A Member of GPSC Group

ANNUAL REPORT 2020

Glow Energy Public Company Limited

CONTENTS

Financial Highlights
2

General Information
4

Business
9

Shareholding and Board of Directors
19

Independent Auditor's Report
38

Financial Statement
41

FINANCIAL HIGHLIGHT

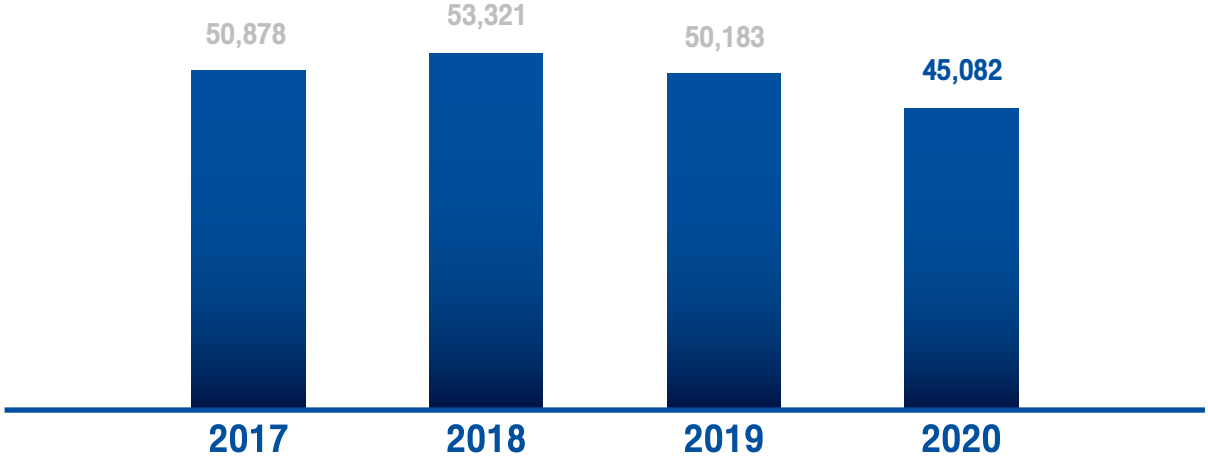
(Unit : Million Baht)

	2017	2018	2019	2020
Financial Position (Consolidated)				
Total Revenue	52,537	53,913	52,004	45,896
Operating Revenue	50,878	53,321	50,183	45,082
EBITDA	18,053	17,391	16,137	13,721
Net Profit	9,076	8,379	6,948	6,360
Normalized Net Profit[5]	8,709	8,147	7,702	6,665
Total Assets	106,031	104,927	107,245	100,556
Total Liabilities	48,022	46,023	64,096	58,223
Shareholders' Equity	58,009	58,904	43,149	42,333
Dividend Per Share (Baht)	5.823[1]	5.827[2]	9.380[3]	3.759[4]

Note:
[1] 4.292 Baht/ share paid from 2016 results, 1.531 Baht/ share paid from 2017 results (interim)
[2] 4.219 Baht/ share paid from 2017 results, 1.608 Baht/ share paid from 2018 results (interim)
[3] 1.177 Baht/ share paid from 2018 results, 8.203 Baht/ share paid from 2019 results (1st interim)
[4] 2.050 Baht/ share paid from 2019 results (2nd interim), 1.709 Baht/ share paid from 2020 results (interim)
[5] Net profit excluding impacts from: (i)Thai Financial Reporting Standard on financial instruments (TFRS9), revenue from contracts with customers (TFRS 15) and lease agreements (TFRS 16); (ii) unrealized exchange gain or loss; and (iii) net change in deferred tax assets (revenues) or liabilities (expenses)

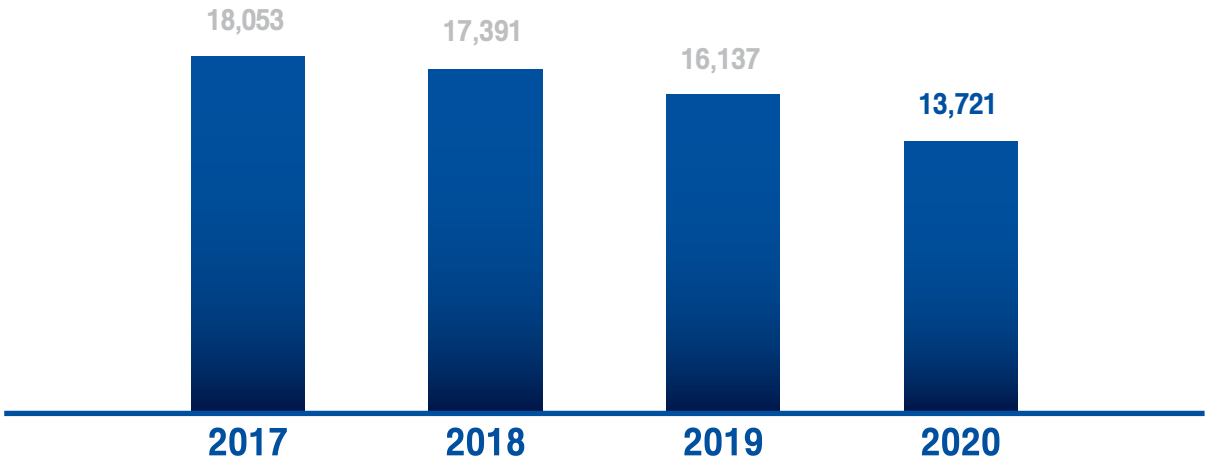
Operating Revenue

(Unit: Million Baht)



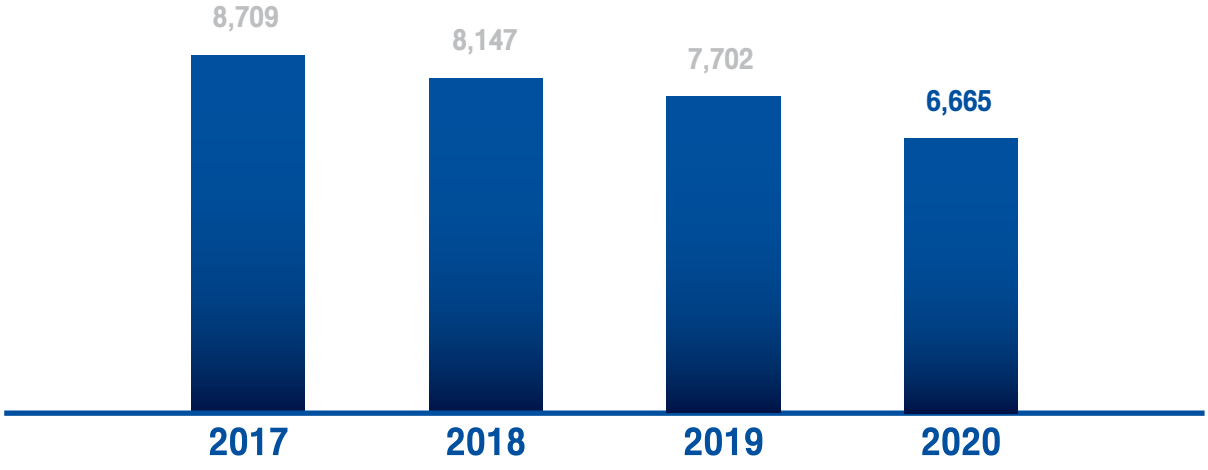
EBITDA

(Unit: Million Baht)



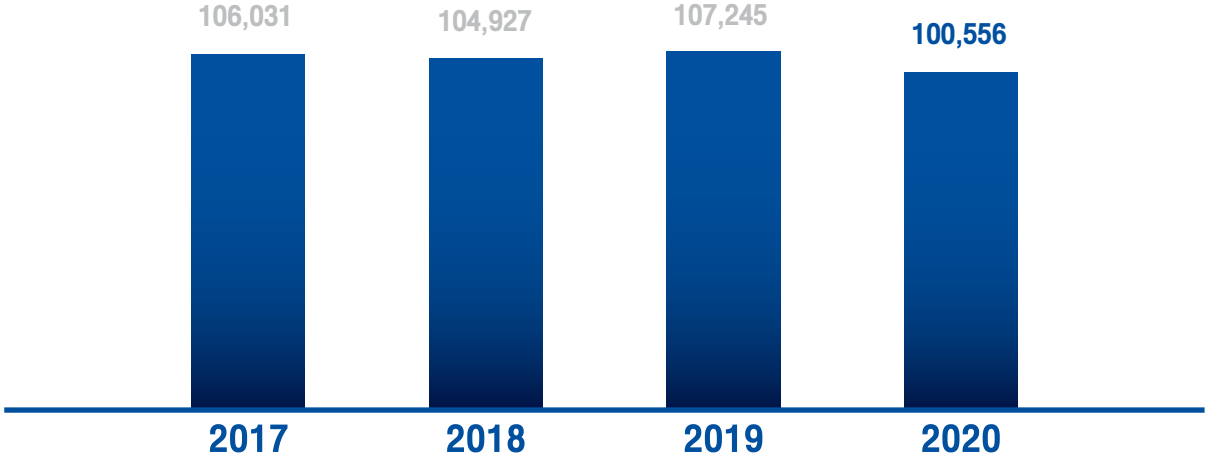
Normalized Net Profit

(Unit: Million Baht)



Total Assets

(Unit: Million Baht)



GENERAL INFORMATION OF THE COMPANY

Glow Energy Public Company Limited (GLOW)

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 and Provincial Electricity Authority
Registered Capital	14,828,650,350 Baht (as of 31 December 2020)
Paid up Capital	14,628,650,350 Baht (as of 31 December 2020)
Head Office Location	1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120 Tel: 66 (0) 2670-1500-33 Fax: 66 (0) 2670-1548-9
Plant Location	5, I-4 Road, Map Ta Phut Industrial Estate, Map Ta Phut, Muang District, Rayong 21150 Tel: 66 (0) 3868-4078-80 Fax: 66 (0) 3868-4061
Website	http://www.glow.co.th

Other References

Registrar	Siam Commercial Bank Public Company Limited Registrar 1, 15th Floor, North Wing, G Tower Grand Rama 9, 9 Rama 9 Road, Huaykwang, Bangkok 10310 Tel: 66 (0) 2128-2324-9 Fax: 66 (0) 2128-4625
Auditor	PricewaterhouseCoopers ABAS Limited Bangkok City Tower, 15th Floor, 179/74-80 South Sathorn Road, Yannawa, Sathorn, Bangkok, 10120

General Information on GLOW - Invested Companies (As of 31 December 2020)

Subsidiaries (Glow's shareholding of more than 50%)

Glow Company Limited

Head Office Location
1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Tel: 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

Registered Capital	4,964,924,770 Baht
Type of share	Ordinary
Paid-up Capital	4,401,668,110.92 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	100%

Glow IPP Company Limited

Head Office Location
1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Tel: 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
Tel: 66 (0) 3834-5900-5
Fax: 66 (0) 3834-5906

Type of Business
Generate and supply electricity to EGAT

Registered Capital	2,850,000,000 Baht
Type of share	Ordinary
Paid-up Capital	2,850,000,000 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	95% (held through Glow Co., Ltd.)

