co., Ltd. | - | 75 | 75 |
| Glow Energy Myanmar Co., Ltd. | 1 | - | 1 |
| Total | 148 | 633 | 781 |

8.5.1 Employees remuneration

As of 31 December 2018, the total remuneration paid to employees amounted to THB 1,146,066,211 including salaries, overtimes, bonuses, provident funds, and other types of income.

8.5.2 The company and its subsidiaries' policy for employees

At Glow, our people are the foundation of our success. As of 31 March 2019, we have 781 employees at a variety of locations including our Head Office in Bangkok, Power plants in Rayong and Chonburi provinces, Houay Ho Power in Laos, as well as Glow Energy Myanmar in Myanmar.

² Yearly information is used as it is a better representation of the management remuneration structure than quarterly information.

Our employees enjoy a safe and satisfying work environment that encourages teamwork and creativity and seeks to cultivate a sense of belonging and commitment. This is supported by our leadership, high technical standards, and a passion for safety.

We are committed to being a world class operator of power generation and co-generation facilities. This commitment requires that we play close attention to relevant Environmental, Health and Safety standards in order to protect our employees, clients and the communities within which we operate.

Both collectively and individually, our employees' depth of knowledge and experience creates value for our shareholders and customers. Our human resources department has the crucial role of facilitating our employees' professional development. We devote substantial resources to training our employees, which enhances our organization's competitiveness.

We seek to attract and retain qualified professionals capable of functioning well in an environment reflecting Glow's corporate values, which based on Communication, Commitment, Adaptability, Ambition, and Sustainable Business Relations.

We encourage and support employees to realize their full professional potential by offering challenging work, on-the-job development, formal training and external educational opportunities. Management Training courses provided to the employees include Problem Solving and Decision Making, Developing English Conversation, Change Management, etc. In terms of Technical training, we cover all major technical skills and a comprehensive range of environment, health and safety courses. The average training time for our employees in 2018 was 52 hours per person. We also offer our employees highly competitive remuneration packages including, as the case may be, basic salary, a bonus scheme, a long-term incentive scheme, and a numbers of allowances and other benefits.

Glow employees treat each other with trust and respect, and seek to maintain a healthy balance between work and family life. Our operational excellence, our ability to consistently deliver high quality products as well as the reliability and availability of our generating units are our most valued strengths.

9. Corporate Governance

9.1 Principle of good corporate governance

The Board of Directors is committed to the principles of good corporate governance in compliance with the recommended best practices for listed company and relevant rules, regulations and guidelines of the Stock Exchange of Thailand (“SET”), the Office of the Securities and Exchange Commission (“SEC”) and GLOW Ethics Charter. The Company therefore has put in place a compliance unit, comprises of VP – Legal & Insurance Department (also acting as Glow Group’s Ethics Officer), and the Company Secretary to oversee corporate and compliance matters of the Company.

9.1.1 Rights of shareholders and the Shareholders Meeting

The Company’s shareholders shall have the following basic rights:

- Rights to buy, sell, or transfer shares;
- Rights to share in the profit of the Company;
- Rights to have access to the Company’s information in a timely fashion and on a regular basis; and
- Rights to participate and vote at the Shareholders Meeting, including the rights to:
 - Elect or remove members of the Board of Directors;
 - Propose and approve the appointment of the external auditor; and
 - Participate in the decision making of any transactions that affect the Company and/or the shareholders in a material manner.

The Board of Directors provides the Shareholders, in advance of the meeting, information regarding the time, venue (sufficiently convenient for the Shareholders to attend the Shareholders Meeting) and all agenda items to be discussed during the meeting, including adequate supporting documents. Shareholders are also informed of the criteria and procedures governing the Shareholders Meeting, including the voting procedure and use of proxy.

At the Shareholders Meeting, the Company arranges to have a lawyer appointed to witness and observe the voting process throughout the meeting, and to review the voting results of the Shareholders Meeting.

9.1.2 Equitable treatment of shareholders and responsibilities of stakeholders

The Board of Directors recognizes the rights of Stakeholders, and therefore encourages cooperation between the Company and the Stakeholders, as well as other concerned parties including staff, customers, trading partners, creditors, government agencies, communities where the Company operates and the society at large. Directors and employees are required to comply with the “Code of Conduct” that is established to ensure fair and balance dealings with Stakeholders.

In addition, the Board of Directors requires that operational information be reported to Stakeholders and related parties through the Form 56-1, the annual report, the Company’s website, and other relevant channels. Two-way communication channels are established to ensure

Stakeholders and other parties to express their views or file grievances. An Ethics Whistleblower Inbox has been made available for employees (internally on Glow Intranet), and external parties (on Glow's Internet website) to register concerns on non-ethical incidents.

The Board of Directors represents all Shareholders and, in every case, act in the Company's corporate interests. Each Director verifies that decisions do not favor the interest of a portion or a category of Shareholders over those of any other.

The Board of Directors has established a clear policy to facilitate minority Shareholders to propose, in advance of the Shareholder Meetings, any issues for consideration in the Shareholders Meeting. The Board of Directors has established procedures to allow Shareholders to make proposals, including a procedure to nominate nominees. The Company has posted on the Company website, as well as announced via the website of the Stock Exchange of Thailand, the procedures and timeline set forth for minority Shareholders to propose the agenda items, and to nominate their nominee to be included in the agenda of the Shareholders Meeting.

The Company arranges to have an Investor Relations contact and mailbox (IR contact and mailbox) on the Company website (www.glow.co.th) where Stakeholders can voice their concerns and/or complaints with respect to possible violation of their rights directly to the Company.

The Board of Directors has established the following policies, among other policies, and authorizes the Management to internally announce them:

- **Non-Discrimination Policy** in order to ensure that employees do not tolerate discrimination or any other form of human rights violations.
- **Code of Conduct** in order to ensure that directors or employees are committed to conducting business activities and operations in full compliance with laws/regulations of the countries in which we operate, as well as complying with our Ethics Charter.
- **Anti-Bribery Policy** in order to ensure employees do not engage in corrupt acts.
- **Insider Trading Policy** in order to prevent the abusive use of inside information.
- **Sustainable Development Policy** in order to ensure that we work with governments, inter-governmental and non-governmental organizations and other interested parties to develop and support projects that benefit the communities associated with our business operations.
- **Environmental Policy** in order to ensure continuous and sustainable development of our core business, without compromising the ability of the current and the future generations to enjoy the environment.
- **Health and Safety Policy** in order to pay full attention to the health and safety concerns that affect our employees, customers and the community.
- **Conflict of Interest Policy** in order to ensure that situations that could cause conflicts of interest are better identified by the Directors and employees, and that they are analyzed and handled wisely through an authentic ethics process.

In addition to the policies mentioned above, the Board of Directors ensures that a comprehensive set of appropriate policies/procedures for risk management are defined and implemented, including, but not limited to, the following:

- Related Party Transactions Policy
- Ethics Reporting (“Whistleblowing”) Procedure
- Gifts and Hospitality Procedure
- Occupational Health and Safety Policies
 - Stop Work Authority (“SWA”) Policy
- Financial Management Policies:
 - Interest Rate Risk Management Policy
 - Foreign Exchange Risk Management Policy
 - Cash Surplus Investment Policy
 - Counterparty Risk Management Policy
 - Financial Funding Policy
 - Dividends Payment Policy
- Coal Risk Management Policy
- Energy Conservation Policy
- Software License Compliance Procedure

9.1.3 Disclosure and transparency

The Board of Directors discloses accurate, relevant, complete, adequate, and timely corporate information related to the Company’s business and performance on a regular basis.

The Board of Directors ensures strict adherence to all relevant laws/regulations relating to the disclosure of information and transparency. Finance and Treasury Department is designated to disseminate financial information to Shareholders and other Stakeholders, and to equitably and appropriately assist investors and securities analysts to understand the Company and its business. Information posted in the Company’s Internet website is in both Thai and English. In addition, the Corporate Communications Department is assigned to publicize corporate business performance information via various media on a timely basis.

9.1.4 Responsibilities of the Board of Directors

Roles and responsibilities

The Board of Directors performs its duties in accordance with laws and regulations, guidelines of the SET and the SEC, the Company’s Articles of Association and corporate objectives, as

well as in accordance with the resolutions of the Shareholders Meetings. The Board of Directors is authorized to appoint one or more Directors or any person to act on its behalf.

The Board of Directors has the power to make decisions and oversee the activities and operations of the Company, except in the following cases for which an approval from the Shareholders Meeting is required to be obtained first:

- Any activity that laws and regulations and/or the Company's articles of association specifies that it must have approval from the Shareholders Meeting beforehand;
- Any undertaking of any related transaction which must comply with relevant laws/regulations and guidelines of the SET and the SEC; and
- Any acquisition or disposal of the assets which must comply with relevant laws/regulations and guidelines of the SET and the SEC.

Moreover, the Company's Board of Directors has considered the followings key matters:

- The Board of Directors has the power to declare payment of interim dividends from time to time if it deems that the Company has enough profit and available cash flow to do so;
- The Board of Directors approves the vision, mission, key strategies and policies of the Company each year, and has followed up and monitored progress of strategy implementation periodically;
- The Board of Directors has a policy to encourage to attend ongoing professional education programs, and assures the Board members participate in accredited directors training programs; and
- The Board of Directors ensures that any new director appointed receives relevant corporate documents, manuals, guidelines to introduce the Company, and the roles and responsibilities of being a director of a listed company.

Role and responsibilities of the Chairman of the Board

The Chairman's primary role is to ensure that the Board of Directors is effective in its tasks of setting and implementing GLOW Group's direction and strategy.

The main responsibilities of the Chairman of the Board of Directors are as follows:

- As well as being Chairman of the Board of Directors, he/she is expected to act as GLOW Group's leading representative which involves the presentation of GLOW Group's aims and policies to the outside world;
- To take the chair at general meetings and at Board Meetings. With regard to the latter this involves:
 - Determining the order of the agenda;
 - Ensuring that the Board of Directors receives accurate, timely and clear information;

- Keeping track of the contribution of individual Directors and ensuring that they are all involved in discussions and decision making;
 - Directing discussions towards the emergence of a consensus view; and
 - Summing up discussions, so that everyone understands what has been agreed.
- To take a leading role in determining the composition and structure of the Board of Directors. This involves regular reviews of the overall size of the Board of Directors, the balance between Executive and Non-Executive Directors, and the balance of age, experience and personality of the Directors; and
 - To ensure an effective communication with the shareholders is established.

Meetings

The Board of Directors holds at least four fixed and confirmed meetings each year respectively scheduled for February, May, August and November, during which the quarterly financial statements are considered. Extraordinary meetings may be arranged if and when necessary. At the end of each year, the Board of Directors agrees to the Board of Directors' next year meeting plan. The 2018 Board of Directors meeting schedule has been informed in advance since November 2017. For each Board Meeting, clear agendas are specified with accurate, complete and adequate supporting documents submitted to each Director at least seven days in advance of the meeting, this is designed to provide each board member sufficient time to study important information before attending the meeting. Each board member can openly discuss and express his/her opinion during the board meetings. The Chairman collects all comments, and summarizes information gathered from the meeting. The Company Secretary records the minutes of the meeting in writing. All approved minutes of meeting of the Board Meetings are kept, and are available for the Directors and relevant parties to inspect any time.

Qualification, composition and structure

Qualification and composition

The Company's Board of Directors is the key to good corporate governance. Each Director shall be independent and has knowledge, expertise and experience considered beneficial to the Company and its operational strategy. They endeavour and devote their time to perform their duties.

As such, the Company stipulates details in respect of the composition, primary credentials and election of the Board of Directors as follows:

- The Board of Directors is comprised of a minimum of five members, but not exceeding fifteen members;
- At least one-third ($\frac{1}{3}$) of the Board of Directors is comprised Independent Directors or as required by relevant laws/regulations and guidelines of the SET and the SEC;
- The Company values the diversity as well as equality in the composition of the Board of Directors. The Board of Directors is comprised of a good mixture of professional backgrounds and genders, including at least three Directors who have knowledge of the energy and power industry, at least one with knowledge of law, and at least one

with knowledge of finance and accounting. The Company currently has three female directors;

- Directors shall be qualified and shall have no restricted qualifications as stipulated in the Public Company Act;
- The election of Directors to the Board of Directors is transparent;
- Adequate information on the candidates is provided through the Nomination and Remuneration Committee, before the Board of Directors considers presenting them to the Shareholders Meeting for approval;
- Details of the background, experience, percentage holding of any shares of GLOW Group of each Director is disclosed and updated on an annual basis, and if there are any changes; and
- One of the Company's key considerations in assessing the qualification of a director is that the number of the companies listed on the SET in which each director holds a directorship shall not exceed five companies.

Structure and Independence

- The Company ensures clear segregation between the roles and responsibilities of the Chairman and the CEO, so that the Board of Directors, under the guidance of the Chairman, has the authority and is able to oversee and control the Company's activities and operations effectively and efficiently. The Chairman of the Board is not an Independent Director.
- The Board of Directors includes professional external Independent Directors, who attend meetings regularly, and have adequate access to financial and other business information, so that they are able to demonstrate independent judgment, in order to protect Shareholders' interests.
- Directors shall be independent according to relevant laws and regulations governing listed company, the SEC's notification, the qualifications and scope of work of the Audit Committee, and other qualifications as required by the Company. This is to enable the Directors to work for the best interest of the Company and all Shareholders on an equitable basis, and to prevent conflicts of interest between the Company and management of major Shareholder(s) or other companies that have management or major Shareholders in common.
- In addition, Directors are able to express their opinion independently.

Terms of Directorship

- Directors are elected for a period of three years, after which, the Director is required to resign.
- It is permitted to re-nominate the Directors who retired or resigned.

Committees

In order to ensure that the Company implements good corporate governance, the Board of Directors has three specific Committees, as follows:

Audit Committee

Audit Committee is comprised of at least three Independent Directors, with at least one member having finance and/or accounting knowledge, as required by the SEC. The Audit Committee is independent in accordance with the notification of the SEC regarding qualifications and scope of work. The Audit Committee is the key body reviewing the Company's activities and operations, financial status and internal control systems, and the selection of auditors (internal and external). The Audit Committee's scope and responsibilities are further described in the Audit Committee Charter. Among all Audit Committee members, Em. Prof. Supapun Ruttanaporn has strong accounting expertise.

The Audit Committee is acting as the Corporate Governance Committee to ensure the Company complies with good corporate governance to protect the reputation of the Company and the interest of all stakeholders.

Nomination and Remuneration Committee

Nomination and Remuneration Committee is comprised of three directors from the Board of Directors, at least one of whom is an Independent Director. The Nomination and Remuneration Committee selects appropriate candidates for the positions of Director and CEO of the Company. The nomination process is set up in accordance with defined transparent criteria to ensure a good mixture of professional backgrounds and to ensure that the Board of Directors comprises of Directors who have knowledge of the energy and power industry, knowledge of law, and knowledge of finance and/or accounting. The Nomination and Remuneration Committee also considers the policy and guidelines for the remuneration of the Board of Directors, the Committees of the Board, the CEO and the Executive Vice Presidents, in order to ensure that the basis is fair and reasonable for submission to the Board of Directors and/or the Shareholders Meeting for approval. The Nomination and Remuneration Committee's scope and responsibilities are further described in the Nomination and Remuneration Committee Charter.

Risk Management Committee

Risk Management Committee is not separately established as one of the Committees of the Board; generally, risk assessment and risk management falls under the general responsibility of the Board of Directors and the Executive Management Committee. The Executive Management Committee is taking the roles of the Risk Management Committee of the Company, by carrying out relevant risk assessment activities regularly, with proactive measures to be implemented to mitigate risk exposures. Risk management practices are taken into account within the organization at all levels, as well as in processes such as investment and divestment decision making.

Self-Assessment

The Chairman of the Board of Directors ensures that, at least every year, the Directors assess the performance of the Board of Directors and its Committees as a whole or on specific issues.

The Chairman acts on the results of the performance evaluation by recognizing the strengths and addressing the weaknesses of the Board of Directors, and, where appropriate, proposing new Directors to be appointed to the Board of Directors, or seeking the resignation of Directors.

The Board of Directors has conducted a self-assessment annually for previous year's performance. The assessment criteria are in line with the guidelines of the Stock Exchange of Thailand and the appraisal has been performed by each individual director by evaluating the previous year's performance of the Board as a whole. The assessment divided into 3 areas: 1) Board of Directors structure and Qualification 2) Board meeting and 3) Duties and Responsibilities. The complete evaluation form was then returned to the Company Secretary, to collect and analyze the assessment results and to debrief the Chairman of the Board of Directors. The Chairman then announced the assessment results during the following Board of Directors meeting for acknowledgement.

9.2 Subcommittees of the Board of Directors

9.2.1 Audit Committee

In accordance with the SET Notification Bor.Jor./Ror. 01-07, dated 22 January 2001 ("Re: Maintaining the Status of Listed Companies in the Exchange, 2001"), listed companies are required to have a good corporate governance system by forming an Audit Committee to govern activities and operations, in order to ensure effective internal controls, compliance with laws/regulations, adherence to relevant standards, and efficient operations.

Hence, the Company's Board Meeting prescribes this Audit Committee Charter, as follows:

Appointment

The Board of Directors of the Company shall appoint the members of the Audit Committee.

Composition and qualifications

The Audit Committee shall consist of at least three Independent Directors who are members of the Board of Directors of the Company, one of whom shall act as the Chairman.

The Audit Committee qualifications shall comply with the relevant laws/regulations of the SET, and at least one member should have finance or accounting management expertise.

Appointment of a secretary shall be at the discretion of the Audit Committee.

The Audit Committee is currently comprised of the following four committee members:

| Name | Position |
|---|--|
| 1. Mrs. Supapun Rattanaporn ¹ | Independent Director and Audit Committee Member |
| 2. Mrs. Saowanee Kamolbutr | Independent Director and Chairman of the Audit Committee |
| 3. Mr. Jukr Boon-Long | Independent Director and Audit Committee Member |
| 4. Mrs. Patareeya Benjapolchai ² | Independent Director and Audit Committee Member |

Notes:

- 1) Resigned from member of the Board of Directors, and Audit Committee member on 23 April 2019.
- 2) Appointed to be the Audit Committee member as replacement of Mrs. Supapun Rattanaporn on 23 April 2019.

Meetings of the Audit Committee shall be held at least four times a year. As of 7 May 2019, there were two ordinary meetings and one extraordinary meeting without management.

Duties

Duties of the Audit committee according with the SET requirements shall be as below:

- To review the sufficiency, reliability and objectivity of the financial reporting by coordinating with the external auditors and management who are responsible for preparing the quarterly and yearly financial reports.
- To review the adequacy and effectiveness of internal control systems and internal audit functions by coordinating with the external auditors and internal auditors.
- To review compliance with the Securities and Exchange Act, relevant laws/regulations and guidelines of the SET, and any other relevant laws/regulations of Thailand.
- To consider and advise the appointment of the external auditors including the audit fee by considering the credibility, the adequacy of its resources, the volume of engagements, the experience and the independence of the external auditors.
- To review the non-audit services of the external auditors, in order to maintain the independence of the auditors (internal or external) in conducting the audits.
- To consider the connected transactions, or the transactions that are likely to lead to conflicts of interests, to ensure that they are in compliance with relevant laws/regulations of the SEC and the SET, and are reasonable, and for the highest benefit of the Company, including having appropriate disclosure of these transactions.
- To report the activities of the Audit Committee in the Company's annual report, as signed by the Chairman of the Audit Committee.
- To act as the Corporate Governance Committee to ensure that the Company has effectively complied with good corporate governance framework to protect the reputation of the Company and the interest of all Stakeholders.
- To perform other matters assigned to it by the Board of Directors and agreed to by the Audit Committee.
- The Chairman of the Audit Committee and its members shall attend the Company's Annual General Meeting of the Shareholders.

9.2.2 The Nomination and Remuneration Committee**9.2.2.1 Purpose and objectives**

The role of the Nomination and Remuneration Committee is to propose to the Board of Directors, in the first instance, any new appointments, whether of executive or non-executive

directors, and recommend a successor to the CEO and top executives when considered necessary, as well as to make recommendation for development of a succession plan for the CEO and top executives of the Company. The Nomination and Remuneration Committee reviews Board membership on a regular basis, considering, among other things, the length of service of members, their contribution to the work of the Board of Directors and the breadth of expertise of the Board of Directors as a whole.

The Nomination and Remuneration Committee is also responsible for recommending to the Board of Directors the remuneration arrangement for non-executive and independent directors of the Board of Directors.

In performing its duties, the Nomination and Remuneration Committee maintains effective working relationships with the Board of Directors, and each Committee member obtains an understanding of the detailed responsibilities of Nomination and Remuneration Committee membership as specified in this Charter.

The Nomination and Remuneration Committee defines, on behalf of the Board of Directors and the Shareholders, the Company's remuneration policy for the CEO and Executive Vice Presidents, and determines their specific remuneration, benefits and terms of employment, including pension rights and any compensation payments, and monitors implementation of the Company's human resources policies and processes. On an annual basis, the Nomination and Remuneration Committee, on behalf of the Board of Directors, receives the annual performance assessment of the CEO and the top management.

9.2.2.2 Authority

The Board of Directors authorizes the Nomination and Remuneration Committee, within the scope of its responsibilities, to propose candidates with proper qualifications to the Board of Directors, and make all decisions relevant to this Charter (other than where the approval of Board of Directors is specifically required), and to have access to professional advice inside and outside the Company at the Company's expense, subject to the prior approval of the Board of Directors.

9.2.2.3 Organization

Membership

- The Nomination and Remuneration Committee shall be appointed by the Board of Directors.
- The Nomination and Remuneration Committee shall be comprised of Non-Executive Directors.
- The Nomination and Remuneration Committee shall be comprised of three members from the Board of Directors, one of which shall be an Independent Director.
- The quorum for the Nomination and Remuneration Committee meetings shall be at least two members.
- Each member shall be capable of making a valuable contribution to the Nomination and Remuneration Committee.

- The Chairman of the Nomination and Remuneration Committee shall be the Chairman of the Board of Directors, or a Non-Executive Director appointed by the Board of Directors.
- The term of office for Nomination and Remuneration Committee members shall be three years to ensure continuity. Members shall be permitted to be re-elected for another term, if the Board of Directors or the Shareholders Meeting deems it necessary.
- The secretary of the Nomination and Remuneration Committee shall be nominated by the Board of Directors.
- All members shall be totally independent with no financial interest, other than as Shareholders, in the matters to be decided, no potential conflicts of interest in the decisions made arising from cross-relationships, and no involvement in the day-to-day management of the Company.

The Nomination and Remuneration Committee is currently comprised of the following five members:

| Name | Position |
|--|---|
| 1. Mr. Jan Franciscus Maria Flachet ¹ | Non-executive Director and Chairman of the Nomination and Remuneration Committee |
| 2. Mr. Paul Francis Maguire ² | Non-executive Director and member of the Nomination and Remuneration Committee |
| 3. Mrs. Saowanee Kamolbutr | Independent Directors, Chairman of the Audit Committee, and Nomination and Remuneration Committee |
| 4. Police General Aek Angsanant ³ | Non-executive Directors, Chairman of the Nomination and Remuneration Committee |
| 5. Mr. Chawalit Tippawanich ⁴ | Non-executive Director and member of the Nomination and Remuneration Committee |

Notes:

- 1) Resigned from Chairman of the Board of Directors and Chairman of the Nomination and Remuneration Committee on 14 March 2019.
- 2) Resigned from member of the Board of Directors and member of the Nomination and Remuneration Committee on 14 March 2019.
- 3) Appointed to be Chairman of the Nomination and Remuneration Committee on 14 March 2019.
- 4) Appointed to be member of the Nomination and Remuneration Committee on 7 May 2019.

Attendance

- The Nomination and Remuneration Committee shall be authorized to invite such other persons (e.g., Management representatives, external advisors) to its meeting as it deems necessary.
- Meetings shall be held at least one time per year. Additional meetings shall be convened as deemed necessary.
- All members of the Nomination and Remuneration Committee shall be expected to attend meetings in person or via telephone/video conference.
- Meeting agendas shall be the responsibility of the Chairman of the Nomination and Remuneration Committee, with input from members of the Nomination and Remuneration Committee. Meeting agendas, along with appropriate briefing materials, shall be provided to the Nomination and Remuneration Committee members in advance of meetings.
- Minutes of Meetings shall be prepared by the secretary and distributed to all members within 48 hours of each meeting. Minutes of the meetings shall be confirmed at the next meeting of the Nomination and Remuneration Committee.

9.2.2.4 Roles and responsibilities

Nomination

Nomination responsibilities include:

- Review and recommend the criteria for Board of Directors membership and required qualifications.
- Review the composition, size and experience of the Board of Directors on a regular basis, including current and future requirements, having regard in part to regulatory constraints.
- Make recommendations to the Board of Directors of candidates with proper qualifications for the Board of Directors to submit for appointment to the Annual General Meeting of Shareholders.
- Seek proposals of individuals for appointment as independent members of the Board of Directors.
- Ensure that new members to the Board of Directors participate in the orientation program for new Directors.
- Review and recommend to the Board of Directors the remuneration arrangements for non-executive and independent directors of the Board of Directors, including their responsibilities for Nomination and Remuneration Committee activities, for subsequent approval by Shareholders.
- Make recommendations to the Board of Directors for the successor to the CEO, when considered necessary.
- Develop a succession plan for the CEO that considers both potential internal and external candidates.

Remuneration

Remuneration responsibilities include:

- Review the Company's annual remuneration strategy, and recommend strategy to the Board of Directors for endorsement.
- Establish guidelines for remuneration on the initial appointment of the CEO and the Executive Vice Presidents of the Company.
- Ensure that a proper system of long-term and short-term compensation is in place to provide performance-oriented incentives to management.
- Monitor implementation of the Company's human resources policies and processes, including management development programs for Executive Vice Presidents.
- Evaluate the CEO's performance based on a personal development plan, which incorporates short-term and long-term objectives, together with performance targets linked to the Company's strategy. Determine the salary and benefits annually at the end of each financial year.
- Ensure that the Company's remuneration packages are competitive in view of industry practices, and judge where to position the Company relative to other similar companies with respect to salaries and relevant performance of comparable peers.
- Establish a remuneration policy and package designed to attract, retain and motivate staff of outstanding ability and of the quality required; however, the Nomination and Remuneration Committee shall avoid, where possible, paying more than necessary for this purpose.
- With respect to early retirements for the Executive Vice Presidents, the Nomination and Remuneration Committee should avoid rewarding poor performance, while dealing fairly with cases where departure is not due to poor performance.
- Ensure that succession plans for CEO and Executive Vice Presidents are reviewed periodically through assessment of specific Executive Vice Presidents positions and qualified potential replacements.

Salary and benefits of CEO and Executive Vice President

- Review the salary and benefits of the CEO, and on the recommendation of the CEO, review the salaries and benefits of individual Executive Vice Presidents, at the end of each financial year, based on performance assessment and operational performance of the Company.

Bonus of CEO and Executive Vice Presidents

- Implement an annual performance related bonus scheme for the CEO and Executive Vice Presidents.
- Approve the objectives and the compensation (which, for Executive Vice Presidents, is proposed by the CEO).

- Annual performance bonus should be a percentage of base salary, and depend upon the achievement of individual performance targets, which reflect the Company's strategic objectives and the individual's contribution to such objectives.
- Bonuses shall be aligned to give the CEO and Executive Vice Presidents incentives to perform at the highest levels.

Long term incentive plan

- Review and approve employee long term incentive plans of the Company.

Pensions and life assurance benefits

- Assess reasonableness of pensions and life assurance benefits of employees. In principle, pensionable salary shall not include annual bonuses or the value of other contingent benefits.

Aggregate salary and bonuses

- Review the aggregate salary, benefit and bonus package of employees, with a review of each individual package that exceeds the maximum level under the applicable Company grading system.

Notice period for resignation of CEO and Executive Vice Presidents

- Establish notice periods for the CEO and Executive Vice Presidents at initial appointment. Notice periods shall not be less than 3 months.
- Approve the terms and conditions of early retirement for the CEO and Executive Vice Presidents.

9.3 Code of Conduct

The Company is committed to conducting its activities and operations in full compliance with laws/regulations of the countries in which we operate, as well as complying with GLOW Group Charter. This includes conforming to locally accepted standards of good corporate citizenship, complying with ethical principles as occasionally announced by its group company, and ensuring that interests of its Shareholders are best served and the investments they make are realized.

- The Company's activities and operations shall be carried out in strict compliance with all applicable laws, and relevant rules and regulations of the countries in which the Company operates, and in line with GLOW Group Ethics Charter and the Company's Anti-Bribery Policy.
- In each of its decisions regarding its activities and operations, the Company shall respect the environment (both our natural and human environment), and take into account the direct and indirect impact of its activities and operations on the environment in order for the Company to conduct itself as a business leader responsible for the sustainable development of its business. Under this environmental and social responsibility, the Company shall be committed to its Environmental Policy in order to encourage concern and respect for the natural and human environment.

- Employees shall ensure that the Company deals in all fairness with its customers, suppliers, contractors, competitors and any stakeholders in order to conduct its activities and operations. In its relations with government authorities, customers and suppliers, the Company shall not, directly or indirectly, engage in bribery, kickbacks, payoffs, or other activities which is possible to be construed as corrupt business practices.
- The use, directly or indirectly, of the Company funds for political contributions to any organization or to any candidate for public office shall be strictly prohibited, where such contributions are forbidden by applicable laws/regulations. Where such contributions are lawful and organized within a legal framework, they shall be kept at a minimum, shall be made in a fair and prudent way avoiding any partisan or one-sided attitudes, shall not be made to organizations or candidates holding extremist views, and shall be approved by CEO.
- Sales and marketing agents, representatives and consultants shall be retained and paid only if they operate independently from the Company, and in conformity with applicable laws/regulations. All legally binding contracts, agreements, commitments or engagements shall be made in writing. Compensation shall be comparable to that paid to similar agents for similar work, and shall be in accordance with the applicable detailed policy.
- The Company funds and assets shall be utilized solely for lawful and proper business purposes. Transfer or expenditure of such funds or assets shall be undertaken only if the stated purpose is in fact the actual purpose. The transfer or expenditure of such funds and assets shall be authorized in writing in accordance with established policies/procedures. No false or artificial entries shall be made in the Company books and records for any reason, and all financial transactions shall be accurately and properly accounted for in those books and records.
- Employees shall not take advantage of, commercialize, or exploit any of the Company's information or property, or their position within the Company for the purpose of inappropriate personal gains or opportunities.
- In principle, employees shall not offer/accept gifts or hospitality in connection with, or because of, the Company's activities and operations. Nevertheless, in accordance with Gifts and Hospitality Procedure, courtesy considerations are permitted to lead to their acceptance, and such gifts or hospitality shall be limited in number and associated with local occasions which justify them according to local customs. Employees shall not offer/accept cash from any the Company customer, supplier or business associate, and only offering/accepting gifts or hospitality of a reasonable amount shall be permitted. Employees shall be permitted to offer/accept gifts or hospitality, only if such gifts or hospitality have no influence on their decision making, and are not illegal under applicable laws/regulations.
- Directors or employees shall avoid conflict of interest situations between their direct or indirect personal interests (including their family members and friends) and the interests of GLOW Group, where such conflict of interests have the potential to undermine objective and independent decision-making of Directors or employees. Typical conflict situations include providing services to (whether as an employee or otherwise), or owning shares or stock options in business entities which are competitors, customers, suppliers of GLOW Group (Exception: Minor shareholdings of less than 1% in listed companies are not considered to be conflict of interest situation) (for detailed guideline on this topic, please refer to GLOW Group Conflict of Interest Policy and Code of Director's Conduct in Appendix).

- The Company employees shall not accept shares or stock options of any related companies, other than the Company.
- Employees shall notify their Direct Superior of any actual or potential conflict of interest situation, and obtain a written ruling as to their individual case (which, in the case of Directors or Executive Vice Presidents are permitted to only be given by the Board of Directors or one of its committees, and shall also be disclosed to Shareholders), in accordance with the process described in GLOW Group's Conflict of Interest Policy.
- Employees shall not buy or sell shares or other securities of a business undertaking, or give advice on such buying or selling, if he/she has access by reason of his/her professional activities with the Company, to any non-public information about that business undertaking (whether a part of the Company or not). Trading by Directors or employees of the Company shares or stock options shall be subject to Insider Trading Policy.
- All employees shall be treated fairly and equally in terms of accountability, rights, remuneration and labor practices, and in compliance with the labor laws/regulations. All benefits provided to the Company employees in addition to their standard remuneration (salary and bonus) shall be awarded in full compliance with corporate guidelines and laws/regulations (including tax regulations), and shall remain in line with local practice.
- The Company shall respect the privacy of data relating to individual persons (whether employees or third parties) that it holds or handles as part of its information processing activities or otherwise, and shall support and respect, within its sphere of influence, the protection of international human rights set out in the United Nations Universal Declaration of Human Rights.
- Employees shall maintain the confidentiality of the Company's all corporate non-public information that is made available to them. The Company shall recognize Intellectual Property Rights and other proprietary information as a central Shareholder value. The Company shall take every appropriate action to preserve and enhance its Intellectual Property, and shall respect the Intellectual Property Rights of others.
- All Directors and employees in the Company shall strictly comply with this Code of Conduct accordingly, and shall be responsible for the continued enforcement of, and compliance with, this Code of Conduct, including necessary communication and training, in order to ensure their knowledge and compliance. Non-compliance with this Code of Conduct shall result in disciplinary measures.
- Any employee facing difficulties in understanding or application of this Code of Conduct shall consult with their Direct Superior. Any reports of violations of this Code of Conduct by an employee to his/her Direct Superior, or directly to the Company's Ethics Officer, shall be treated seriously and confidentially, provided that they are made in good faith and properly documented. The Company shall not take any retaliatory action against employees or Directors who make such reporting in aiming to comply with this Code of Conduct.

This Code of Conduct shall be treated as a part of the Company's rules and regulations, and all Directors and employees shall strictly comply with it accordingly.

9.4 Anti-Bribery policy

The Company does not tolerate bribery or any other form of corrupt business behavior:

- This Anti-Bribery Policy applies to all the Company activities and operations with the public and private sectors.
- Bribery is against the laws of many countries, and it is the very opposite of everything the Company stands for. The Company requires compliance with the highest ethical standards and all laws/regulations that apply to our business. The Company values integrity and transparency, and prohibits corrupt activities of any kind, whether committed by the Company employees or by third parties acting for or on behalf of the Company.
- Violations of this policy have serious, including criminal, consequences for individuals, as well as for the Company. Hence, the Company employees and third parties acting for, or on behalf of, the Company will be held accountable, if they do not comply with this policy.
- The Board of Directors closely oversees the Company's bribery prevention policies, procedures and processes. It is the firm intention of the Company Executive Management team to ensure that anti-bribery policies, procedures and processes are embedded in the Company organization, and the conduct of our business, under the responsibility of the Company line managers and business process owners. To support this policy, a dedicated ethics and compliance responsibility is included in the mission of the Company Ethics Officer.
- The Company is committed to conducting business in full compliance with local anti-bribery laws/regulations and its Ethics Charter. The Company regards compliance with anti-bribery laws/regulations as crucially important, and everyone who acts for, or on behalf of, the Company is expected to apply the highest standards of integrity to all their activities, and to comply fully with the Company ethical principles, policies, procedures and processes. This will ensure that the Company's activities and operations are aligned with ethical responsibilities, and maximize the long term sustainability of our business and of the communities in which we operate.
- No one acting for the Company is allowed to offer or to give any form of advantage, whether monetary or otherwise, to any individual or company, in order to influence their behaviour contrary to honesty or integrity, or with the aim of gaining a commercial advantage. Further, no one is allowed to request, to agree to receive, or to accept such an advantage.

This Anti-Bribery Policy shall be treated as a part of the Company's rules and regulations, and all Directors and employees shall strictly comply with it accordingly.

9.5 Insider Trading Policy

The Company has been a listed company on the Stock Exchange of Thailand ("SET") since 21 April 2005. The Company has complied with the Corporate Governance Policy to establish guidelines for proper practice to which all relevant persons must adhere.

In order to comply with the Securities and Exchange Act B.E. 2535 (as amended)¹ (the “SEC Act”) relating to insider trading and the insider trading guidelines as published in SET Notification Re: Guidelines on Disclosure of Information of Listed Companies, the Board of Directors has notified (i) all directors; (ii) management/executives; (iii) committee members; (iv) officers and employees at all levels who gain, or have access to, non-public information of GLOW Group which is material to changes of price or value of GLOW’s securities, including non-public information which would likely affect investors’ decision to purchase or sell GLOW’s securities or cause damages to the investors in respect of their investment in GLOW’s securities (the “Inside Information”) ²; (v) the family members³ of the persons as mentioned in (i) to (iv) above, of GLOW Group (collectively, the “Relevant Persons”) to comply with this Insider Trading Policy as follows:

- The Relevant Persons must strictly comply with laws and regulations in relation to securities and derivatives trading and the use of Inside Information.
- The Relevant Persons must at all times keep the Inside Information confidential; shall strictly take all reasonable precautions with the Inside Information or information which is intended to be used solely for GLOW Group’s purposes or to which the Relevant Persons have access temporarily; and must not disclose any Inside Information to any persons, for personal benefit or disclose or exchange any such information for their own interest or in the interest of others or for any reasons, whether directly or indirectly and by any means. The Relevant Persons may, however, disclose the Inside Information to those whose positions require them to know the Inside Information.
- The Relevant Persons must not at all times use the Inside Information to purchase or sell GLOW’s securities or to enter into derivatives contracts relating to GLOW’s securities, for their own or anyone else’s benefits. In addition, the Relevant Persons, shall also be prohibited from carrying out any transaction involving GLOW’s securities or derivative contracts relating to GLOW’s securities during a period starting from the first day of each calendar quarter to the date on which GLOW has published its reviewed/audited financial statements to the SET, which in any event, will not exceed 45 calendar days (the “General Blackout Period”). The relevant General Blackout Period will be duly notified to the Relevant Persons.
- The Relevant Persons shall not disclose or certify any false or misleading information relating to GLOW Group’s financial conditions, business operations, price of GLOW’s securities or value of derivatives contracts relating to GLOW’s securities or any other information relating to securities issued by GLOW or derivatives contracts relating to GLOW’s securities.

¹ In particular, the Securities and Exchange Act (No. 5) B.E. 2559 which was enacted to amend, among other things, the provisions relating to the insider trading and price manipulation.

² “**Inside Information**” is non-public information which is material to changes of price or value of securities including financial information or financial statements, potential major disposal or acquisition or potential joint venture, execution of significant agreements, entering into major customer agreements, material operational events, insurance claim, lawsuit, and the like, etc.

³ “**Family members**” means (1) ascendant, descendant, child adopter or adopted child, (2) sibling of the same blood parents or sibling of the same blood father or mother, and (3) spouse or cohabiting couple, including that of the persons under (1) or (2).

- All Directors and employees with the position at VP level and higher have a duty to disclose their holdings of GLOW's securities as well as the acquisition and disposal of GLOW's securities in accordance with the notification of the Office of the Securities and Exchange Commission. Their holding of GLOW's securities includes the holding of GLOW's securities of the spouse and minor children.

The acquisition or disposal of GLOW's securities must also be reported to GLOW's Senior Vice President or Vice President of Finance & Investor Relations Department within three working days after completion of the acquisition or disposal.

- The Relevant Persons shall not use the Inside Information even after their employment with GLOW Group has ended.

For this year, there has been no change in securities holding of the Company's Directors and Executives Committee including their spouse and minor children for the period of 1 January 2018 to 31 December 2018.

9.6 Ethics reporting (whistleblowing) procedure

The Company provides a channel through which an informant, be it an employee or somebody from third party, can report unethical business practices, any non-compliance of the Company's Corporate Governance Policy (especially the anti-bribery policy and the insider trading policy), any violation of rights, or any other ethical concerns. The Company's Ethics Officer is responsible for receiving such reports from the informant, and then proceeds with the investigation if the Ethics Officer considers that such report has valid grounds. The report, as well as the information relating to the informant, is kept strictly confidential, shall not be publicly disclosed, and shall be used only for the purpose of the investigation.

The Company also provides protection measures, as well as non-retaliation measures, to the whistleblower, as well as all relevant witnesses, during and after the investigation, provided that the complaint is made in good faith.

The Company's Ethics Officer prepares a summary and progress of the investigation in accordance with the process under the Ethics Compliance Management Procedure on an annual basis.

9.7 Resources

The Company has issued a policy regarding the efficient utilization of resources. Especially given the fact that the Company is in the energy business, it recognizes the value of all resources, including water, electricity and other supplies. The Company for instance encourages its employees to reuse paper for internal matters, as well as to switch off the computers and other electricity before they leave the office.

9.8 Management control of subsidiaries/affiliates

The Company appoints and nominates its member of the Board of Directors and/or managements to be members of the Board of Directors of subsidiaries and affiliates. For existing subsidiaries in which we hold more than 90% stake, including Glow IPP, Glow SPP 1, Glow SPP 2, Glow SPP3, Glow SPP 11, Glow Company, Glow IPP 2 Holding, and Glow IPP 3, all board members are appointed by the Company.

For other subsidiaries and affiliates, the number of Board members who are nominated by, and represent the Company are:

- GHECO-One (65% stake): 5 out of 8 board members;
- Houay Ho Power (67.25% stake; direct and indirect holding): 4 out of 9 board members;
- Houay Ho Thai (49% stake): 2 out of 5 board members; and
- Glow Hemaraj Wind (33% stake): 2 out of 6 board members.

Although separate companies within our corporate group own our key operating assets, we maintain a single centralized management structure for all of our companies and assets. This allows us to effectively monitor and coordinate our operation and management of all key operating assets.

9.9 Auditor's Fee

Auditor's remuneration for the period of 1 January 2019 to 31 December 2019 consists of:

| Unit: THB | | |
|---------------------------|--------------------|---------------------|
| Items | The Company | Subsidiaries |
| Audit fee | 944,500 | 5,760,925 |
| Non-audit fee | | |
| Review of Financial ratio | - | - |
| Agree-upon procedure | 180,000 | 180,000 |
| Other | - | - |

9.10 Other Good Corporate Governance Practices

The Company governs the business operations with the Corporate Governance, Code of Conduct and Code of Ethics and the international best practices by integrating them with our existing practices, taking into account the current business environment and the benefits for the Company, our shareholders and stakeholders. Some of the practices resulting from our continuous effort to follow best practices in term of corporate governance established by SET such as follows:

- The right to attend a shareholder meeting must be carefully examined to ensure that granting of a proxy is conducted properly to not interfere with rights of the shareholders who attend the meeting.
- The Company's Articles of Association (AoA) stipulates that the number of directors shall not be less than 5 but not greater than 15. As of 31 December 2018, the Company has 12 directors. This is in line with the Company's AoA and the business environment of the power production business where experts from numerous

disciplines are required in order for the directors to adequately and effectively contribute and monitor various areas of the business operations.

- The Board of Directors comprises of directors representing a mix of balanced skills in several fields which are beneficial for the power production business. The Nomination Committee values candidates with diverse skills, experiences, expertise, and other qualifications during the nomination process to ensure that the Board's composition is complete and most suitable to Company and the group. In addition, we also have a policy against gender and racial discrimination.
- Although the Company currently has a free float ratio of less than 40 percent of the total paid-up shares, the Company always protects the rights of the minority shareholders by periodically communicating information beneficial to the shareholders.
- The Company schedules meetings in advance throughout the year and always makes sure the directors will be available to attend the meetings. Before voting at the meetings, the Chairman allows all directors to ask questions and discuss various issues in detail in order to ensure that the Board's resolutions have unanimous consent.
- The Company does not have a policy requiring directors and senior management to report to the Board on their GLOW stock trading activities at least one day in advance due to the fluctuation of the share price in the market. The Company however has established a policy regarding prevention of the use of internal information to prevent our directors, management and employees from making use of such information for personal or others' benefits. All directors and senior management are required to report their GLOW stock trading activities. In addition, the Company also has enforced the Insider Trading Policy, in accordance with the Securities and Exchange Commission Act (5th Amendment) put in to force in 2016, with a General Blackout Period that prohibits directors, senior executives, and all employees of the group from trading GLOW stock during specified periods leading to disclosures of the Company's significant information to the public.
- Following the good guidelines of the Corporate Governance, the Company attempts to distribute the invitation letter of the AGM well ahead of the meeting date to provide the Company's shareholders with sufficient time to review the agenda. Currently, the Company is typically able to distribute the invitation letter 21 days prior to the date of the meeting, and is able to publish it on in the Company's internet website at least 30 days in advance prior to the date of the meeting.

10. Corporate Social Responsibility

10.1 GLOW's Sustainability

Sustainability is our approach to managing current and future economic, environmental and social opportunities and risks in order to achieve profitable growth and to provide sustainable and reliable energy solutions to our customers.

10.1.1 Our sustainability vision

To become a leading power generation company providing sustainable and reliable energy solutions based on the innovative use of diversified energy sources.

10.1.2 Our sustainability mission

- Create value for our shareholders and customers in a sustainable manner through reliable products, profitable growth and knowledgeable employees with network of expertise.
- Perform the business by developing and implementing environmentally and socially responsible projects while improving the quality of life of communities in areas where we do business.

10.1.3 Our core values on sustainability

- Operational excellence and profitable growth
- Providing reliable energy solutions
- Occupational health and safety
- Having knowledgeable employees who are part of a network of expertise
- Strong corporate governance, ethics and compliance
- Environmental sustainability
- Improving the quality of life for communities in areas where we do business

10.1.4 Our commitment to sustainability

- Reduce production costs and increase productivity
- Satisfy and retain existing customers, and attract new customers
- Ensure Health and Safety of all stakeholders
- Skills development and vocational training for staff
- Compliance with applicable laws, relevant rules and regulations
- Control and improve emission levels
- Build relationships and maintain trust with communities

10.2 Approach to Managing Sustainability

10.2.1 Governance

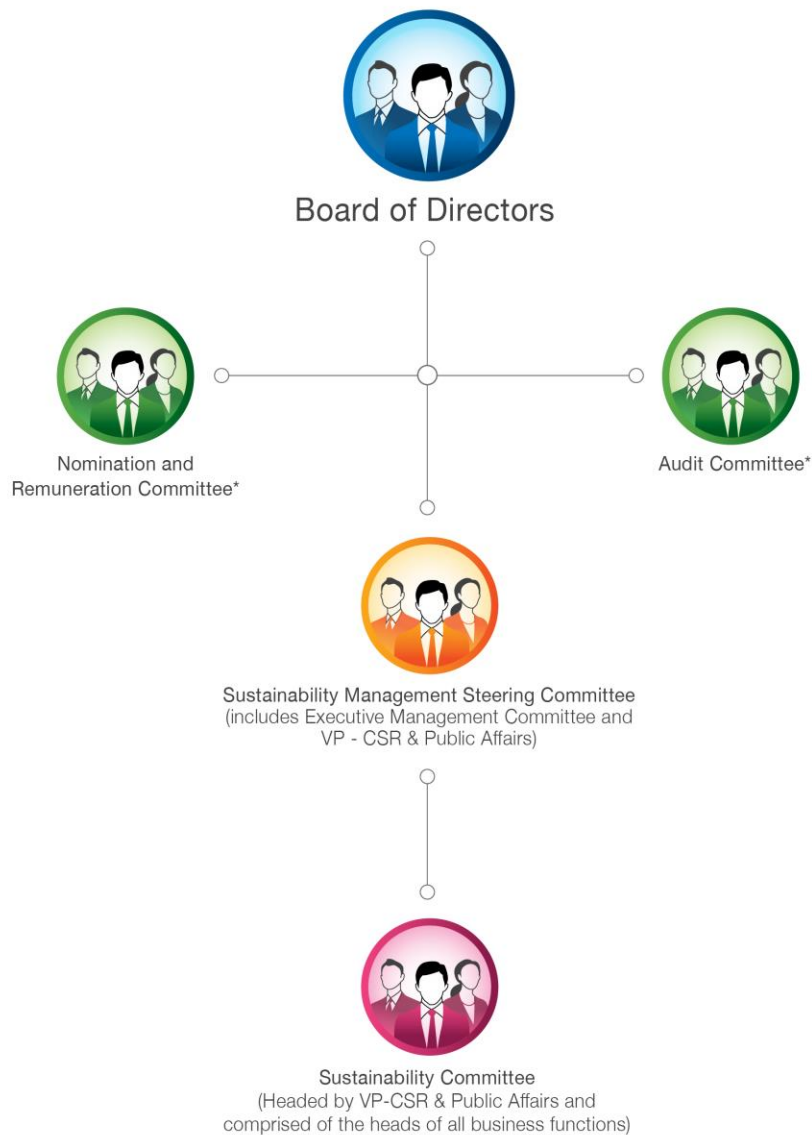
GLOW acknowledges that our decisions and activities can impact society and the environment. We recognize the importance of our stakeholders and their roles in our sustainable development.

The Board of Directors and Executive Management Committee (EMC) are GLOW's highest governing bodies. They are responsible for the strategic direction of the organization and the effective monitoring of performance. The EMC, which as of the end of 2018 comprised six men and one woman, meets monthly to discuss performance and future plans. The Board of Directors, which as of the end of 2017 was comprised of nine men and three women from five different countries, being Thailand, Belgium, France, Australia and Hungary, meets quarterly, as well as on other occasions, to approve the

quarterly operational performance, financial statements and to provide guidance on strategic matters, including in the area of sustainable development.

Our sustainability management structure comprises two committees, which are the Sustainability Management Steering Committee and the Sustainability Committee. The Steering Committee’s role is to define our strategies and targets in the area of sustainability and report to and seek advice and support from the Board of Directors on sustainability-related issues. It also works closely with the Sustainability Committee to drive our sustainability practices to have more systematic planning with concrete targets as we have committed in our “2020 Sustainability Targets”.

▶ GOVERNANCE Sustainability Management Structure



*Note : The Nomination and Remuneration Committee and Audit Committee are existing committees under the Board of Directors.

| Aspect: | Business Development | | Operational Excellence / Environment | | Employees | | Ethics and Compliance | Communities |
|------------------------|---|---|--|--|--|--|--|---|
| Most Material Aspects: | Innovation | Reliable and Sustainable Energy Supply | Environmental Management and Climate Change | Occupational Health and Safety | Human Capital Development | Corporate Governance and Anti-Corruption | Livelihood of Local Communities | |
| Target: | SmartSave Program • Initial target saving amount (2016-2018) THB 750 million | SAIFI: Interruption per customer per year less than 0.4 | Ensure water efficiency not more than 0.8 (m ³ /KWh for electricity generation) | • Establish at least 5 low carbon projects • All plants in MTP certified as Eco-Factory | • 100% of liaison persons (including contractors) have received H&S training • Zero frequency rate of occupational accidents for employees, contractors | • 80% staff participation in employee engagement • 100% of employees complete at least 1 training course per year | 100% of executives received anti-corruption training | • 10,000 beneficiaries of "Solar for Schools" or other energy-related CSR projects in off-grid areas in Thailand • Establish at least 1 CSV (Creating Shared Value) project • 100% of sites have integrated environmental management plan drawn up in collaboration with stakeholders |

10.2.2 Compliance

GLOW’s activities and operations are carried out in full compliance with all applicable laws and relevant rules and regulations of the countries in which we operate.

We regard compliance with anti-bribery laws as crucially important and everyone who works for GLOW is expected to apply the highest standards of integrity to all their activities and to comply fully with our ethical principles, policies, procedures and processes.

Our Code of Conduct and related policies, including Anti-bribery Policy, Conflict of Interest Policy, Gifts and Hospitality Procedure and Insider Trading Policy, set out ethical principles that guide the work we undertake and our interactions with stakeholders. We regularly update them to our employees and ensure the implementation of ethical principles in GLOW’s development strategies and activities.

Our Ethics Officer answers employees’ questions and gives advice on ethics and compliance; runs awareness-raising, training and communication initiatives and identifies the entity’s ethical risks.

In 2018 GLOW Group had no cases of non-compliance with laws and/or regulations including social, economic and environmental laws and/or regulations.

10.3 Stakeholder Engagement

Stakeholder management is of the utmost importance to GLOW Group. We have a range of internal and external stakeholders that we engage through a variety of mechanisms to gain an understanding of their expectations and concerns which have been identified and prioritized as our “material aspects” on which we have based our business and sustainability strategy.

GLOW conducts a stakeholder engagement survey every year and maps stakeholders in relation to issues that matter to GLOW. We have 18 categories of stakeholders which can be classified into 7 main groups:

1. Shareholders and Investors

2. Customers
3. Business Partners
4. Employees
5. Government Agencies
6. Communities/Society
7. Other Related Organizations

In addition to an annual stakeholder engagement survey, our Sustainability Committee also conducts dialogues with relevant stakeholders at regular intervals to identify and respond to their needs and expectations. The survey and these regular dialogues, either directly or via proxies, i.e. our employees who provided inputs that they have received from stakeholders, allow us to better meet the needs and expectations of our stakeholders.

In 2018, we engaged with our internal proxies to confirm concerned issues and below is the result of the engagement:

| Group | Stakeholders | Engagement Channels | Concerns and Expectations |
|-------------------------------|-----------------------------------|--|---|
| 1. Shareholders and Investors | • Shareholders/Investors | • Shareholders Meeting • Open-house activity | • Equal rights for every shareholder • High return on investment/dividend • Transparency of information disclosure especially with small shareholders |
| | • Analysts | • Quarterly Analyst Briefing | |
| | • Financial Institutions | | • NPLs or postponed payments • payment guarantee |
| 2. Customers | • Customers | • Seminars • Customer Satisfaction Survey | • Reliability and immediate problem-solving |
| 3. Business Partners | • Contractors | • Contractor Meeting Day | • On-time payments • Abide by the contracts |
| | • Fuel Suppliers | | |
| | • Technology Suppliers | | |
| | • Professional Consultants | | |
| 4. Employees | • Employees | • Internal Affairs Committee (IAC) meetings • Welfare Committee meetings • Quarterly Briefings • Suggestion Box | • Safety/standard equipment provided • Good compensation and benefits • Fair treatment and comply with the labor laws |
| 5. Government Agencies | • Government Authorities (Energy) | • Meetings and seminars | • Compliance with the laws and regulations |

| Group | Stakeholders | Engagement Channels | Concerns and Expectations |
|--------------------------------|---|---|--|
| 6. Communities/ Society | <ul style="list-style-type: none"> • Government Authorities (Others) • Local Communities | <ul style="list-style-type: none"> • Public Consultations • Tripartite Committee meetings • Plant visits by various environmental management monitoring committees and communities • Knock-door visits • Open-house activity • Public Consultations | <p>Concerns:</p> <ul style="list-style-type: none"> • Economic • Environment • Health • Pollution <p>Expectations:</p> <ul style="list-style-type: none"> • Career promotion • Support for local economy and business • Environmental care • Educational support, such as scholarships, English development activities, etc. |
| | <ul style="list-style-type: none"> • NGOs and Non-profit Organizations (NPOs) • Media | <ul style="list-style-type: none"> • Public Hearings • Press conferences | <p>Concerns:</p> <ul style="list-style-type: none"> • More pollution and destruction of natural resources as a result of our business operations • Compliance with the laws and regulations <p>Expectations:</p> <ul style="list-style-type: none"> • Effective environmental measures • Community involvement in project monitoring • Disclosure of information that is transparent and credible • Effective measures in case of emergency and impacts on communities |
| 7. Other Related Organizations | <ul style="list-style-type: none"> • Competitors • Private Industrial Estates • Independent Organizations • Embassies | <ul style="list-style-type: none"> • Meetings | <ul style="list-style-type: none"> • Compliance with the laws and regulations • Disclosure of information that is transparent and credible |

In addition to such engagement, the company also has procedures that enable internal and external stakeholders to file complaints or make recommendations at all times. For more details, please refer to the **Corporate Governance and Anti-corruption** section.

10.4 Materiality Assessment

GLOW uses the GRI Standard Guidelines and the GRI G4 Electric Utilities Sector Supplement to inform the materiality assessment process. The materiality assessment sets out the targets for the next reporting year and guides the content of the Sustainable Development Report 2018.

10.4.1 Materiality Approach

GLOW conducts a formal materiality assessment in accordance with the GRI Standard guidelines to identify and prioritize our primary sustainability issues, as well as associated key performance indicators (KPIs) and targets for improvement.

The results of internal and external stakeholder engagement were the primary sources of potential material issues which had been reviewed by the **Sustainability Management Steering Committee** and the **Sustainability Committee** based on the Reporting Principles for defining report content:

- **Stakeholder Inclusiveness:** We value the opinion of our stakeholders, including employees, local communities and interest groups, non-governmental organizations (NGOs), customers, suppliers and contractors. In preparing our report, we are listening and responding to stakeholder's reasonable expectations and interests.
- **Sustainability Context:** We are moving towards more efficient and effective operations with fewer social and environmental impacts along the entire value chain. Our sustainability approach has been shaped by regulatory requirements, communities, the specific context of Map Ta Phut, the site of Thailand's largest industrial park, and most importantly rising concern over climate change impacts. We focus our efforts in the area of sustainability in three dimensions: environmental stewardship, social responsibility and economic prosperity.
- **Materiality:** We identify and describe the material issues that reflect significant economic, environmental and social impacts and are considered important to our stakeholders and business. The material issues set out our associated performance and KPIs as shown in the "2020 Sustainability Targets" in order to gear the organization to meet our sustainable development plan.
- **Completeness:** We defined the boundary for each material aspect to identify where the impacts occur and how we have been involved with those impacts during the reporting period. If the boundary is outside of GLOW, indicators are expected to be reported where data quality and availability allow.
- **Balance:** We report both positive and negative aspects of our performance as well as actions that we have taken to improve our performance.

Our materiality approach includes the following steps:

Step 1: Identification

We use the universe of potential issues identified by the GRI as a starting point and identified a range of potential issues that can be reasonably considered important for reflecting our social, economic and environmental impacts or influence the decisions of our stakeholders.

Step 2: Prioritization

We review the range of potential issues every year through the stakeholder engagement process*. Each material issue is assessed on a matrix in term of its importance both to GLOW and its stakeholders. We rank the issues based on the average score of frequency with which they are identified by both internal and external sources. We also use global trend to assess aspects that we considered important to our stakeholders on the Y-axis. This step allows us to prioritize issues in terms of low, medium and high importance.

Step 3: Validation

The ranking of each issue was reviewed and validated by the Sustainability Committee which comprises of representatives from different functions.

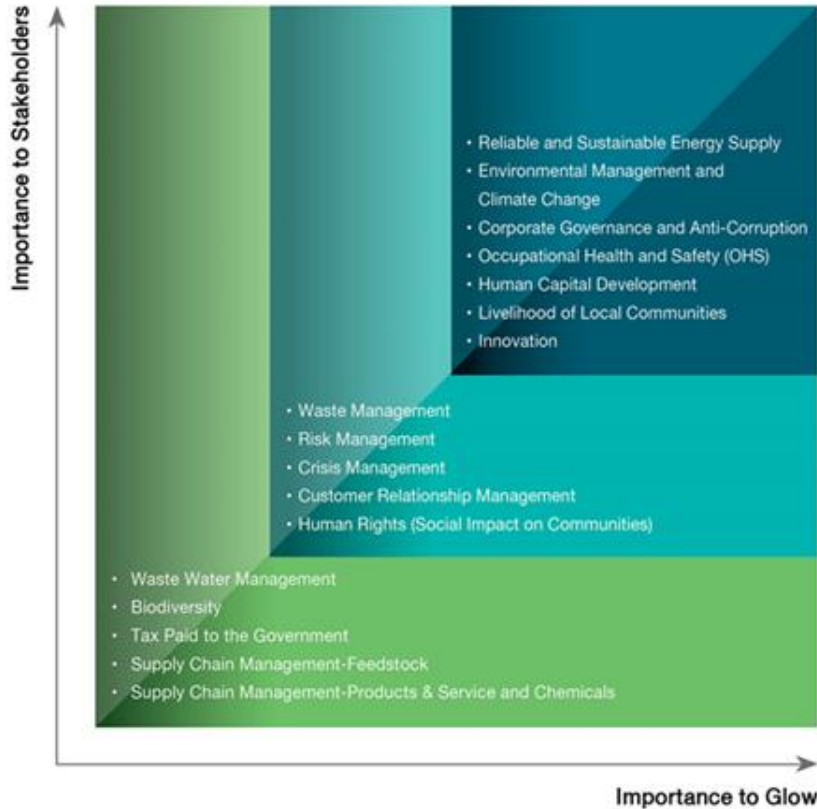
Step 4: Endorsement

Finally, the list of material aspects and their respective boundaries were reviewed and approved by the Sustainability Management Steering Committee which includes the Executive Management Committee.

***Note:** For more details of stakeholder engagement process, please refer to **Stakeholder Engagement** topic.

10.4.2 Materiality Matrix

We have reviewed our list of material aspects that we identified last year and conducted a stakeholder engagement process to reconfirm issues that are most material to us. The revised list comprises of 17 material aspects, seven of which are considered our most material aspects.



All of the above material aspects relate to our value chain. The seven most material aspects are the key elements of our business, requiring our greatest focus to obtain a “social license to operate” from our stakeholders. We have targets in place that have been developed specifically to address each of our most material aspects. Our progress against the targets and KPIs are provided in the **Most Material Aspects** section.

10.4.3 Summary of GLOW’s Most Material Aspects in 2018

| Most Material Aspect | Relevant Internal Stakeholders | Relevant External Stakeholders |
|--|--|--|
| 1. Reliable and Sustainable Energy Supply | Operation/Reliability and Integrity/Asset Optimization | Customers including EGAT and industrial customers |
| 2. Environmental Management and Climate Change | EH&S/All employees | <ol style="list-style-type: none"> 1. Government Authorities 2. Local Communities 3. Contractors 4. Suppliers 5. Private Industrial Estates 6. Professional Consultants 7. Independent Organizations 8. NGOs and Non-profit Organizations (NPOs) 9. Media |
| 3. Corporate Governance and Anti-Corruption | Legal and Corporate Affairs /All employees | All involved |
| 4. Occupational Health and Safety (OHS) | All employees, especially EH&S | <ol style="list-style-type: none"> 1. Contractors 2. Suppliers 3. Local Communities |
| 5. Human Capital Development | HR | Not applicable |
| 6. Livelihood of Local Communities | CSR and Public Affairs | <ol style="list-style-type: none"> 1. Local Communities 2. Government Authorities (Others) 3. Private Industrial Estates 4. NGOs/Non-profit Organizations (NPOs) 5. Media |
| 7. Innovation | Business Development/Operation | <ol style="list-style-type: none"> 1. Shareholders/Investors 2. Customers 3. Contractors 4. Local Communities |

10.5 Most Material Aspects

As the largest producer and supplier of electricity for industrial customers in Thailand, the most material aspects are considered important factors for GLOW to obtain a “social license to operate” from our stakeholders. By mapping our value chain and engaging our stakeholders at all levels, we can identify the aspects that are most important to our business. These most material aspects are the elements of our business requiring our greatest focus.

10.5.1 Reliable and Sustainable Energy Supply

GLOW is committed to operating the power generation business with ensured efficiency of both electrical and steam processes surpassing the industrial standards to ensure sustainable business operations for our customers.

The core of GLOW's business is to enable our customers to achieve their goals by providing reliable and sustainable energy. It is part of our duty to uphold our commitments to supply both electrical and thermal power efficiently and to properly meet the needs of our customers, the Electricity Generating Authority of Thailand (EGAT) as well as the industrial customers. Reliability can be considered to be the heart of the power generating business. It is among the top requirements of our customers, especially the petrochemical businesses, since any uncertainty in the electricity supply could inflict the consequences of financial losses for them and also have environmental impacts on the surrounding community.

Internally we have an extensive and yet sophisticated list of policies and procedures, each of which is specifically devised to set boundaries, guidelines, and best practices for all critical processes to guarantee the reliability of our energy supply.

On the preventive side, the Network Management Policies along with Reliability Taskforce Teams have been established with clear responsibilities for performing Failure Modes and Effects Analysis (FMEA), from identifying potential failures and risks, to setting up priorities for corrective action and improvement plans as well as for the financial resources required, through to documentation and providing summaries for both electrical and steam networks for presentation to the management.

To ensure that the diverse collection of GLOW's power and steam generating assets are maintained in a reliable condition, outages for minor inspections and major overhauls of the assets are routinely scheduled and performed. The Outage Planning Procedure defining the process of developing and maintaining the 8-Year Outage Plan has been adopted for scheduling and tracking the inspections and overhauls across all GLOW's turbines, HRSG or boilers, generating units, and major transformers. The plan is reviewed and updated annually based on the customer dispatch demand forecast.

GLOW also has the Emergency Response Plan in order to tackle unplanned interruptions, abnormal events, and emergency situations, both during and after an incident. We make sure that all people involved understand their roles and responsibilities clearly and are prepared to respond should an unplanned incident occur, in order to eliminate, minimize, and mitigate the risks, including preventing the loss of life, property, and environmental impacts.

As we strive to maintain business excellence and increase and solidify our good reputation to retain customers and to attract new customers, GLOW's Operations and Maintenance team monitors, maintains and improves operational excellence and effective maintenance in order to supply quality products with high power plant efficiency. At the same time, our Engineering team is in charge of coming up with the design of new concepts and process improvement initiatives to push forward our capabilities to satisfy the needs of both existing and potential customers.

With the strong belief that operational efficiency and the reliability of our power plants not only reduces our costs and improves our financial performance but also contributes to conserving resources, protecting the environment and minimizing our impact on the global ecosystem, GLOW's Asset Optimization team works relentlessly towards finding the best optimizing solutions based on refined and systematical data collection.

Reflecting our commitments to avoid unplanned incidents, GLOW has set the target to maintain and push beyond our capability in keeping the System Average Interruption Frequency Index (SAIFI), the interruption per customer per year, to be less than 0.4.

More on GLOW's reliable and sustainable energy supply as well as the figures with regards to the production and transmission efficiency can be found in the performance summary in our **Sustainable Development Report 2018**.