Glow SPP 2 Company Limited

Head Office Location
1 Empire Tower, 38th Floor-Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Tel: 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
Tel: 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

Registered Capital	4,941,534,880 Baht
Type of share	Ordinary
Paid-up Capital	4,941,534,880 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	100%

Glow SPP 3 Company Limited

Head Office Location

1 Empire Tower, 38th Floor-Park Wing,
South Sathorn Road, Yannawa, Sathorn,
Bangkok 10120
Tel: 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
Tel: 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

Registered Capital	7,373,389,550 Baht
Type of share	Ordinary
Paid-up Capital	7,373,389,550 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	100%

GHECO-One Company Limited

Head Office Location

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

Branch Office

1 Empire Tower, 38th Floor-Park Wing,
South Sathorn Road, Yannawa, Sathorn,
Bangkok 10120
Tel: 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
Tel: 66 (0) 3869 8400-10
Fax: 66 (0) 3868 4789

Type of Business

Generate and supply electricity to EGAT

Registered Capital	11,624,000,000 Baht
Type of share	Ordinary
Paid-up Capital	11,624,000,000 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	65% (held through Glow IPP 2 Holding Co., Ltd.)

Glow IPP 2 Holding Company Limited

Head Office Location

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

Type of Business

Invest in other companies

Registered Capital	7,565,000,000 Baht
Type of share	Ordinary
Paid-up Capital	7,565,000,000 Baht
Share Value	100.00 Baht/share
Glow's Shareholding	100%

Glow IPP 3 Company Limited

Head Office Location

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

Type of Business

Develop power generation projects

Registered Capital	380,000,000 Baht
Type of share	Ordinary
Paid-up Capital	245,000,000 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	100% (held through Glow IPP 2 Holding Co., Ltd.)

Houay Ho Power Company Limited

Head Office Location

Vieng Vang Tower (Unit 15), 5th Floor, No. 302A,
Boulichan Road, Dongpalan Thong Village,
Sittasanak District, Vientiane Capital, Lao PDR
Tel: (856) 21 414932-3
Fax: (856) 21 414934

Plant Location

P.O. Box 661 Pakse, Lao PDR.
Tel: (856) 36 211720-1
Fax: (856) 36 211719

Type of Business

Generate and supply electricity to EGAT and the Electricite Du Laos ("EDL")

Registered Capital	USD 40,000,000
Type of share	Ordinary
Paid-up Capital	USD 40,000,000
Share Value	USD 80.00/share
Glow's Shareholding	67.25% (held through Glow Co., Ltd. and Houay Ho Thai Co., Ltd.)

Glow SPP 11 Company Limited

Head Office Location

60/19 Moo 3, Siam Eastern Industrial Park,
Mabyangporn, Pluak Daeng, Rayong 21140
Tel: 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
Tel: 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

Registered Capital	1,520,000,000 Baht
Type of share	Ordinary
Paid-up Capital	1,520,000,000 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	100%

Glow Energy Myanmar Company Limited

Registered office

No. 337, 1st Floor, Play Road, Mote Lat Saung Gone
(South) Quarter, Sanchaung Township,
Yangon, Myanmar.

Type of Business

Technical and consultancy services in power sector

Registered Capital	USD 650,000
Type of share	Ordinary
Paid-up Capital	USD 650,000
Share Value	USD 1/share
Glow's Shareholding	100% (held through Glow Co., Ltd.)

Affiliates (Glow's shareholding of less than 50%)

Houay Ho Thai Company Limited

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

Type of Business
Holding company

Registered Capital	422,152,000 Baht
Type of share	Ordinary
Paid-up Capital	422,152,000 Baht
Share Value	8.00 Baht/share
Glow's Shareholding	49% (held through Glow Co., Ltd.)

Eastern Seaboard Clean Energy Company Limited

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

Type of Business
Holding company

Registered Capital	1,039,000,000 Baht
Type of share	Ordinary
Paid-up Capital	1,017,810,005 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	33% (held through Glow IPP 3 Co., Ltd.)

Chonburi Clean Energy Company Limited

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

Type of Business
Develop waste-to-energy projects

Registered Capital	989,000,000 Baht
Type of share	Ordinary
Paid-up Capital	989,000,000 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	100% (held through Eastern Seaboard Clean Energy Co., Ltd.)

Eastern Fluid Transport Company Limited (EFT)

Head Office Location
2 , 6 Rd., Map Ta Phut Muang Mai,
Huai Pong Subdistrict, Muang District,
Rayong 21150
Tel: 66 (0) 3868 7513-4
Fax: 66 (0) 3868 7512

Type of Business
Operating interconnecting pipeline system installation for fluid transportation of raw materials and refined products in Map Ta Phut Industrial Estate and in the vicinity of Rayong

Registered Capital	10,000,000 Baht
Type of share	Common Share
Paid-up Capital	10,000,000 Baht
Share Value	10.00 Baht/share
Glow's Shareholding	15% (held through Glow Energy Public Co., Ltd.)

BUSINESS

Development of the Company and the group companies

Glow Energy Public Company Limited ("Glow Energy" or "the Company" or "Glow") was incorporated as "The Cogeneration Public Company Limited" ("the Cogeneration Plc.") in October 1993 and later in 1996 was listed on the Stock Exchange of Thailand ("SET"). ENGIE S.A. and its subsidiaries, hereafter collectively referred to as "ENGIE", acquired its initial interest in Glow Company Limited. ("Glow Co., Ltd.")(formerly known as H-Power Company Limited) in September 1997 and in the Cogeneration Plc. in November 2000, after which the latter was de-listed in August 2002. In February 2005, the name of the company was changed to Glow Energy Plc. and later in April 2005 was listed on the SET under "GLOW".

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 Plc. ("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.

Following the purchase of Glow Energy's shares, GPSC made two Tender Offers to purchase Glow Energy's shares that were publicly traded on the SET from minority shareholders in May 2019 and again for delisting of Glow Energy's shares from the SET in September 2019. From the first Tender Offer which ended in May 2019, GPSC acquired additional 26.14% of Glow Energy's shares. Additionally, from the second Tender Offer for delisting which ended in December 2019, GPSC acquired another 4.57% of total number of outstanding shares in Glow Energy.

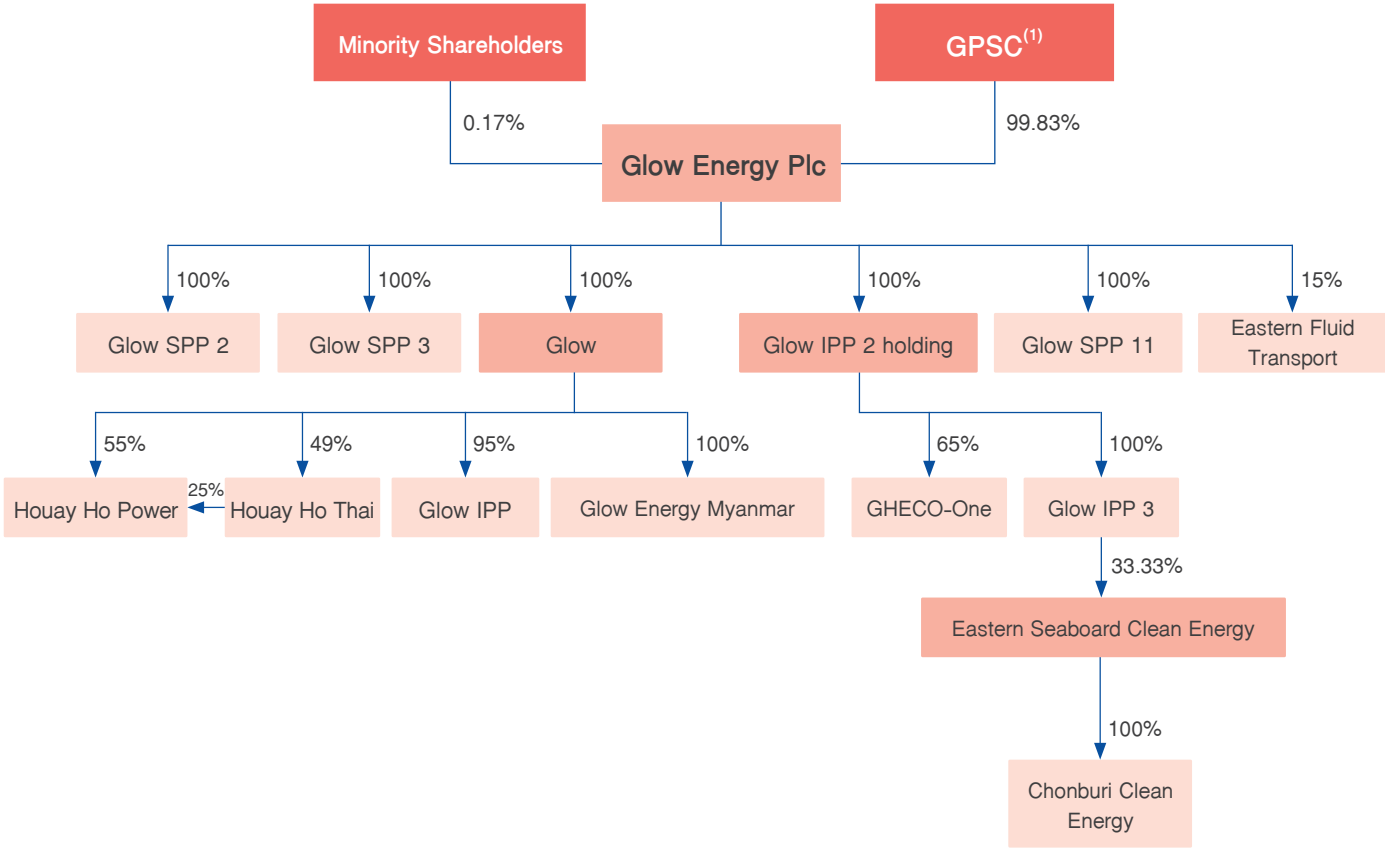
On 2 December 2019, SET announced the delisting of Glow Energy common shares from the SET resulting in Glow Energy being delisted from the SET on 13 December 2019.

As of 31 December 2019, GPSC collectively holds 99.83% of outstanding shares in Glow Energy.

On 1 April 2020, new organizational structure was implemented resulting in Glow and GPSC being under one organizational management structure in order to drive the business together with combined integrated network system and resource management for the utmost efficiency.