As part of our aim to continuously improve our customer service, GLOW is continuously maintaining and improving the efficiency and reliability of our power plants. To measure the performance of the cogeneration plants under SPP contracts, GLOW annually reports both electrical and thermal cogeneration efficiency to EGAT, who expects an electrical efficiency that is greater than 45%, a thermal process that has an efficiency greater than 10% and a Primary Energy Saving (PES) capacity that is in line with the SPP contract. If our efficiency is lower than the stated efficiencies, our prices will be impacted.

Following the major interruption in 2016, the risk assessment of all equipment and the mitigation plan has been carefully drafted, endorsed, and carried out over the past years. Our relay protection system has been reviewed and the associated equipment has been upgraded for all feeders. We expect the improvement and all planned corrective actions to be fully executed in 2019.

Apart from the reliability and efficiency issues, another key challenge for several of our power plants and parts of the transmission and distribution system with prolonged service years is the scarcity of spare parts available in the market. The preventive assessment program has been conducted on all major equipment in both power and steam networks over an extensive period of time, matching with the planned overhaul, in order not to interfere the optimized generation. This helps maintain our power plants' availability and reliability and boosts the confidence of our customers.

10.5.2 Environmental Management and Climate Change

GLOW performs its business by implementing environmentally and socially responsible projects and has committed to not develop any more coal-fired units. It is also our commitment to control emission levels to meet, and, where possible, not to exceed all the applicable legal requirements and standards at all times. We are also committed to fully complying with all the environmental mitigation measures and the monitoring programs required by the Environmental Impact Assessment (EIA) and the Environmental Health Impact Assessment (EHIA) reports, and to meet the requirements of all applicable standards established by the environmental regulations, the plant site permits and the corporate objectives.

As a key player in the power generation, cogeneration and industry utilities, the environmental management has always been among GLOW's top priorities. Given the nature of the business, GLOW shall recognize local and global environmental challenges to reduce greenhouse gas (GHG) emissions, promote highly efficient energy services, preserve biodiversity, save resources, protect the environment, and strive to operate and develop our business while addressing these constraints. Apart from being highly regulated by national regulators in terms of the environment and emission management, the seriousness and urgency of the climate change issue that has just been brought to light in this decade also drives our customers' demands towards low-carbon alternatives.

Apart from our Environmental Policy which is publicly disclosed on the GLOW website, www.glow.co.th, standardized frameworks have also been set forward in order to make sure that our business is being steered towards good governance for sustainable environmental management. To maintain the intended outcomes of environment protection and to improve response to the changing environmental conditions for the entire organization, GLOW has put in place a comprehensive management system, has implemented procedures with regard to the identification, monitoring and measurement of environmental aspects, data reporting, as well as risk assessment. This has enabled us to enhance our environmental performance, improve processes to help leverage opportunities, prevent and/or mitigate the potential impacts, and most importantly, to generate beneficial environmental impacts with strategic and competitive implications for our stakeholders e.g. customers, suppliers and contractors.

On top of the EIA and EHIA schemes required by laws and regulations, we have also adopted international standards. All GLOW's power plants in Thailand are accredited under the ISO 14001:2015

Environmental Management System. The applicable legal requirements and mandatory level of our environmental compliance have also been implemented at the Houay Ho Power Plant in Lao PDR as well. In our operations and for the development of new business we take into consideration applying the international best practices.

At the national level, all of our power plants in Map Ta Phut have been operated in compliance with the Federation of Thai Industries (FTI) since 2016 and were certified as “Eco Factory”. In addition, all GLOW Group power plants, including GLOW SPP 11 in Pluakdaeng, Rayong Province and GLOW IPP in Sriracha, Chonburi Province, have received Green Industry Awards from the Ministry of Industry. To meet “Green Industry” requirements means that we have a strong commitment towards operating our business in an environmentally-friendly way to achieve sustainability goals by continuously developing and improving production process and environmental management including corporate social responsibility, both internally and externally, throughout the supply chain.

To ensure the effective, efficient and quality management of environmental aspects across the company, all of GLOW’s power plants have Environmental Health and Safety Managers who have been dispatched to work closely with the Operation teams and to make sure that the environmental procedures have been implemented and are integrated with the day-to-day optimization and monitoring.

As one of the largest power producers in Thailand, we need to be conscious of greenhouse gas emissions and climate change. The environmental topic cannot exclude the organization’s impact on living and non-living natural systems, including land, air, water and ecosystems. The Carbon Footprint Working Committee has been set up since 2016 especially to drive the actions on climate change, including greenhouse gas emission control and to efficiently reduce the emissions from the power plants, through the assessment and verification of the Carbon Footprint for Organization (CFO).

Tripartite meetings between GLOW, local government authorities and communities have been held quarterly in order to transparently report our environmental monitoring results, new and on-going issues, actions that are being taken or are to be taken to remedy such issues, and to gather feedback from these key stakeholders. Besides addressing their interests, concerns and expectations in the meetings, community members can also voice their opinions through our Community Relations (CR) team. GLOW’s CR team are also local community members and engages with local communities and gathers feedback on a regular basis. We aim to maintain a relationship of trust by open communication with the community, authorities, policy-makers, customers and other stakeholders.

As GLOW takes into account the importance of the processes concerned, changes affecting the environmental performance and continuously strives for quality improvement, an internal audit on the environmental management system is done at least once a year. This is to ensure continuity, suitability, adequacy and effectiveness of our environmental management programs across all functions and departments.

As a normal practice, after the internal audit, GLOW’s Environment, Occupational Health and Safety data will be validated by the third party: Deloitte and AJA Registrars.

In 2018, as a pilot project, we hired a third party: BSI Group (Thailand) Co.,Ltd.to witness the internal audit process at GLOW Energy Phase 1&2 located in the Map Ta Phut Industrial Estate, Rayong Province and GLOW IPP located in WHA Chonburi Industrial Estate 1 (WHA CIE 1), Chonburi Province. The objective of the evaluation was to evaluate the competency, skills and internal audit performance of GLOW’s Internal Auditors according to the Environmental, Health and Safety Management System (EHSMS) and look for positive evidence to ensure that the internal audit was effectively addressed by the objectives of EHSMS, the relevant needs and expectations of interested parties and the applicable legal requirements and other requirements.

Furthermore, there were no complaints from the community and no legal cases regarding environmental issues in the reporting year of 2018.

Following our official announcement in 2015 that going forward we would not invest in any additional coal-fired units to be added to our generation fleet, our Business Development team has been focusing its efforts exclusively on contributing to the “low-carbon” energy mix in Thailand, with gas-fired units, hydro plants and (non-hydro) renewable energy projects.

In 2018, GLOW has succeeded in making our first stable steps in Business to Business (B2B) Renewable Energy Solutions for industrial customers both inside and outside industrial estate areas. The 870 kW Solar Rooftop electricity supply unit at Michelin Siam Co., Ltd. located in WHA Saraburi IE, Saraburi Province, started its commercial operations in November 2018 while another 1,000 kW unit in Amata City IE, Rayong Province for Continental Automotive (Thailand) Co., Ltd. is starting in early February 2019. Another 440 kW unit is undergoing the design and construction process for the Holiday Inn Resort Mai Khao Beach in Phuket and is expected to start the commercial operations by October 2019.

Furthermore, our greenfield industrial non-hazardous waste-to-energy (WtE) project (incineration) with a total capacity of 9 MW in WHA Chonburi IE is set to start its commercial operations before the end of 2019. We aim for it to contribute to reducing GHG emissions and to provide other environmental impacts from waste disposal operations such as landfilling. More details about this business expansion can be read under the topic of **Innovation** in this report.

On the process improvement side, in 2018 we initiated a change in the refrigerants used in our power plants from Hydrofluorocarbons (HFC) to Hydrochlorofluorocarbons (HCFC) which have a lower global warming potential (GWP) according to the assessment report of the Intergovernmental Panel on Climate Change (IPCC) leading to less impact on global warming.

We have implemented various improvement projects for our facilities that are directly reducing greenhouse gas emissions (e.g. boiler efficiency improvement). We use state-of-the-art and environmentally-friendly technology such as Supercritical Pulverized Coal Boiler Technology, a high-efficiency boiler system that consumes less fuel than conventional boilers, which results in lower emissions and lower energy use. Our replacement of conventional lighting fixtures with LEDs in our power plants has received formal recognition of reducing greenhouse gases (GHG) under the Low Emission Support Scheme (LESS) of the scheme of the Thailand Greenhouse Gas Management Organization (Public Organization) (TGO - Thailand’s Designated National Authority for the Clean Development Mechanism).

GLOW’s power plants have obtained Carbon Footprint for Organization (CFO) certifications of our carbon footprint, which is an indicator of the quantity of GHG emitted (in equivalent tons of carbon dioxide; Ton CO₂ eq) from all the activities of the operations; such as fuel combustion, electricity use, waste management and transportation. Moreover, we are taking steps beyond Carbon Footprint of Product (CFP) certification by obtaining the Carbon Footprint Reduction (CFR) label – the label given to a product that contributes less GHG than GLOW’s local competitors (i.e. baseline emissions). GLOW’s electricity, steam, clarified water and demineralized water production from GLOW Energy Phase 2 are **CFR-certified, being the first of its kind in Thailand.**

In addition, GLOW Energy Phase 1&2 has been accredited for its energy efficiency improvement project by changing from conventional lighting to LED lights under the Thailand Voluntary Emission Reduction (T-VER) program. The reforestation project of GHECO-One had also received the Community Green Community Support Program award from TGO.

GLOW’s Corporate Social Responsibility efforts are also well aligned with our commitment to bring clean energy to the community and to reduce carbon footprints. Part of our CSR initiatives is to bring clean energy such as solar energy to the community in off-grid areas. Further details on our community work can be found in **Livelihood of Local Communities** section.

GLOW has invested significantly in technologies to reduce NO_x, SO_x, and Total Suspended Particles (TSP) related to air pollution. We list hereunder some examples in this respect. We purchased low sulfur bituminous coal with less than 1% sulfur content and used limestone injection techniques in the combustion of coal in our circulating fluidized bed (CFB) boilers. GHECO-One, our supercritical coal-fired power plant, incorporates a sea water flue gas desulfurization system to reduce SO_x emissions significantly. NO_x reduction is achieved in the CFBs by ammonia injection into the flue gas and in GHECO-One by using Low NO_x burners and a Selective Catalytic Reduction (SCR) unit.

As a result, the annual air emissions report for the reporting year of January 2018 to December 2018 was well below the control limits required by the EIA and EHIA.

The real-time figures of metered NO_x, SO_x, and TSP are displayed on the screens in front of GLOW's power plants as well as in local areas with a high population density. The average figures are disclosed in GLOW's magazine 'Jai Diaw Kan' published and distributed to local communities twice a year.

Water is an important resource for our operations and at the same time is central to the local agriculture businesses. Large volumes of fresh water are required to operate our power plants each year. We use water in the cooling systems and in the production of clarified as well as demineralized water for internal usage and for industrial consumption. The lack of a fresh water supply would not only affect our production and reliability, but could also have an impact on the Thai economy through its impact on the operations of our customer based in Map Ta Phut Industrial Estate which is home to the most energy-intensive (predominantly petrochemical) industries in Thailand.

The major sources for the supply of fresh water to Map Ta Phut are the Dok Krai, Nong Pla Lai and Klong Yai reservoirs located in Chonburi and Rayong Province which are also the water source for the farmers in the surrounding area.

With those elements in mind, water scarcity is one of the important challenges requiring collaboration with all relevant parties. A committee was established (the Eastern Seaboard Water War Room) with representation of all relevant stakeholders to develop, implement and monitor mitigation plans and to take preventive measures against water risks, including the water-shortage impact on local communities.

Internally, GLOW has a raw water task force team to closely monitor the quality and quantity of water that is used in the production process and to assess any risks that may occur. The team works closely with the Eastern Seaboard Water War Room.

On the other side, we set the target for ourselves to maintain the water efficiency rate at no more than 0.8 m³ per kWh.

As important as the air quality and emissions, which are the two environmental topics that GLOW, as a player in power generation business, is most concerned about, is waste management and wastewater management. GLOW has established a Waste Management Procedure to provide guidelines for the operational control and management for all relevant parties with regards to granting permission, for the collection, storage, transportation for treatment and for the disposal of industrial waste, including wastewater sludge, fly ash, bottom ash and by-products to prevent environmental impacts.

Some projects have been implemented at GLOW SPP2&3 Coal-Fired Units Complex in order to mitigate the environmental impacts during the operating period. For instance, we have improved our processes by:

- Installing a bottom ash recycling system to reduce the volume of bottom ash generated by 120 tons per year and to reduce sand accumulated inside the furnace of CFB1 unit to 15 tons per month
- Installed water spray nozzle at RC-2 and RC-3 to reduce coal dust at the return belt system

More information can be found in the sections dedicated to **Waste Management** and **Wastewater Management** in GLOW's **Sustainable Development Report 2018**.

10.5.3 Corporate Governance and Anti-Corruption

10.5.3.1 Corporate Governance

Good governance is the cornerstone of our business. It encompasses the processes, practices and policies that we rely on to make formal decisions. It helps us regulate risk and reduce the opportunity for corruption as well as mismanagement of company resources. Corporate governance is essential for our management and long-term growth.

GLOW's Board of Directors is committed to conducting all its activities and operations in accordance with the core principles of good corporate governance. We are also in strict compliance with all applicable laws, relevant rules, and regulations of the countries in which we operate.

In addition, we regard compliance with anti-bribery laws as crucially important and everyone who works for GLOW is expected to apply the highest standards of integrity to all their activities and to comply fully with our ethical principles, policies, procedures and processes.

Our Performance on Corporate Governance

GLOW has deployed our good governance policy and practices to our Board of Directors, who represent our shareholders, and business partners, while we have continuously promoted our anti-corruption campaign among our employees and other related stakeholders, especially suppliers and customers.

GLOW has internal systems of rules and practices by which the company is governed. Our Code of Conduct and related policies, including Anti-bribery Policy, Conflict of Interest Policy, Gifts and Hospitality Procedure and Insider Trading Policy, set out ethical principles for all activities we undertake as well as our interactions with stakeholders.

As the Board of Directors and Executive Management Committee (EMC) are GLOW's highest governing bodies, they are responsible for the strategic direction of the organization as well as effective monitoring of performance.

To have a good corporate governance system in place, we have an Audit Committee to govern activities and operations to ensure effective internal controls, compliance with laws and regulations, adherence to relevant standards, and efficient operations with support from Corporate Affairs team and Ethics Officer.

Our composition of the Board of Directors is highly effective, including a mix of directors with diverse skill sets, expertise and experience to fulfill essential oversight roles. Having a breadth and depth of experience allows the Board to provide advice on a wide range of GLOW's business issues. An adequate number of independent directors (i.e. 4 out of 12 or 1/3) helps us bring in objective scrutiny on behalf of the shareholders and to be available in case there are concerns that cannot, or should not, be addressed by the Chairman or Executive Directors.

Major activities that we have deployed to reinforce our corporate governance include:

- We have updated our Code of Conduct (CoC) to align with Private Sector Collective Action Coalition Against Corruption (CAC)'s requirements.
- We provide mandatory training sessions on CoC to GLOW's employees, management and the Board of Directors

10.5.3.2 Anti-Corruption

Corruption Risk Assessment

At GLOW, we have classified corruption risks into four categories:

1. Political contributions
2. Charitable donations
3. Sponsorship of various activities
4. Gifts and hospitality

There are eight major areas in GLOW that have high risk for corruption. Those areas, which comprise 32 procedures, include procurement, application for permits, business development and corporate social responsibility (CSR).

According to the result of our corruption risk assessment, GLOW Group has strong policies and procedures. An example of this is our Power of Attorney (POA) process that limits delegated authority and requires dual signatures in all circumstances to ensure our transparency and zero corruption in all transactions.

For the most effective risk management, we have improved our work instructions for the jobs that are related to the government authorities, the Tambon Administrative Organization (TAO) and community leaders as well as the approval procedure for disaster relief activities and public donations requested by local government authorities.

Internal control is therefore very crucial to preventing possible losses and negative impacts by maintaining corruption risk at an acceptable level.

The company also has an **Ethics Reporting** (“Whistleblowing”) **Procedure** available for all employees and outside stakeholders to file their complaints in the case that a discriminatory or unethical practice is found. Available channels/persons to file complaints or make recommendations to include:

- **Suggestion Boxes**, which are placed in different locations that are easily visible so that employees can submit complaints and recommendations to the company
- **Ethics box**, a channel allowing “whistleblowing” with respect to any ethical issue that all employees and external parties can access
- **Telephoning** the Bangkok office 02 670 1500 or the Rayong (Map Ta Phut) office 038 698 400-10 or by sending an email to pr@GLOW.co.th
- **Designated Ethics Officer** who is directly responsible for the code of conduct governance to ensure fair treatment to all parties

We have also set procedures to ensure that issues are addressed within a set period of time. If a complaint is verified and proven to be valid, the company will assign a responsible person to resolve the issue on a case-by-case basis as soon as possible.

Any employee who is found to be in willful violation of the anti-bribery policy is subject to disciplinary action as deemed appropriate by his/her Division Head, in consultation with SVP of Human Resources & Administration and/or the CEO.

In 2018 GLOW Group had no cases or incidents of corruption or cases violating laws related to corruption.

Major activities that we have deployed to reinforce our anti-corruption program include:

- Joined the Private Sector Collective Action Coalition Against Corruption: CAC (2014) and have maintained our CAC-certified company (level 4) since 2016. We are due to renew the CAC certificate in 2019.
- Updated anti-corruption related policies and procedures to align with CAC's requirements
- Provide mandatory training sessions on anti-corruption related policies to GLOW's employees, management and Board of Directors
- Included Anti-Corruption Section in every Operation & Maintenance Agreement to ensure that our suppliers comply with GLOW's business practices
- Started a corruption risk assessment program (2015)
- Put in place a monitoring program of anti-corruption measures to ensure that there is zero corruption in all activities
- All key ethics policies and procedures were distributed to all employees for signing-off (2017) to ensure that all employees, including new hires, have acknowledged and will adhere to these anti-corruption related policies.
- Included ethics on employee performance review
- All suppliers and customers have clearly and officially been informed and have acknowledged our no gift policy
- All donations as well as gifts and hospitality offered to the public and the community must be verified and receive prior approval from Ethics Officer to avoid corruption risks.

Anti-competitive Behavior, Anti-trust and Monopoly Practices

Towards the end of our reporting year 2018 it was announced publicly that GPSC, a PTT Group company, would take over ENGIE's portions of shares and become the majority shareholder of GLOW, which is considered "a merger" as stipulated in the Regulation of the Energy Regulatory Commission ("ERC") regarding the Rules Preventing a Business Consolidation Which Could Result in Monopoly or Reduction or Limitation of Competition on the Energy Business B.E. 2552 (the **ERC Regulation**). As such, both GPSC and GLOW, as licensees for the energy industry operation under Energy Industry Act B.E. 2550, are required to obtain ERC's prior approval for the merger.

Taking into account all concerns of all stakeholders, ERC has finally made its consideration on December 26, 2018 to approve the merger based on certain criteria that GLOW shall strictly follow to enable the competition environment. GLOW would like to address that GLOW can comply with such criteria in respect of being anti-competitive as GLOW's current code is intended to enable a fair and equal treatment to all stakeholders and so far GLOW has expressly conducted its business with anti-competitive behavior and been in compliance with all relevant laws regarding anti-competitive behavior, anti-trust and monopoly practices, which is substantially in line with the criteria provided by ERC as part of GLOW's license's conditions.

10.5.4 Occupational Health and Safety (OHS)

GLOW is committed to continue striving to reduce, and ultimately eliminate, hazards and to minimize the occupational health and safety risks by taking effective preventive and protective measures to provide a safe and healthy workplace, achieving the best possible health and safety performance and developing correct safety behaviors.

The management of occupational health and safety is a key ingredient of our core values and is critical to all interested parties who may be affected by our operations, including employees and contractors. We consistently seek to identify significant workplace hazards at all GLOW's premises, appropriately control the risks, provide a safe and healthy workplace, and implement safe work processes to protect employees and contractors from inherent dangers.

GLOW has a Health and Safety Policy and an Occupational Health, Safety and Environment Management System Manual as a guideline to ensure that all activities are carried out safely and that all risks to the health, safety and welfare of all interested parties involved are removed. This H&S Policy covers the whole group.

All power plant sites of GLOW in Thailand and Lao PDR are certified to OHSAS 18001:2007. Our Occupational Health, Safety and Environment Management System is voluntary*. 100% of our employees and contractors (excluding contractors and subcontractors under construction projects) at all plant sites are covered by such a system and have been audited both internally and externally.

Employees and contractors participate in the EHS Management System through the SHE Committee where concerns are communicated. Information on H&S issues and safety best practices are also communicated through safety talks and staff meetings led by the SHE Committee that are scheduled at plant sites and at the head office.

***Remarks:** According to the Occupational Health, Safety and Environment Management System (EHSMS) Manual, the scope of management system certification covers only plant sites while the head office is excluded because it entails mostly support functions.

GLOW's Occupational Health and Safety Strategy

GLOW had implemented the 5-year safety culture roadmap during 2014-2018. We carried out various activities, including the promotion of behavioral-based safety campaigns; contractor safety evaluation; Stop Work Authority; and a Managing Rule-Breaking (MRB) tool for root cause analysis of occupational accidents and incidents at work.

Risk and Hazard Identification

We follow the Occupational Health, Safety and Environment Management System (EHSMS) Manual in risk & hazard identification. The EH&S manager who acts as a Safety Management Representative (SMR) will ensure safety standards are complied with in every facility.

To prevent those risks we have conducted an On-site JSA and Fresh Eyes Observation and have given Stop Work Authority (SWA) to all workers and visitors to immediately stop any activity that could lead to safety and environmental accident or incident to prevent ourselves and our colleagues from having an accident or incident at work.

Reporting by workers is based on documents, including the Excursion and Incident Report, the Near-miss Report, and the Review of Risk Assessment Inventory (done by a working team or the SHE committee of each power plant site), at least once a year.

GLOW has defined the process to identify level of risks (negative impact) and opportunities (positive impact) and continuously improve our H&S performance through the EHS Management Review Procedure.

Training on Occupational Health and Safety

There are four major training exercises on Occupational Health and Safety at GLOW, including Safety Orientation for newcomers; EHS Annual Refresher; EHS training courses as required by EHS laws; and contractor safety training.

In addition to those training exercises, we also conduct an annual emergency drills at every plant site and head office according to the Emergency Response Plan for Plant Sites and the Emergency Response Plan for Head Office.

Employee Welfare and Promotion of Worker Health

Major medical and well-being benefits that GLOW provided for employees in 2018 included:

- An annual physical health check
- The provision of an Influenza vaccination injection
- A health risk assessment and stress and depression assessment by the Department of Social and Environmental Medicine, Faculty of Tropical Medicine, Mahidol University
- Football match competition among power plant sites
- The White Factory Program which is a drug-free workplace program organized by the Department of Labour Protection and Welfare of the Ministry of Labor.

GLOW has also promoted H&S performance of suppliers and contractors through various programs, including work instructions for contractors' safety, safety pre-qualifications for procurement, safety performance evaluations, alcohol and drug tests, etc. We also include EH&S issues under the Terms and Conditions section of every contractor and supplier contract.

Measures of Success

GLOW defined the review at least one time per year of the EHS Management System in the EHS Manual to ensure its continuing suitability, adequacy and effectiveness of all activities as well as their impacts on financial performance. We continually measure our safety performance through core KPIs including Zero Frequency Rate of Occupational Accidents (FR) and Zero Major Incidents.

We have also carried out an annual internal audit on the EHS Management System and management safety visit (MSV) at all power plant sites under GLOW's Behavioral Based Safety (BBS) practices. In addition, we have a surveillance external audit every year and a recertification audit every 3 years.

Initiatives on Occupational Health and Safety

In 2018, GLOW organized the Managing Rule-Breaking (MRB) Workshop for employees from Band C up (manager and supervisor level) to provide a common understanding of behaviors relating to human errors and violations as well as consequences management in order that a "just and fair" decision will be made should their subordinates involved with an accident or incident at work.

This workshop allows employees from all functions to understand why people break rules and how to manage and change their behaviors. Participants also learned how to apply the MRB concept during the root cause analysis (RCA) investigation and how to develop guidelines for safety performance evaluation (PA).

We have received positive feedbacks from participants of the workshop as they have implemented and applied the MRB concept in the RCA process and have developed guidelines for consequences management and safety performance evaluation to support changes to safe behavior at work.

Managing Rule-Breaking is one of the Hearts and Minds Toolkits to help in classifying behaviour on "Human Error and Violation" as to whether to apply appropriate consequences to meet the expectations of the organization. For more information on the MRB tool, please visit the following website: <https://heartsandminds.energyinst.org/toolkit>.

10 Million Man-hours without Lost Time Accident

On May 30, 2018, GLOW Group organized a celebration ceremony on the achievement of more than 10 million man-hours without a lost time accident from December 6, 2015 to the end of March 2018 at the Auditorium of GLOW SPP2&3 in Map Ta Phut Industrial Estate, Rayong. Present at the event were representatives from our head office and from all power plant sites as well as those from 20

contractor companies that had a safety performance that had met the criteria of the contractor safety evaluation of GLOW during the aforementioned period.

10.5.5 Human Capital Development

GLOW Human Capital Development Principles

At GLOW Group, talents are at the core of our heart and are crucial to running our business. We have diversity in our workforce and skilled talents to meet the growing demands of our business. We create a work environment where our people are able to realize and develop to their full potential, and have a rewarding career with the company. We invest in the future of our people through various trainings and development programs and activities.

Previously we mainly focused our time and investment in a technical development program. But from 2017 onwards, we aimed to balance our human capital development program by investing more in Leadership and Soft Skills. Currently, almost half of our human capital development investment goes to a Leadership and Soft Skills training and development program, followed by a Technical and Functional training and development program respectively.

Developing and Retaining Talent

Our training and development programs have been designed to meet business needs as well as to provide development opportunities for employees at all levels in all locations. The percentage of employees who attended at least one training session during the year increased from 96.6% in 2017 to 100% in 2018.

All training and development programs are vital to engaging, motivating and retaining employees. In addition, this human capital development devotion is our assurance to all investors and stakeholders for the availability of a skilled workforce to run the business in a sustainable manner.

Employee Training and Development Policy and Commitment

We maintain our development commitment to business and employees by having had a standard and a clear Employee Training and Development Procedure since 2003. In November 2018, we released a new major updated version (version 4) of our Employee Training and Development Procedure to cope with a challenging work environment, digitalization and human capital development transformation.

This procedure has been developed and updated based on our company vision, mission, Human Capital Development Principles, our governance structure and by ensuring the allocation of resources. The latest version of the procedure covers our new initiatives for the development of personnel to prepare our employees for the future. Those initiatives include GLOW's Leadership Model and GLOW's People Development Framework.

GLOW's Leadership Model reflects a belief that the energy sector is changing fast, and that we need to prepare for the future. Together with our current effort on improving technical and functional competencies in all functions, our new leadership model provides a simple framework which is designed to help our company achieve our goals based on three critical areas:

- (1) Preparing for the Future;
- (2) Working Together; and
- (3) Achieving Our Goals.

Since the 2nd half of 2017, we have already aligned our Leadership and Soft Skills training programs with this new leadership model. The GLOW Leadership Model and leadership competencies for each leadership level are available in booklet and on our intranet.

The GLOW People Development Framework has envisioned our ambitions in personnel development by putting together different people development programs and activities based upon 70:20:10 Model for Learning and Development, including development enablement for all levels of employees. We provide all these development plans since we believe that we are not likely to meet economic performance without the performance of our people.

Since 2014, we have established a Technical Development Program called “**Employee Qualification Training**” which is part of our Operational Excellence (OE) principle for Operations and Maintenance functions, and we continuously developed it for other relevant functions such as Reliability & Customer Maintenance, Environmental Health & Safety, Asset Optimization and Supply Chain Management, etc.

Our Employee Qualification Training has a clear training and development roadmap for target employees. The Inner and Middle Core levels of the Employee Qualification training take two and three years to complete respectively. The target employees have to pass 80% of the knowledge, skill and oral tests. To date, this Employee Qualification Training program is fully established and is one of our technical development programs that we are proud of.

Additionally, we have applied the **ADDIE** model (i.e., **A**nalyze, **D**esign, **D**evelop, **I**mplement, **E**valuate), — a five-phase approach to build effective training and development solutions. This five-phase approach gives us a streamlined and focused training and development process and provides feedback for continuous improvement. In this model, each phase has an outcome or process that feeds into the subsequent step or process.

Lastly, our Employee Training and Development procedure is governed by a Non-Discrimination Policy, a Business Process Ownership (BPO) Policy, an Internal Control Process and other relevant GLOW Group policies/procedures, in particular with IPOA and GPOA, with clearly defined business objectives, roles and responsibilities for everyone in the organization.

People Development Goals

First, we aim to maintain our great record that 100 % of our employees attend at least one training session during the year. Second, we want to ensure that 100% of our target employees attend mandatory business trainings, including Corporate and Plant Site Orientation, Code of Conduct, EH&S Refresh Training, and an Inner Core level of Qualification Training Program.

Third, we aim to continuously increase the penetration rate of employees who attend Leadership and Soft Skills training sessions during the year. The rate has improved from 52% in 2016 to 79% in 2017 and 86% in 2018. We expect to reach 90% in 2019. Fourth, we aim to provide more Functional Training and Development programs for supporting functions.

Last but not least, we aim to instill a culture of continuous learning and capability development for our people by implementing GLOW People Development Framework, including its development programs e.g. Technical training, Leadership and Soft Skills training, Functional training, with development tools such as a Career Development Plan (CDP) and online learning resources.

Statutory and Mandatory Technical Training

Every year, we provide Statutory and Mandatory Technical Training courses to all concerned employees to meet legal requirements and business needs. In 2018, 324 out of 335 employees (97%) passed statutory training sessions and 424 out of 432 employees (98%) passed mandatory technical training.

Corporate Governance, Ethics and Compliance

GLOW has focused on ethics and compliance for many years. Our Code of Conduct sets out values and rules of integrity that underpin the way in which GLOW does business. We take a firm stance on promoting corporate governance, anti-bribery, and avoiding conflict of interest within the Group. The Code of Conduct applies to all GLOW's employees, including the Board of Directors, and forms a basis for our business partners' Code of Conduct. Doing business in an ethical manner has a positive impact on each of the GLOW's employees, encouraging a collaborative approach to building a sustainable business.

GLOW rolls out a Code of Conduct mandatory training program for all employees. At the end of 2018, 97.8% of our employees had taken the training program. For more information, please refer to the **Corporate Governance and Anti-corruption** section.

Besides, we also embed Code of Conduct and Conflict of Interest statements in our employment contract to ensure that all employees, including newcomers, are aware of our Code of Conduct.

Environmental, Occupational Health and Safety (EH&S) Training

GLOW organizes EH&S Procedure Training for employees from all related functions at plant sites every year and we have achieved 100% attendance every year since 2016. In 2018, the average number of training hours per eligible employee was 17.2 (11,312.5 hours/659 eligible employees) or 2.9 man-days for the Occupational, Health and Safety training and 19.01 hours (12,547.5 hours/660 eligible employees) or 3.2 man-days for the Environment, Occupational, Health and Safety training.

Overall Training Achievements and Satisfaction

In 2018, we provided 483 in-house training sessions for 738 employees and sponsored 204 employees for 193 external training sessions in Technical, Functional, Leadership & Soft Skills training areas to sharpen professional competencies and improve the performance of our people.

We use an online survey to track the training effectiveness of all in-house training sessions and follow-up feedbacks of all external training sessions. The overall training satisfaction level of all in-house training sessions in 2018 was 3.44 out of 4. The rating scale ranges from 1 (Strongly Not Agree) to 4 (Strongly Agree). Meanwhile, the long-term impact is under development.

Knowledge Management

- Apart from those training sessions, GLOW also has a knowledge management system in place by providing resources in GLOW's e-library to help improve employees' knowledge and ability in various areas, e.g. technical, functional, leadership and soft skills, environmental and safety, innovation, etc. Since the inception of the e-Library in 2012, over 65,000 visitors have visited our e-library on various topics.
- In mid-2018, GLOW introduced a Knowledge Sharing Portal which is our Knowledge Management Digital Platform for exchanging ideas, experience and information among our employees on various business-related topics. This portal has helped us promote learning and innovation culture as well as building our future organizational capabilities. Since the Knowledge Sharing Portal is more flexible and expandable than e-Library, from the 3rd quarter of 2018 onwards we have migrated all technical, functional and leadership resources to the portal and positioned e-Library specifically only for Qualification Training Program resources.

Student Career Experience Program (SCEP)

- GLOW has continued investing in the company's internship program, called "Student Career Experience Program" (SCEP), which aims to develop and increase the capabilities of students who will be able to apply their academic knowledge in the industry and gain practical work

experience to prepare them for the real workplace. In 2018, 24 students from 11 institutions participated in our SCEP Program. From 2009 - 2018, GLOW had recruited 27 candidates from those who joined the SCEP Program.

- Every year, GLOW in collaboration with leading academic institutes organizes job fairs and a roadshow to provide career orientation and opportunities to the students. Throughout 2018, GLOW organized 14 job fairs at 14 academic institutes nationwide and received 1,052 applications from students of those institutes. We also organized a career roadshow at a university in Chiang Mai. There were 900 attendees who participated in this event.