Shareholding Structure of GLOW Group

The following diagram displays our current organizational and ownership structure as of 31 December 2020:



Business Description

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 are operated as Small Power Producers ("SPP") under Thailand's SPP program. Apart from these, we also operate small portion of Very Small Power Producers ("VSPP") under Thailand's VSPP program as well. Our core business is to produce and supply electricity to the Electricity Generating Authority of Thailand ("EGAT") and the Provincial Electricity Authority ("PEA"), 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 December 2020, we had a total generating capacity of 2,771 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.

Notes: (1) GPSC (Global Power Synergy Public Company Limited) directly holds a 45.67 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.

Electricity generation and sales are the most important components of our business, accounting for 84.1% percent of total revenues in 2020. The generation and sale of steam is also a significant part of our business, accounting for 15.0% percent of total revenues in 2020. We currently own and operate nine production facilities. Their operating characteristics as of 31 December 2020, are:

- Glow IPP plant: Located in the WHA Chonburi Industrial Estate 1 ("WHA CIE 1"), 667.35 MW of electrical generating capacity on an equity ownership basis;
- HHPC hydroelectric IPP plant: Located in Attapeu province, Laos PDR., 102.22 MW of electrical generating capacity on an equity ownership basis;
- GHECO-One plant: Located in the Map Ta Put Industrial Estate ("MIE"), 429 MW of electrical generating capacity on an equity ownership basis;
- 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 on an equity ownership basis;
- 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.
- Pluak Daeng cogeneration plants: Located in SEIP, consisting of:
  - Glow SPP11 Phase 1 plant : 120 MW of electrical generating capacity; 2,200 refrigerated tons of chilled water;
  - Glow SPP11 Phase 2 plant : 110 MW of electrical generating capacity; 1,200 refrigerated tons of chilled water;
  - Glow SPP11 Phase 3 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:
  - The first project is located at Michelin's factory in the WHA Saraburi Industrial Estate in Nong Khae, Saraburi province, with 867.24 kW electrical generating capacity by polycrystalline silicon panels (Solar cells).
  - The second project is located at Continental Automotive's factory in the Amata City Industrial Estate in Rayong province, with 999 kW electrical generating capacity by polycrystalline silicon panels (Solar cells).
- Chonburi Clean Energy: Located at WHA Chonburi Industrial Estate 1 in Chonburi province, 2.87 MW clean energy production from non-hazardous waste on an equity ownership basis.

In addition, we have acquired 15% share of Eastern Fluid Transport Company Limited ("EFT"). EFT was established by the Industrial Estate Authority of Thailand, which governed by the Ministry of Industry, together with 5 entrepreneurs in the petrochemical industry and related industries located in the Map Ta Phut Industrial Estate since 1998. The 5 entrepreneurs are comprised of PTT Global Chemical Public Company Limited, SCG Chemicals Public Company Limited, Glow Energy Public Company Limited, WHA Eastern Pipeline Services Company Limited, and Thai Tank Terminal Company Limited. The core

business of EFT is to organize and provide structural system services for transportation of pipeline products in the Map Ta Phut Industrial Estate area with fully efficiency and safety, including to arrange service to serve business and demand growth sufficiently in order to support industrial expansion in the Map Ta Phut Industrial Estate and nearby areas in Rayong Province.

In 2020, we had total consolidated revenues of THB 45,082 million and a net profit of THB 6,360 million. As of 31 December 2020, we had total assets of THB 100,555 million.

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)	FY2019	FY2020	% change
Revenue from Sales of Goods and Interest Earned from Financial Lease			
Electricity			
Sales to EGAT by IPPs	13,323.4	12,519.2	-6%
Glow IPP	1,498.0	1,514.3	1%
GHECO-One	10,951.3	10,340.5	-6%
HHPC[1]	874.2	664.4	-32%
Sales to EGAT by SPPs[2]	12,003.9	9,377.3	-28%
Sales to Industrial Customers[3]	16,332.1	15,628.0	-5%
Interest earned from financial lease (Glow IPP)	463.6	387.0	-20%
Total	**42,123.0**	**37,911.5**	**-11%**
Steam	7,640.7	6,783.2	-13%
Other Products and Services	419.0	387.4	-8%
Total	**50,182.7**	**45,082.1**	**-12%**
Other Income	1,821.2	813.6	-124%
Total Revenue	**52,003.9**	**45,895.6**	**-13%**

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

Products and Production Facilities

Our core business is the generation and supply of electricity to EGAT and 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.

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 mainly in the MIE and also to industrial customers in nearby industrial estates. 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 Glow SPP 11 power plant through an absorption chiller.

Production facilities

The following table lists our production facilities' key capacity statistics as of 31 December 2020:

Plant Name	Location	Production Capacity[1]					
		Electricity (MW)[2]	Steam (tons/hr)[2]	Chilled water (RT)[2]	Processed Water (cu.m./hr)[2]		Power Plant Commercial Operation Date
					Clarified	Demin	
Production Facilities							
Glow IPP	WHA CIE 1	677.35	-	-	-	-	Jan. 2003
GHECO-One	MIE	429	-	-	-	-	Jul. 2012
Houay Ho Power Plant	Laos[3]	102.22	-	-	-	-	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 / Glow SPP 3 (Phase 3)	MIE	513	190	-	-	150	Mar. 1999
Glow SPP 11 Phase 1	SEIP	120	-	2,200	300[4]	60[4]	Oct. 2000
Glow SPP 11 Phase 2	SEIP	110	-	1,200	200[4]	12[4]	Dec. 2012
Glow SPP 11 Phase 3	SEIP	23	-	-	-	-	Oct. 2006
Glow SPP 11 Phase 3 expansion	SEIP	19	-	-	-	-	Apr. 2015
Chonburi Clean Energy	WHA CIE 1	2.87	-	-	-	-	Nov. 2019
Total		**2,771**	**1,116**	**3,400**	**4,010**	**1,282**	

Notes:
[1] Production capacity based on equity ownership as of 31 December 2020
[2] Unit: Electricity = Megawatt or MW, Steam = Tons/Hour or T/h, Processed Water = Cubic Metre/Hour or cu.m./h and Chilled Water = Refrigerated Ton or RT
[3] Attapeu province, Lao People's Democratic Republic
[4] 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 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 has a net electrical generating capacity of 1.55 MW and sells all electricity to PEA.

Glow Solar Roof Projects

Glow Energy has two solar roof projects so far, which comprise of the followings:

- Glow Energy Solar PV Rooftop project 1 is a 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 has a net electrical generating capacity of 0.87 MW which began commercial operation in November 2018 and sells electricity to Michelin Siam Co., Ltd. The plant

- Glow Energy Solar PV Rooftop project 2 is a PV solar system installed on the roof of the factory Continental Automotive (Thailand) Co., Ltd. in Amata City Industrial Estate at Rayong province The plant has a net electrical generating capacity of 0.99 MW which began commercial operation in February 2019.

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

Glow SPP 2/Glow SPP 3 plant is a hybrid natural gas-fired 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.

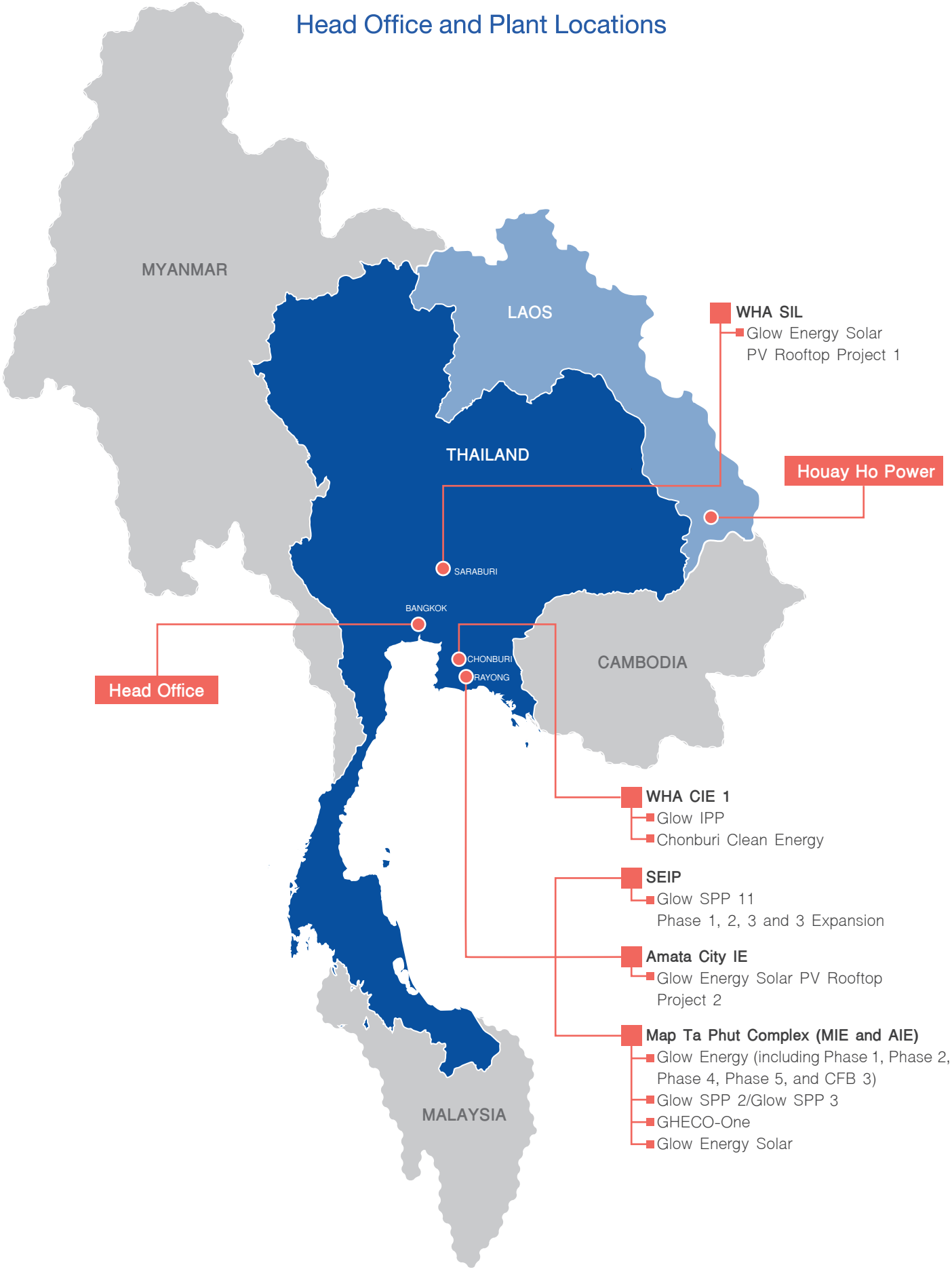
Glow SPP 11 Phase 3 plant expansion

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.

Chonburi Clean Energy

CCE is a non-hazardous industrial waste to energy (incineration) facility with a capacity of 8.63 MW, which is located in the WHA Chonburi Industrial Estate 1 it has a capacity to process non-hazardous industrial waste of up to 100,000 tons/year through advanced technological combustion process which is environmental friendly. For the source of non-hazardous industrial waste, the facility has contractual supply agreements with local suppliers in the region. The facility also has a 20-year PPA with PEA under the VSPP scheme. CCE is a joint investment among Glow Energy, WHA Utilities and Power and Suez Group, each holding 33.33% stake in the project. CCE started its commercial operation on 7 November 2019.

Head Office and Plant Locations



SHAREHOLDING AND BOARD OF DIRECTORS

Shareholders

The following table sets out our major shareholders as of 31 December 2020:

Major Shareholders	Number of Shares	Percentage
1. GPSC Holding (Thailand) Co., Ltd.	792,279,773	54.16%
2. Global Power Synergy Public Company Limited	668,080,226	45.67%
3. RBC INVESTOR SERVICES TRUST	231,200	0.02%
4. UBS AG SINGAPORE BRANCH	190,000	0.01%
5. Others	2,083,836	0.14%
	1,462,865,035	**100.00%**

Other Securities

The following table displays our debentures which have not reached their maturity date as of 31 December 2020:

Debenture	Amount (MTHB)	Coupon (percent)	Tenor (Yrs) / Maturity Date	Rating (by TRIS Rating)
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-

Board of Directors

As of 31 December 2020, the Board of Directors comprises 10 directors as follows

Name	Position	Date Appointed
1. Mr. Payungsak Chartsutipol[1]	Chairman of the Board of Directors	23 April 2019
2. Mr. Veerasak Kositpaisal[2]	Director Vice Chairman of the Board of Directors	5 June 2020 (re-elected)
3. Mr. Worawat Pitayasiri[3]	Director Nomination and Remuneration Committee member	1 December 2020
4. Mr. Sirimet Leepagorn[4]	Director	4 October 2019
5. Mr. Jukr Boon-Long[5]	Independent Director Audit Committee member	5 June 2020 (re-elected)
6. Mrs. Patareeya Benjapolchai[6]	Independent Director Chairman of the Audit Committee	23 April 2019
7. Prof.Dr. Borwornsak Uwanno[7]	Independent Director	23 April 2019
8. Police General Aek Angsananont[8]	Director Chairman of the Nomination and Remuneration Committee	14 March 2019
9. Mrs. Boobpha Amornkiatkajorn[9]	Director Audit Committee member	5 June 2020 (re-elected)
10. Assoc.Prof.Dr. Chayun Tantivasadakarn[10]	Director Nomination and Remuneration Committee member	5 June 2020 (re-elected)

Notes:

[1] Mr. Payungsak Chartsutipol was elected as a director at the 2019 Annual General Meeting of Shareholders (AGM), convened on 23 April 2019, effective as of 23 April 2019 and was appointed Chairman of the Board of Directors in the Board of Directors Meeting No. 12/2019, convened on 7 May 2019, effective as of 7 May 2019.

[2] Mr. Veerasak Kositpaisal was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Vice Chairman of the Board of Directors in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

[3] Mr. Worawat Pitayasiri was elected as a director and Nomination and Remuneration Committee member in the Board of Directors Meeting No. 5/2020, convened on 6 November 2020, effective as of 1 December 2020.

[4] Mr. Sirimet Leepagorn was elected as a director in the Board of Directors Meeting No. 17/2019, convened on 4 October 2019, effective as of 4 October 2019.

[5] Mr. Jukr Boon-Long was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Audit Committee member in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

[6] Mrs. Patareeya Benjapolchai was elected as a director at the 2019 Annual General Meeting of Shareholders (AGM), convened on 23 April 2019, effective as of 23 April 2019 and was appointed Chairman of the Audit Committee in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

[7] Prof.Dr. Borwornsak Uwanno was elected as a director at the 2019 Annual General Meeting of Shareholders (AGM), convened on 23 April 2019, effective as of 23 April 2019

[8] Police General Aek Angsananont was elected as a director and Chairman of the Nomination and Remuneration Committee in the Board of Directors Meeting No. 7/2019, convened on 14 March 2019, effective as of 14 March 2019.

[9] Mrs. Boobpha Amornkiatkajorn was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Audit Committee member in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

[10] Assoc.Prof.Dr. Chayun Tantivasadakarn was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Nomination and Remuneration Committee member in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

Directors Who Resigned in The Year 2020

Name	Position	Date Appointed
1. Mrs. Saowanee Kamolbutr	Director Chairman of the Audit Committee Nomination and Remuneration Committee member	Resigned, Effective on 28 January 2020
2. Mr. Chawalit Tippawanich	Director Nomination and Remuneration Committee member	Resigned, Effective on 1 December 2020

Authorized Directors

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

Mr. Payungsak Chartsutipol, Mr. Veerasak Kositpaisal, Mr. Worawat Pitayasiri and Mr. Sirimet Leepagorn.

Subcommittees of the Board of Directors

Audit Committee

As of 31 December 2020, the Audit Committee comprises three members as follows.

Name	Position
1. Mrs. Patareeya Benjapolchai	Chairman of the Audit Committee (Independent)
2. Mr. Jukr Boon-Long	Audit Committee member (Independent)
3. Mrs. Boobpha Amornkiatkajorn	Audit Committee member

Nomination and Remuneration Committee

As of 31 December 2020, the Nomination and Remuneration Committee comprises three members as follows.

Name	Position
1. Police General Aek Angsananont	Chairman of the Nomination and Remuneration Committee
2. Mr. Worawat Pitayasiri	Nomination and Remuneration Committee member
3. Assoc.Prof.Dr. Chayun Tantivasadakarn	Nomination and Remuneration Committee member

Details of Board of Directors

1. Mr. Payungsak Chartsutipol

Age 68 Year

Appointment Date as Director: 23 April 2019

Education / Training Course

- 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, Poompalungpandin 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, University of the Thai Chamber of Commerce

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

April 2019 - Present

- Chairman of the Board of Directors
  Glow Energy Public Company Limited

March 2019 - Present

- Chairman of the Board of Directors
  Glow Group

Position in other Listed Companies

Present

- Independent Director / Chairman of the Corporate Governance and Sustainability Committee Board of Commissioners
  Global Green Chemicals Public Company Limited
- Independent Director / Chairman of the Risk Management Committee/ Chairman of the Nomination and Remuneration Committee (Non-Executive Director)
  Global Power Synergy Public Company Limited

2017 - 2019

- Chairman of the Audit Committee
  Global Power Synergy Public Company Limited

2016 - 2017

- Chairman of the Corporate Governance Committee
  Global Power Synergy Public Company Limited

2015 - 2016

- Member of the Corporate Governance Committee
  Global Power Synergy Public Company Limited

Position in other Non-Listed Companies

Present

- Chairman
  Siam City Leasing and Factoring Public Company Limited
- Director
  Linde (Thailand) Public Company Limited
- Director
  Siam United Steel (1995) Company Limited
- Independent Director / Chairman of Corporate Governance Committee and Chairman of Audit Committee
  Krungthai Panich Insurance Public Company Limited
- Independent Director and Vice Chairman
  Sapthip Company Limited

Position in other Organization

2012 - 2014

- Director Qualified Member
  Office of Insurance Commission

2012 - 2013

- Director / Chairman of the Corporate Governance and Social Responsibility Committee
  Krungthai Bank Public Company Limited

2011 - 2015

- Chairman / Qualified Member
  Board of National Catastrophe Insurance Fund Committee

2011 - 2014

- Chairman, Board of Executive Directors
  Krungthai Bank Public Company Limited

2010 - 2014

- Chairman
  The Federation of Thai Industries
- Member of the Council Office
  Suranaree University of Technology
- Director
  Board of Investment

2007 - 2014

- Director, Board of Trustees
  Sirindhorn International Institute of Technology Thammasat University

2. Mr. Veerasak Kositpaisal

Age 66 Year

Appointment Date as Director: 5 June 2020

Education / Training Course

- 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)

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

March 2019 - Present

- Director / Vice Chairman of the Board of Directors
  Glow Energy Public Company Limited

Position in other Listed Companies

2015 - 2019

- Independent Director / Vice Chairman / Chairman of Corporate Governance Committee / Member of Risk Management Committee
  MCOT Public Company Limited

2018 - Present

- Chairman
  Eastern Water Resources Development and Management Public Company Limited

2016 - Present

- Independent Director / Member of Audit Committee and Chairman of Nomination and Remuneration Committee
  TOA Paint (Thailand) Public Company Limited

2012 - 2014

- CEO and President
  Thai Oil Public Company Limited

Position in other Non-Listed Companies

September 2017 - Present

- Director
  Sub-Tip Company Limited

2014 - 2018

- Chairman
  HMC Polymers Company Limited

Position in other Organization

2018 - 2020

- Director
  Tobacco Authority of Thailand

2016 - Present

- Specialist in Good Corporate Governance and Corporate Social Responsibility
  The Stock Exchange of Thailand

3. Mr. Worawat Pitayasiri

Age 54 Year

Appointment Date as Director: 1 December 2020

Education / Training Course

- Bachelor of Engineering (Chemical Engineering), Chulalongkorn University
- Master of Business Administration, Thammasart University
- Director Certification Program (DCP), Class 158/2012 , Thai Institute of Directors Association (IOD)
- Advanced Certificate Course Politics and Governance in Democratic Systems for Executives, Class 22nd, King Prajadhipok's Institute
- NIDA-Wharton Executive Leadership Program, Class of 2009, The Wharton School of the University of Pennsylvania, USA
- Asia Petrochemical Industry Conference (APIC), Class 2/2017, Japan Petrochemicals Industry Association
- Senior Executive Program (SEP), Class 26/2012, Sasin Graduate Institute of Business Administration, Chulalongkorn University
- PTT Group VP Leadership Development Program

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

December 2020 - Present

- Directors
  Glow Energy Public Company Limited
- Directors
  Glow Group

Position in other Listed Companies

December 2020 - Present

- Director / Director of the Risk Management Committee / President and Chief Executive Officer
  Global Power Synergy Public Company Limited
- Senior Executive Vice President
  PTT Public Company Limited

September 2018 - November 2020

- Director / Member of Risk Management Committee
  IRPC Public Company Limited
- Senior Executive Vice President, Innovation and Digital
  PTT Public Company Limited

October 2016 - September 2018

- Executive Vice President, Downstream Business Group Planning
  PTT Public Company Limited

March 2016 - September 2016

- Executive Vice President, Downstream Business Group Collaboration
  PTT Public Company Limited