Future Development Investment

- In 2019, we are going to introduce two more Functional Academy programs. The first is the **GLOW Business Academy program** which is a functional training program for senior and middle management, aiming to increase business acumen and build cross-functional collaboration within the group. The second is the **GLOW Sale Academy program** which aims to introduce new-trend sales skills and build cross-functional collaboration within sales-related areas using a gamification learning technique via board games blended with workshop learning with a 3-month online learning journey.
- In 2019, we will also introduce a leadership program for middle management and executives called "**Leadership Lab**" which also applies a gamification learning technique via board games.
- We will introduce a **Bite-Site Learning Newsletter** which contains interesting open-sourced digital learning resources to instill a learning culture and inspire our people with lifelong learning skills. We will also embed Bite-Site learning resources into our Knowledge Sharing portal.
- We will provide two talent development projects in 2019. One is the **Operations and Maintenance (O&M) Technical Competency project** which will uplift the competency profile of our O&M professionals. Subsequently, we will update our technical training program to meet the new competency profile and to develop a career path for our O&M professionals. After we complete the O&M Technical Competency project, we will continue with the non-O&M competency project. Another project is the **Revamp Talent Acquisition Process** which aims to improve candidates' recruitment experience by uplifting the recruitment and selection assessment process and tools.
- Lastly, to enhance our current HR practice in providing personal retirement assistance to each retiring employee, we plan to introduce **In-House Wealth Management Training Courses** to extend personal financial planning and retirement planning knowledge to all employees. This will help employees plan and manage their finances wisely at every stage of their career.

Holistic Development and Performance Integration

In early 2018, we officially launched the GLOW Leadership Model and Leadership Competency to all employees and informed employees that the GLOW Leadership Model and Leadership Competency have already been integrated with the Leadership and Soft Skills training program and the Annual Performance form. Furthermore, our Leadership training program has been designed to enable leaders from all levels in the organization to speak the same leadership language.

At the end of every year, all employees will receive a regular annual performance review to measure their performance, technical and leadership competencies and to discuss development plans with their supervisors. Inputs from the discussion will be used for training needs analysis in the following year.

For a technical development perspective, we will continue our standard measurement of the Employee Qualification Training program and enhance the program after we complete the O&M Technical Competency Project.

For Leadership, Soft Skills and Functional development perspectives, apart from current effort in measuring training effectiveness of all training sessions, we plan to introduce a more long-term ROI development approach, such as reinforcement tools and activities before and after training and to gather feedback from supervisors.

Key Results of 2017 Engagement Survey and Action Plans

In 2017, GLOW conducted an employee engagement survey and reached a 69% response rate (503 respondents). According to the survey results, the engagement rate was 81% which was very inspiring and indicated that our employees have a positive working experience with GLOW Group.

Based on the 2017 employee engagement survey results, we are committed to three action plans, including:

- 1) To further enhance an internal communications channel and the quarterly business briefings;
- 2) To devise additional ways and channels to identify and recognize our successes, innovative ideas and best practices, be it at the individual, team or company level; and
- 3) To instill a culture of continuous learning and capability development for our people, including the improvement of IT facilities & Internet access in all locations so that employees can conduct self-learning and engage in any digital/technological activities.

We have implemented these action plans since the 2nd half of 2018.

10.5.6 Livelihood of Local Communities

Community relations and development play an important role for GLOW not only to obtain a license to operate but also to coexist with communities and to maximize the benefits for society. We therefore commit to having an open communication and engagement with communities in order to build a strong relationship and to maintain trust with them.

We have both **risk prevention** and **value creation** processes to ensure the Livelihood of Local Communities.

10.5.6.1 Risk Prevention Process

We have a **CSR and Community Relations Plan** in place to guide our community relations team on how to effectively and proactively engage with the community.

To ensure constructive coexistence with the local community and the environment, GLOW has conducted social, health and environmental impact assessments as required by the EIA and EHIA based on participatory processes with the scope being for communities around our power plants in three major areas: Map Ta Phut complex, Pluakdaeng District and Sri Racha District.

In the case of new projects, we abide by EIA/EHIA guidelines and are set to conduct four sessions of public participation as early as one year before the commencement of the new project and to conduct local community engagement four times a year before commissioning and at least two times a year over the project lifetime.

We have three key committees in which community representatives are involved, including the Tripartite Committee, the White Flag Green Star Committee and the EIA Monitoring Committee that meet on a regular basis. Members of these committees include community leaders and local government authorities. We also disclose the results of environmental and social impact assessments to the public.

GLOW's community relations team has continuously engaged with the community and proactively communicates with them through different channels, including door-to-door visits and meetings. They can also file their complaints or reach us in case of emergency via email or by telephone with the number available on website. Our community relations team, which comprises mostly local people, is on standby 24 hours a day to provide an immediate response to all complaints and notifications. For effective communication in case of emergency, we conduct an emergency drill every year and strictly follow the **Crisis Management and Communication Procedure**.

In 2018, there was **no significant negative impact** to a local community and **no case of a public safety incident**. Also there were **zero injuries and fatalities to the public** involving company assets, as well as **zero legal judgments, settlements and pending legal cases regarding diseases**.

10.5.6.2 Value Creation Process

GLOW carries out community development programs to create values based on the **CSR and Community Relations Plan** which focuses on three main areas: education, environmental conservation and quality of life improvement.

To achieve our sustainability goals, we have planned and implemented CSR activities and other sustainability initiatives more strategically, starting from the stakeholder engagement survey which enables us to identify concerns and the expectations of our stakeholders and creates sustainable development as well as CSR programs that can better serve the three dimensions of sustainable development, i.e. economic, social and environmental.

Our community development program does not only serve the local community but also serves those who live in remote areas nationwide.

1) Local Community Development Programs

In 2017, we conducted a community survey and found that the major concerns of people in the local community included economic, environmental and health aspects while they mostly expected GLOW to support local businesses and the local economy and to employ local people. In 2018, we have responded to those concerns and expectations by implementing such community development activities as a career development program, reforestation activity, GLOW Yoga (a health promotion program) and a mobile clinic, etc.

Safety in School

GLOW provided safety training to 50 students at Baan Khao Hin School in Chonburi province to promote a safe environment in the school. After the training, the students were able to identify which areas or behaviors were not safe and knew how to prevent themselves from any harmful situation. Our H&S staff also shared their experience and technical know-how on how to extinguish fires and how to separate waste for recycling.

GLOW Hero

GLOW organized an innovation contest related to local community development. There were 45 students from local secondary schools and vocational schools who participated in the contest. There were three out of eight projects that were selected, including **mobile solar pump** and **beach volleyball court in school**.

Students who participated in the contest benefited in terms of hands-on experience outside the classroom. Joining the contest, the students have learned, for example, how to work as a team, how to manage the project within the available budget, how to think out of the box, and how to apply what they have learned in the classroom in real life.

The community also benefited from the awarded innovations, for example, six communities have saved their electricity cost after using the mobile solar pump innovated by Rayong Technical College to water their agricultural farms. The students of Baan Chang Kanchanakul Wittaya School and seven nearby communities benefited from using a beach volleyball court in terms of better health through exercise and serving as a platform to unite the community.

“It is a very useful project for the public in general. It enables young people to spend their leisure time wisely and in turn to have good health and minds. Young people will learn through sports competitions to compete, either to lose or win, and to forgive and respect others and rules. It is a good project that should be continued,” said Mr. Pattanapat Boonbamrur, a sports competitor from Plu Ta Luang School.

To strengthen Rayong’s economy, we have employed local people and purchased goods and services from local firms and communities.

Key figures of our contribution to the local economy in 2018:

- 51.22 % of our employees are local people*
- 77% of our Selling, General and Administrative (SG&A) Expenses are purchase of local goods and services from companies registered in Rayong
- THB 246.9 million contribution to community development activities, including those required by the Energy Regulatory Commission (ERC)

***Note:** Local people means those who have house registration certificates issued by Rayong Province

We also have collaboration projects with business partners and alliances with the government sector, such as the Community Partnership Association (CPA), the First Naval Area Command (NAC-1) and the Office of Her Royal Highness Princess Maha Chakri Sirindhorn's Projects (OPSP).

2) Nationwide CSR Programs

In 2018, our nationwide programs focused on providing energy to off-grid areas, such as for Koh Kham in Chonburi Province where we improved the existing solar system and installed a new solar system to extend the number of hours for which electricity is available.

Solar System Development on Koh Kham in Chonburi Province

GLOW improved an existing solar system and provided a new solar system on Koh Kham in Chonburi province to extend the period during which the electricity is available for everyday use by the NAC-1 officers posted on the island. Apart from allowing the necessary work on the island to run smoothly with stable power 24/7, the system also provides several charging hubs for tourists’ electronic devices.

This stand-alone system has an overall production capacity of 4,105 W (DC) and can supply power through batteries at 1,000 W-h per day. The project helps us to achieve one of our 2020 sustainability targets which is that there will be **10,000 beneficiaries of energy-related CSR projects in off-grid areas in Thailand** and can be compared to the figure for 2017 when there were 1,861 beneficiaries in Thailand of our energy projects in off-grid areas.

Mushroom Cultivation Project in Chantaburi Province

A group of GLOW employees proposed this project for funding from the company. It was first initiated by a school in Chantaburi province to provide know-how in mushroom cultivation to students who can further apply this know-how to earn their living.

The granted fund was used to improve existing grey oyster mushroom cultivation facilities and processes, including a learning center for mushroom substrate preparation; a substrate bag packing machine which helps speed up the packing process; a mushroom substrate incubator which is safer than its traditional method; and a new fruiting room.

The improvement has **reduced the time to prepare mushroom substrates from 14 days to three days and the fuel cost by 33%**. Forty students from grade 3-6 have hands-on experience in every process from substrate preparation to marketing.

By taking into account the UN Sustainable Development Goals (SDGs) and the inevitable impacts of climate change on our business operations, we have then developed our approaches to sustainability by focusing more on concerns and expectations of our stakeholders and community development programs that can better serve the three dimensions of sustainable development, i.e. economic, social and environmental.

Traditional CSR activities are still the key to maintaining relationship with local communities but our higher goal is to improve the community livelihood in a sustainable manner by using our expertise in the energy business. For nationwide community development programs, we aim to provide more renewable energy for people in off-grid areas

10.5.7 Innovation

While a reliable power supply, regulatory compliance, resource management and social responsibility are essential to maintaining our license to operate and to secure GLOW's outstanding position, it is only by striving for innovation that we capture opportunities and take the further step as a competitive player in the power utility market.

Despite the numerous erupting players in the market, we see ourselves leading and pushing towards the Business to Business (B2B) decentralized renewable energy business, with our economy-of-scale and expertise in the industry that has accumulated through decades of experiences. GLOW views innovations not only as the source of distinction and competitive advantage, but also as the mechanism to generate a positive impact on both society and the environment. In this aspect, it can be said that fostering the passion for innovation in our organization also brings multifold value-added benefits for our investors.

Aiming for sustainable business growth requires knowledge, continuous development and, most importantly, the ability to adapt and adopt new technologies. It has become our commitment to reinforce our people to be the leaders of change in their work functions or across the company, starting with an improvement in efficiency. This is also in alignment with our group's strategy of 3D and 1E, which stands for Decarbonization, Decentralization, Digitalization, and Energy Efficiency.

At the front line, our Business Development team works to identify innovative solutions, tailored to meet the B2B energy demand in Thailand which are central to our business. On the efficiency improvement side, we have the SmartSave program that encourages each business function beyond Assets Optimization to be actively involved and to initiate approaches to manage GLOW's capital more efficiently in order to deliver consistent or even better results.

GLOW set the target for the SmartSave program to achieve a THB 750 million saving over the period of 2016-2018 against the 2015 baseline. Therefore, we have been implementing methodologies to keep track of the financial value saved by implementing the SmartSave projects. The overall estimated operational savings made during the reporting year of 2018 is THB 1,350 million, which is better than the target. Moving forward, we are preparing to quantify the non-financial impacts of each project, if applicable, on the environment and on society as well.

<< Info 25: SmartSave against target >>

Amidst the era of digitalization, GLOW has adopted digital transformation and implemented many automated smart projects to ensure we are up to speed with modern trends and even excel in what we are doing. In 2018, we advanced the implementation of the control system called “Balance+” at our circulating fluidized bed (CFB) boilers units. The system employs a machine learning method to optimize quantity and rates of fuel, air, water and other factors necessary for power generation, resulting in better efficiency and reliability of the plant.

To keep up with our relentless endeavor to serve our customers better we expanded the scope of our Remote Monitoring System (RMS) service by working with EnergyLens™. This system upgrade included the tracking of more information, such as peak demand, average price, Minimum Take Obligation (MTO), historical invoices, procedures, reports and other related parameters. Improved monitoring allows our Industrial Customers Management team to ensure the satisfaction of both power and steam customers.

Around the end of 2019, the new industrial waste-to-energy (WtE) power plant in WHA Chonburi Industrial Estate 1, initiated by GLOW, in cooperation with WHA Utilities & Power and SUEZ Asia, will commence its commercial operations. This industrial waste incinerator plant will be the first of its kind in the Eastern Seaboard. We aim for it to play a significant role in the responsible treatment of waste in Thailand that not only utilizes resource efficiency but also reduces emissions of greenhouse gases (GHG) and other environmental impacts from waste disposal operations such as landfilling, which does not recover any energy or resources from the waste disposed.

One of GLOW’s medium-term targets which roots deeply on innovation is to establish at least 5 low-carbon projects by the end of 2020. Up until the end of 2018, we have commissioned 4 low-carbon units and we still strive to surpass our aim. More information on GLOW’s renewable and low-carbon projects can be found in the previous chapter on the most material aspect of **Environmental Management and Climate Change**.

10.6 Other Material Aspects

Furthermore, GLOW identified 10 other relevant aspects that are important for GLOW to meet different levels of stakeholders’ expectations in three areas: economic, environmental and social. Details of these material aspects are available in our Sustainable Development Report 2018.

| Economic | Environmental | Social |
|--|---|---|
| <ul style="list-style-type: none"> • Risk Management | <ul style="list-style-type: none"> • Biodiversity | <ul style="list-style-type: none"> • Human Rights (Social Impact on Communities) |
| <ul style="list-style-type: none"> • Crisis Management | <ul style="list-style-type: none"> • Waste Management | |
| <ul style="list-style-type: none"> • Supply Chain Management – Feedstocks | <ul style="list-style-type: none"> • Wastewater Management | |
| <ul style="list-style-type: none"> • Supply Chain Management – Products & Service and Chemicals | | |
| <ul style="list-style-type: none"> • Customer Relationship Management | | |
| <ul style="list-style-type: none"> • Tax Paid to the Government | | |

11. Internal Control and Risk Management

11.1 Internal Control

- The Audit Committee consists of three members who are also members of the Company's Board of Directors. The Company's Internal Auditor reports to the Audit Committee and the CEO.
- In 2018, the Audit Committee assessed the adequacy of the Company's existing internal control management programme, in order to ensure the effectiveness of all operational and financial controls. Taking into account the current business environment and organizational characteristics, the Audit Committee concluded that the internal control management programme in place is adequate and appropriate. Additionally, the Company's Statutory Auditor commented that there were no material deficiencies in the Company's internal control management system in accordance with Thai Standards on auditing.

11.2 The Organization and the Environment

- The Company's current organizational structure allows the Company's Management team to operate objectively and efficiently by clearly specifying the roles and responsibilities of each employee.
- During the past years, the Company has dedicated substantial time and effort on continuing to improve its internal control management framework in its business processes.
- Comprehensive policies and procedures have been developed and approved, and thereafter implemented, for every significant business processes. Employees are required to comply with these policies and procedures within the context of their respective functional responsibilities.
- A Code of Conduct has been put in place, and has been communicated to all employees.
- In order to reduce or eliminate business process operational risks, the Business Quality Management ("BQM") function aims to ensure that all compliance, control or improvement gaps that are found to exist between the approved policies/procedures and real-world practices are tracked and implemented by respective Business Process Owners ("BPOs") on a timely basis.
- As a part of internal control management programme, Company's Executive Management Committee ("EMC"), comprised of all Division Heads, commits, by signing an annual internal control management attestation letter, to designing, implementing, and operating internal controls within the scope of their respective responsibilities. This is based on existing monitoring programmes, and takes into consideration the conditions and constraints relevant to the business process management and internal control function. This process includes evaluations that are carried out using control self-assessment questionnaires on the general control environment.

- The Company is also subject to audits performed by the Internal Audit function, which is also responsible for coordinating and following-up on the implementation of all audit recommendations. Internal Audit function formally reports its activities and its findings to Company's CEO and to the Audit Committee at least four times each year.

11.3 Risk Management

- Business risks, present and future, that are deemed as having a potential impact on the business's ability to achieve its objectives are formally assessed and managed within the context of the strategic, financial, operational and compliance environment.
- The impact and likelihood of each risk and associated risk factors are identified and assessed, as well as development of risk responses and measures to reduce such risks.
- Identified risks are monitored continuously.
- Risks are discussed during the Board Meetings and monthly Executive Management meetings.

11.4 Operation Controls of the Management

- Internal and General Power of Attorney ("POA") have been established and communicated to all Company employees. Both documents are updated on an annual basis, or as and when required and approved by the Board of Directors. The POA clearly specifies employee authorization limits for capital and operational expenditures on a functional basis.
- For other transactions with major shareholders, directors, management, staff or other persons related to those parties, the Company has established strict rules in "**Related Party Transactions Policy**" in order to prevent any conflicts of interest, which take into consideration the optimization of the Company's value on behalf of shareholders and other stakeholders. In addition, all related party transactions must be completed on an "arms-length" basis — the same basis applicable to all third party transactions.

11.5 Information and Communication System

- Important and reliable business and financial information is made available to the Board of Directors to assist them in all decision making processes.
- The Company continuously strives to improve information and communication management systems.
- Before the Board Meeting, and within the minimum period of time prescribed by law, the members of the Board of Directors receive an invitation, meeting agenda, and all related supporting documentation for consideration during official Board Meetings. Moreover, the minutes of the Board Meetings are available for shareholders to inspect, and to ensure the appropriateness of the actions of the Board of Directors.
- The Company maintains and retains all documentation used in the recording of accounting transactions, as well as all other relevant supporting documentation, in an

organized manner, and in compliance with laws regulating the documentation retention period.

- The Company applies generally accepted accounting principles and policies in accordance with Thai Accounting Standards (“TAS”) and other applicable International Financial Reporting Standards (“IFRS”), as aligned with the characteristics of the Company’s business.

11.6 Monitoring Systems

- Internal Audit promptly reports all material internal control deficiencies to the Management and to the Audit Committee. The Audit Committee evaluates these deficiencies, assesses the adequacy of the remediation plans in place, and reports these findings to the Board of Directors for their consideration within a reasonable period of time.
- The Board of Directors monitors and compares the operational performance of the organization and Management, using agreed upon objectives, key performance indicators and budgets.
- The Company’s internal control management system and business processes are audited continuously.
- Each year, the Company agrees on an Internal Audit Plan based for identified high-risk business processes to be included in the Internal Audit’s planning.

11.7 Regulations on Internal Control

- The Company’s corporate governance principles and internal control requirements have been undergoing reforms for several years.
- In 2003, the Company launched the Internal Control Management Programme in response to increasing regulatory pressures regarding internal control management and disclosure requirements. Beyond the importance of ensuring compliance, the Programme was seen as an opportunity to add value by reinforcing the Company’s existing financial reporting processes, as well as our group of companies’ internal control management system.
- The Internal Control Management Programme’s scope was expanded in 2009, for the purpose of focusing on effective management of internal controls and their efficiency benefits.
- The internal control management programme required a significant effort to implement. All processes and relevant internal control procedures related to operational processes and financial statements were documented and assessed by the Business Process Owners (“BPOs”) for design effectiveness (completeness of documentation of the internal controls on paper) and operating effectiveness (effective execution of the internal controls in real-world practices). This self-assessment process reinforces ownership and responsibility. It also guarantees the sustained operational effectiveness of the internal control management system, and ensures its ability to adapt to organizational, procedural, or regulatory changes. Human Resources management, financial management, accounting management,

asset management, sales management, procurement and fuel supply management, inventory management, operations management, asset management, corporate governance, and information technology management are among the processes that are documented.

- BPOs are assisted by an Internal Control Coordinator (“ICC”), a role taken on by VP Business Quality. The ICC ensures the internal control management programme’s proper implementation within the company, and prepares information in support of the Executive Management Committee’s (“EMC”) signing of the annual internal control management attestation letter.
- Internal Audit function and external Statutory Auditor conduct extensive tests on the Company’s most critical internal controls in business processes. These tests, which include assessments of design and operating effectiveness, help improve internal control management system by recommending action plans designed to remedy identified deficiencies and opportunities for improvement.
- The Management develops the necessary remediation plans for all deficiencies identified during these tests. The implementation of remediation actions is closely monitored, and are subject to completeness & effectiveness reviews, in order to ensure quality implementation.
- On 30 August 2018, the Company’s EMC signed the Internal Control Management Attestation Letter for the 2018 Financial Year.
- The Company will continue to embed the above noted internal control management system into the corporate culture and all business processes of its organization.

11.8 Internal Audit

Management appoints, removes and replaces the Internal Auditor with the consent of the Audit Committee. Mr. Chaiwut Rattanapornsinchai has been appointed to serve as Internal Auditor of the Company.

12. Related Party Transactions

12.1 Details of related party transactions

ENGIE Holding (Thailand) Company Limited and ENGIE Global Developments B.V. were the Company's major shareholder (the former shareholders) until 14 March 2019. Now, the Company's major shareholder is Global Power Synergy Public Company Limited (GPSC) which, after the end of the Tender Offer Period to purchase Glow's shares that were publicly traded in the SET from minority shareholders in May 2019, holds 95.25% interest in the Company's ordinary shares and the Company's ultimate parent company is PTT Public Company Limited. Consequently, ENGIE Holding (Thailand) Company Limited, ENGIE Global Developments B.V. and related parties of ENGIE S.A. Group are not identified as related parties. Therefore, the transactions and the outstanding of receivables and payables balance with ENGIE S.A. Group after 14 March 2019 are not be determined as transactions with related parties.

The Company has business transactions with its subsidiaries, associated companies and related companies as details disclosed in the note to the financial statements No. 18.

12.2 Necessity and reasonableness of the related transactions

The related transactions of the Company and the person who might have conflict of interest for the past year have been done by taking into consideration the maximum benefit of the Company, and the Audit Committee has considered and agreed that such transactions were normal course of the business and there was no benefit transfer between the Company and the person who might have the conflict of interest. In addition, price fixing, fee rate and interest rate of the transactions all were in accordance with general trade conditions. Price fixing was comparable to market price and competitive mechanism or was the reasonable price and did not have condition that differed from making transactions with other third parties.

12.3 Approval procedures of related transactions

For related transactions with the normal course of business operations, the approval procedures are in accordance with the regulations of the company, the subsidiaries, and the associated companies, similar to the transactions provided to other unrelated parties. For other related transactions, the Company has control measures in compliance with related regulations of Securities Exchange Commission ("SEC") and Stock Exchange of Thailand ("SET"). In addition, for the consideration of the related transactions between the Company and the persons who might have conflict of interest and are a shareholder or the management of such company, such shareholder or such management shall not take part in the approval process.

12.4 Policy and trend of related transaction in the future

The Company anticipates that there will be related transactions incurred in the future because the related transactions of the Company have been done in accordance with the normal business of the Company and the Company has the policy to operate such related transactions to maximize benefit of the Company. For the related transactions in the future, the Company shall comply with the laws

concerning securities and stock exchange and the regulations, announcements, orders or requirements of the Stock Exchange of Thailand as well as to comply with the requirements concerning the disclosure of the related transactions and the acquisition and disposal of the material assets of the Company including compliance with the accounting standard specified by the Accountants and the Certified Public Auditors Association of Thailand and Federation of Accounting Professional.

However, if there is a related transaction of the Company with a person or a stakeholder who might have a conflict of interest, the Company shall appoint the Audit Committee to give opinion on necessity and reasonableness of such transaction and the appropriateness of price fixing of other items in order to be in accordance with the general market price and with the conditions that is not different from other third parties or at prime cost. In addition, the Company shall disclose the related transactions in the note to the financial statements, which has been audited by the auditors of the Company.

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|--------------------------------------|
| 13. Key Financial Information |
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GLOW ENERGY PUBLIC COMPANY LIMITED AND SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION

AS AT 31 DECEMBER,

Unit : MTHB

| | 2018 | % | 2017 | % | 2016 | % |
|--|----------------|---------------|----------------|---------------|----------------|---------------|
| ASSETS | | | | | | |
| CURRENT ASSETS | | | | | | |
| Cash and cash equivalents | 10,042 | 9.6% | 8,737 | 8.2% | 7,252 | 6.6% |
| Trade and other receivables | 7,968 | 7.6% | 7,215 | 6.8% | 8,267 | 7.6% |
| Other current assets | 6,432 | 6.2% | 6,110 | 5.8% | 6,042 | 5.5% |
| Total Current Assets | 24,442 | 23.4% | 22,062 | 20.8% | 21,561 | 19.7% |
| NON-CURRENT ASSETS | | | | | | |
| Property, plant and equipment | 73,895 | 70.8% | 77,128 | 72.7% | 80,742 | 73.7% |
| Other non-current assets | 6,091 | 5.8% | 6,841 | 6.5% | 7,215 | 6.6% |
| Total Non-Current Assets | 79,986 | 76.6% | 83,969 | 79.2% | 87,957 | 80.3% |
| TOTAL ASSETS | 104,428 | 100.0% | 106,031 | 100.0% | 109,518 | 100.0% |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | | | | | |
| CURRENT LIABILITIES | | | | | | |
| Trade and other payables | 6,297 | 6.0% | 6,132 | 5.8% | 4,759 | 4.3% |
| Current portion of long-term borrowings & Debentures | 4,827 | 4.6% | 6,254 | 5.9% | 7,767 | 7.1% |
| Short-term borrowings | 702 | 0.7% | 975 | 0.9% | 1,433 | 1.3% |
| Other current liabilities | 1,026 | 1.0% | 1,061 | 1.0% | 1,084 | 1.0% |
| Total Current Liabilities | 12,851 | 12.3% | 14,422 | 13.6% | 15,043 | 13.7% |
| NON-CURRENT LIABILITIES | | | | | | |
| Long-term borrowings and Debentures | 30,869 | 29.6% | 31,777 | 30.0% | 36,197 | 33.1% |
| Other non-current liabilities | 1,803 | 1.7% | 1,823 | 1.7% | 1,507 | 1.4% |
| Total Non-Current Liabilities | 32,672 | 31.3% | 33,600 | 31.7% | 37,704 | 34.5% |
| TOTAL LIABILITIES | 45,523 | 43.6% | 48,022 | 45.3% | 52,747 | 48.2% |
| TOTAL SHAREHOLDERS' EQUITY | 58,904 | 56.4% | 58,009 | 54.7% | 56,771 | 51.8% |
| TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY | 104,428 | 100.0% | 106,031 | 100.0% | 109,518 | 100.0% |

GLOW ENERGY PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF FINANCIAL POSITION
AS AT 31 MARCH 2019

| | MTHB | % |
|--|----------------|---------------|
| ASSETS | | |
| CURRENT ASSETS | | |
| Cash and cash equivalents | 14,620 | 13.4% |
| Trade and other receivables | 7,860 | 7.2% |
| Other current assets | 5,706 | 5.2% |
| Total Current Assets | 28,186 | 25.8% |
| NON-CURRENT ASSETS | | |
| Property, plant and equipment | 71,313 | 65.4% |
| Other non-current assets | 9,562 | 8.8% |
| Total Non-Current Assets | 80,875 | 74.2% |
| TOTAL ASSETS | 109,061 | 100.0% |
| LIABILITIES AND SHAREHOLDERS' EQUITY | | |
| CURRENT LIABILITIES | | |
| Trade and other payables | 5,607 | 5.1% |
| Current portion of long-term borrowings & Debentures | 4,807 | 4.4% |
| Short-term borrowings | 702 | 0.6% |
| Other current liabilities | 1,536 | 1.4% |
| Total Current Liabilities | 12,651 | 11.6% |
| NON-CURRENT LIABILITIES | | |
| Long-term borrowings and Debentures | 30,665 | 28.1% |
| Other non-current liabilities | 13,909 | 12.8% |
| Total Non-Current Liabilities | 44,575 | 40.9% |
| TOTAL LIABILITIES | 57,226 | 52.5% |
| TOTAL SHAREHOLDERS' EQUITY | 56,771 | 52.1% |
| TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY | 109,061 | 100.0% |

GLOW ENERGY PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF PROFIT OR LOSS
FOR THE YEAR ENDED 31 DECEMBER,

| | Unit : MTHB | | | | | |
|--|-------------|--------|-------------|--------|-------------|--------|
| | <u>2018</u> | % | <u>2017</u> | % | <u>2016</u> | % |
| Revenues from sales | 53,321 | 100.0% | 50,878 | 100.0% | 52,567 | 100.0% |
| Cost of sales | (39,975) | 75.0% | (37,721) | 74.1% | (38,479) | 73.2% |
| Gross profit | 13,346 | 25.0% | 13,157 | 25.9% | 14,088 | 26.8% |
| Other income | 592 | 1.1% | 1,658 | 3.3% | 524 | 1.0% |
| Administrative expenses | (902) | 1.7% | (847) | 1.8% | (954) | 1.8% |
| Other Expense | (14) | 0.0% | (11) | 0.0% | (14) | 0.0% |
| Finance costs | (2,045) | 3.8% | (2,380) | 4.7% | (2,599) | 4.9% |
| Share of loss of investments in associates | (4) | 0.0% | (2) | 0.0% | (1) | 0.0% |
| Income tax expense | (1,310) | 2.5% | (975) | 1.9% | (982) | 1.9% |
| Profit after tax | 9,664 | 18.1% | 10,602 | 20.8% | 10,063 | 19.2% |
| Minority interest | (1,284) | 2.4% | (1,526) | 3.0% | (1,110) | 2.1% |
| Net profit for the Company | 8,379 | 15.7% | 9,076 | 17.8% | 8,953 | 17.1% |

GLOW ENERGY PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF PROFIT OR LOSS
FOR THE THREE-MONTH PERIOD ENDED 31 MARCH 2019

| | MTHB | % |
|--|---------|--------|
| Revenues from sales | 11,942 | 100.0% |
| Cost of sales | (9,631) | 80.6% |
| Gross profit | 2,311 | 19.4% |
| Other income | 1,040 | 8.7% |
| Administrative expenses | (464) | 3.9% |
| Finance costs | (629) | 5.3% |
| Share of loss of investments in associates | (3) | 0.0% |
| Income tax expense | (337) | 2.8% |
| Profit after tax | 1,918 | 16.1% |
| Minority interest | (17) | 0.1% |
| Net profit for the Company | 1,901 | 15.9% |

GLOW ENERGY PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF CASH FLOWS
FOR THE YEAR ENDED 31 DECEMBER,

| | Unit : MTHB | | |
|--|---------------|--------------|----------------|
| | <u>2018</u> | <u>2017</u> | <u>2016</u> |
| Net cash provided by operating activities | 13,791 | 16,738 | 15,295 |
| Net cash provided by (used in) investing activities | (1,201) | (787) | (1,054) |
| Net cash used in financing activities | (11,282) | (14,425) | (15,689) |
| Unrealized exchange gain (loss) of cash and cash equivalents | (3) | (42) | (3) |
| Net increase (decrease) in cash and cash equivalents | 1,306 | 1,485 | (1,451) |
| Cash and cash equivalents as at 1 January, | 8,737 | 7,252 | 8,703 |
| Cash and cash equivalents as at 31 December, | 10,042 | 8,737 | 7,252 |

GLOW ENERGY PUBLIC COMPANY LIMITED AND SUBSIDIARIES
STATEMENTS OF CASH FLOWS
FOR THE THREE-MONTH PERIOD ENDED 31 MARCH 2019

| | Unit : MTHB |
|---|--------------------------|
| Net cash provided by operating activities | 3,212 |
| Net cash provided by (used in) investing activities | 2,126 |
| Net cash used in financing activities | (577) |
| Exchange gain (loss) of cash and cash equivalents | (8) |
| Net increase (decrease) in cash and cash equivalents | 4,752 |
| Cash and cash equivalents as at 1 January, | 9,868¹ |
| Cash and cash equivalents as at 31 March, | 14,620 |

¹ Not equal to cash and cash equivalent as at 31 December 2018 due to new method of categorizing current assets adopted by a new auditor in 2019.