Position in other Non-Listed Companies

March 2020-November 2020

- Director
  Alpha Com Company Limited

February 2020 - November 2020
- Chairman
  PTT RAISE Company Limited

October 2019 - November 2020
- Chairman
  PTT Digital Solution Company Limited

November 2019 - February 2020
- Director
  InnoSpace (Thailand) Company Limited

June 2019 - August 2019
- Director
  PTT Energy Solutions Company Limited

May 2018 - November 2018
- Director
  PTT Tank Terminal Company Limited

July 2015 - March 2016
- President
  PTT MCC Biochem Company Limited

Position in other Organization

December 2020 - Present
- Advisory to the Board of Director
  Alpha Com Company Limited

February 2019 - November 2020
- Member of the Executive Board
  Vidyasirimedhi Institute of Science and Technology

4. Mr. Sirimet Leepagorn

Age 54 Year

Appointment Date as Director: 4 October 2019

Education / Training Course
- Master of Business Administration,
  Burapha University
- Bachelor of Science (Chemistry),
  Chiang Mai University
- Director Certification Program (DCP 205/2015),
  Thai Institute of Directors
- PTT Leadership Development Program (LDP II),
  Harvard Business School
- GE Leadership Development Program
- Senior Executive Program,
  Sasin Executive Education
- Authentic You, Authentic Leader
- Coaching for Leaders
- Leadership Development Program 3 (LDP 3)
- Brain 4, The Federation of Thai Industries

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

October 2019 - Present
- Director
  Glow Energy Public Company Limited

March 2019 - Present
- Director
  Glow Group

Position in other Listed Companies

April 2020 - Present
- Executive Vice President Corporate Strategy and Subsidiary Management
  Global Power Synergy Public Company Limited

October 2018 - Present
- Executive Vice President
  PTT Public Company Limited

October 2018 - March 2020
- Executive Vice President, Asset Management
  Global Power Synergy Public Company Limited

January 2018 - September 2018

- Executive Vice President, Strategic Transformation and Result Deliver
  IRPC Public Company Limited

January 2016 - December 2017

- EVEREST Project Director
  IRPC Public Company Limited

October 2014 - October 2015

- Executive Vice President, Corporate Business Planning
  IRPC Public Company Limited

July 2013 - September 2014

- Acting Executive Vice President,
  Corporate Business Planning
  IRPC Public Company Limited

Position in other Non-Listed Companies

January 2014 - June 2018

- Acting Managing Director
  IRPC Clean Power Company Limited

September 2014 - September 2018

- Director
  IRPC Clean Power Company Limited

February 2012 - September 2018

- Director
  IRPC Oil Company Limited

Position in other Organization

December 2018 - Present

- Chairman
  IRPC Clean Power Company Limited

December 2018 - Present

- Chairman
  Nam Lik 1 Power Company Limited

December 2018 - Present

- Chairman
  Global Renewable Power Company Limited

March 2019 - Present

- Chairman
  GHECO-One Company Limited

December 2018 - Present

- Director
  Global Renewable Power Operating (Thailand) Company Limited
- Director
  N.P.S Star Group Company Limited
- Director
  World X Change Asia Company Limited
- Director
  P.P. Solar Company Limited

May 2019 - Present

- Director
  Energy Recovery Unit Company Limited

October 2019 - Present
- Director
  Nava Nakorn Electricity Generating Company Limited

February 2020 - Present
- Director
  Xayaburi Power Company Limited

May 2020 - Present
- Director
  Combined Heat and Power Producing Company Limited

5. Mr. Jukr Boon-Long

Age 63 Year

Appointment Date as Director: 5 June 2020

Education / Training Course
- Bachelor of Laws, Ramkhamhaeng University
- Master of Arts (International Politics and Economics), University of Detroit, USA
- The National Defence College of Thailand, Class 52
- Programme of Senior Executives of Justice Administration Program, Class 16
- Capital Market Academy Program Class 29
- Director Certificate Program (DCP)
- Risk Management Program for Corporate Leaders (RCL)

Shareholding Proportion (Percent): None
Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

April 2018 - Present
- Independent Director and Member of the Audit Committee
  Glow Energy Public Company Limited

April 2018 - Present
- Director
  Glow Group

Position in other Listed Companies

November 2018 - Present
- Independent Director and Member of the Audit Committee
  S Hotel and Resorts Public Company Limited

January 2019 - Present
- Independent Director, Member of the Audit Committee and Nomination & Remuneration Committee
  PCS Machine Group Holding Public Company Limited

August 2019 - Present
- Independent Director, Member of the Audit Committee and Corporate Governance Committee
  Siam Makro Public Company Limited

Position in other Non-Listed Companies

Present
- Member Board of Director, Member of the Audit Committee and Risk Management Committee
  Neighboring Countries Economic Development Cooperation Agency: NEDA (Public Organization)

Position in other Organization

2017 - September 2018
- Ambassador Extraordinary Plenipotentiary of Thailand
  Republic of the Union of Myanmar

2015
- Ambassador Extraordinary Plenipotentiary of Thailand
  Kingdom of Norway

6. Mrs. Patareeya Benjapolchai

Age 66 Year

Appointment Date as Director: 23 April 2019

Education / Training Course

- Master of Business Administration
  Thammasat University
- Certificate, Advanced Accounting and
  Auditing Chulalongkorn University
- Bachelor of Accountancy (Accounting)
  Chulalongkorn University
- Ethical Leadership (IOD) 2018
- 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

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives,
Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

April 2019 - Present

- Independent Director and Chairman of the Audit
  Committee
  Glow Energy Public Company Limited

October 2019 - Present

- Director
  Glow Group

Position in other Listed Companies

2020 - Present

- Independent Director / Member of Audit Committee /
  Chairman of the Risk Management Committee
  Interlink Communication Public Company Limited

2019 - Present

- Independent Director / Member of Audit Committee /
  Chairman of the Risk Management Committee
  Central Retail Corporation Public Company Limited

2016 - Present

- Independent Director / Member of
  Audit Committee / Chairman of the Governance and
  Nomination Committee / Member of Remuneration
  Committee
  Thaicom Public Company Limited

2014 - 2019

- Independent Director / Chairman of Audit Committee
  MCOT Public Company Limited

Position in other Non-Listed Companies

2020 - Present

- Independent Director / Member of Audit Committee
  Anz Bank (THAI) Public Company Limited

2013 - Present

- Independent Director / Chairman of Audit Committee
  Bangkok Glass Public Company Limited

Position in other Organization

2017 - 2019

- Advisor for Civil Penalties Measurement
  The Securities and Exchange Commission

2017 - Present

- Subcommittee on Acquisition of Securities for Business
  Takeover
  The Securities and Exchange Commission

2013 - Present

- Director of Revolving Fund Evaluation Committee
  Ministry of Finance

2013 - Present
- Member of the SET AWARD Committee as an Expertise for Corporate Governance and Social Responsibilities
  The Stock Exchange of Thailand

2013 - Present
- Director
  Thai Institute of Directors Association

2013 - 2017
- Directors' Responsibilities Steering Committee
  The Securities and Exchange Commission

2011 - 2019
- Independent Director / Member of Audit Committee / Chairman of the Governance Committee
  Tisco Financial Group Public Company Limited

2011 - 2016
- Member of Ethics Committee Federation of Accounting Professions
  The Royal Patronage of His Majesty the King

2010 - Present
- Associate Judge
  The Central Intellectual Property and International Trade Court

7. Prof. Dr. Borwornsak Uwanno

Age 66 Year

Appointment Date as Director: 23 April 2019

Education / Training Course
- 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

5 Years Past Experience:

Glow Group

Present
- Independent Director
  Glow Energy Public Company Limited
- Director
  Glow Group

Position in other Listed Companies

2016 - Present
- Chairman of the Board of Director and Independent Director
  Namyong Terminal Public Company Limited

25 April 2014 - Present
- Chairman of the Board of Director and Independent Director
  General Engineering Public Company Limited

7 November 2007 - Present
- Chairman of the Board of Director and Independent Director
  Eternal Energy Public Company Limited

Position in other Non-Listed Companies
- None

Shareholding Proportion (Percent): None
Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

Position in other Organization

Present

- Fellow
  Royal Society of Thailand
- Chairman of the 13th Commission
  Office of the Council of State
- Advisor
  Constitutional Court and National Human Right Commission

2015

- Chairman
  Constitutional Drafting Committee

2014 - 2015

- Vice President
  National Reform Council

2006 - 2014

- Member of the Board
  King Prajadhipok's Institute

8. Police General Aek Angsananont

Age 64 Year

Appointment Date as Director: 14 March 2019

Education / Training Course

- Barrister, Institute of Legal Education, Thai Bar Association
- Master of Law,
  Chulalongkorn University
- Bachelor of Law (1st Class Honor),
  Ramkhamhaeng University
- Certificate of Senior Police Command,
  Police College Bramshill, United Kingdom
- Director Certification program (DCP 111/2008),
  Thai Institute of Director Association (IOD)
- Board Matters and Trends (BMT 4/2017),
  Thai Institute of Director Association (IOD)
- Role of the Chairman Program (RCP 42/2018),
  Thai Institute of Director Association (IOD)
- Ethical Leadership Program (ELP) 16/2019
- Corporate Governance for Capital Market Intermediaries (CGI 22/2019)
- The Joint State-Private Sector Course, Class 4414,
  National Defence College
- Capital Market Academy Leader Program, Class 7,
  Capital Market Academy
- 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

5 Years Past Experience:

Glow Group

March 2019 - Present

- Director and Chairman of the Nomination and Remuneration Committee
  Glow Energy Public Company Limited

Position in other Listed Companies

Present

- Independent Director, Chairman of the Audit Committee and Chairman of the Corporate Governance Committee
  Thai Oil Public Company Limited
- Independent Director and member of the Audit Committee
  Royal Orchid Hotel (Thailand) Public Company Limited
- Independent Director and Chairman of the Board
  Nex Point Public Company Limited

Position in other Non-Listed Companies

Present

- Independent Director and Chairman of the Board
  Big C Supercenter Public Company Limited
- Member of Committee of Property Management Office
  Thai Red Cross Society
- Member of Ramkhamhaeng University Council
  Ramkhamhaeng University Council
- Member of King Mongkut's Institute of Technology Ladkrabang Council
  King Mongkut's Institute of Technology Ladkrabang Council

- Advanced Certificate Course in Politics and Governance in Democratic Systems for Executives, Class7, 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), 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
- 2018 PTIT Special Lecture: "The Dawn of a New Energy Era & The Transition to High Noon"
- Independent Director Forum 1/2019: "Tips and Tricks for Dealing with Questions in AGM"
- Thailand 's 10th National Conference on Collective Action against Corruption "Innovation in the Fight against Corruption"

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

Position in other Organization

2015 - 2016

- Permanent Secretary, Office of the Permanent Secretary The Prime Minister's Office

2010 - 2015

- Deputy Commissioner General The Royal Thai Police

9. Mrs. Boobpha Amornkiatkajorn

Age 61 Year

Appointment Date as Director: 5 June 2020

Education / Training Course

- 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

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

May 2019 - Present

- Director and Member of the Audit Committee
  Glow Energy Public Company Limited

May 2019 - Present

- Director
  Glow Group

Position in other Listed Companies

2014 - 2018

- Director and member of Audit Committee
  PTT Global Chemical Public Company Limited
- Senior Executive Vice President,
  International Trading Business Unit
  PTT Public Company Limited

2014

- Executive Vice President, Trading Operation - International Trading Business Unit
  PTT Public Company Limited

2010 - 2014

- Executive Vice President, Downstream Business Group Alignment
  PTT Public Company Limited

Position in other Non-Listed Companies

Present

- Director
  Tiger Energy Trading Pte. Ltd.

2011 - 2017

- Director
  PTT Polymer Marketing Company Limited

Position in other Organization

2014 - Present

- Vice Chairman, The Institute of Industrial Energy
  The Federation of Thai Industries

10. Assoc. Prof. Dr. Chayun Tantivasadakarn

Age 61 Year

Appointment Date as Director: 5 June 2020

Education / Training Course

- 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

Shareholding Proportion (Percent): None

Family Relation with other Directors, Executives, Major Shareholders of GLOW and its subsidiaries: None

5 Years Past Experience:

Glow Group

March 2019 - Present

- Director
  Glow Energy Public Company Limited

Position in other Listed Companies

- None

Position in other Non-Listed Companies

- None

Position in other Organization

2019 - Present

- Committee
  Evaluation Committee,
  Thai Health Promotion foundation

2018 - Present

- Committee
  National Climate Change Policy Committee

April 2017 - Apr. 2020

- Dean Faculty of Economics
  Thammasat University

2016 - Present

- Working Committee on Carbon Market
  Thailand Greenhouse Gas Management

2013 - Present

- Member of Teacher of the Year Selection Committee
  Thammasat University

2011 - Present

- Committee member of Toyota Thailand Foundation Award
  Thammasat University

2007 - 2016

- Scholarship Screening Committee
  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) Eastern Seaboard Clean Energy Co., Ltd. and (3) Chonburi Clean Energy Co., Ltd.

Meeting Attendance of GLOW Directors in 2020

Name	Position	Board of Directors	Audit Committee	Nomination and Remuneration Committee	Shareholders Meeting
		5 Meetings	4 Meetings	3 Meetings	1 Meetings
1. Mr. Payungsak Chartsutipol[1]	Chairman of the Board of Directors	5/5	-	-	1/1
2. Mr. Veerasak Kositpaisal[2]	Director Vice Chairman of the Board of Directors	5/5	-	-	1/1
3. Mr. Worawat Pitayasiri[3]	Director Nomination and Remuneration Committee member	N/A	-	N/A	N/A
4. Mr. Sirimet Leepagorn[4]	Director	5/5	-	-	1/1
5. Mr. Jukr Boon-Long[5]	Independent Director Audit Committee member	5/5	4/4	-	1/1
6. Mrs. Patareeya Benjapolchai[6]	Independent Director Chairman of the Audit Committee	5/5	4/4	-	1/1
7. Prof.Dr. Borwornsak Uwanno[7]	Independent Director	5/5	-	-	1/1
8. Police General Aek Angsananont[8]	Director Chairman of the Nomination and Remuneration Committee	5/5	-	3/3	1/1
9. Mrs. Boobpha Amornkiatkajorn[9]	Director Audit Committee member	5/5	4/4	-	1/1
10. Assoc.Prof.Dr. Chayun Tantivasadakarn[10]	Director Nomination and Remuneration Committee member	5/5	-	1/1	0/1

Directors Who Resigned in The Year 2020

Name	Position	Board of Directors	Audit Committee	Nomination and Remuneration Committee	Shareholders Meeting
		5 Meetings	4 Meetings	3 Meetings	1 Meetings
1. Mrs. Saowanee Kamolbutr	Director Chairman of the Audit Committee Nomination and Remuneration Committee member	N/A	N/A	N/A	N/A
2. Mr. Chawalit Tippawanich	Director Nomination and Remuneration Committee member	5/5	-	3/3	1/1

Remark: N/A means not attended since the Director resigned or was appointed during the year 2020.

Notes:

(1) Mr. Payungsak Chartsutipol was elected as a director at the 2019 Annual General Meeting of Shareholders (AGM), convened on 23 April 2019, effective as of 23 April 2019 and was appointed Chairman of the Board of Directors in the Board of Directors Meeting No. 12 /2019, convened on 7 May 2019, effective as of 7 May 2019.

(2) Mr. Veerasak Kositpaisal was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Vice Chairman of the Board of Directors in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

(3) Mr. Worawat Pitayasiri was elected as a director and Nomination and Remuneration Committee member in the Board of Directors Meeting No. 5 /2020, convened on 6 November 2020, effective as of 1 December 2020.

(4) Mr. Sirimet Leepagorn was elected as a director in the Board of Directors Meeting No. 17/2019, convened on 4 October 2019, effective as of 4 October 2019.

(5) Mr. Jukr Boon-Long was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Audit Committee member in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

(6) Mrs. Patareeya Benjapolchai was elected as a director at the 2019 Annual General Meeting of Shareholders (AGM), convened on 23 April 2019, effective as of 23 April 2019 and was appointed Chairman of the Audit Committee in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

(7) Prof.Dr. Borwornsak Uwanno was elected as a director at the 2019 Annual General Meeting of Shareholders (AGM), convened on 23 April 2019, effective as of 23 April 2019

(8) Police General Aek Angsananont was elected as a director and Chairman of the Nomination and Remuneration Committee in the Board of Directors Meeting No. 7/2019, convened on 14 March 2019, effective as of 14 March 2019.

(9) Mrs. Boobpha Amornkiatkajorn was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Audit Committee member in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

(10) Assoc.Prof.Dr. Chayun Tantivasadakarn was re-elected as a director at the 2020 Annual General Meeting of Shareholders (AGM), convened on 5 June 2020, effective as of 5 June 2020 and was appointed Nomination and Remuneration Committee member in the Board of Directors Meeting No. 3/2020, convened on 30 April 2020, effective as of 1 April 2020.

Remuneration

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 5 June 2020 Annual General Shareholders' Meeting 2020. 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 2020 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

Remunerations for Committees

The Annual General Meeting of Shareholders 2020 dated 5 June 2020 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

The Company will compensate for personal income tax in the amount not exceeding ten percent (10%) of the amount of remuneration given by the Company to each of the directors who are not Executive Directors, Members of Audit Committee, and Members of Nomination and Remuneration Committee, as practiced in the previous years.

Remunerations of the Directors in 2020:

(Unit: THB)

Directors	Meeting allowance and Fixed remuneration			Total remuneration
	Board of Directors	Audit Committee	Nomination and Remuneration Committee	
1. Mr. Payungsak Chartsutipol	900,297.00	-	-	900,297.00
2. Mr. Veerasak Kositpaisal	953,941.00	-	-	953,941.00
3. Mr. Worawat Pitayasiri	-	-	-	-
4. Mr. Sirimet Leepagorn	680,358.00	-	-	680,358.00
5. Mr. Jukr Boon-Long	1,050,500.00	184,800.00	-	1,235,300.00
6. Mrs. Patareeya Benjapolchai	900,297.00	157,647.00	-	1,057,944.00
7. Prof.Dr. Borwornsak Uwanno	1,050,500.00	-	-	1,050,500.00
8. Police General Aek Angsananont	953,941.00	-	105,751.00	1,059,692.00
9. Mrs. Boobpha Amornkiatkajorn	881,522.00	37,400.00	-	918,922.00
10. Assoc.Prof.Dr. Chayun Tantivasadakarn	952,600.00	-	22,000.00	974,600.00
11. Mrs. Saowanee Kamolbutr	489,500.00	165,000.00	55,000.00	709,500.00
12. Mr. Chawalit Tippawanich	900,297.00	-	80,014.00	980,311.00
Grand Total	**9,713,753.00**	**544,847.00**	**262,765.00**	**10,521,365.00**

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of Glow Energy Public Company Limited

My opinion

In my opinion, the consolidated financial statements and the separate financial statements present fairly, in all material respects, the consolidated financial position of Glow Energy Public Company Limited (the Company) and its subsidiaries (the Group) and the separate financial position of the Company as at 31 December 2020, and its consolidated and separate financial performance and its consolidated and separate cash flows for the year then ended in accordance with Thai Financial Reporting Standards (TFRS).

What I have audited

The consolidated financial statements and the separate financial statements comprise:

- the consolidated and separate statements of financial position as at 31 December 2020;
- the consolidated and separate statements of comprehensive income for the year then ended;
- the consolidated and separate statements of changes in equity for the year then ended;
- the consolidated and separate statements of cash flows for the year then end; and
- the notes to the consolidated and separate financial statements, which include significant accounting policies and other explanatory information.

Basis for opinion

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

Responsibilities of management for the consolidated and separate financial statements

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

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

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

Auditor's responsibilities for the audit of the consolidated and separate financial statements

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

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

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

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

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

PricewaterhouseCoopers ABAS Ltd.