Ratio of Financial Statement

| Glow Energy Public Company Limited | | | | |
|------------------------------------|-------|--------|--------|--------|
| Financial Ratio Summary | | | | |
| AS AT 31 DECEMBER, | | | | |
| | Unit | 2018 | 2017 | 2016 |
| Liquidity Ratio | | | | |
| - Current Ratio | Times | 1.90 | 1.53 | 1.43 |
| - Quick Ratio | Times | 1.40 | 1.12 | 1.06 |
| - Cash Ratio | Times | 1.01 | 1.14 | 0.96 |
| Profitability Ratio | | | | |
| - Gross Profit Margin | % | 25.03% | 25.86% | 26.80% |
| - Operating Profit Margin | % | 24.41% | 27.43% | 25.95% |
| - Net Profit Margin | % | 15.71% | 17.84% | 17.03% |
| - Return on Equity | % | 16.98% | 18.45% | 18.36% |
| Efficiency Ratio | | | | |
| - Return on Asset | % | 7.96% | 8.42% | 7.89% |
| - Return on Fixed Asset | % | 16.56% | 16.75% | 15.75% |
| - Asset Turnover | Times | 0.51 | 0.47 | 0.46 |
| Financial Ratio | | | | |
| - Debt to Equity | Times | 0.77 | 0.83 | 0.94 |
| - Interest Coverage | Times | 8.38 | 8.44 | 7.26 |
| - Dividend Payout | % | 50.0 | 96.6 | 89.6 |

Ratio of Financial Statement

| Glow Energy Public Company Limited | | |
|--|-------------|--------|
| Financial Ratio Summary AS AT 31 MARCH 2019 | | |
| Liquidity Ratio | Unit | |
| - Current Ratio | Times | 2.23 |
| - Quick Ratio | Times | 1.79 |
| - Cash Ratio | Times | 1.15 |
| Profitability Ratio | Unit | |
| - Gross Profit Margin | % | 19.35% |
| - Operating Profit Margin | % | 18.19% |
| - Net Profit Margin | % | 15.92% |
| - Return on Equity | % | 15.76% |
| Efficiency Ratio | Unit | |
| - Return on Asset | % | 7.09% |
| - Return on Fixed Asset | % | 16.00% |
| - Asset Turnover | Times | 0.49 |
| Financial Ratio | Unit | |
| - Debt to Equity | Times | 1.1 |
| - Interest Coverage | Times | 8.36 |
| - Dividend Payout | % | N/A |

14. Management's discussion and analysis

Company Overview

Glow Energy Public Company Limited (the Company) and its subsidiaries are one of the largest private electricity generators and providers of industrial utilities in Thailand. We operate IPP and cogeneration facilities (most of which operate as SPPs under Thailand's SPP program) and our core business is to produce and supply electricity to EGAT and to produce and supply electricity and steam to industrial customers in Map Ta Phut Industrial Estate (MIE) in Rayong and Siam Eastern Industrial Park (SEIP) in Rayong. As of 31 March 2019, we had a total generating capacity of 3,084 MW of electricity and 1,116 tons per hour of steam.

The net profit in this MD&A is presented in two formats: (i) net profit (with adjustments of Financial Lease and Revenue Levelization); and (ii) net profit (without adjustments of Financial Lease and Revenue Levelization). Accounting adjustments on net profit are as follows:

(i) Financial Lease accounting adjustments under TFRIC4 of Glow IPP

From 2014, Thai accounting standard has adopted international accounting standard in relation to financial lease. The only generating unit of Glow Group affected from this change in accounting standard is Glow IPP, 713 MW gas-fired IPP. Implications of financial lease accounting standard include, but not limited to, the following key aspects:

- o Record of Availability Payment received from EGAT as financial lease income and amortization of lease receivables;
- o Record of lease receivables, rather than property plant and equipment as per old accounting standard, and hence no record of depreciation expense; and
- o Record of Energy Payment, gas cost, and other operating costs remained unchanged.

(ii) Revenue Levelization adjustments under TFRS15 of GHECO-One

From 1 January 2019, the new Thai Financial Reporting Standard in relation to revenue from contracts with customers (TFRS15) has been applied to GHECO-One, 660 MW coal-fired IPP. TFRS15 specifies that revenue from Availability Payment (AP) shall be recognized "over time" as its performance obligation is to maintain availability of the plant at contracted capacity throughout the 25-year PPA term. As a result, the AP cash received based on the front load profile shall be levelized over the PPA term to reflect the performance obligation. Implications of Revenue Levelization include, but not limited to, the following key aspects:

- o Restate opening balance of retained earnings for the cumulative effect of the difference in accounting treatment in the period up to, and including, 2018;
- o Record of Levelized Availability Payment rather than the front-loaded Availability Payment received from EGAT in Statements of Profit or Loss;
- o Record of Contract Liability (deferred revenue) created from the difference between the advance availability payment cash received due to the front-loaded AP and the levelized AP;
- o Record of interest expense and deferred tax on the Contract Liability; and
- o Record of Energy Payment, coal cost, and other operating costs remained unchanged.

Consolidated Statements of Profit or Loss Analysis (For the year ended 31 December 2018)

1. Revenues

We derive our revenues primarily from sales of electricity to EGAT and sales of electricity, steam, clarified and demineralized water and chilled water to industrial users in the MIE Area and SEIP Area.

The following table demonstrates our volumes of electricity and industrial utilities sold for the indicated periods:

| Sales | FY2018 | FY2017 | % change |
|---|-----------------|-----------------|-------------|
| Electricity dispatch (GWh) | | | |
| To EGAT by IPPs | 5,958.7 | 5,450.8 | 9.3% |
| To EGAT by Glow IPP | 37.9 | 34.2 | 11.0% |
| To EGAT by GHECO-One | 5,503.4 | 5,020.6 | 9.6% |
| To EGAT by HHPC ¹ | 417.4 | 396.0 | 5.4% |
| To EGAT by SPPs ² | 5,035.6 | 5,175.8 | -2.7% |
| To Industrial Customers | 5,221.0 | 5,265.1 | -0.8% |
| Total | 16,215.2 | 15,891.6 | 2.0% |
| Steam (thousands of tons) | 8,009.5 | 7,885.5 | 1.6% |
| Processed Water (thousands of cubic meters) | 12,834.6 | 12,414.0 | 3.4% |
| Chilled Water (thousands of refrigerated tons) | 13,683.0 | 13,995.5 | -2.2% |

Notes: 1) Including sales of electricity to Electricite Du Laos (EDL)

2) Include electricity dispatch to PEA under VSPP scheme by Glow Energy Solar (1.55 MW) of 2.2 GWh in FY2018

The following table breaks down our sources of revenue for the periods indicated:

| Revenue (unit: million Baht) | FY2018 | FY2017 | % change |
|---|-----------------|-----------------|-------------|
| Revenue from Sales of Goods and Interest Earned from Financial Lease | | | |
| Electricity | | | |
| Sales to EGAT by IPPs | 14,601.1 | 13,408.7 | 8.9% |
| Sales to EGAT by Glow IPP | 1,577.0 | 1,581.3 | -0.3% |
| Sales to EGAT by GHECO-One | 12,293.6 | 11,109.0 | 10.7% |
| Sales to EGAT by HHPC ¹ | 730.4 | 718.5 | 1.7% |
| Sales to EGAT by SPPs ² | 13,924.7 | 13,747.7 | 1.3% |
| Sales to Industrial Customers | 16,180.9 | 15,722.9 | 2.9% |
| Interest earned from financial lease (Glow IPP) | 634.2 | 567.3 | 11.8% |
| Total | 45,341.0 | 43,446.6 | 4.4% |
| Steam | 7,514.3 | 6,984.7 | 7.6% |
| Other Products and Services | 465.9 | 447.2 | 4.2% |
| Total | 53,321.2 | 50,878.5 | 4.8% |
| Other Income | 592.2 | 1,658.8 | -64.3% |
| Total Revenue | 53,913.4 | 52,537.3 | 2.6% |

Notes: 1) Including sales of electricity to Electricite Du Laos (EDL)

2) Including revenues from electricity sales to PEA under VSPP scheme by Glow Energy Solar

Revenue from sales of goods and interest earned from financial lease and other income in FY2018 was Baht 53,913.4 million, an increase of 2.6% from Baht 52,537.3 million in FY2017. The increase was driven by following factors:

1.1 Revenue: GIPP

| Revenue from sales to EGAT (unit: million Baht) | FY2018 | FY2017 | % change |
|--|----------------|----------------|---------------|
| Without financial lease accounting | | | |
| Availability Payment (AP) | 1,417.5 | 1,703.4 | -16.8% |
| Energy Payment (EP) | 983.7 | 972.9 | 1.1% |
| Total revenue from sales to EGAT | 2,401.2 | 2,676.3 | -10.3% |
| With financial lease accounting | | | |
| Revenue from sales to EGAT | 1,577.0 | 1,581.3 | -0.3% |
| Interest earned from financial lease | 634.2 | 567.3 | 11.8% |

| GIPP: Key revenue drivers | FY2018 | FY2017 | % change |
|-------------------------------------|--------|--------|----------|
| Power dispatch to EGAT (GWh) | 37.9 | 34.2 | 11.0% |
| Availability (%) | 99.2% | 100.0% | n/a |

In FY2018, revenue (without financial lease accounting) from sale of electricity to EGAT was Baht 2,401.2 million, decreased by 10.3% from Baht 2,676.3 million in FY2017. The decrease was due to the decrease of Availability Payment by 16.8% despite the slight increase from Energy Payment of 1.1%.

However, with financial lease accounting, sales of electricity to EGAT recorded in financial statement consisted of interest earned from financial lease and revenue from sales. In FY2018, the Company recorded interest earned from financial lease of Baht 634.2 million and revenue from sales of Baht 1,577.0 million.

1.2 Revenue: GHECO-One

| Revenue from sales to EGAT (unit: million Baht) | FY2018 | FY2017 | % change |
|--|-----------------|-----------------|--------------|
| Availability Payment (AP) | 6,246.5 | 6,562.8 | -4.8% |
| Energy Payment (EP) | 6,047.1 | 4,546.2 | 33.0% |
| Total revenue from sales to EGAT | 12,293.6 | 11,109.0 | 10.7% |

| GHECO-One: Key revenue drivers | FY2018 | FY2017 | % change |
|-------------------------------------|---------|---------|----------|
| Power dispatch to EGAT (GWh) | 5,503.4 | 5,020.6 | 9.6% |
| Availability (%) | 95.6% | 87.3% | n/a |

In FY2018, revenue from sale of electricity to EGAT was Baht 12,293.6 million, an increase of 10.7% from Baht 11,109.0 million in FY2017. The increase was due to higher Energy Payment from higher power dispatch as a result of the planned maintenance shutdown in FY2017 and higher coal price in FY2018.

1.3 Revenue: Houay Ho Power (HHPC)

| Revenue from sales to EGAT and EDL (unit: million Baht) | FY2018 | FY2017 | % change |
|--|--------------|--------------|-------------|
| Total revenue | 730.4 | 718.5 | 1.7% |

| HHPC: Key revenue drivers | FY2018 | FY2017 | % change |
|---|--------------|--------------|-------------|
| Power dispatch to EGAT and EDL (GWh) | 417.4 | 396.0 | 5.4% |

In FY2018, revenue from sale of electricity to EGAT and EDL was Baht 730.4 million, an increase of 1.7% from Baht 718.5 million in FY2017. The increase was mainly due to increase in volume dispatched to EGAT and EDL from 396.0 GWh in FY2017 to 417.4 GWh in FY2018.

1.4 Revenue: Cogeneration Facilities

| Revenue from sales of goods (unit: million Baht) | FY2018 | FY2017 | % change |
|---|-----------------|-----------------|-------------|
| Electricity | | | |
| Sales to EGAT under SPP scheme | 13,924.7 | 13,747.7 | 1.3% |
| Sales to industrial customers | 16,180.9 | 15,722.9 | 2.9% |
| Steam | 7,514.3 | 6,984.7 | 7.6% |
| Other products | 465.9 | 447.2 | 4.2% |
| Total | 38,085.8 | 36,902.4 | 3.2% |

| Cogeneration facilities: Key revenue drivers | FY2018 | FY2017 | % change |
|---|----------|----------|----------|
| Sales Volume | | | |
| Sales of electricity to EGAT (GWh) ¹ | 5,035.6 | 5,175.8 | -2.7% |
| Sales of electricity to Industrial Customers (GWh) | 5,221.0 | 5,265.1 | -0.8% |
| Sales of steam (thousands of tons) | 8,009.5 | 7,885.5 | 1.6% |
| Sales of processed water (thousands of cubic meters) | 12,834.6 | 12,414.0 | 3.4% |
| Sales of chilled water (thousands of refrigerated tons) | 13,683.0 | 13,995.5 | -2.2% |
| Availability (%) | | | |
| All Cogeneration facilities | 95.6% | 96.7% | n/a |
| Phase 5 | 98.8% | 91.3% | n/a |
| CFB 1&2 | 93.8% | 88.7% | n/a |
| CFB 3 | 91.1% | 95.0% | n/a |

Note: 1) Include electricity dispatch to PEA under VSPP scheme by Glow Energy Solar (1.55 MW) of 2.2 GWh in FY2018

Revenue from sales of electricity to EGAT: In FY2018, the revenue was Baht 13,924.7 million, an increase of 1.3% from Baht 13,747.7 million in FY2017. The increase was mainly due to higher gas price and coal price despite decrease in sales volume.

Revenue from sales of electricity to industrial customers: In FY2018, the revenue was Baht 16,180.9 million, an increase of 2.9% from Baht 15,722.9 million in FY2017 due to higher electricity tariff rate charged to industrial customers.

Revenue from sales of steam to industrial customers: In FY2018, the revenue was Baht 7,514.3 million, an increase of 7.6% from Baht 6,984.7 million in FY2017. The increase was due to higher selling price as a result of the higher gas price.

Revenue from sales of other products: In FY2018, the revenue was Baht 465.9 million, an increase of 4.2% from Baht 447.2 million in FY2017 which was mainly due to higher sales volume of processed water.

1.5 Revenue: Other income

| Other Income (unit: million Baht) | FY2018 | FY2017 | % change |
|-----------------------------------|--------------|----------------|---------------|
| Interest income | 69.6 | 51.6 | 34.9% |
| Net exchange gain | 107.4 | 950.1 | -88.7% |
| Others | 415.2 | 657.1 | -36.8% |
| Total | 592.2 | 1,658.8 | -64.3% |

Other income consists mainly of revenue from interest income, net exchange gain and other items. In FY2018, other incomes were Baht 592.2 million, a decrease of 64.3% from Baht 1,658.8 million in FY2017. The details of revenue from other income are below:

Interest income: In FY2018, we recognized interest income of Baht 69.6 million, an increase of 34.9% from FY2017. The interest income is principally interest earned on cash held in the form of deposits, financial instruments and in reserve accounts under our project financing agreements.

Net exchange gain: The foreign exchange exposure is mainly from the US dollar-denominated debt of GHECO-One. When comparing FY2018 to FY2017, the net exchange gain of FY2018 was Baht 107.4 million, 88.7% lower than that of FY2017. The larger net exchange gain in FY2017 than in FY2018 was due to significant Thai Baht appreciation in FY2017 comparing to slight Thai Baht appreciation in FY2018.

Income from other items: In FY2018, income from other items totalled Baht 415.2 million, decreased by 36.8% from FY2017. The decrease was attributed to proceeds from business interruption claims of GHECO-One which were booked at Baht 291.9 million in the H1/2017 (Baht 105.0 million in Q1/2017 and Baht 186.9 million in Q2/2017) which did not recur in 2018.

2. Expenses

Our expenses comprise of cost of goods sold, selling and administrative expenses, and other expenses.

The following table demonstrates different components of our expenses for the periods indicated:

| Expenses (unit: million Baht) | FY2018 | FY2017 | % change |
|-------------------------------|----------|----------|----------|
| Cost of Goods Sold | | | |
| Fuels | | | |
| Natural Gas | 21,794.5 | 20,460.9 | 6.5% |
| Coal | 8,900.1 | 7,640.9 | 16.5% |
| Diesel | 20.6 | 21.5 | -4.2% |

| Expenses (unit: million Baht) | FY2018 | FY2017 | % change |
|--|-----------------|-----------------|--------------|
| Maintenance | 1,609.6 | 2,084.1 | -22.8% |
| Depreciation and Amortization | 4,320.9 | 4,377.9 | -1.3% |
| Others | 3,329.1 | 3,135.5 | 6.2% |
| Total Cost of Goods Sold | 39,975.0 | 37,720.8 | 6.0% |
| Selling and Administrative Expenses | | | |
| Depreciation and Amortization | 20.1 | 27.7 | -27.2% |
| General | 881.6 | 818.9 | 7.7% |
| Total Selling and Administrative Expenses | 901.8 | 846.5 | 6.5% |
| Other Expenses | 18.3 | 13.1 | 39.3% |
| Total Expenses | 40,895.1 | 38,580.4 | 6.0% |

2.1 Cost of Goods Sold: IPP facilities¹

| Cost of Goods Sold for IPP Facilities (unit: million Baht) | FY2018 | FY2017 | % change |
|---|----------------|----------------|-------------|
| Fuels | | | |
| Natural Gas ¹ | 966.4 | 959.0 | 0.8% |
| Coal | 5,267.0 | 4,652.7 | 13.2% |
| Diesel | 17.9 | 18.0 | -0.9% |
| Maintenance | 330.3 | 739.5 | -55.3% |
| Depreciation and Amortization | 1,397.4 | 1,430.7 | -2.3% |
| Others | 1,058.6 | 838.5 | 26.2% |
| Total Cost of Goods sold for IPP facilities | 9,037.5 | 8,638.3 | 4.6% |

Note: 1) Including cost related to gas pipeline transmission (Tdc1) of Baht 907.6 million in FY2018 and FY2017.

| IPP Facilities: Key cost drivers | FY2018 | FY2017 | % change |
|---|--------------|--------------|-------------|
| Fuel consumption (mmBTU, HHV) | | | |
| GIPP | 283,088 | 260,106 | 8.8% |
| GHECO-One | 48,613,390 | 44,758,925 | 8.6% |
| Heat rate (BTU/kWh, HHV) | | | |
| GIPP | 7,399.6 | 7,465.4 | -0.9% |
| GHECO-One | 8,831.9 | 8,914.6 | -0.9% |
| Average gas cost – GIPP (Baht/mmBTU)¹ | 207.4 | 204.4 | 1.5% |
| Average coal cost – GHECO-One (USD/ton) | | | |
| Equivalent coal price at 6,322 kcal/kg ² | 78.9 | 68.2 | 15.7% |
| Freight costs ³ | 8.7 | 7.7 | 13.4% |
| Availability | | | |
| GIPP | 99.2% | 100.0% | n/a |
| GHECO-One | 95.6% | 87.3% | n/a |

Notes: 1) Not actual gas prices but are derived by dividing total natural gas expenses (excluding cost related to gas pipeline transmission (Tdc1)) by total fuel consumption of the facilities for the periods presented.

2) This equivalent coal price is not an actual reference coal price of each facility. It is derived from our actual average coal price (also taken into account inventory) converted into equivalent price at stated calorific value.

3) These reflect our actual freight and insurance costs.

¹ IPP facilities are GIPP, GHECO-One and Houay Ho Power (HHPC).

Cost of natural gas of GIPP: This cost comprises of the cost of natural gas and the cost of gas pipeline transmission (Tdc1). After deducting the cost of gas pipeline transmission (Tdc1) of Baht 907.6 million in FY2018 and FY2017, the cost of natural gas in FY2018 was Baht 58.7 million, increased by 14.3% from Baht 51.4 million FY2017. The increase was due to higher gas consumption of GIPP in FY2018.

Cost of coal of GHECO-One: In FY2018, the cost was Baht 5,267.0 million, increased by 13.2% from Baht 4,652.7 million in FY2017 reflecting the rise in coal cost and higher coal consumption in FY2018.

Maintenance costs of IPP facilities: In FY2018, the costs were Baht 330.3 million, decreased by Baht 55.3% from Baht 739.5 million in FY2017 due to no planned maintenance of GHECO-One in FY2018.

Depreciation and amortization costs of IPP facilities: In FY2018, the costs were Baht 1,397.4 million, decreased by 2.3% from Baht 1,430.7 million in FY2017.

Other costs of goods sold of IPP facilities: When comparing FY2018 to FY2017, other costs of goods sold of IPP facilities increased by 26.2% from Baht 838.5 million in FY2017 to Baht 1,058.6 million in FY2018 due to provision of inventory (spare parts) in Q3/2018. IPP facilities' other costs of goods sold are mainly costs of water, chemicals, and general overhead costs as well as contribution to Power Community Development Fund .

2.2 Cost of Goods Sold: Cogeneration facilities

| Cost of Goods Sold for Cogeneration Facilities (unit: million Baht) ¹ | FY2018 | FY2017 | % change |
|--|-----------------|-----------------|-------------|
| Fuels | | | |
| Natural Gas | 20,828.2 | 19,501.9 | 6.8% |
| Coal | 3,633.1 | 2,988.2 | 21.6% |
| Diesel | 2.8 | 3.5 | -21.1% |
| Maintenance | 1,279.4 | 1,344.6 | -4.9% |
| Depreciation and Amortization | 2,923.5 | 2,947.2 | -0.8% |
| Other | 2,270.5 | 2,297.0 | -1.2% |
| Total Cost of Goods Sold for Cogen Facilities | 30,937.5 | 29,082.4 | 6.4% |

Note: 1) The data presented in this table as cost of goods sold for Cogeneration facilities is from consolidated financial results less the results of GIPP, GHECO-One, and HHPC. In fact, certain of these amounts are attributable to portions of our business, which are not technically our cogeneration facilities, although these amounts represent only a small portion thereof.

| Cogeneration Facilities: Key cost drivers | FY2018 | FY2017 | % change |
|---|------------|------------|----------|
| Fuel consumption (mmBTU, HHV) | | | |
| MIE | | | |
| Gas-fired cogeneration facilities | 66,073,080 | 67,459,607 | -2.1% |
| Coal-fired cogeneration facilities | 27,619,491 | 27,203,336 | 1.5% |
| SEIP | 12,572,248 | 13,215,943 | -4.9% |
| Heat rate (BTU/kWhe, HHV) | | | |
| MIE ¹ | | | |
| Gas-fired cogeneration facilities | 8,041.3 | 8,113.9 | -0.9% |

| Cogeneration Facilities: Key cost drivers | FY2018 | FY2017 | % change |
|---|----------|----------|----------|
| Coal-fired cogeneration facilities ² | 10,423.0 | 10,292.6 | 1.3% |
| SEIP | 8,241.3 | 8,249.3 | -0.1% |
| Average gas cost (Baht/mmBTU) ³ | 263.2 | 240.4 | 9.5% |
| Average coal cost (USD/ton) | | | |
| Equivalent coal price at 6,322 kcal/kg ⁴ | 94.1 | 72.0 | 30.6% |
| Freight costs ⁵ | 6.9 | 8.0 | -13.8% |
| Availability – all | 95.6% | 96.7% | n/a |

Notes: 1) We present an “allocated” heat rate, which is a deemed heat rate for our Cogeneration facilities that we derive by dividing the total fuel energy consumption of such facilities over a specified period of time by the energy produced during such period. This is not a straightforward exercise, particularly with respect of our Glow SPP 2/SPP 3 hybrid facility, where, for purposes of such calculation, we are required to “allocate” the amount of energy produced steam and the amount of energy used producing gas. We make this allocation on the basis of the contribution of each energy source to total energy input, which involves subjective judgments and the use of simplifying assumptions.

2) CFB start-up gas is charged to the coal heat rates for purposes of the figures presented in this table.

3) This is a “blended” rate reflecting principally prices paid to PTT for: (i) gas used to supply electricity to EGAT and industrial customers; and (ii) gas used to fire boilers to generate steam for industrial customers. Prices in aforementioned (i) and (ii) are different.

4) This equivalent coal price is not an actual reference coal price of each facility. It is derived from our actual average coal price (also taken into account inventory) converted into equivalent price at stated calorific value.

5) These reflect our actual freight and insurance costs.

Cost of natural gas of Cogeneration facilities: In FY2018, the cost was Baht 20,828.2 million, increased by 6.8% from Baht 19,501.9 million in FY2017. The increase was due to 9.5% higher gas price in FY2018 despite lower gas consumption.

Cost of coal of Cogeneration facilities: In FY2018, the cost was Baht 3,633.1 million, increased by 21.6% from Baht 2,988.2 million in FY2017. The increase was due to 30.6% higher average coal price at FOB in FY2018.

Maintenance costs of Cogeneration facilities: In FY2018, the costs were Baht 1,279.4 million, decreased by 4.9% from Baht 1,344.6 million in FY2017 due to lower planned maintenance of Cogeneration facilities in FY2018.

Depreciation and amortization costs of Cogeneration facilities: In FY2018, the costs were Baht 2,923.5 million, decreased by 0.8% from Baht 2,947.2 million in FY2017.

Other costs of goods sold of Cogeneration facilities: In FY2018, the costs were Baht 2,270.5 million, decreased by 1.2% from Baht 2,297.0 million in FY2017. Cogeneration facilities’ other costs of goods sold are mainly costs of water, chemicals, and general overhead costs as well as contribution to Power Community Development Fund.

2.3 Selling and administrative expenses

| SG&A (unit: million Baht) | FY2018 | FY2017 | % change |
|-------------------------------|--------------|--------------|-------------|
| Depreciation and amortization | 20.1 | 27.7 | -27.2% |
| Others | 881.6 | 818.9 | 7.7% |
| Total | 901.8 | 846.5 | 6.5% |

Selling and administrative expenses were recorded at Baht 901.8 million in FY2018, an increase of 6.5% from Baht 846.5 million in FY2017. The selling and administrative expenses of FY2018 included the record of tax surcharges paid in 2013 in relation to GHECO-One's dispute on exchange gains during years 2008-2011 of construction totaling Baht 180.3 million (see more details under 4. Income Tax Expenses).

2.4 Other expenses

Other expenses are net exchange loss, directors' remuneration and other items. When comparing FY2018 to FY2017, other expenses increased from Baht 13.1 million in FY2017 to Baht 18.3 million in FY2018.

3. Finance Costs

| Finance costs (unit: million Baht) | FY2018 | FY2017 | % change |
|------------------------------------|----------------|----------------|---------------|
| Interest expenses | 1,966.5 | 2,296.0 | -14.4% |
| Financial fees | 78.6 | 83.5 | -5.8% |
| Total | 2,045.2 | 2,379.5 | -14.1% |

In FY2018, finance costs were Baht 2,045.2 million, decreased by 14.1% from Baht 2,379.5 million in FY2017. The decrease was mainly due to a lower amount of outstanding interest-bearing debt.

4. Income Tax Expenses

| Income tax expenses (unit: million Baht) | FY2018 | FY2017 | % change |
|--|----------------|--------------|--------------|
| Current income tax expense | 1,427.7 | 920.8 | 55.0% |
| Deferred tax | -118.1 | 54.4 | -317.1% |
| Total | 1,309.6 | 975.2 | 34.3% |

Income tax expenses comprise of 2 main parts: (i) current income tax expenses; and (ii) deferred tax:

Current income tax expense

In FY2018, the current income tax expense was Baht 1,427.7 million, increased from Baht 920.8 million in FY2017. The increase of current income tax expense was mainly due to the Supreme Court's judgment on tax dispute on exchange gains during the year 2010 of construction of GHECO-One reversing the Central Tax Court's judgment previously ruled in favour of GHECO-One. The Supreme Court's judgment disfavouring GHECO-One consequently led to (i) a write-off of corporate income tax refundable item (a non-current asset item for all the tax and surcharges on exchange gains during the year 2008-2011 of construction which was paid in 2013) and (ii) a record of such tax and surcharges in Statements of Profit or Loss. The income tax expenses recorded in Q4/2018 as a result of the Supreme Court judgment were Baht 447.6 million.

Deferred tax

In FY2018, there was a record of net change in deferred tax asset (deferred tax revenue) of Baht 118.1 million, while there a record of net change in deferred tax liability (deferred tax expenses) of Baht 54.4 million in FY2017.

5. Minority Interest

When comparing minority interest of FY2018 with FY2017, there was a decrease of 15.9% from Baht 1,526.2 million in FY2017 to Baht 1,284.3 million in FY2018. The minority interest is mainly net profit of GHECO-One attributed to 35% of minority shareholders. In FY2018, GHECO-One had net profit of Baht 3,290.5 million, decreased from Baht 4,018.4 million in FY2017. The decrease was mainly due to the record in FY2018 of corporate income tax of Baht 447.6 million and surcharge of Baht 180.3 million paid in relation to the GHECO-One's dispute on exchange gains during years 2008-2011 of construction in Statements of Profit or Loss of GHECO-One.

6. Net Profit for the Company

For FY2018, without financial lease accounting of GIPP, the Company had a net profit for the Company of Baht 8,264.9 million.

Adjustments to reflect financial lease accounting standard from the old standard for are as follows:

| Financial Lease adjustment on net profit (unit: million Baht) | FY2018 |
|---|----------------|
| Net Profit for the Company (<u>without</u> adjustment of Financial Lease Accounting) | 8,264.9 |
| less: Availability Payment | (824.2) |
| add: Depreciation | 340.3 |
| add: Interest earned from Financial Lease | 495.3 |
| add: Deferred Tax | (30.1) |
| add: Others | 133.0 |
| Net Profit for the Company (<u>with</u> adjustment of Financial Lease Accounting) | 8,379.2 |

As a result of the foregoing, net profit for the Company with financial lease accounting of the FY2018 was Baht 8,379.2 million, a decrease of 7.7% from Baht 9,075.9 million in FY2017.

7. Normalized Net Profit (NNP)

In FY2018, NNP is net profit for the Company (without financial lease accounting) of Baht 8,264.9 million that is adjusted primarily by (i) deducting net foreign exchange gain of Baht 70.8² million; and (ii) deducting deferred tax income of Baht 71.1³ million. As a result, in FY2018, NNP was Baht 8,147.2 million, decreased by 6.5% from FY2017.

² Excluding net foreign exchange gain/loss attributed to minority shareholders in subsidiaries

³ Excluding deferred tax revenues or expenses attributed to minority shareholders in subsidiaries

Consolidated Statements of Profit or Loss Analysis (For the three-month period ended 31 March 2019)

1. Revenues

We derive our revenues primarily from sales of electricity to EGAT and sales of electricity, steam, clarified and demineralized water and chilled water to industrial users in the MIE Area and SEIP Area.

The following table demonstrates our volumes of electricity and industrial utilities sold for the indicated periods:

| Sales | Q1/2019 | Q1/2018 | % change |
|---|----------------|----------------|---------------|
| Electricity dispatch (GWh) | | | |
| To EGAT by IPPs | 886.5 | 1,435.1 | -38.2% |
| To EGAT by Glow IPP | 0.0 | 37.9 | -100.0% |
| To EGAT by GHECO-One | 766.6 | 1,312.7 | -41.6% |
| To EGAT by HHPC ¹ | 119.9 | 84.5 | 41.9% |
| To EGAT by SPPs ² | 1,175.4 | 1,209.9 | -2.9% |
| To Industrial Customers ³ | 1,273.6 | 1,290.1 | -1.3% |
| Total | 3,335.5 | 3,935.2 | -15.2% |
| Steam (thousands of tons) | 1,922.5 | 1,949.7 | -1.4% |
| Processed Water (thousands of cubic meters) | 2,982.5 | 3,166.1 | -5.8% |
| Chilled Water (thousands of refrigerated tons) | 3,727.9 | 2,877.2 | 29.6% |

Notes: 1) Including sales of electricity to Electricite Du Laos (EDL)

2) Excluding electricity dispatch to PEA under VSPP scheme by Glow Energy Solar (1.55 MW)

3) Excluding electricity dispatch to industrial customers under the solar rooftop scheme (1.87 MW)

The following table breaks down our sources of revenue for the periods indicated:

| Revenue (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|---|-----------------|-----------------|--------------|
| Revenue from Sales of Goods and Interest Earned from Financial Lease | | | |
| Electricity | | | |
| Sales to EGAT by IPPs | 2,273.5 | 3,340.1 | -31.9% |
| Sales to EGAT by Glow IPP | 382.1 | 436.0 | -12.4% |
| Sales to EGAT by GHECO-One | 1,682.9 | 2,759.1 | -39.0% |
| Sales to EGAT and EDL by HHPC | 208.5 | 145.1 | 43.7% |
| Sales to EGAT by SPPs ² | 3,431.8 | 3,133.9 | 9.5% |
| Sales to Industrial Customers ³ | 4,037.5 | 4,011.5 | 0.6% |
| Interest earned from financial lease (Glow IPP) | 147.8 | 123.8 | 19.4% |
| Total | 9,890.6 | 10,609.3 | -6.8% |
| Steam | 1,940.6 | 1,751.3 | 10.8% |
| Other Products and Services | 110.6 | 114.1 | -3.1% |
| Total | 11,941.8 | 12,474.7 | -4.3% |
| Other Income | 1,039.7 | 552.5 | 88.2% |
| Total Revenue | 12,981.6 | 13,027.2 | -0.4% |

Notes: 1) Including sales of electricity to Electricite Du Laos (EDL)

2) Including revenues from electricity sales to PEA under VSPP scheme by Glow Energy Solar

3) Including revenues from electricity sales to industrial customers under solar rooftop scheme

Revenue from sales of goods and interest earned from financial lease and other income in Q1/2019 was Baht 12,981.6 million, a decrease of 0.4% from Baht 13,027.2 million in Q1/2018. The decrease was driven by following factors:

1.1 Revenue: GIPP

| Revenue from sales to EGAT (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|--------------|--------------|---------------|
| Without adjustments of Financial Lease under TFRIC4 | | | |
| Availability Payment (AP) | 356.9 | 363.9 | -1.9% |
| Energy Payment (EP) | 228.3 | 283.6 | -19.5% |
| Total revenue from sales to EGAT | 585.2 | 647.5 | -9.6% |
| With adjustments of Financial Lease under TFRIC4 | | | |
| Revenue from sales to EGAT | 382.1 | 436.0 | -12.4% |
| Interest earned from financial lease | 147.8 | 123.8 | 19.4% |

| GIPP: Key revenue drivers | Q1/2019 | Q1/2018 | % change |
|------------------------------|---------|---------|----------|
| Power dispatch to EGAT (GWh) | 0.0 | 37.9 | -100.0% |
| Availability (%) | 100.0% | 100.0% | n/a |

In Q1/2019, revenue (without adjustments of Financial Lease) from sale of electricity to EGAT was Baht 585.2 million, decreased by 9.6% from Baht 647.5 million in Q1/2018. The decrease was mainly due to lower Energy Payment (EP) as there was no power dispatch to EGAT in Q1/2019.