Amornrat Pearmpoonvatanasuk

Certified Public Accountant (Thailand) No. 4599
Bangkok
9 February 2021

Glow Energy Public Company Limited
Statement of Financial Position
As at 31 December 2020

	Notes	Consolidated financial statements 2020 Baht	Consolidated financial statements 2019 Baht	Separate financial statements 2020 Baht	Separate financial statements 2019 Baht
Assets					
Current assets					
Cash and cash equivalents	11	8,494,426,543	16,004,710,264	5,133,954,174	9,789,969,174
Deposits at a financial institution used as collateral	12	167,245,899	164,861,795	-	-
Financial assets measured at amortised cost	13	1,793,000,000	-	100,000,000	-
Trade and other receivables, net	14	6,062,262,439	6,935,392,364	2,136,959,853	2,223,952,544
Short-term loans to related parties	33	-	-	-	1,158,500,000
Fuel, spare parts and supplies for machines, net	15	5,495,805,266	6,039,250,521	993,382,463	934,650,455
Derivative assets	7	53,803,090	-	53,803,090	-
Other current assets		50,732,447	33,403,495	35,615,714	176,180
Total current assets		22,117,275,684	29,177,618,439	8,453,715,294	14,107,248,353
Non-current assets					
Financial assets measured at fair value through other comprehensive income	8	62,500,000	-	62,500,000	-
Finance lease receivable, net	16	1,948,876,528	2,524,949,987	-	-
Deposits at a financial institution used as collateral	12	200,000,000	200,000,000	-	-
Investment in an associate	17	365,360,353	332,897,124	-	-
Investments in subsidiaries	17	-	-	29,155,196,263	29,155,196,263
Other long-term investment	33	-	1,500,000	-	1,500,000
Long-term loans to related parties	33	248,490,552	283,490,552	2,916,600,000	2,772,600,000
Property, plant and equipment, net	18	67,332,995,893	68,518,732,595	22,115,691,357	21,425,144,239
Right-of-use assets, net	19	1,988,788,135	-	342,803,340	-
Intangible assets, net	20	633,004,132	733,332,195	97,258,230	126,387,934
Derivative assets	7	70,848,044	-	70,848,044	-
Deferred tax assets, net	26	3,351,303,253	3,116,190,696	-	-
Other non-current assets	21	2,236,087,685	2,356,600,552	244,620,623	295,295,376
Total non-current assets		78,438,254,575	78,067,693,701	55,005,517,857	53,776,123,812
Total assets		100,555,530,259	107,245,312,140	63,459,233,151	67,883,372,165

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Financial Position
As at 31 December 2020

	Notes	Consolidated financial statements 2020 Baht	Consolidated financial statements 2019 Baht	Separate financial statements 2020 Baht	Separate financial statements 2019 Baht
Liabilities and equity					
Current liabilities					
Trade and other payables	22	5,345,473,606	4,450,829,470	3,244,990,825	2,520,184,326
Current portion of long-term loans from financial institutions, net	23	1,162,999,897	1,260,960,599	-	-
Current portion of debentures, net	24	5,554,075,830	-	5,554,075,830	-
Short-term loans from related parties	33	-	-	6,212,989,036	3,547,092,770
Derivative liabilities	7	98,032,772	-	12,027,357	-
Income tax payable		571,731,361	450,938,304	198,576,609	171,213,245
Current portion of lease liabilities, net		59,865,914	-	14,861,314	-
Provisions for employee benefits		1,064,310	6,005,856	387,534	160,601
Value-added tax payable		218,972,209	232,642,564	-	31,079,059
Dividend payables		-	12,564,168,965	-	11,999,881,882
Other current liabilities		302,754,969	497,865,382	268,715,693	289,135,080
Total current liabilities		13,314,970,868	19,463,411,140	15,506,624,198	18,558,746,963
Non-current liabilities					
Derivative liabilities	7	1,912,319,750	-	490,397,229	-
Lease liabilities, net		1,979,786,723	-	334,090,805	-
Long-term loans from financial institutions, net	23	18,164,635,696	16,327,713,524	9,580,398,907	6,590,209,512
Debentures, net	24	6,993,933,645	12,545,545,532	6,993,933,645	12,545,545,532
Deferred tax liabilities, net	26	1,248,145,064	1,189,564,104	300,665,893	314,342,970
Provisions for employee benefits		186,697,909	357,900,409	50,541,509	53,428,902
Other non-current liabilities	25	14,422,151,462	14,212,180,850	555,356,483	879,198,891
Total non-current liabilities		44,907,670,249	44,632,904,419	18,305,384,471	20,382,725,807
Total liabilities		58,222,641,117	64,096,315,559	33,812,008,669	38,941,472,770

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Financial Position
As at 31 December 2020

	Note	Consolidated financial statements		Separate financial statements	
		2020 Baht	2019 Baht	2020 Baht	2019 Baht
Liabilities and equity (continued)					
Equity					
Share capital					
Authorised share capital					
1,482,865,035 ordinary shares					
at par value of Baht 10 per share		14,828,650,350	14,828,650,350	14,828,650,350	14,828,650,350
Issued and paid-up share capital					
1,462,865,035 ordinary shares					
paid-up at Baht 10 per share		14,628,650,350	14,628,650,350	14,628,650,350	14,628,650,350
Premium on ordinary shares		2,935,427,353	2,935,427,353	4,786,986,727	4,786,986,727
Discount on business combination					
under common control		(369,521,136)	(369,521,136)	-	-
Retained earnings					
Appropriated					
Legal reserve	27	1,598,287,193	1,598,287,193	1,598,287,193	1,598,287,193
Unappropriated		18,595,146,337	18,016,294,083	8,565,310,025	7,935,002,709
Other components of equity		(952,050,961)	(219,752,596)	67,990,187	(7,027,584)
Equity attributable to owners of the parent		36,435,939,136	36,589,385,247	29,647,224,482	28,941,899,395
Non-controlling interests		5,896,950,006	6,559,611,334	-	-
Total equity		42,332,889,142	43,148,996,581	29,647,224,482	28,941,899,395
Total liabilities and equity		100,555,530,259	107,245,312,140	63,459,233,151	67,883,372,165

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Comprehensive Income
For the Year Ended 31 December 2020

	Notes	Consolidated financial statements 2020 Baht	Consolidated financial statements 2019 Baht	Separate financial statements 2020 Baht	Separate financial statements 2019 Baht
Revenues from sales and services		44,695,026,400	49,719,081,899	19,973,949,834	21,993,567,520
Revenues from finance lease		387,039,895	463,609,377	-	-
Cost of sales and services		(34,451,972,155)	(39,742,868,790)	(15,772,645,777)	(17,656,602,866)
Gross profit		10,630,094,140	10,439,822,486	4,201,304,057	4,336,964,654
Currency exchange gain (loss), net		57,597,750	527,704,303	(1,113,994)	(3,804,019)
Interest income		62,062,256	137,390,140	159,174,419	226,255,800
Dividend income		6,000,000	8,400,000	3,668,761,694	6,100,554,313
Other income		632,141,138	404,846,730	170,800,769	255,826,725
Gain from disposal of investment in a subsidiary		-	741,918,385	-	-
Gain from measurement of financial instruments, net		16,040,327	-	-	-
Administrative expenses		(1,176,281,492)	(1,285,849,851)	(571,648,320)	(831,372,576)
Finance costs	29	(2,338,289,464)	(2,341,205,514)	(1,110,264,549)	(1,099,581,234)
Share of profit from investment in an associate	17.2	39,736,229	939,872	-	-
Profit before income tax		7,929,100,884	8,633,966,551	6,517,014,076	8,984,843,663
Income tax	30	(1,230,628,597)	(876,756,233)	(387,797,092)	(390,042,372)
Profit for the year		6,698,472,287	7,757,210,318	6,129,216,984	8,594,801,291
Other comprehensive income (expense) :					
Item that will not be reclassified subsequently to profit or loss					
Remeasurements of post-employment benefit obligations		(8,816,672)	(5,400,117)	(8,816,672)	(5,400,117)
Income tax on items that will not be reclassified subsequently to profit or loss		1,763,334	1,080,023	1,763,334	1,080,023
Total item that will not be reclassified subsequently to profit or loss		(7,053,338)	(4,320,094)	(7,053,338)	(4,320,094)
Item that will be reclassified subsequently to profit or loss					
Cash flow hedges		(45,464,580)	-	121,158,358	-
Cost of hedging		(9,478,076)	-	(9,478,076)	-
Exchange differences on translation of financial statements		(426,150)	(117,816,388)	-	-
Income tax on items that will be reclassified subsequently to profit or loss		(8,246,745)	-	(22,336,056)	-
Total item that will be reclassified subsequently to profit or loss		(63,615,551)	(117,816,388)	89,344,226	-
Other comprehensive income (expense) for the year, net of tax		(70,668,889)	(122,136,482)	82,290,888	(4,320,094)
Total comprehensive income for the year		6,627,803,398	7,635,073,836	6,211,507,872	8,590,481,197
Profit attributable to:					
Owners of the parent		6,360,008,657	6,947,646,769	6,129,216,984	8,594,801,291
Non-controlling interests		338,463,630	809,563,549	-	-
		6,698,472,287	7,757,210,318	6,129,216,984	8,594,801,291
Total comprehensive income attributable to:					
Owners of the parent		6,343,464,641	6,864,065,072	6,211,507,872	8,590,481,197
Non-controlling interests		284,338,757	771,008,764	-	-
		6,627,803,398	7,635,073,836	6,211,507,872	8,590,481,197
Earnings per share					
Basic earnings per share	31	4.35	4.75	4.19	5.88

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Changes in Equity
For the Year Ended 31 December 2020

		Consolidated financial statements													
		Attributable to owners of the parent													
							Other components of equity								
							Other comprehensive income (expense)								
	Notes	Issued and paid-up share capital Baht	Premium on ordinary shares Baht	Discount on business combination under common control Baht	Retained earnings: Appropriated - Legal reserve Baht	Retained earnings: Unappropriated Baht	Exchange differences on translation of financial statements Baht	Remeasurement of post-employment benefit obligations Baht	Cash flow hedge reserves Baht	Cost of hedging reserves Baht	Changes in fair value of equity investments Baht	Total other components of equity Baht	Total equity attributable to owners of the parent Baht	Non-controlling interests Baht	Total equity Baht
Opening balance as at 1 January 2019		14,628,650,350	2,935,427,353	(369,521,136)	1,598,287,193	24,790,321,343	(133,463,409)	(2,707,490)	-	-	-	(136,170,899)	43,446,994,204	6,502,264,338	49,949,258,542
Changes in equity for the year															
Dividend paid		-	-	-	-	(13,721,674,029)	-	-	-	-	-	-	(13,721,674,029)	(713,661,768)	(14,435,335,797)
Total comprehensive income (expense) for the year		-	-	-	-	6,947,646,769	(79,261,603)	(4,320,094)	-	-	-	(83,581,697)	6,864,065,072	771,008,764	7,635,073,836
Closing balance as at 31 December 2019		14,628,650,350	2,935,427,353	(369,521,136)	1,598,287,193	18,016,294,083	(212,725,012)	(7,027,584)	-	-	-	(219,752,596)	36,589,385,247	6,559,611,334	43,148,996,581
Opening balance as at 1 January 2020															
- As previously reported		14,628,650,350	2,935,427,353	(369,521,136)	1,598,287,193	18,016,294,083	(212,725,012)	(7,027,584)	-	-	-	(219,752,596)	36,589,385,247	6,559,611,334	43,148,996,581
Impact on adoption of new financial reporting standards	4	-	-	-	-	(282,246,735)	-	-	(781,274,257)	16,719,908	48,800,000	(715,754,349)	(998,001,084)	(398,894,310)	(1,396,895,394)
- As restated		14,628,650,350	2,935,427,353	(369,521,136)	1,598,287,193	17,734,047,348	(212,725,012)	(7,027,584)	(781,274,257)	16,719,908	48,800,000	(935,506,945)	35,591,384,163	6,160,717,024	41,752,101,187
Changes in equity for the year															
Dividend paid	32	-	-	-	-	(5,498,909,668)	-	-	-	-	-	-	(5,498,909,668)	(548,105,775)	(6,047,015,443)
Total comprehensive income (expense) for the year		-	-	-	-	6,360,008,657	(250,852)	(7,053,338)	(1,657,366)	(7,582,460)	-	(16,544,016)	6,343,464,641	284,338,757	6,627,803,398
Closing balance as at 31 December 2020		14,628,650,350	2,935,427,353	(369,521,136)	1,598,287,193	18,595,146,337	(212,975,864)	(14,080,922)	(782,931,623)	9,137,448	48,800,000	(952,050,961)	36,435,939,136	5,896,950,006	42,332,889,142