However, with adjustments of Financial Lease accounting under TFRIC4, sales of electricity to EGAT recorded in financial statement consisted of revenue from sales to EGAT and interest earned from financial lease. In Q1/2019, the Company recorded revenue from sales of Baht 382.1 million and interest earned from financial lease of Baht 147.8 million.

1.2 Revenue: GHECO-One

| Revenue from sales to EGAT (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|---|----------------|----------------|---------------|
| Without adjustments of Revenue Levelization under TFRS15 | | | |
| Availability Payment (AP) | 1,022.1 | 1,403.7 | -27.2% |
| Energy Payment (EP) | 1,005.7 | 1,355.4 | -25.8% |
| Total revenue from sales to EGAT | 2,027.8 | 2,759.1 | -26.5% |
| With adjustments of Revenue Levelization under TFRS15 | | | |
| Revenue from sales to EGAT | 1,682.9 | n/a | n/a |

| GHECO-One: Key revenue drivers | Q1/2019 | Q1/2018 | % change |
|--------------------------------|---------|---------|----------|
| Power dispatch to EGAT (GWh) | 766.6 | 1,312.7 | -41.6% |
| Availability (%) | 50.3% | 91.2% | n/a |

In Q1/2019, revenue (without adjustments of Revenue Levelization) from sale of electricity to EGAT was Baht 2,027.8 million, a decrease of 26.5% from Baht 2,759.1 million in Q1/2018. The decrease was mainly attributable to lower power dispatch to EGAT due to 39 days of planned maintenance in Q1/2019.

However, with adjustments of Revenue Levelization under TFRS15, sales of electricity to EGAT recorded in financial statement of GHECO-One was reduced to Baht 1,682.9 million due to AP adjustment.

1.3 Revenue: Houay Ho Power (HHPG)

| Revenue from sales to EGAT and EDL (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|---|--------------|--------------|--------------|
| Total revenue | 208.5 | 145.1 | 43.7% |

| HHPG: Key revenue drivers | Q1/2019 | Q1/2018 | % change |
|---|--------------|-------------|--------------|
| Power dispatch to EGAT and EDL (GWh) | 119.9 | 84.5 | 41.9% |

In Q1/2019, revenue from sale of electricity to EGAT and EDL was Baht 208.5 million, an increase of 43.7% from Baht 145.1 million in Q1/2018. The increase was mainly due to 41.9% increase in volume dispatched to EGAT and EDL from 84.5 GWh in Q1/2018 to 119.9 GWh in Q1/2019.

1.4 Revenue: Cogeneration Facilities

| Revenue from sales of goods (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|----------------|----------------|-------------|
| Electricity | | | |
| Sales to EGAT under SPP scheme | 3,431.8 | 3,133.9 | 9.5% |
| Sales to industrial customers | 4,037.5 | 4,011.5 | 0.6% |
| Steam | 1,940.6 | 1,751.3 | 10.8% |
| Other products | 110.6 | 114.1 | -3.1% |
| Total | 9,520.5 | 9,010.8 | 5.7% |

| Cogeneration facilities: Key revenue drivers | Q1/2019 | Q1/2018 | % change |
|---|---------|---------|----------|
| Sales Volume | | | |
| Sales of electricity to EGAT (GWh) ¹ | 1,175.4 | 1,209.9 | -2.9% |
| Sales of electricity to Industrial Customers (GWh) ² | 1,273.6 | 1,290.1 | -1.3% |
| Sales of steam (thousands of tons) | 1,922.5 | 1,949.7 | -1.4% |
| Sales of processed water (thousands of cubic meters) | 2,982.5 | 3,166.1 | -5.8% |
| Sales of chilled water (thousands of refrigerated tons) | 3,727.9 | 2,877.2 | 29.6% |
| Availability (%) | | | |
| All Cogeneration facilities | 93.3% | 95.2% | n/a |
| Phase 5 | 100.0% | 96.7% | n/a |
| CFB 1&2 | 96.7% | 94.0% | n/a |
| CFB 3 | 80.9% | 99.4% | n/a |

Note: 1) Excluding electricity dispatch to PEA under VSPP scheme by Glow Energy Solar (1.55 MW)

2) Excluding electricity dispatch to industrial customers under the solar rooftop scheme (1.87 MW)

Revenue from sales of electricity to EGAT: In Q1/2019, the revenue was Baht 3,431.8 million, an increase of 9.5% from Baht 3,133.9 million in Q1/2018. The increase was mainly due to higher gas price and coal price.

Revenue from sales of electricity to industrial customers: In Q1/2019, the revenue was Baht 4,037.5 million, a slight increase of 0.6% from Baht 4,011.5 million in Q1/2018 due to 2.0% higher average selling price as a result of the higher gas price and coal price.

Revenue from sales of steam to industrial customers: In Q1/2019, the revenue was Baht 1,940.6 million, an increase of 10.8% from Baht 1,751.3 million in Q1/2018. The increase was due to 12.4% higher average selling price as a result of the higher gas price.

Revenue from sales of other products: In Q1/2019, the revenue was Baht 110.6 million, a decrease of 3.1% from Baht 114.1 million in Q1/2018 which was mainly due to lower sales volume of processed water by 5.8%.

1.5 Revenue: Other income

| Other Income (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|-----------------------------------|----------------|--------------|--------------|
| Interest income | 23.0 | 17.1 | 34.4% |
| Net exchange gain | 155.2 | 388.2 | -60.0% |
| Others | 861.5 | 147.1 | 485.7% |
| Total | 1,039.7 | 552.5 | 88.2% |

Other income consists mainly of revenue from interest income, net exchange gain and other items. In Q1/2019, other income was Baht 1,039.7 million, significantly increased from Baht 552.5 million in Q1/2018. Details of revenue from other income are as follows:

Interest income: In Q1/2019, we recognized interest income of Baht 23.0 million, an increase of 34.4% from Q1/2018. The interest income is principally interest earned on cash held in the form of deposits, financial instruments and in reserve accounts under our project financing agreements.

Net exchange gain: In Q1/2019, we recognized net exchange gain of Baht 155.2 million due to Thai Baht appreciation in Q1/2019.

Income from other items: In Q1/2019, we recognized income from other items of Baht 861.5 million, a significant increase of 485.7% from Q1/2018 which was mainly due to capital gains from sale of SPP1 to B.Grimm Power Service (Laem Chabang) Limited totalling Baht 741.9 million.

2. Expenses

Our expenses comprise of cost of goods sold, selling and administrative expenses, and other expenses.

The following table demonstrates different components of our expenses for the periods indicated:

| Expenses (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|----------------|----------------|-------------|
| Cost of Goods Sold | | | |
| Fuels | | | |
| Natural Gas | 5,665.5 | 4,927.2 | 15.0% |
| Coal | 1,738.1 | 2,096.1 | -17.1% |
| Diesel | 5.3 | 13.2 | -59.4% |
| Maintenance | 325.0 | 269.8 | 20.4% |
| Depreciation and Amortization | 1,101.2 | 1,056.6 | 4.2% |
| Others | 795.8 | 730.3 | 9.0% |
| Total Cost of Goods Sold | 9,631.0 | 9,093.2 | 5.9% |
| Selling and Administrative Expenses | | | |
| Depreciation and Amortization | 4.8 | 5.6 | -14.6% |
| General | 447.9 | 141.5 | 216.4% |

| Expenses (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|-----------------|----------------|---------------|
| Total Selling and Administrative Expenses | 452.7 | 147.2 | 207.6% |
| Other Expenses | 14.4 | 4.3 | 232.9% |
| Total Expenses | 10,098.1 | 9,244.7 | 9.2% |

2.1 Cost of Goods Sold: IPP facilities⁴

| Cost of Goods Sold for IPP Facilities (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|----------------|----------------|---------------|
| Fuels | | | |
| Natural Gas ¹ | 224.9 | 280.0 | -19.7% |
| Coal | 828.2 | 1,302.9 | -36.4% |
| Diesel | 4.7 | 12.2 | -61.8% |
| Maintenance | 109.7 | 54.7 | 100.7% |
| Depreciation and Amortization | 403.5 | 337.1 | 19.7% |
| Others | 224.4 | 189.8 | 18.2% |
| Total Cost of Goods sold for IPP facilities | 1,795.4 | 2,176.7 | -17.5% |

Note: 1) Including cost related to gas pipeline transmission (Tdc1) of Baht 223.8 million in Q1/2019 and Q1/2018.

| IPP Facilities: Key cost drivers | Q1/2019 | Q1/2018 | % change |
|---|--------------|--------------|--------------|
| Fuel consumption (mmBTU, HHV) | | | |
| GIPP | 4,215.0 | 272,658.6 | -98.5% |
| GHECO-One | 6,719,789 | 11,625,097 | -42.2% |
| Heat rate (BTU/kWh, HHV) | | | |
| GIPP | n/a | 7,127.0 | n/a |
| GHECO-One | 8,765.0 | 8,853.6 | -1.0% |
| Average gas cost – GIPP (Baht/mmBTU)¹ | 252.1 | 206.2 | 22.3% |
| Average coal cost – GHECO-One (USD/ton) | | | |
| Equivalent coal price at 6,322 kcal/kg ² | 92.0 | 80.1 | 14.9% |
| Freight costs ³ | 5.6 | 8.2 | -31.5% |
| Availability | | | |
| GIPP | 100.0% | 100.0% | n/a |
| GHECO-One | 50.3% | 91.2% | n/a |

Notes: 1) Not actual gas prices but are derived by dividing total natural gas expenses (excluding cost related to gas pipeline transmission (Tdc1)) by total fuel consumption of the facilities for the periods presented.

2) This equivalent coal price is not an actual reference coal price of each facility. It is derived from our actual average coal price (also taken into account inventory) converted into equivalent price at stated calorific value.

3) These reflect our actual freight and insurance costs.

Cost of natural gas of GIPP: This cost comprises of the cost of natural gas and the cost of gas pipeline transmission (Tdc1). After deducting the cost of gas pipeline transmission (Tdc1) of Baht 223.8 million in Q1/2019 and Q1/2018, the cost of natural gas in Q1/2019 was Baht 1.1 million, decreased by 98.1% from Baht 56.2 million Q1/2018. The decrease was mainly due to lower gas consumption by GIPP as a result of no power dispatch to EGAT in Q1/2019.

⁴ IPP facilities are GIPP, GHECO-One and Houay Ho Power (HHPC).

Cost of coal of GHECO-One: In Q1/2019, the cost was Baht 828.2 million, decreased by 36.4% from Baht 1,302.9 million in Q1/2018. The decrease was from lower coal consumption due to 39-day planned maintenance in Q1/2019.

Maintenance costs of IPP facilities: In Q1/2019, the costs were Baht 109.7 million, increased significantly by Baht 100.7% from Baht 54.7 million in Q1/2018 due to the planned maintenance of GHECO-One in Q1/2019.

Depreciation and amortization costs of IPP facilities: In Q1/2019, the costs were Baht 403.5 million, increased by 19.7% from Baht 337.1 million in Q1/2018 due to higher depreciation from new replacement parts and amortization costs resulting from planned maintenance of GHECO-One in Q1/2019.

Other costs of goods sold of IPP facilities: In Q1/2019, the costs were Baht 224.4 million, decreased by 18.2% from Baht 189.8 million in Q1/2018. IPP facilities' other costs of goods sold are mainly costs of water, chemicals, and general overhead costs as well as contribution to Power Community Development Fund.

2.2 Cost of Goods Sold: Cogeneration facilities

| Cost of Goods Sold for Cogeneration Facilities (unit: million Baht) ¹ | Q1/2019 | Q1/2018 | % change |
|--|----------------|----------------|--------------|
| Fuels | | | |
| Natural Gas | 5,440.7 | 4,647.2 | 17.1% |
| Coal | 909.9 | 793.2 | 14.7% |
| Diesel | 0.7 | 0.9 | -26.8% |
| Maintenance | 215.3 | 215.2 | 0.0% |
| Depreciation and Amortization | 697.7 | 719.5 | -3.0% |
| Other | 571.5 | 540.5 | 5.7% |
| Total Cost of Goods Sold for Cogen Facilities | 7,835.7 | 6,916.5 | 13.3% |

Note: 1) The data presented in this table as cost of goods sold for Cogeneration facilities is from consolidated financial results less the results of GIPP, GHECO-One, and HHPC. In fact, certain of these amounts are attributable to portions of our business, which are not technically our cogeneration facilities, although these amounts represent only a small portion thereof.

| Cogeneration Facilities: Key cost drivers | Q1/2019 | Q1/2018 | % change |
|---|--------------|--------------|--------------|
| Fuel consumption (mmBTU, HHV) | | | |
| MIE | | | |
| Gas-fired cogeneration facilities | 15,654,974 | 16,099,798 | -2.8% |
| Coal-fired cogeneration facilities | 6,766,122 | 6,983,310 | -3.1% |
| SEIP | 3,391,330 | 2,871,938 | 18.1% |
| Heat rate (BTU/kWhe, HHV) | | | |
| MIE ¹ | | | |
| Gas-fired cogeneration facilities | 7,988.3 | 8,087.3 | -1.2% |
| Coal-fired cogeneration facilities ² | 10,659.2 | 10,326.6 | 3.2% |
| SEIP | 8,260.2 | 8,182.7 | 0.9% |
| Average gas cost (Baht/mmBTU)³ | 290.1 | 242.9 | 19.4% |
| Average coal cost (USD/ton) | | | |
| Equivalent coal price at 6,322 kcal/kg ⁴ | 99.1 | 82.4 | 20.2% |
| Freight costs ⁵ | 7.3 | 6.9 | 4.6% |
| Availability – all | 93.3% | 95.2% | n/a |

Notes: 1) We present an "allocated" heat rate, which is a deemed heat rate for our Cogeneration facilities that we derive by dividing the total fuel energy consumption of such facilities over a specified period of time by the energy produced during such period. This is not a straightforward exercise, particularly with respect of our Glow SPP 2/SPP 3 hybrid facility, where, for purposes of such calculation, we are required to "allocate" the amount of energy produced steam and the amount of energy used producing gas. We make this allocation on the basis of the contribution of each energy source to total energy input, which involves subjective judgments and the use of simplifying assumptions.

2) CFB start-up gas is charged to the coal heat rates for purposes of the figures presented in this table.

3) This is a "blended" rate reflecting principally prices paid to PTT for: (i) gas used to supply electricity to EGAT and industrial customers; and (ii) gas used to fire boilers to generate steam for industrial customers. Prices in aforementioned (i) and (ii) are different.

4) This equivalent coal price is not an actual reference coal price of each facility. It is derived from our actual average coal price (also taken into account inventory) converted into equivalent price at stated calorific value.

5) These reflect our actual freight and insurance costs.

Cost of natural gas of Cogeneration facilities: In Q1/2019, the cost was Baht 5,440.7 million, increased by 17.1% from Baht 4,647.2 million in Q1/2018. The increase was due to higher gas price at 290.1 Baht/mmBTU in Q1/2019, a 19.4% increase from Q1/2018.

Cost of coal of Cogeneration facilities: In Q1/2019, the cost was Baht 909.9 million, increased by 14.7% from Baht 793.2 million in Q1/2018. The increase was due to higher average coal price at FOB⁵ of 99.1 USD/ton in Q1/2019 or a 20.2% increase from Q1/2018.

Maintenance costs of Cogeneration facilities: In Q1/2019, the costs were Baht 215.3 million, slightly increased from Baht 215.2 million in Q1/2018.

Depreciation and amortization costs of Cogeneration facilities: In Q1/2019, the costs were Baht 697.7 million, decreased by 3.0% from Baht 719.5 million in Q1/2018.

Other costs of goods sold of Cogeneration facilities: In Q1/2019, the costs were Baht 571.5 million, increased by 5.7% from Baht 540.5 million in Q1/2018. Cogeneration facilities' other costs of goods sold are mainly costs of water, chemicals, and general overhead costs as well as contribution to Power Community Development Fund.

2.3 Selling and administrative expenses

| SG&A (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|-------------------------------|--------------|--------------|---------------|
| Depreciation and amortization | 4.8 | 5.6 | -14.6% |
| Others | 447.9 | 141.5 | 216.4% |
| Total | 452.7 | 147.2 | 207.6% |

⁵ This equivalent coal price is not actual reference coal price of each facility. It is derived from our actual average coal price (accounted also for inventory) converted into equivalent price at stated calorific value.

Selling and administrative expenses were recorded at Baht 452.7 million in Q1/2019, an increase of 207.6% from Baht 147.2 million in Q1/2018 due to write-off of fixed assets due to maintenance of GHECO-One, and costs related to the takeover transaction by Global Power Synergy Public Company Limited.

2.4 Other expenses

Other expenses are directors' remuneration and other items. In Q1/2019, other expenses were Baht 14.4 million, increased from Baht 4.3 million in Q1/2018.

3. Finance Costs

| Finance costs (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|--------------|--------------|--------------|
| Interest expenses | 448.0 | 504.8 | -11.2% |
| Interest expenses from Revenue Levelization of GHECO-One | 160.1 | n/a | n/a |
| Financial fees | 20.8 | 13.0 | 60.1% |
| Total | 628.8 | 517.8 | 21.5% |

In Q1/2019, finance costs were Baht 628.8 million, increased by 21.5% from Baht 517.8 million in Q1/2018. The increase was mainly due to the interest expense incurred from Revenue Levelization under TFRS15 of GHECO-One which is the interest applying on the Contract Liability resulting from accumulated difference between front-loaded AP and the levelized AP.

4. Income Tax Expenses

| Income tax expenses (unit: million Baht) | Q1/2019 | Q1/2018 | % change |
|--|--------------|--------------|--------------|
| Current income tax expense | 413.0 | 210.2 | 96.5% |
| Deferred tax | -76.2 | 31.1 | -344.7% |
| Total | 336.8 | 241.3 | 39.6% |

Income tax expenses comprise of 2 main parts: (i) current income tax expenses; and (ii) deferred tax:

Current income tax expense

In Q1/2019, the current income tax expense was Baht 413.0 million, increased from Baht 210.2 million in Q1/2018. The increase of current income tax expense was mainly due to capital gain tax from SPP1 divestment.

Deferred tax

In Q1/2019, there was a record of net change in deferred tax asset (deferred tax revenue) of Baht 76.2 million, while there a record of net change in deferred tax liability (deferred tax expenses) of Baht 31.1 million in Q1/2018. The deferred tax revenue of Q1/2019 included adjustment of deferred tax revenue booked under financial lease of GIPP of Baht 6.0 million.

5. Minority Interest

Net profit attributable to minority interest was Baht 16.6 million in Q1/2019, a decrease of 96.0% from Baht 409.3 million in Q1/2018. The minority interest is mainly net profit of GHECO-One attributed to 35% of minority shareholders. In Q1/2019, GHECO-One had net loss of Baht 34.0 million, decreased from net profit of Baht 1,103.4 million in Q1/2018. The decrease was due to planned maintenance of GHECO-One in Q1/2019 and the adoption of the Revenue Levelization accounting standard under TFRS15.

6. Net Profit for the Company

In Q1/2019, without adjustments of Financial Lease and Revenue Levelization, the Company had a net profit for the Company of Baht 2,141.0 million.

Adjustments to reflect Financial Lease and Revenue Levelization accounting standard from the old standard are as follows:

| Adjustments on net profit (unit: million Baht) | Q1/2019 |
|--|----------------|
| Net Profit for the Company (<u>without</u> adjustments of Financial Lease and Revenue Levelization) | 2,141.0 |
| (i) Financial Lease adjustments (TFRIC4) | |
| less: Availability Payment | (203.2) |
| add: Depreciation | 85.3 |
| add: Interest earned from Financial Lease | 147.8 |
| less: Deferred Tax | (6.0) |
| less: Minority interest | (1.2) |
| (ii) Revenue Levelization adjustments (IFRS15) | |
| less: Availability Payment | (344.9) |
| less: Interest expense | (160.1) |
| add: Deferred Tax | 101.0 |
| add: Minority interest | 141.4 |
| Net Profit for the Company (<u>with</u> adjustments of Financial Lease and Revenue Levelization) | 1,901.2 |

As a result of the foregoing, net profit for the Company with financial lease accounting of Q1/2019 was Baht 1,901.2 million.

7. Normalized Net Profit (NNP)

In Q1/2019, Normalized Net Profit (NNP) is net profit for the Company (without adjustments of Financial Lease and Revenue Levelization) of Baht 2,141.0 million that is adjusted primarily by (i) deducting net foreign exchange gain of Baht 103.5⁶ million; and (ii) adding back deferred tax expense of Baht 19.1⁷ million. As a result, in Q1/2019, NNP was Baht 2,056.6 million, decreased by 14.2% from Q1/2018.

⁶ Excluding net foreign exchange gain/loss attributed to minority shareholders in subsidiaries

⁷ Excluding deferred tax revenues or expenses attributed to minority shareholders in subsidiaries

Consolidated Statements of Financial Position Analysis (as at 31 December 2018)

The following table breaks down our balance sheet statement which is comprised of assets, liabilities and equity for the periods indicated:

| Consolidated Balance Sheet (unit: million Baht) | FY2018 | FY2017 | % change |
|--|------------------|------------------|--------------|
| Current assets | 24,442.3 | 22,062.0 | 10.8% |
| Non-current assets | 79,985.8 | 83,968.9 | -4.7% |
| Total assets | 104,428.1 | 106,030.9 | -1.5% |
| Current liabilities | 12,851.3 | 14,421.7 | -10.9% |
| Non-current liabilities | 32,672.4 | 33,600.6 | -2.8% |
| Total liabilities | 45,523.6 | 48,022.3 | -5.2% |
| Total equity | 58,904.4 | 58,008.6 | 1.5% |
| Total liabilities and equity | 104,428.1 | 106,030.9 | -1.5% |

As of 31 December 2018, Glow Energy Public Company Limited and its subsidiaries had total assets in the amount of THB 104,428.1 million, a decrease of 1.5 per cent or equivalent to THB 1,602.8 million from THB 106,030.9 million in 31 December 2017. The changes in total assets were mainly attributable to the following factors:

- Cash and cash equivalents, which comprised of cash, bank deposits in current accounts and bank deposits in saving accounts, increased by 14.9 per cent or THB 1,305.6 million from THB 8,736.6 million in 2017 to THB 10,042.2 million in 2018. These increases were mainly due to cash generated from operation of THB 13,791.3 million and new long-term loan in the amount of THB 4,000 million, despite the repayment of long-term borrowing and debentures which are accounted for THB 2,247.1 million and THB 4,000 million, respectively and dividend payment of THB 8,524.1 million in 2018.
- Trade and other receivables increased by 10.4 per cent or THB 753.1 million from THB 7,215.1 million in 2017 to THB 7,968.2 million in 2018. These increases were mainly due to an increase in total trade receivables of THB 490.0 million from THB 6,797.3 million in 2017 to THB 7,287.3 million in 2018.
- Property, plant and equipment declined by 4.2 per cent or THB 3,232.7 million from THB 77,127.7 million in 2017 to THB 73,895.0 million in 2018 due to an increase in accumulated depreciation.

Total liabilities accounted for THB 45,523.6 million in 31 December 2018, a decrease of 5.2 per cent or equivalent to THB 2,498.7 million from THB 48,022.3 million in 31 December 2017. The changes in total liabilities were mainly due to:

- Trade and other payables increased to THB 6,297.0 million in 2018, an increase of 2.7 per cent or equivalent to THB 164.7 million from THB 6,132.3 million in 2017 mainly as a result of an increase

in trades payable.

- Long-term borrowings from financial institutions increased to THB 19,753.0 million in 2018, an increase of 9.2 per cent or THB 1,660.3 million from THB 18,092.8 million in 2017 due to new loan of THB 4,000 million despite the scheduled debt repayments of IPP business of THB 2,247.1 million.
- Debentures decreased to THB 15,942.6 million in 2018, a decrease of 20.0 per cent or equivalent THB 3,995.7 million from THB 19,938.3 million in 2017 due to the scheduled repayment of THB 4,000 million.

Total equity totaled THB 58,904.4 million in 31 December 2018, an increase of 1.5 per cent or equivalent to THB 895.8 million from THB 58,008.6 million in 31 December 2017. The increase was mainly due to:

- The profit of the year 2018 in the amount of THB 8,379.2 million.
- The dividend payment during the year 2018 in the amount of THB 8,524.1 million (consisted of full year dividend from results of year 2017 of THB 6,171.8 million (paid in May 2018) and interim dividend of year 2018 of THB 2,352.3 million (paid in July 2018)).
- The increase in non-controlling interests of THB 1,048.0 million.

Consolidated Statements of Financial Position Analysis (as at 31 March 2019)

The following table breaks down our balance sheet statement which is comprised of assets, liabilities and equity for the periods indicated:

| Consolidated Balance Sheet (unit: million Baht) | 31 March 2019 | 31 December 2018 | % change |
|--|------------------|---------------------|---------------|
| Current assets | 28,186.2 | 24,442.3 | 15.3% |
| Non-current assets | 80,875.2 | 80,484.8 | 0.5% |
| Total assets | 109,061.4 | 104,927.1 | 3.9% |
| Current liabilities | 12,651.3 | 12,851.3 | -1.6% |
| Non-current liabilities | 44,574.7 | 33,171.4 | 34.4% |
| Total liabilities | 57,226.0 | 46,022.7 | 24.3% |
| Total equity | 51,835.4 | 58,904.4 | -12.0% |
| Total liabilities and equity | 109,061.4 | 104,927.1 | 3.9% |

As at 31 March 2019, Glow Energy Public Company Limited and its subsidiaries had total assets in the amount of THB 109,061.4 million, an increase of 3.9 per cent or equivalent to THB 4,134.3 million from THB 104,927.1 million as at 31 December 2018. The changes in total assets were mainly attributable to the following factors:

- Cash and cash equivalents, which comprised of cash, bank deposits in current accounts and bank deposits in saving accounts, increased by 48.2% per cent or THB 4,752.5 million from THB 9,867.6 million as at 31 December 2018 to THB 14,620.1 million in the first quarter of 2019. These increases were mainly due to cash generated from operation of THB 3,212.5 million and net cash received

from divestment of SPP1 of THB 2,827.8 million.

- Trade and other receivables decreased by 1.4 per cent or THB 108.6 million from THB 7,968.2 million as at 31 December 2018 to THB 7,859.6 million in the first quarter of 2019. The decrease was mainly due to a decrease in total trade receivables of THB 99.0 million from THB 7,196.8 million as at 31 December 2018 to THB 7,097.7 million in the first quarter of 2019.
- Property, plant and equipment declined by 3.5 per cent or THB 2,581.7 million from THB 73,895.0 million as at 31 December 2018 to THB 71,313.3 million in the first quarter of 2019 due to an increase in accumulated depreciation and divestment of SPP1.

Total liabilities accounted for THB 57,226.0 million as at 31 March 2019, an increase of 24.3 per cent or equivalent to THB 11,203.3 million from THB 46,022.7 million as at 31 December 2018. The changes in total liabilities were mainly due to:

- Trade and other payables decreased to THB 5,606.6 million in the first quarter of 2019, a decrease of 11.0 per cent or equivalent to THB 690.4 million from THB 6,297.0 million as at 31 December 2018.
- Long-term borrowings from financial institutions decreased to THB 19,529.2 million in the first quarter of 2019, a decrease of 1.1 per cent or THB 223.8 million from THB 19,753.0 million as at 31 December 2018.
- Other non-current liabilities increased to THB 12,515.6 million in the first quarter of 2019, a significant increase of THB 11,203.3 million from THB 895.0 million as at 31 December 2018 mostly due to the adoption of TFRS15 of GHECO-One. The impact of adoption was accounted for THB 11,698.9 million in the first quarter of 2019.

Total equity totaled THB 51,835.4 million as at 31 March 2019, a decrease of 12.0 per cent or equivalent to THB 7,069.0 million from THB 58,904.4 million as at 31 December 2018. The changes were mainly due to:

- The impact of TFRS15 on total equity can be expressed as follows:
 - 1) negative impact on retained earnings of THB 6,083.4 million
 - 2) negative impact on non-controlling interest of THB 3,275.7 million
- The profit of the first quarter of 2019 in the amount of THB 1,901.2 million.

Consolidated Statements of Cash Flow Analysis (For the year ended 31 December 2018)

The following table summarizes our cash in and out of the business by activities for the periods indicated:

| Consolidated statement of cash flows (unit: million Baht) | FY2018 | FY2017 | % change |
|--|----------------|----------------|---------------|
| Net cash flow from operating activities | 13,791.3 | 16,738.1 | -17.6% |
| Net cash flow from investing activities | (1,201.1) | (787.0) | -52.6% |
| Net cash flow from financing activities | (11,281.7) | (14,424.6) | 21.8% |
| Unrealized exchange gain (loss) of cash and cash equivalents | (3.0) | (42.0) | 92.9% |
| Net increase (decrease) in cash and cash equivalents | 1,305.5 | 1,484.5 | -12.1% |

As of 31 December 2018, Glow Energy Public Company Limited and its subsidiaries recorded cash and cash equivalents of THB 10,042.2 million, an increase of THB 1,305.6 million from THB 8,736.6 million in 31 December 2017. The increase in cash and cash equivalents was driven by net cash flow from operating, investing and financing activities as follows:

- Net positive cash flow provided from operating activities was THB 13,791.3 million in 2018 as a result of profit before income tax expenses of THB 10,973.1 million.
- Net cash flow used in investing activities was THB 1,201.1 million in 2018 which mainly came from cash paid for fixed assets of THB 998.1 million.
- Net cash flow used in financing activities was THB 11,281.7 million in 2018 which mainly came from repayment of the existing loan of THB 2,247.1 million, debentures of THB 4,000 million and dividends paid during 2018 of THB 8,524.1 million despite the receiving cash from the new loan of THB 4,000 million

Consolidated Statements of Cash Flow Analysis (For the three-month period ended 31 March 2019)

The following table summarizes our cash in and out of the business by activities for the periods indicated:

| Consolidated statement of cash flows (unit: million Baht) | 31 March 2019 | 31 March 2018 | % change |
|--|------------------|------------------|---------------|
| Net cash flow from operating activities | 3,212.5 | 2,340.6 | 37.3% |
| Net cash flow from investing activities | 2,125.6 | (226.8) | 837.1% |
| Net cash flow from financing activities | (577.5) | (430.3) | -234.2% |
| Net increase (decrease) in cash and cash equivalents | 4,760.6 | 1,683.4 | 182.8% |

As at 31 March 2019, Glow Energy Public Company Limited and its subsidiaries recorded cash and cash equivalents of THB 14,620.1 million, an increase of THB 4,752.5 million from THB 9,867.6 million as at 31 December 2018. The increase in cash and cash equivalents was driven by net cash flow from operating, investing

and financing activities as follows:

- Net positive cash flow provided from operating activities was THB 3,212.5 million in the first quarter of 2019 as a result of profit before income tax expenses of THB 2,254.6 million.
- Net cash flow generated in investing activities was THB 2,125.6 million in the first quarter of 2019 which mainly came from divestment of SPP1 of THB 2,827.8 million while cash paid for fixed assets was THB 545.5 million.
- Net cash flow used in financing activities was THB 577.5 million in the first quarter of 2019 which mainly derived from interest payment of THB 570.0 million.

Capital Management

Glow Group has actively planned and managed its capital with considerations on interests of all capital providers, i.e. lenders, bond holders, and shareholders.

Funding structure of our business is divided as per 2 areas of business as follows:

- IPP business: we utilized Project Finance loan facilities for GHECO-ONE and HHPC. Each of the Project Finance facilities has different lender group, separate and different terms and conditions, and non-recourse to Glow Energy.
- Cogeneration business: we utilized Corporate Finance facilities, including bond and bank loan, for all projects under Cogeneration business. The financing, including utilization of working capital, is currently centralized at Glow Energy. All financing of Cogeneration business is on uncollateralized and pari passu basis.

As of 31 December 2018 and 31 March 2019, our key capital ratios are as follows:

1. Consolidated debt to equity ratio is 0.77 times and 1.10 times, respectively.
2. Net Debt to EBITDA (earnings before interest, tax, depreciation, and amortization expense) is 1.48 times and 1.25 times, respectively.
3. Cogeneration debt to equity ratio is 0.45 times and 0.43 times, respectively.

In each loan documents and bond covenants, extensive and clear financial and non-financial covenants are contained, including rights of lenders and/or bondholders and remedies in case of default.

CERTIFICATION OF THE ACCURACY OF INFORMATION

The Company has revised this Annual Information Disclosure document with caution and certifies that the information disclosed herewith is complete, accurate, truthful and does not cause any misunderstanding nor lack any material information that needs to be disclosed. In addition, the Company hereby certifies that:

(1) The Financial Statements and other financial details summarized in this Annual Information Disclosure document represent accurate and complete information regarding the financial status, performance and cash flows of the Company and its subsidiaries.

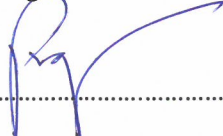
(2) The Company maintains an effective disclosure system to ensure that material information of the Company and its subsidiaries are disclosed accurately and completely, and the Company is also responsible for ensuring compliance with such system.

(3) The Company also maintains an effective internal control system, and is responsible for ensuring compliance with such system. The Company reported the information about the internal control assessment on 25 February 2019 and 7 May 2019 to the Company’s Statutory Auditor and the Audit Committee. This assessment included any important default and any change of the internal control system including any weaknesses which may affect the reporting of the Company and its subsidiaries’ financial statements.

Therefore, as evidence that these documents constitute the entire set that the Company has certified, the Company has authorized Mr. Prapon Chinudomsub to initial all pages. If any page is without Mr. Prapon Chinudomsub’s initials, the Company does not certify that the information given is the true copy.

| Name | Position | Signature |
|-------------------------------|----------|---|
| 1. Mr. Payungsak Chartsutipol | Director |  |
| 2. Mr. Veerasak Kositpaisal | Director |  |

Authorized Person

| Name | Position | Signature |
|------------------------|---------------------------------------|---|
| Mr. Prapon Chinudomsub | Vice President – Finance and Treasury |  |

In addition, Section 89/20* of Securities and Exchange Act B.E. 2535 (1992), which has been amended by Securities and Exchange Act (No. 4) B.E. 2551 (2008), prescribed that the directors and the executives shall be jointly liable to a person who traded securities of the Company for any damages arising from disclosure of information to shareholders or to public which contains a false statement or concealing material facts which should have been stated in case of financial statements and reports concerning the financial status and business performance of the company or any other reports required to be disclosed under Section 56 or Section 199. Such liability is not restricted to the directors or the executives who sign their signatures certified correctness of information in such document only. However, if the directors or the executives can prove that, by their position, they could not have been aware of the truthfulness of information or the lack of information which should have been stated, then in such case, they shall not have to be liable as per mentioned in Section 89/20.

Note: * to be applied to the company which is subject to Chapter 3/1 of Securities and Exchange Act B.E. 2535 (1992), which has been amended by Securities and Exchange Act (No. 4) B.E. 2551 (2008) only.

Glow Energy Public Company Limited

Annex 1

Managements of the Company

Details of the Board of Directors

| Name - Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|---|---------------|--|---|---------------------------------------|---|---|---|
| | | | | | Period | Position | Company name / Type of Business |
| 1. Mr. Payungsak Chartsutipol Appointment Date as Director: 23 April 2019 | 66 | <ul style="list-style-type: none"> - Honorary Doctorate Degree in Engineering, Suranaree University of Technology - Honorary Doctorate Degree in Philosophy, Organization Development Administration, Chaopraya University - Certificate of Management Development Program, North Western University, U.S.A. - Bachelor of Engineering (Electrical Engineering), Chulalongkorn University - Director Accreditation Program (DAP SCC/2004), Thai Institute of Directors (IOD) - Risk Management Program for Corporate Leaders (RCL 3/2016) - Top Executives in the Energy Education Program (Batch 1), Thailand Energy Academy - Executive Program, Poopalungpandin Program (Batch 1), Chulalongkorn University - Administrative Justice for Executives (Batch 2), Administrative Court - Capital Market Academy Leader Program (Batch 11), Capital Market Academy - Top Executive Program in Commerce and Trade (TEPCoT) (Batch 2), Commerce Academy, | None | None | <ul style="list-style-type: none"> Apr. 2019 - Present Mar. 2019 - Present Present Present 2016 – 2017 2015 – 2016 2011 – 2014 2012 – 2013 Present Present Present Present Present | <p><u>Glow Group</u></p> <ul style="list-style-type: none"> - Chairman of the Board of Directors - Chairman of the Board of Directors <p><u>Position in other Listed Companies</u></p> <ul style="list-style-type: none"> - Independent Director / Chairman of the Corporate Governance and Sustainability Committee Board of Commissioners - Independent Director / Chairman of the Audit Committee and Chairman of the Risk Management Committee - Chairman of the Corporate Governance Committee - Member of the Corporate Governance Committee - Chairman and Board of Executive Directors - Director / Chairman of the Corporate Governance and Social Responsibility Committee <p><u>Position in other Non-Listed Companies</u></p> <ul style="list-style-type: none"> - Chairman - Director - Director - Independent Director / Chairman of Corporate Governance Committee and Chairman of Audit Committee - Independent Director and Vice Chairman | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd. - Glow Group - Global Green Chemicals Public Company Limited - Global Power Synergy Public Company Limited - Global Power Synergy Public Company Limited - Global Power Synergy Public Company Limited - Krungthai Bank Public Company Limited - Krungthai Bank Public Company Limited - Siam City Leasing and Factoring Public Company Limited - Linde (Thailand) Public Company Limited - Siam United Steel (1995) Company Limited - Krungthai Panich Insurance Public Company Limited - Sapthip Company Limited |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|---|------------|---|-----------------------------------|---------------------------------|---|--|--|
| | | | | | Period | Position | Company name / Type of Business |
| | | University of the Thai Chamber of Commerce | | | 2012 – 2014 2011 – 2015 2010 – 2014 2010 – 2014 2010 - 2014 2007 - 2014 | <u>Position in other Organization</u> - Director - Chairman / Qualified Member - Chairman - Member of the Council Office - Director - Director | - Office of Insurance Commission - Board of National Catastrophe Insurance Fund Committee - The Federation of Thai Industries - Suranaree University of Technology - Board of Investment - Sirindhorn International Institute of Technology Thammasat University |
| 2. Mr. Veerasak Kositpaisal Appointment Date as Director: 14 March 2019 | 64 | - M.Sc. in Mechanical Engineering, Texas A&I University, U.S.A - B.Eng. in Mechanical, Chulalongkorn University - Risk Management Program for Corporate Leaders (RCL) Class 2/2015, Thai Institute of Directors Association (IOD) - Finance for Non-Finance Director Program (FND) Class 30/2006, Thai Institute of Directors Association (IOD) - Director Certification Program (DCP) Class 82/2006, Thai Institute of Directors Association (IOD) | None | None | Mar. 2019 - Present Present 2018 - Present 2016 – Present 2012 – 2014 Sep. 2017 - Present 2014 - 2018 2018 – Present 2016 - Present | <u>Glow Group</u> - Director, Vice Chairman of the Board of Directors <u>Position in other Listed Companies</u> - Independent Director / Vice Chairman / Chairman of Corporate Governance Committee / Member of Risk Management Committee - Chairman - Independent Director / Member of Audit Committee and Chairman of Nomination and Remuneration Committee - CEO and President <u>Position in other Non-Listed Companies</u> - Director - Chairman <u>Position in other Organization</u> - Director - Specialist in Good Corporate Governance and Corporate Social Responsibility | - Glow Energy Public Co., Ltd. - MCOT Public Co., Ltd. - Eastern Water Resources Development and Management Public Co., Ltd. - TOA Paint (Thailand) Public Co., Ltd. - Thai Oil Public Co., Ltd. - Sub-Tip Co., Ltd. - HMC Polymers Co., Ltd. - Tobacco Authority of Thailand - The Stock Exchange of Thailand |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--|------------|---|-----------------------------------|---------------------------------|---|--|---|
| | | | | | Period | Position | Company name / Type of Business |
| 3. Prof. Dr. Borwornsak Uwanno Appointment Date as Director: 25 March 2013 | 63 | <ul style="list-style-type: none"> - Doctorate Degree in Public Law, Universite de Paris X (Nanterre) (mention tres bien) - D.E.A. Public Law, Universite de Paris X (Nanterre) (mention bien) - D.S.U. Administrative Law, Universite de Paris II - Barrister At Law, The Thai Bar Under The Royal Patronage - Bachelor of Law, Chulalongkorn University (First Class Honor) - Certificate in Director Accreditation Program (DAP) Class 2004, Thai Institute of Directors Association (IOD) - Diploma in National Defense College The State, Private sector and Political sector course, class 4111 (National Defense College) - Certificate of Senior Executives course, class 8 (Capital Market Academy) - Certificate of Senior Executives on Justice Administration, Class 15, Office of the Judicial Training Institute - Jurisprudence on democracy Program, class 4, Institute of Constitution Studies | None | None | <p>Present Present</p> <p>2016 – Present</p> <p>25 Apr 2014 – Present 7 Nov 2007 – Present</p> <p>Present Present Present</p> <p>2015 2014-2015 2006-2014</p> | <p><u>Glow Group</u></p> <ul style="list-style-type: none"> - Independent Director - Independent Director <p><u>Position in other Listed Companies</u></p> <ul style="list-style-type: none"> - Chairman of the Board of Director and Independent Director - Chairman of the Board of Director and Independent Director - Chairman of the Board of Director and Independent Director <p><u>Position in other Non-Listed Companies</u></p> <ul style="list-style-type: none"> - None <p><u>Position in other Organization</u></p> <ul style="list-style-type: none"> - Fellow - Chairman of the 13th Commission - Advisor - Chairman - Vice President - Member of the Board | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd. - Glow Group - Namyong Terminal Public Company Limited - General Engineering PLC. - Eternal Energy PLC. - Royal Society of Thailand - Office of the Council of State - Constitutional Court and National Human Right Commission - Constitutional Drafting Committee - National Reform Council - King Prajadhipok's Institute |
| 4. Mrs. Saowanee Kamolbutr Appointment Date as Director: 26 April 2016 | 66 | <ul style="list-style-type: none"> - Master of Political Science (Public Administration) (M.Pol.Sc.), Thammasat University - Bachelor of Arts in Political Science (Public Administration), Thammasat University | None | None | <p>Apr 2018-Present</p> <p>Present</p> | <p><u>Glow Group</u></p> <ul style="list-style-type: none"> - Independent Director, Chairman of the Audit Committee and Member of the Nomination and Remuneration Committee - Independent Director | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd. - Glow Group |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|-----------------------------------|------------|---|-----------------------------------|---------------------------------|--|--|---------------------------------|
| | | | | | Period | Position | Company name / Type of Business |
| | | <ul style="list-style-type: none"> - National Defense College (NDC), class 2548 - Capital Market Academy (CMA), class 7 - Senior Executive Program (Kellogg – Sasin) - The Management Development Program (Wharton School) - Certificate in Director Certification Program (DCP), class 67, Thai Institute of Directors Association (IOD) - Advance Audit Committee Program (ACP), Thai Institute of Directors Association (IOD) - Role of the Compensation Committee (RCC), Thai Institute of Directors Association (IOD) - Role of the Chairman Program (RCP), Thai Institute of Directors Association (IOD) - Financial Institution Governance Program (FGP), Thai Institute of Directors Association (IOD) | | | <p><u>Position in other Listed Companies</u></p> <p>May 2016 - Present - Independent Director / Member of the Audit Committee / Member of the Risk Management Committee, and Chairman of the Corporate Governance Committee</p> <p>Apr. 2014 - Present - Independent Director / Chairman of the Audit Committee / Chairman of Risk Management Committee, and Nomination and Remuneration Committee</p> <p>Nov. 2012 - Present - Independent Director and Chairman of the Board of Director</p> <p>Dec. 2017 - Apr. 2019 - Independent Director and Chairman of the Audit Committee</p> <p>Apr. 2014 – Nov. 2017 - Independent Director and Member of the Audit Committee</p> <p><u>Position in other Non-Listed Companies</u></p> <p>- None</p> <p><u>Position in other Organization</u></p> <p>Mar. 2018 – Present - Honorary Director</p> <p>May 2017 – Present - Advisor</p> <p>Jul. 2014 – Present - Advisor</p> <p>Aug. 2014 – Aug. 2018 - Honorary Director</p> <p>Aug. 2014 – May 2017 - Director</p> | <ul style="list-style-type: none"> - FN Factory Outlet Public Co., Ltd. - Carabao Group Public Co., Ltd. - T.K.S. Technologies Public Co., Ltd. - Pacific Pipe Public Co., Ltd. - Interlink Communication Public Co., Ltd. - Southeast Bangkok College - Small and Medium Enterprise Development Bank of Thailand (SME Bank) - The Committee of the National Legislative Assembly - Rajapark Institute - Small and Medium Enterprise Development Bank of Thailand (SME Bank) | |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|---|------------|---|-----------------------------------|---------------------------------|---|--|---|
| | | | | | Period | Position | Company name / Type of Business |
| 5. Mr. Jukr Boon-Long Appointment Date as Director: 24 April 2018 | 61 | <ul style="list-style-type: none"> - Master of Arts (International Politics and Economics), University of Detroit, USA - Bachelor of Laws, Ramkhamhaeng University - The National Defence College of Thailand, Class 52 - Senior Executive of Justice Administration Program, Class 16 | None | None | Apr 2018 – Present Apr 2018 – Present 2017 2015 | <u>Glow Group</u> - Independent Director and Member of the Audit Committee - Independent Director <u>Position in other Listed Companies</u> - None <u>Position in other Non-Listed Companies</u> - None <u>Position in other Organization</u> - Ambassador Extraordinary Plenipotentiary of Thailand - Ambassador Extraordinary Plenipotentiary of Thailand | - Glow Energy Public Co., Ltd. - Glow Group - Republic of the Union of Myanmar - Kingdom of Norway |
| 6. Mr. Chawalit Tippawanich Appointment Date as Director: 23 April 2019 | 56 | <ul style="list-style-type: none"> - Master of Engineering in Industrial Engineering Management, Asian Institute of Technology - Bachelor of Engineering in Electrical Engineering, King Mongkut's Institute of Technology Ladkrabang - Director Certification Program (DCP 152/2011), Thai Institute of Directors Association (IOD) - Company Management Program - The Great Manager – Thailand Quality Award - GE Energy Customer Executive Leadership Program (GE: PTT Executive Leadership) – GE - Advance Management Program (AMP 187) - Harvard Business | None | None | Apr. 2019 – Present Mar. 2019 – Present 2018 – Present Present 2017 – 2018 2015 – 2016 | <u>Glow Group</u> - Director - Director <u>Position in other Listed Companies</u> - Director / Secretary to the Board / Member of The Risk Management committee / President and Chief Executive Office (Executive Director) - Senior Executive Vice President - Executive Vice President, Downstream Business Group Alignment, PTT Plc. secondment in the position of Executive Vice President-Organization Effectiveness of Thaioil Plc. - Executive Vice President, Downstream Business Group Alignment, PTT Plc. secondment in | - Glow Energy Public Co., Ltd. - Glow Group - Global Power Synergy Public Co., Ltd. - PTT Public Co., Ltd. - PTT Public Co., Ltd. - PTT Public Co., Ltd. |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--------------------------------------|---------------|---|---|---------------------------------------|-------------------------|----------|---------------------------------|
| | | | | | Period | Position | Company name / Type of Business |
| | | <ul style="list-style-type: none"> - The Program for Senior Executives on Justice Administration, Batch 8, Judicial Training Institute, National Justice Academy - Advanced Administration Program, Class 34, Institute of Administration Development - Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class 7, King Prajadhipok's Institute - Public Director Certification Program, Public Director Institute (PDI), Class 3, King Prajadhipok's Institute - The Executive Program in Energy Literacy for a Sustainable Future, Class 1, Thailand Energy Academy - Training Course on Administrative Justice for Executive, Class 3, Office of the Administration Courts of Thailand - Top Executive Program in Commerce and Trade (TEPCoT), Class 3, Commerce Academy, University of the Thai Chamber of Commerce - Detective, Class 50, Investigation School, Thai Royal Thai Police - Police Senior Command Course, Class 14, The Royal Thai Police - Advanced Political and Electoral Development Program (APED), | | | | | |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--------------------------------------|---------------|--|---|---------------------------------------|-------------------------|----------|---------------------------------|
| | | | | | Period | Position | Company name / Type of Business |
| | | <ul style="list-style-type: none"> Class 2, Office of The Election Commission of Thailand - Metropolis Development Program, Class 1, Institute of Metropolitan Development - The 1st Public Legal Executive Training Program, Class 1, Office of the Council of State - The Rule of Law for Democracy, Class 1, College of the Constitutional Court - Executive Program Good Governance for Sustainable Development, Class 1, Office of the Public Sector Development Commission - ASEAN Executive Management Programme (AseanEx), Class 2, Organized by Office of the Civil Service Commission, The Secretariat of the Prime Minister, Office of The National Economic and Social Development Board, Ministry of Foreign Affairs, Sasin Graduate Institute of Business Administration of Chulalongkorn University - Business Revolution and Innovation Network (BRAIN), Class 1, The Federation of Thai Industries - Thailand Insurance Leadership Program, Class 7, Office of Insurance Admission | | | | | |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--|---------------|--|---|---------------------------------------|--|--|---|
| | | | | | Period | Position | Company name / Type of Business |
| 8. Mrs. Patareeya Benjapolchai Appointment Date as Director: 23 April 2019 | 64 | <ul style="list-style-type: none"> - Master of Business Administration Thammasat University - Certificate, Advanced Accounting and Auditing Chulalongkorn University - Bachelor of Accountancy (Accounting) Chulalongkorn University - IOD (Singapore) 2017 Flagship Conference "The Sustainability Imperative", Singapore Institute of Directors (SID), Thai Institute of Directors Association - IOD (UK) Annual Convention 2016 "Thriving in a Changing World" The Institute of Directors (UK), Thai Institute of Directors Association - Driving Company Success with IT Governance (ITG) Class 2/2016, Thai Institute of Directors Association - Director Certification Program Update Class 2/2014, Thai Institute of Directors Association - Financial Institutions Governance Program (FGP) Class 1/2010, Thai Institute of Directors Association - Director Certification Program (DCP) Class 1/2000, Thai Institute of Directors Association - Certificate, Leadership Program (Class 1), Capital Market Academy - Executive Program, University of Michigan, USA | None | None | <ul style="list-style-type: none"> Apr 2019 – Present Apr 2019 – Present Mar 2017 – Present Mar 2016 – Present 2014 – Present 2013 – Present 2011 – Present 2011 – Present 2010 – Present Feb. 2017 – Present Feb. 2017 – Present 2013 – Present 2013 – Present 2013 – Present | <ul style="list-style-type: none"> <u>Glow Group</u> - Independent Director and Member of the Audit Committee - Director <u>Position in other Listed Companies</u> - Chairman of the Audit Committee and Member of the Governance and Nomination Committee - Independent Director - Independent Director / Chairman of Audit Committee / Member of Remuneration Committee and Member of Corporate Governance Committee - Director - Independent Director and Member of Audit Committee - Independent Director and Member of Audit Committee <u>Position in other Non-Listed Companies</u> - Director <u>Position in other Organization</u> - Advisor for Civil Penalties Measurement - Subcommittee on Acquisition of Securities for Business Takeover - Director of Revolving Fund Evaluation Committee - Member of the SET AWARD Committee as an Expertise for Corporate Governance and Social Responsibilities - Director | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd. - Glow Group - Thaicom Public Co., Ltd. - Thaicom Public Co., Ltd. - MCOT Public Co., Ltd. - Bangkok Glass Public Co., Ltd. - TISCO Financial Group Public Co., Ltd. - TISCO Bank Public Co., Ltd. - Baan Ruam Tang Fhun Co., Ltd. - The Securities and Exchange Commission - The Securities and Exchange Commission - Ministry of Finance - The Stock Exchange of Thailand - Thai Institute of Directors Association |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--|------------|--|-----------------------------------|---------------------------------|--|--|---|
| | | | | | Period | Position | Company name / Type of Business |
| | | | | | 2010 – Present | - Associate Judge | - The Central Intellectual Property and International Trade Court |
| | | | | | 2013 - 2017 | - Directors' Responsibilities Steering Committee | - The Securities and Exchange Commission |
| | | | | | 2011 – 2017 | - Member of Ethics Committee | - The Royal Patronage of His Majesty the King |
| | | | | | 2011 - 2016 | - Federation of Accounting Professions - Chairman of the Audit Committee | - The Office of the Agricultural Futures Trading Commission |
| 9. Mr. Somkiat Masunthasuwun Appointment Date as Director: 23 April 2019 | 51 | - Master of Management, Sasin Graduate Institute of Business, Administration of Chulalongkorn University - M.S.E. (Science in Engineering), Mechanical Engineering, University of Michigan, U.S.A - M.S.E. (Science in Engineering), Industrial & Operations Research, University of Michigan, U.S.A - Bachelor of Engineering (Mechanical Engineering), Chulalongkorn University - Director Certification Program (DCP 176/2013), Thai Institute of Directors Association - Leadership Development Program Level III, PLLI, PTT - Columbia Senior Executive Program (CSEP), Columbia University - PTT Leadership Development Program by Center for Creative Leadership (CCL), Singapore - Executive Program on Rule of Law and Development, Thailand Institute of Justice | 100 (0.00%) | None | Apr 2019 – Present Mar 2019 – Present | <u>Glow Group</u> - Director - Director | - Glow Energy Public Co., Ltd. - Glow Group |
| | | | | | Present Present | <u>Position in other Listed Companies</u> - Executive Vice President - Executive Vice President, Business Development and Corporate Strategy | - PTT Public Co., Ltd. - Global Power Synergy Public Co., Ltd. |
| | | | | | 2014 – 2016 | - Executive Vice President, Natural Gas for Vehicle | - PTT Public Co., Ltd. |
| | | | | | 2013 – 2014 | - Executive Vice President, Natural Gas Supply and Marketing | - PTT Public Co., Ltd. |
| | | | | | Present | <u>Position in other Non-Listed Companies</u> - Director | - Nava Nakorn Electricity Generating Co., Ltd. |
| | | | | | Present | - Director | - Thai Solar Renewable Co., Ltd. |
| | | | | | | <u>Position in other Organization</u> - None | |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|---|------------|--|-----------------------------------|---------------------------------|---|---|--|
| | | | | | Period | Position | Company name / Type of Business |
| 10. Mrs. Boobpha Amornkiatkajorn Appointment Date as Director: 7 May 2019 | 61 | <ul style="list-style-type: none"> - Master of Business Administration (MBA) (Financial) (HONOUR), National Institute of Development Administration (NIDA) - Bachelor of Science in Economics (HONOUR), Kasetsart University - Senior Executive Program, Sasin Graduate Institute of Business Administration of Chulalongkorn University, Class 2003 - Army War College, Institute of Army Academics, Class 2008 - Leadership Development Program, Center for Creative Leadership, Singapore, Class 2009 - Breakthrough Program for Senior Executives (BPSE), IMD Institute in Switzerland, Class 2012 - Capital Market Academy Leader Program (CMA 21/2015), Capital Market Academy (CMA), Class 2015 - Energy Literacy for the World Program (TEA 10/2017, Thailand Energy Academy (TEA), Class 2017 | None | None | <ul style="list-style-type: none"> May 2019 – Present May 2019 – Present 2014 - 2018 2014 – 2018 2014 2010 – 2014 Present 2011 - 2017 2014 – Present | <ul style="list-style-type: none"> <u>Glow Group</u> - Director - Director <u>Position in other Listed Companies</u> - Director and member of Audit Committee - Senior Executive Vice President, International Trading Business Unit - Executive Vice President, Trading Operation – International Trading Business Unit - Executive Vice President, Downstream Business Group Alignment <u>Position in other Non-Listed Companies</u> - Director - Director <u>Position in other Organization</u> - Vice Chairman, The Institute of Industrial Energy | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd. - Glow Group - PTT Global Chemical Public Co., Ltd. - PTT Public Co., Ltd. - PTT Public Co., Ltd. - PTT Public Co., Ltd. - Tiger Energy Trading Pte. Ltd. - PTT Polymer Marketing Co., Ltd. - The Federation of Thai Industries |

| Name – Surname / Appointment Date | Age (Year) | Education / Training Course | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--|------------|--|-----------------------------------|---------------------------------|--|---|--|
| | | | | | Period | Position | Company name / Type of Business |
| 11. Mr. Chayun Tantivasadakarn Appointment Date as Director: 15 March 2019 | 60 | <ul style="list-style-type: none"> - Ph. D. Economics, The University of British Columbia - M.A. Economics, The University of British Columbia - M.A. Economics, Thammasat University - B.A. Economics, Thammasat University - ABARE workshop in general equilibrium (GE) modeling, Canberra, Australia | None | None | <ul style="list-style-type: none"> Mar 2019 – Present - Director Mar 2019 – Present - Director | <ul style="list-style-type: none"> <u>Glow Group</u> - Director - Director | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd. - Glow Group |
| | | | | | | <ul style="list-style-type: none"> <u>Position in other Listed Companies</u> - None | |
| | | | | | | <ul style="list-style-type: none"> <u>Position in other Non-Listed Companies</u> - None | |
| | | | | | 2018 – Present | <ul style="list-style-type: none"> <u>Position in other Organization</u> - Director | <ul style="list-style-type: none"> - National Climate Change Policy Committee |
| | | | | | 2016 – Present | <ul style="list-style-type: none"> - Working Committee on Carbon Market | <ul style="list-style-type: none"> - Thailand Greenhouse Gas Management |
| | | | | | 2013 – Present | <ul style="list-style-type: none"> - Member of Teacher of the Year Selection Committee | <ul style="list-style-type: none"> - Thammasat University |
| | | | | | 2011 – Present | <ul style="list-style-type: none"> - Committee member of Toyota Thailand Foundation Award | <ul style="list-style-type: none"> - Thammasat University |
| | | | | | 2007 - 2016 | <ul style="list-style-type: none"> - Scholarship Screening Committee | <ul style="list-style-type: none"> - Thammasat University |

Note: “Glow Group” mentioned in this case includes 1) Glow Co., Ltd., 2) Glow SPP 2 Co., Ltd., 3) Glow SPP 3 Co., Ltd., 4) Glow SPP 11 Co., Ltd., 5) Glow IPP Co., Ltd. and 6) Glow IPP 2 Holding Co., Ltd.; excluding 1) Glow IPP 3 Co., Ltd., 2) Glow Hemaraj Wind Co., Ltd., 3) Eastern Seaboard Clean Energy Co., Ltd., 4) Rayong Clean Energy Co., Ltd., and 5) Chonburi Clean Energy Co., Ltd. and applies only in Annex 1.

Details of Management Team

| Name – Surname | Age (Year) | Education / Training | Shareholding Proportion (Percent) | Family Relation with Management | 5 Year Past Experience | | |
|-----------------------------------|------------|--|-----------------------------------|---------------------------------|--|--|---------------------------|
| | | | | | Period | Position | Company/ Type of Business |
| 1. Mr. Pajongwit Pongsivapai | 50 | <ul style="list-style-type: none"> - Master Degree of Science in Chemical Engineering, Oregon State University, USA - Bachelor Degree in Chemical Engineering, Chulalongkorn University - General Management Course by Center Européen d'éducation Permanente – European Center for Executive Development), INSEAD Business School, Fontainebleau, France - Finance for Executives Program, the University of Chicago Graduate School of Business, Illinois, USA - Certificate in Executive Development Program (EDP) Class 9/2012, Thai Institute of Directors Association (IOD) | None | None | <ul style="list-style-type: none"> Present - Chief Executive Officer - Acting 2015-2019 - Chief Financial Officer and Executive Vice President 2013-2015 - Executive Vice President – Business Development 2007-2013 - Chief Operating Officer and Executive Vice President | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group, and Houay Ho Power Co., Ltd. - Glow Energy Public Co., Ltd., Glow Group, and Houay Ho Power Co., Ltd. - Glow Energy Public Co., Ltd., Glow Group, and Houay Ho Power Co., Ltd. - Glow Energy Public Co., Ltd., Glow Group, and Houay Ho Power Co., Ltd. | |
| 2. Mrs. Sriprapha Sumruatruamphol | 55 | <ul style="list-style-type: none"> - Master of Business Administration, Syracuse University, New York, USA - Bachelor Degree in Science (Chemical Engineering), Michigan Technological University, Michigan, USA | 0.002% | None | <ul style="list-style-type: none"> Present - Chief Commercial Officer and Executive Vice President-Human Resources 2001-2015 - Chief Commercial Officer and Executive Vice President | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., and Glow Group - Glow Energy Public Co., Ltd., and Glow Group | |

| Name – Surname | Age (Year) | Education / Training | Shareholding Proportion (Percent) | Family Relation with Management | 5 Year Past Experience | | |
|----------------------------|------------|---|-----------------------------------|---------------------------------|------------------------|--|--|
| | | | | | Period | Position | Company/ Type of Business |
| 3. Mrs.Sirobon Boontaworn | 47 | <ul style="list-style-type: none"> - Master Degree of Accountancy, Chulalongkorn University - Bachelor Degree in Accounting, Chiang Mai University | None | None | Present | - Chief Financial Officer and Executive Vice President | - Glow Energy Public Co., Ltd., Glow Group, and Houay Ho Power Co., Ltd. |
| 4. Mr. Arjan van den Broek | 47 | <ul style="list-style-type: none"> - General Management Program Cycle 8, CEDEP - Master of Science in Management, General Management PDP2, University Nyenrode, the Netherlands - Bachelor of Electronics Engineering-Technical Computer Science, College Rijswijk | None | None | Present | - Chief Operating Officer and Executive Vice President | - Glow Energy Public Co., Ltd., Glow Group, and Houay Ho Power Co., Ltd. |

| Name – Surname | Age (Year) | Education / Training | Shareholding Proportion (Percent) | Family Relation with Management | 5 Year Past Experience | | |
|-------------------------------|------------|---|-----------------------------------|---------------------------------|------------------------|---|--|
| | | | | | Period | Position | Company/ Type of Business |
| 5. Mr. Narongchai Visutrachai | 52 | <ul style="list-style-type: none"> - Master Degree in Science Master Degree in Science (Economics), University of North Texas, USA - Master Degree in Business Administration, Kasetsart University - Bachelor Degree in Political Science (Public Administration), Chulalongkorn University | None | None | Present | - Senior Vice President – Government & Public Affairs | - Glow Energy Public Co., Ltd., and Glow Group |
| 6. Mr. Akarin Prathuangsit | 43 | <ul style="list-style-type: none"> - Master Degree in Business Administration, Assumption University - Bachelor Degree in Engineering (Industrial Engineering), Sirindhorn International Institute of Technology, Thammasat University | None | None | Present 2011-2016 | <ul style="list-style-type: none"> - Chief Procurement Officer and Senior Vice President - Senior Vice President – Cogeneration Marketing & Fuel Management | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., and Glow Group - Glow Energy Public Co., Ltd., and Glow Group |

| Name - Surname | Age (Year) | Education | Family Relation with Management | 5 years past experience | | |
|-----------------------------|------------|---|---------------------------------|-------------------------|--|--|
| | | | | Period | Position | Company Name / Type of Business |
| 7. Mr. Wisit Srinuntawong | 56 | <ul style="list-style-type: none"> - Master Degree in Business Administration, Bangkok University - Bachelor Degree in Industrial Electrical Technology , King Mongkut's University of Technology North Bangkok | None | Present | - Senior Vice President – Engineering & Maintenance Management | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2013-2014 | - Senior Vice President – Engineering | - Glow Energy Public Co., Ltd., Glow Group |
| 8. Mr. Louis Stephen Holub | 57 | <ul style="list-style-type: none"> - United States Navy Education Programs, City College of Chicago, Dundalk Community College, USA - American University (Tulane & Arizona State), USA | None | Present | - Plant Manager | - GHECO-One Co., Ltd. |
| | | | | 2007-2011 | - Senior Vice President – Operations Support Services | - Glow Energy Public Co., Ltd., Glow Group |
| 9. Mrs. Mantana Kunakorn | 54 | <ul style="list-style-type: none"> - Master Degree in Business Administration, Chulalongkorn University - Bachelor Degree in Liberal Arts (Industrial Psychology), Thammasart University | None | Present | - Senior Vice President – Human Resources and Administration | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2007-Jun 2011 | - Vice President – Human Resources and Administration | - Glow Energy Public Co., Ltd., Glow Group |
| 10. Mr. Sutthi Chuesook | 51 | <ul style="list-style-type: none"> - MBA , General Management, 2008 Ramkhamhaeng University - B.E. Electrical (Power-Electronics), 1990 King Mongkut's Institute of Technology North Bangkok | None | Present | - Senior Vice President – Rayong Facilities Management | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2012-2016 | - Vice President – Engineering | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 1994-2011 | - Engineering Manager | - Glow Energy Public Co., Ltd., Glow Group |
| 11. Mr. Suratchai Bangluang | 50 | <ul style="list-style-type: none"> - MBA General Management, Ramkhamhaeng University - Bachelor Degree in Electrical Engineering, Mahanakorn University of Technology | None | Present | - Plant Manager-GIPP and Cogenerations Pluak Daeng | - Glow IPP Co., Ltd. and Glow SPP 11 Co., Ltd. |
| | | | | Aug 2011-Dec 2011 | - Facility Manager | - Glow IPP Co., Ltd. and Glow SPP 11 Co., Ltd. |

| Name - Surname | Age (Year) | Education | Family Relation with Management | 5 years past experience | | |
|---|------------|---|---------------------------------|--|--|--|
| | | | | Period | Position | Company Name / Type of Business |
| 12. Dr. Somgiat Dekrajangpetch | 45 | <ul style="list-style-type: none"> - Doctorate Degree in Electrical Engineering (Electrical Power), Iowa State University, USA - Master Degree in Economics, Iowa State University, USA - Master Degree in Electrical Engineering, Iowa State University, USA - Bachelor Degree in Science-Electrical Engineering, Chulalongkorn University | None | <ul style="list-style-type: none"> Present 2002-2011 | <ul style="list-style-type: none"> - Senior Vice President– Asset Optimization - Vice President – Asset Optimization | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group - Glow Energy Public Co., Ltd., Glow Group |
| 13. Mrs. Chamaiporn Soonthorntasanapong | 58 | <ul style="list-style-type: none"> - Master Degree in Liberal Art (Thai – English Translation), Ramkhamhang University - Bachelor Degree in Liberal Arts (English), Thammasart University | None | <ul style="list-style-type: none"> Present | <ul style="list-style-type: none"> - Vice President – Legal and Insurance | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group |
| 14. Mr. Anutarachai Nathalang | 55 | <ul style="list-style-type: none"> - Master of Engineering (Electrical), King Mongkut Institute of Technology (Ladkrabang) - Bachelor of Science (Physics), Chiangmai University | None | <ul style="list-style-type: none"> Present 2006-2010 | <ul style="list-style-type: none"> - Vice President – Environmental, Health and Safety - Plant Manager | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group - Glow Energy Site (Phase 1 & 2) |
| 15. Mr. Sakda Lacharochana | 54 | <ul style="list-style-type: none"> - Master Degree in Business Administration - Bachelor Degree in Electrical Engineering - Bachelor Degree in Mechanical Engineering | None | <ul style="list-style-type: none"> Present 2008-2014 | <ul style="list-style-type: none"> - Vice President – Reliability & Integrity - Assistant Vice President – Reliability & Integrity | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group - Glow Energy Public Co., Ltd., Glow Group |
| 16. Ms. Sirichan Chotchaisathit | 54 | <ul style="list-style-type: none"> - Master Degree in Business Administration, Chulalongkorn University - Bachelor Degree in Liberal Arts, Thammasart University | None | <ul style="list-style-type: none"> Present | <ul style="list-style-type: none"> - Vice President – Industrial Customer Sales | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group |

| Name - Surname | Age (Year) | Education | Family Relation with Management | 5 years past experience | | |
|--------------------------------|------------|---|---------------------------------|-------------------------|--|---|
| | | | | Period | Position | Company Name / Type of Business |
| 17. Mr. Tananchai Chaisraekaw | 54 | <ul style="list-style-type: none"> - Master Degree in Business Administration, Oklahoma City University, USA - Bachelor Degree in Mechanical Engineer, Khon Kaen University | None | Present | - Vice President - Engineering | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 1997-2016 | - Project Manager | - Glow Energy Public Co., Ltd., Glow Group |
| 18. Mr. Prateep Puthamrugs | 54 | <ul style="list-style-type: none"> - Master Degree in Public Administration, Pathumthani University - Bachelor Degree in Electrical Engineer, Srinakarinwirot University | None | Present | - Vice President – Supply Chain Management | - Glow Energy Public Co., Ltd., Glow Group |
| 19. Mr. Somchai Klinsuwanmalee | 53 | <ul style="list-style-type: none"> - Bachelor Degree in Accounting, Chulalongkorn University | None | Present | - Vice President – CSR & Public Affairs | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2008-2013 | - Vice President – Public Relations | - Glow Energy Public Co., Ltd., Glow Group |
| 20. Mr. Apichart Jamjuntr | 53 | <ul style="list-style-type: none"> - Master of Business Administration (MBA) Ramkhamhaeng University - Bachelor Degree in Electronic Engineering, Engineering, Rajamangala University of Technology | None | Present | - Plant Manager | - Gas Fired Units Complex |
| | | | | 2006-2013 | - Plant Manager | - Glow SPP 2/ SPP3 & Glow Energy Site (Phase 3,4 and 5) |
| 21. Mr. Renaud Pilleul | 52 | <ul style="list-style-type: none"> - Master's Degree in Chemical Engineering (M. Eng.), Grenoble Institute of Technology, France | None | Present | - Vice President – Industrial Customer Relations | - Glow Energy Public Co., Ltd., Glow Group |
| 22. Mr. Sichanh Gnabandhith | 52 | <ul style="list-style-type: none"> - Bachelor Degree in Hydro-Electrical Engineering, Polytechnic Institute of Tashkent (USSR) | None | Present | - Plant Manager and Business Development Manager | - Houay Ho Power Co., Ltd. |
| | | | | 2012-2014 | - Business Development Manager | - Glow Energy Public Co., Ltd. |
| | | | | 2005-2012 | - Operation Manager | - Houay Ho Power Co., Ltd. |

| Name - Surname | Age (Year) | Education | Family Relation with Management | 5 years past experience | | |
|------------------------------------|------------|--|---------------------------------|-------------------------|---|--|
| | | | | Period | Position | Company Name / Type of Business |
| 23. Ms. Suttasinee Pengsupaya | 51 | - Master Degree in Science (Accounting), Thammasat University - Bachelor Degree in Accounting, Thammasat University - Certified Public Accountant (CPA) | None | Present | - Vice President – Accounting | - Glow Energy Public Co., Ltd., Glow Group |
| 24. Mr. Chaiwut Rattanapornsinchai | 51 | - Master Degree in Computer Science, Rangsit University - Bachelor Degree in Computer Science, Chandrakasem Teacher College | None | Present | - Vice President – Internal Audit | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2013-2014 | - Vice President – Strategic Initiatives | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2003-2013 | - Vice President – Information Technology | - Glow Energy Public Co., Ltd., Glow Group |
| 25. Mr. Eralp Gullep | 50 | - Bachelor Degree of Science in Mechanical Engineering, University of Southwestern Louisiana, USA | None | Present | - Vice President – Business Quality | - Glow Energy Public Co., Ltd., Glow Group |
| 26. Mr. Rujirote Kasirerk | 49 | - Master Degree in Industrial Management Engineering, King Mongkut’s University of Technology North Bangkok - Bachelor Degree in Electrical Engineering, Rajamangala University of Technology Lanna (ChiangMai) | None | Present | - Plant Manager | - Coal Fired Units Complex |
| | | | | Mar 2011-2013 | - Plant Manager | - Glow Energy Site (Phase 1&2) |
| | | | | 1998-Feb2011 | - Operation Manager | - Glow SPP 2/ SPP 3 Plant |
| 27. Mr. Apidech Siriphornoppakhun | 48 | - Master of Business Administration, Ramkhamhaeng University - Bachelor Degree in Science (Industrial Technology), Rahaphat Institute Chachoengsao, Chachoengsao | None | Present | - Plant Manager | - Glow Energy Site (Phase 1&2) |
| | | | | 2008-Aug 2015 | - Plant Manager | - Glow SPP 1 Co., Ltd./ Glow Demin Water |

| Name - Surname | Age (Year) | Education | Family Relation with Management | 5 years past experience | | |
|-----------------------------------|------------|---|---------------------------------|-------------------------|--|--|
| | | | | Period | Position | Company Name / Type of Business |
| 28. Mr. Pisut Boonvongsobhon | 47 | - Bachelor Degree in Mechanical Engineering, Rajamangala Institute of Technology (Central Campus) | None | Present | - Vice President-Central Maintenance | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | Sep 2015-Dec 2015 | - Project Manager-Central Maintenance | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2014-Aug 2015 | - Plant Manager | - Glow Energy Site (Phase 1&2) |
| | | | | 1996-2013 | - Maintenance Manager | - Glow SPP 2/ SPP 3 Plant |
| 29. Mrs. Unchana Kittipiyakul | 47 | - Master Degree in Business Administration, Kasetsart University - Bachelor Degree in Accounting, Thammasart University - Certified Public Accountant (CPA) | None | Present | - Vice President – Budget | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 1999-Mar 2017 | - Vice President – Budgeting and Business Controlling | - Glow Energy Public Co., Ltd., Glow Group |
| 30. Mrs. Patchara Jaroonvuthitham | 43 | - Master Degree in Business Administration, Thammasat University - Bachelor of Accountancy, Kasetsart University | None | Present | - Vice President – Budgeting and Business Controlling | - Glow Energy Public Co., Ltd., Glow Group |
| 31. Ms. Anchana Tidsadikhun | 43 | - Master of Business Administration, General Management, National Institute of Development Administration - Bachelor of Arts-BA, Mass Communication/Media Studies, Ramkhamhaeng University | None | Present | - Vice President – Training and Talent Development | - Glow Energy Public Co., Ltd., Glow Group |
| 32. Mr. Aungsuthon Puboonterm | 43 | - Bachelor of Engineering in Electrical Engineering, Khon Kaen University | None | Present 2008-2012 | - Vice President – System Optimization - Optimization Manager | - Glow Energy Public Co., Ltd., Glow Group - Glow Energy Public Co., Ltd., Glow Group |

| Name - Surname | Age (Year) | Education | Family Relation with Management | 5 years past experience | | |
|----------------------------------|------------|---|---------------------------------|-------------------------|--|--|
| | | | | Period | Position | Company Name / Type of Business |
| 33. Mr. Nunsilp Janvarin | 41 | - Bachelor of Computer Engineering, Kasetsart University | None | Present | - Vice President – Information and Communication Technology | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2004-Mar 2017 | - Business Application Manager | - Glow Energy Public Co., Ltd., Glow Group |
| 34. Mr. Prapon Chinudomsub | 39 | - Master of Business Administration, Thammasat University - Master of Engineering, Chulalongkorn University - Bachelor of Engineering, Chulalongkorn University | None | Present | - Vice President – Finance and Treasury | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2015 - 2017 | - Head of Financial Management and Investor Relations | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2013 - 2015 | - Financial Planning, Analysis, and Investor Relations Manager | - Glow Energy Public Co., Ltd., Glow Group |
| 35. Ms. Duangporn Kijlertbunjong | 42 | - Master of Computer & Engineering Management, Assumption University - Bachelor of Arts, Majoring in Business English, Assumption University - Company Secretary Program, Class 30/2009 - Effective Minutes Taking, Class 14/2009 - Board Reporting Program, Class 1/2009 - Company Reporting Program, Class 12/2015 - Certificate in Advances for Corporate Secretaries Program, Class 1/2018, Thai Listed Companies Association | None | Present | - AVP-Corporate Affairs and Company Secretary | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2016-2019 | - Company Secretary and Corporate Affair Manager | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | 2008-2015 | - Corporate Affair Manager | - Glow Energy Public Co., Ltd., Glow Group |
| | | | | | | |

Glow Energy Public Company Limited

Annex 2

Directors of Subsidiaries

Information of management position of company, its subsidiary and associate company as of 7 May 2019

| Company Management | Glow Energy Plc. | Glow SPP 2 Co., Ltd. | Glow SPP 3 Co., Ltd. | Glow Co., Ltd. | Glow IPP Co., Ltd. | Glow IPP 2 Co., Ltd. | Glow IPP 3 Co., Ltd. | Glow SPP 11 Co., Ltd. | Houay Ho Power Co., Ltd. | Houay Ho Thai Co., Ltd. | GHECO-One Co., Ltd. | Eastern Seaboard Clean Energy Co., Ltd. | Rayong Clean Energy Co., Ltd. | Chonburi Clean Energy Co., Ltd. | Glow Hemaraj Wing Co., Ltd. | Glow Energy Myanmar Co., Ltd. |
|--|------------------|----------------------|----------------------|----------------|--------------------|----------------------|----------------------|-----------------------|--------------------------|-------------------------|---------------------|---|-------------------------------|---------------------------------|-----------------------------|-------------------------------|
| 1. Mr. Jan Franciscus Maria Flachet ¹ | | | | | | | | | | | | | | | | |
| 2. Mr. Brendan G.H. Wauters ² | | | | | | | | | | | | | | | | |
| 3. Mrs. Supapun Ruttanaporn ³ | | | | | | | | | | | | | | | | |
| 4. Prof. Dr. Borwornsak Uwanno | / | / | / | / | / | / | / | / | | | | | | | | |
| 5. Mrs. Saowanee Kamolbutr | / | / | / | / | / | / | / | / | | | | | | | | |
| 6. Mr. Anut Chatikavanij ⁴ | | | | | | | | | | | | | | | | |
| 7. Mrs. Csilla Kohalmi-Monfils ⁵ | | | | | | | | | | | | | | | | |
| 8. Mr. Marc J. Z. M. G. Verstraete ⁶ | | | | | | | | | | | | | | | | |
| 9. Mr. Paul Francis Maguire ⁷ | | | | | | | | | | | | | | | | |
| 10. Mr. Devarajen Mooroooven ⁸ | | | | | | | | | | | | | | | | |
| 11. Mr. Benoit Rene Mignard ⁹ | | | | | | | | | | | | | | | | |
| 12. Mr. Jukr Boon-Long | / | / | / | / | / | / | / | / | | | | | | | | |
| 13. Mr. Julien Ocean Pochet ¹⁰ | | | | | | | | | | | | | | | | |
| 14. Mr. Geert Jan A. Bunkens ¹¹ | | | | | | | | | | | | | | | | |
| 15. Mr. Chen Namchaisiri ¹² | | | | | | | | | | | | | | | | |
| 16. Mr. Veerasak Kositpaisal ¹³ | /, /// | | | | | | | | | | | | | | | |
| 17. Police General Aek Angsanant ¹⁴ | / | | | | | | | | | | | | | | | |
| 18. Mr. Kowit Chuengsatiansup ¹⁵ | | | | | | | | | / | | | | | | | |
| 19. Mr. Chayun Tantivasadakarn ¹⁶ | / | | | | | | | | | | | | | | | |
| 20. Mr. Payungsak Chartsutipol ¹⁷ | /, // | | | | | | | | | | | | | | | |
| 21. Mr. Chawalit Tippawanich ¹⁸ | / | / | / | / | / | / | / | / | | | | | | | | |
| 22. Mrs. Patareeya Benjapolchai ¹⁹ | / | / | / | / | / | / | / | / | | | | | | | | |
| 23. Mr. Somkiat Masunthasuwun ²⁰ | / | / | / | / | / | / | / | / | | | | | | | | |
| 24. Mrs. Boobpha Amornkiatkajorn ²¹ | / | / | / | / | / | / | / | / | | | | | | | | |
| 25. Mrs. Wanida Boonpairaks ²² | | / | / | / | / | / | / | / | | | / | | | | | |
| 26. Mr. Smornchai Khoonrak ²² | | / | / | / | / | / | / | / | | | / | | | | | |
| 27. Mr. Sirimet Leepagorn ²³ | | / | / | / | / | / | / | / | | | // | | | | | |
| 28. Mrs. Dutdao Phuttasuata ²⁴ | | | | | | | / | | | | | | | | | |
| 29. Mr. Kulapat Permbhusri ²⁷ | | | | | | | | | | | / | / | / | / | | |
| 30. Ms. Sukittee Chaiyarak ²⁶ | | | | | | | / | | | | | | | | | |
| 31. Mr. Chulaporn Teumtongchai ²⁷ | | | | | | | | | | | | | | | | / |

| Company Management | Glow Energy Plc. | Glow SPP 2 Co., Ltd. | Glow SPP 3 Co., Ltd. | Glow Co., Ltd. | Glow IPP Co., Ltd. | Glow IPP 2 Co., Ltd. | Glow IPP 3 Co., Ltd. | Glow SPP 11 Co., Ltd. | Houay Ho Power Co., Ltd. | Houay Ho Thai Co., Ltd. | GHECO-One Co., Ltd. | Eastern Seaboard Clean Energy Co., Ltd. | Rayong Clean Energy Co., Ltd. | Chonburi Clean Energy Co., Ltd. | Glow Hemaraj Wing Co., Ltd. | Glow Energy Myanmar Co., Ltd. |
|---|------------------|----------------------|----------------------|----------------|--------------------|----------------------|----------------------|-----------------------|--------------------------|-------------------------|---------------------|---|-------------------------------|---------------------------------|-----------------------------|-------------------------------|
| 32. Mr. Pajongwit Pongsivapai ²⁸ | X | / | / | / | / | / | // | / | // | // | / | / | / | / | / | / |
| 33. Mrs. Sriprapha Sumruatruamphol | | | | | | | | | | | / | | | | | |
| 34. Mrs. Sirobon Boontaworn ²⁹ | | | | | | | / | | / | / | | / | / | / | / | |
| 35. Mr. Arjan van den Broek | | | | | | | | | | | | | | | | |
| 36. Mr. Narongchai Visutrachai | | | | | | | | | | | | | | | | |
| 37. Mr. Gert Meersman ³⁰ | | | | | | | | | | | | | | | | |
| 38. Mr. Akarin Prathuangsit | | | | | | | | | | | | | | | | |
| 39. Mr. Louis Stephen Holub | | | | | | | | | | | | | | | | |
| 40. Mr. Wisit Srinuntawong | | | | | | | | | | | | | | | | |
| 41. Mrs. Mantana Kunakorn | | | | | | | | | | | | | | | | |
| 42. Mrs. Chamaiporn Soonthorntasanapong | | | | | | | | | | | | | | | | |
| 43. Mr. Anutarachai Natalang | | | | | | | | | | | | | | | | |
| 44. Mr. Sakda Lacharochana | | | | | | | | | | | | | | | | |
| 45. Ms. Sirichan Chotchaisathit | | | | | | | | | | | | | | | | |
| 46. Mr. Tananchai Chairsakaew | | | | | | | | | | | | | | | | |
| 47. Mr. Prateep Puthamarugsa | | | | | | | | | | | | | | | | |
| 48. Mr. Somchai Klinsuwanmalee | | | | | | | | | | | | | | | | |
| 49. Mr. Apichart Jamjuntr | | | | | | | | | | | | | | | | |
| 50. Mr. Renaud Pilleul | | | | | | | | | | | | | | | | |
| 51. Mr. Sutthi Chuesook | | | | | | | | | | | | | | | | |
| 52. Ms. Suttasinee Pengsupaya | | | | | | | | | | | | | | | | |
| 53. Mr. Chaiwut Rattanapornsinchai | | | | | | | | | | | | | | | | |
| 54. Mr. Eralp Gullep | | | | | | | | | | | | | | | | |
| 55. Mr. Suratchai Bangluang | | | | | | | | | | | | | | | | |
| 56. Mr. Rujirote Kasirerk | | | | | | | | | | | | | | | | |
| 57. Mr. Apidech Siriphornoppakhun | | | | | | | | | | | | | | | | |
| 58. Mr. Pisut Boonvongsobhon | | | | | | | | | | | | | | | | |
| 59. Mrs. Unchana Kittipiyakul | | | | | | | | | | | | | | | | |
| 60. Mrs. Patchara Jaroonvuthitham | | | | | | | | | | | | | | | | |
| 61. Ms. Anchana Tidsadikhun | | | | | | | | | | | | | | | | |
| 62. Mr. Nunsilp Janvarin | | | | | | | | | | | | | | | | |
| 63. Mr. Prapon Chinudomsub | | | | | | | | | | | | | | | | |
| 64. Ms. Duangporn Kijlertbunjong | | | | | | | | | | | | | | | | |
| 65. Dr. Somgiat Dekrajangpetch | | | | | | | | | | | | | | | | |

| Company Management | Glow Energy Plc. | Glow SPP 2 Co., Ltd. | Glow SPP 3 Co., Ltd. | Glow Co., Ltd. | Glow IPP Co., Ltd. | Glow IPP 2 Co., Ltd. | Glow IPP 3 Co., Ltd. | Glow SPP 11 Co., Ltd. | Houay Ho Power Co., Ltd. | Houay Ho Thai Co., Ltd. | GHECO-One Co., Ltd. | Eastern Seaboard Clean Energy Co., Ltd. | Rayong Clean Energy Co., Ltd. | Chonburi Clean Energy Co., Ltd. | Glow Hemaraj Wing Co., Ltd. | Glow Energy Myanmar Co., Ltd. |
|-------------------------------------|------------------|----------------------|----------------------|----------------|--------------------|----------------------|----------------------|-----------------------|--------------------------|-------------------------|---------------------|---|-------------------------------|---------------------------------|-----------------------------|-------------------------------|
| 66. Mr. Sichanh Gnabandith | | | | | | | | | / | | | | | | | |
| 67. Mr. Aungsuthon Puboonterm | | | | | | | | | | | | | | | | |
| 68. Mr. David Richard Nardone | | | | | | | | | | | /, /// | | | | | |
| 69. Mr. Vivat Jiratikarnsakul | | | | | | | | | / | | | | | | | |
| 70. Mr. Bounma Manivong | | | | | | | | | / | | | | | | | |
| 71. Mr. Viraphanh Nandavong | | | | | | | | | / | | | | | | | |
| 72. Mr. Ackhavone Luangsouvannavong | | | | | | | | | / | | | | | | | |
| 73. Ms. Jareeporn Jarukornsakul | | | | | | | | | / | / | / | / | / | / | / | / |
| 74. Mr. Wisate Chungwatana | | | | | | | | | / | / | / | // | // | // | // | // |
| 75. Mr. Paopitaya Smutrakalin | | | | | | | | | | / | | / | / | / | / | / |

Remark X = Chief Executive Officer / = Director // = Chairman of the Board /// = Vice Chairman of the Board

Notes:

Glow Group (except Glow Energy Plc., Glow IPP 3 Co., Ltd., Houay Ho Thai Co., Ltd., Houay Ho Power Co., Ltd., GHECO-One Co., Ltd., Eastern Seaboard Clean Energy Co., Ltd., Rayong Clean Energy Co., Ltd., Chonburi Clean Energy Co., Ltd., Glow Hemaraj Wind Co., Ltd., and Glow Energy Myanmar Co., Ltd)

- 1) Resigned from:
 - Chairman of the Board of Directors and Chairman of the Nomination and Compensation Committee of Glow Energy Plc. on 14 March 2019; and
 - Member of the Board of Directors of Glow Group on 15 March 2019; and
 - Member of the Board of Directors of Glow Energy Plc. on 23 April 2019.
- 2) Resigned from :
 - Member of the Board of Directors and Chief Executive Officer of Houay Ho Thai Co., Ltd., Houay Ho Power Co., Ltd. on 14 March 2019; and
 - Member of the Board of Directors of Eastern Seaboard Clean Energy Co., Ltd., Rayong Clean Energy Co., Ltd., Chonburi Clean Energy Co., Ltd., and Glow Hemaraj Wind Co., Ltd on 14 March 2019; and
 - Member of the Board of Directors, Vice Chairman of the Board of Directors, and Chief Executive Officer of Glow Energy Plc. on 15 March 2019; and
 - Member of the Board of Directors and Chief Executive Officer of Glow Group, Glow IPP 3 Co., Ltd. and GHECO-One Co., Ltd. on 15 March 2019.
- 3) Resigned from member of the Board of Directors of Glow Energy Plc. on 23 April 2019 and member of the Board of Directors of Glow Group on 29 May 2019.
- 4) Resigned from member of the Board of Directors of Glow Energy Plc., Glow Group and Glow IPP 3 Co., Ltd on 7 May 2019.
- 5) Resigned from member of the Board of Directors of Glow Energy Plc. and Glow Group on 14 March 2019.
- 6) Resigned from member of the Board of Directors and Nomination and Compensation Committee member of Glow Energy Plc., and member of the Board of Directors of Glow Group, Glow IPP 3 Co., Ltd. and GHECO- One Co., Ltd. on 25 February 2019.
- 7) Resigned from member of the Board of Directors of Glow Energy Plc., Glow Group, Glow IPP 3 Co., Ltd. and GHECO-One Co., Ltd. on 14 March 2019.

- 8) Resigned from member of the Board of Directors of Glow Energy Plc. and Glow Group on 15 February 2019.
- 9) Resigned from member of the Board of Directors of Glow Energy Plc. and Glow Group on 18 March 2019.
- 10) Appointed to be member of the Board of Directors of Glow Energy Plc. and Glow Group on 15 February 2019 resigned on 15 March 2019.
- 11) Appointed to be member of the Board of Directors of Glow Energy Plc., Glow Group, Glow IPP 3 Co., Ltd. and GHECO-One Co., Ltd. on 25 February 2019 and resigned on 14 March 2019.
- 12) Appointed to be:
 - Member of the Board of Directors of Glow Energy Plc. on 23 April 2019 and appointed as 1st Vice Chairman on 7 May 2019; andResigned from:
 - Member of the Board of Directors and 1st Vice Chairman on 7 May 2019.
- 13) Appointed to be member of the Board of Directors of Glow Energy Plc. on 14 March 2019 and appointed as 2nd Vice Chairman on 7 May 2019.
- 14) Appointed to be member of the Board of Directors and Chairman of Nomination and Compensation Committee of Glow Energy Plc. on 14 March 2019.
- 15) Appointed to be member of the Board of Directors of Glow Energy Plc. and Houay Ho Power Co., Ltd on 15 March 2019 and resigned from member of the Board of Directors of Glow Energy Plc. on 23 April 2019.
- 16) Appointed to be member of the Board of Directors of Glow Energy Plc. on 15 March 2019.
- 17) Appointed to be member of the Board of Directors of Glow Energy Plc. on 23 April 2019 and appointed as Chairman of the Board of Directors on 7 May 2019.
- 18) Appointed to be:
 - Member of the Board of Directors of Glow Group on 14 March 2019; and
 - Member of the Board of Directors of Glow Energy Plc. on 23 April 2019; and
 - Nomination and Compensation Committee member on 7 May 2019.
- 19) Appointed to be member of the Board of Directors of Glow Energy Plc. and Glow Group on 23 April 2019.
- 20) Appointed to be member of the Board of Directors of Glow Energy Plc. on 23 April 2019 and member of the Board of Directors of Glow Group on 14 March 2019.
- 21) Appointed to be member of the Board of Directors of Glow Energy Plc. and Glow Group on 7 May 2019.
- 22) Appointed to be member of the Board of Directors of Glow Group and GHECO-One Co., Ltd. on 15 March 2019.
- 23) Appointed to be member of the Board of Directors of Glow Group and GHECO-One Co., Ltd. on 14 March 2019.
- 24) Appointed to be member of the Board of Directors of Glow IPP 3 Co., Ltd. on 14 March 2019.
- 25) Appointed to be member of the Board of Directors of Glow Hemaraj Wind Co., Ltd., Eastern Seaboard Clean Energy Co., Ltd., Rayong Clean Energy Co., Ltd. and Chonburi Clean Energy Co., Ltd., on 14 March 2019.
- 26) Appointed to be member of the Board of Directors of Glow IPP 3 Co., Ltd. on 7 May 2019.
- 27) Appointed to be member of the Board of Directors of Glow Energy Myanmar Co., Ltd. on 15 March 2019.
- 28) Appointed to be:
 - Chairman of the Board of Directors of Glow IPP3 Co., Ltd., Houay Ho Thai Co., Ltd., Houay Ho Power Co., Ltd. and GHECO-One Co., Ltd. on 14 March 2019; and
 - Member of the Board of Directors of Glow Group on 15 March 2019; and
 - Chief Executive Officer of Glow Energy Plc. on 16 March 2019.
- 29) Appointed to be member of the Board of Directors of Glow IPP 3 Co., Ltd., Houay Ho Thai Co., Ltd. and Houay Ho Power Co., Ltd. on 14 March 2019.
- 30) Resigned form member of the Board of Directors of Houay Ho Power Co., Ltd., Glow Hemaraj Wind Co., Ltd., Eastern Seaboard Clean Energy Co., Ltd., Rayong Clean Energy Co., Ltd., Chonburi Clean Energy Co., Ltd. and Glow Energy Myanmar on 14 March 2019.

Glow Energy Public Company Limited

Annex 3

Internal Audit Officer and External Auditors

Internal Audit Profile

| Name - Surname | Age (Year) | Education | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|--------------------------------|------------|---|-----------------------------------|---------------------------------|---|--|--|
| | | | | | Period | Position | Company name / Type of Business |
| Mr. Chaiwut Rattanapornsinchai | 51 | <ul style="list-style-type: none"> - Master Degree in Computer Science, Rangsit University - Bachelor Degree in Computer Science, Chandrakasem Rajaphat University - Certified Professional Internal Audit of Thailand (CPIAT), Registration Number 471. | None | None | <ul style="list-style-type: none"> Present Jan 2014-Jul 2014 2003-2013 | <ul style="list-style-type: none"> - Vice President – Internal Audit - Vice President – Strategic Initiatives - Vice President – Information Technology | <ul style="list-style-type: none"> - Glow Energy Public Co., Ltd., Glow Group - Glow Energy Public Co., Ltd., Glow Group - Glow Energy Public Co., Ltd., Glow Group |

External Auditor Profiles

| Name - Surname | Education | Shareholding Proportion (Percent) | Family Relation with Management | 5 years past experience | | |
|---------------------------------|---|-----------------------------------|---------------------------------|--|---|--|
| | | | | Period | Position | Company name / Type of Business |
| Ms. Amornrat Pearmpoonvatanasuk | <ul style="list-style-type: none"> - Bachelor Degree in Accounting, Chulalongkorn University - Master Degree in Accounting, Chulalongkorn University - Certified Public Accountant (CPA), Thailand, Registration Number 4599 | None | None | <ul style="list-style-type: none"> July 2014-Present | <ul style="list-style-type: none"> - Audit Partner | <ul style="list-style-type: none"> - PricewaterhouseCoopers ABAS Ltd. |
| Mr. Pongthavee Ratanakoses | <ul style="list-style-type: none"> - Bachelor Degree in Accounting, Thammasat University - Master Degree in Accounting, University of Illinois at Urbana-Champaign, US CPA - Certified Public Accountant (CPA), Thailand, Registration Number 7795 | None | None | <ul style="list-style-type: none"> July 2014 – June 2015 July 2015 - Present | <ul style="list-style-type: none"> - Audit Director - Audit Partner | <ul style="list-style-type: none"> - PricewaterhouseCoopers ABAS Ltd. |
| Mr. Boonrueng Lerdwiseswit | <ul style="list-style-type: none"> - Bachelor's Degree in Business Administration with Accounting Major, Thammasat University - Certified Public Accountant (CPA), Thailand, Registration Number 6552 | None | None | <ul style="list-style-type: none"> July 2014-June 2016 July 2016 – Present | <ul style="list-style-type: none"> - Audit Director - Audit Partner | <ul style="list-style-type: none"> - PricewaterhouseCoopers ABAS Ltd. |

Glow Energy Public Company Limited

Annex 4

Information of Appraised Value of Assets

-None-

Glow Energy Public Company Limited

Annex 5
Audit Committee Report

Audit Committee Report

**To: The Shareholders
Glow Energy Public Company Limited (“the Company”)**

The Audit Committee is comprised of three (3) independent directors:

- Ms. Saowanee Kamolbutr, Chairman;
- Ms. Supapun Ruttanaporn (Resigned of Audit Committee on 23 April 2019), Member; and
- Ms. Patareeya Benjapolchai (Replaced Ms. Supapun Ruttanaporn on 23 April 2019) Member; and
- Mr. Jukr Boon-Long, Member

VP Internal Audit acts as the Audit Committee’s secretary.

During 1 January 2019 to 31 May 2019, the Audit Committee held Three (3) meetings and performed the duties under the Audit Committee Charter as follows:

1. Reviewed the 2018 annual and 2019 1st Quarter financial statements based on the external audit’s report, and after suggesting some adjustments to the notes, agreed with the external auditor that the Company’s financial statements presented the Company’s financial position and results of operations fairly, in all material respects, with adequate disclosure in accordance with generally accepted accounting principles, and proposed them for the Board of Director’s approval.
2. Reviewed the adequacy and effectiveness of the internal control programme as reported by VP Internal Audit, and found no material weaknesses in internal controls impacting the Company’s operation and the financial statements.
3. Reviewed compliance to the Securities and Exchange Act, Stock Exchange of Thailand’s regulations, and other relevant laws and regulations of Thailand. The Audit Committee deemed that the Company complied with all related laws and regulations.
4. Considered qualification and independence of the External Auditor, and proposed the appointment of the External Auditor, including the audit fee to the Board of Directors.
5. Reviewed and approved the annual internal audit plan, also acknowledged quarterly internal audit reports, and evaluated the performance of the internal audit function.
6. Reviewed the related parties/conflicts of interest transactions including the disclosure on these transactions. The Audit Committee deemed that the transactions complied with the Stock Exchange of Thailand regulations, and were reasonable and beneficial to the Company.
7. Acknowledged results of the Company’s internal audit report, together with [1] Incident Delayed Emergency Response Communication Investigation; [2] Coal Inventory Management Process Review. The Audit Committee advised additional suggestions for improvement and follow-up action items for the matters. However, there was no significant deficient issue found in the report.

The Audit Committee did not find any material weaknesses in the Company internal control management system.



Ms. Saowanee Kamolbutr
Chairman of the Audit Committee
Glow Energy Public Company Limited