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Changes in Equity
For the Year Ended 31 December 2020

		Separate financial statements									
						Other components of equity					
						Other comprehensive income (expense)					
				Retained earnings							
	Notes	Issued and paid-up share capital Baht	Premium on ordinary shares Baht	Appropriated - Legal reserve Baht	Unappropriated Baht	Remeasurement of post-employment benefits obligations Baht	Cash flow hedge reserves Baht	Cost of hedging reserves Baht	Changes in fair value of equity investments Baht	Total other components of equity Baht	Total equity Baht
Opening balance as at 1 January 2019		14,628,650,350	4,786,986,727	1,598,287,193	13,061,875,447	(2,707,490)	-	-	-	(2,707,490)	34,073,092,227
Changes in equity for the year											
Dividend paid		-	-	-	(13,721,674,029)	-	-	-	-	-	(13,721,674,029)
Total comprehensive income (expense) for the year		-	-	-	8,594,801,291	(4,320,094)	-	-	-	(4,320,094)	8,590,481,197
Closing balance as at 31 December 2019		14,628,650,350	4,786,986,727	1,598,287,193	7,935,002,709	(7,027,584)	-	-	-	(7,027,584)	28,941,899,395
Opening balance as at 1 January 2020 - As previously reported		14,628,650,350	4,786,986,727	1,598,287,193	7,935,002,709	(7,027,584)	-	-	-	(7,027,584)	28,941,899,395
Impact on adoption of new financial reporting standards	4	-	-	-	-	-	(72,793,025)	16,719,908	48,800,000	(7,273,117)	(7,273,117)
- As restated		14,628,650,350	4,786,986,727	1,598,287,193	7,935,002,709	(7,027,584)	(72,793,025)	16,719,908	48,800,000	(14,300,701)	28,934,626,278
Changes in equity for the year											
Dividend paid	32	-	-	-	(5,498,909,668)	-	-	-	-	-	(5,498,909,668)
Total comprehensive income (expense) for the year		-	-	-	6,129,216,984	(7,053,338)	96,926,686	(7,582,460)	-	82,290,888	6,211,507,872
Closing balance as at 31 December 2020		14,628,650,350	4,786,986,727	1,598,287,193	8,565,310,025	(14,080,922)	24,133,661	9,137,448	48,800,000	67,990,187	29,647,224,482

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Cash Flows
For the Year Ended 31 December 2020

	Notes	Consolidated financial statements 2020 Baht	Consolidated financial statements 2019 Baht	Separate financial statements 2020 Baht	Separate financial statements 2019 Baht
Cash flows from operating activities					
Profit before income tax for the year		7,929,100,884	8,633,966,551	6,517,014,076	8,984,843,663
Adjustments to reconcile profit before income tax to net cash from operating activities:					
Dividend income		(6,000,000)	(8,400,000)	(3,668,761,694)	(6,100,554,313)
Share of profit from investment in an associate	17.2	(39,736,229)	(939,872)	-	-
Depreciation	18, 19	3,953,461,968	4,009,160,728	1,495,256,144	1,527,188,549
Amortisation of intangible assets and other non-current assets	20, 21	618,020,768	507,729,802	89,966,181	16,070,890
Amortisation of deferred financing fee of loans	23	50,971,701	28,868,316	3,854,729	3,787,156
Amortisation of deferred financing fee of debentures	24	2,463,943	2,911,251	2,463,943	2,911,251
Provisions for employee benefits		41,963,166	103,708,359	6,424,634	14,892,723
Write-off withholding income tax		-	3,275	-	3,275
Unrealised gain from measurement of financial instruments		(46,943,717)	-	-	-
Gain from disposal of investment in a subsidiary		-	(741,918,385)	-	-
Loss on provision for obsolescence of spare parts and supplies for machines		-	71,477,071	-	66,477,071
Loss on disposals of property, plant and equipment		18,223,961	259,029,160	26,390,272	106,656,295
Loss on impairment of property, plant and equipment	18	45,287,190	128,982,630	45,287,190	128,982,630
Revenue recognition from advance received for long-term right to grant of assets		(41,938,208)	(39,947,291)	(27,828,544)	(27,880,707)
Unrealised exchange loss (gain)		(40,125,541)	(358,641,684)	4,031,828	78,670,381
Realised exchange loss (gain) for long-term loan repayment	23	13,641,158	(97,126,928)	-	(78,366,648)
Interest income		(449,102,151)	(600,999,517)	(159,174,419)	(226,255,800)
Interest expenses		2,248,044,488	2,267,479,971	990,333,119	967,018,875
Cash flow before changes in working capital		14,297,333,381	14,165,343,437	5,325,257,459	5,464,445,291
Changes in working capital					
Trade and other receivables		1,223,091,131	922,630,642	82,102,244	427,889,570
Fuel, spare parts and supplies for machines		555,061,401	(229,509,962)	(58,732,008)	23,121,855
Other current assets		(7,340,274)	(447,350)	(35,464,620)	82,260
Other non-current assets		(393,519,704)	(485,710,931)	(7,789,762)	(215,962,090)
Trade and other payables		100,975,418	(1,544,538,299)	(144,175,972)	(349,799,776)
Value-added tax payable		(13,670,355)	(47,108,018)	(31,079,059)	(82,554,742)
Other current liabilities		(195,110,413)	(16,856,099)	(20,419,387)	1,829,467
Retirement benefit paid		(230,963,081)	(1,571,561)	(18,890,242)	(217,170)
Other non-current liabilities		316,871,096	2,038,916,226	(781,584)	3,562,992
Cash received from operating activities		15,652,728,600	14,801,148,085	5,090,027,069	5,272,397,657
Cash received from interest on finance lease		387,039,895	429,554,934	-	-
Tax paid		(1,109,357,002)	(1,049,958,944)	(392,840,162)	(349,756,431)
Net cash generated from operating activities		14,930,411,493	14,180,744,075	4,697,186,907	4,922,641,226

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Cash Flows
For the Year Ended 31 December 2020

	Notes	Consolidated financial statements 2020 Baht	Consolidated financial statements 2019 Baht	Separate financial statements 2020 Baht	Separate financial statements 2019 Baht
Cash flows from investing activities					
Cash paid for deposits at a financial institution used as collateral		(3,149,705)	(2,757,836)	-	-
Cash paid for financial assets measured at amortised cost		(1,793,000,000)	-	(100,000,000)	-
Cash paid for loans to related parties	33	-	(230,490,552)	(55,000,000)	-
Cash received for loans to related parties	33	35,000,000	-	1,069,500,000	125,000,000
Dividend received from subsidiaries and other company		13,273,000	8,400,000	3,668,761,694	6,100,554,313
Cash received from disposal of investment in a subsidiary		-	2,827,842,800	-	-
Interest received		71,960,547	125,505,615	164,064,866	215,723,720
Cash paid for purchase of property, plant and equipment		(1,632,007,236)	(1,008,599,644)	(1,370,250,876)	(481,618,143)
Cash paid for purchase of computer software		(5,292,160)	(18,815,198)	(270,360)	(1,544,374)
Cash received from disposal of property, plant and equipment		29,847,164	14,415,599	45,032,915	6,121,973
Cash received for long-term right to use of assets		5,821,873	41,506,182	3,106,009	4,283,995
Cash paid for long-term right to use of assets		(2,101,602)	(76,554,991)	(2,101,602)	(822,900)
Net cash generated from (used in) investing activities		(3,279,648,119)	1,680,451,975	3,422,842,646	5,967,698,584
Cash flow from financing activities					
Interest paid		(2,146,341,657)	(2,295,627,191)	(920,767,592)	(994,834,125)
Cash received from short-term loans from financial institutions		2,000,000,000	-	2,000,000,000	-
Cash paid for repayment of short-term loans from financial institutions		(2,000,000,000)	-	(2,000,000,000)	-
Cash paid for repayment of short-term loan from a shareholder of a subsidiary		-	(701,550,500)	-	-
Cash received from short-term loans from related parties	33	-	-	4,737,479,866	1,586,108,545
Cash paid for repayment of short-term loans from related parties	33	-	-	(2,071,583,600)	(1,618,436,120)
Cash received from long-term loans from financial institutions	23	3,000,000,000	2,715,591,091	3,000,000,000	2,715,591,091
Cash paid for repayment of long-term loans from financial institutions	23	(1,310,417,635)	(4,136,590,405)	-	(2,715,591,091)
Cash paid for financing fee	23	(3,000,000)	(7,455,621)	(3,000,000)	(7,455,621)
Cash paid for repayment of debentures	24	-	(3,400,000,000)	-	(3,400,000,000)
Cash paid for repayment of lease liabilities		(94,865,138)	-	(19,380,239)	-
Dividend paid		(17,498,791,550)	(1,721,792,147)	(17,498,791,550)	(1,721,792,147)
Dividend paid to non-controlling interests of a subsidiary		(1,112,392,858)	(149,374,685)	-	-
Net cash used in financing activities		(19,165,808,838)	(9,696,799,458)	(12,776,043,115)	(6,156,409,468)
Net increase (decrease) in cash and cash equivalents		(7,515,045,464)	6,164,396,592	(4,656,013,562)	4,733,930,342
Exchange gain (loss) on translation of cash and cash equivalents		4,761,743	(27,306,945)	(1,438)	(29,924)
Cash and cash equivalents as at 1 January		16,004,710,264	9,867,620,617	9,789,969,174	5,056,068,756
Cash and cash equivalents as at 31 December		8,494,426,543	16,004,710,264	5,133,954,174	9,789,969,174

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

Glow Energy Public Company Limited
Statement of Cash Flows
For the Year Ended 31 December 2020

	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Supplementary information:				
Change in payables for purchase of property, plant and equipment	839,316,515	188,381,891	820,322,614	174,113,720
Increase in right-of-use assets under leases	126,756,627	-	120,843,306	-
Change in lease liabilities	(45,661,417)	-	(15,152,614)	-

The notes to the financial statements on pages 50 to 132 are an integral part of these financial statements.

1 General information

Glow Energy Public Company Limited (the Company) is a public limited company which is incorporated and domiciled in Thailand. The address of the Company's registered office is 1 Empire Tower, 38th Floor - Park Wing, South Sathorn Road, Yannawa, Sathorn, Bangkok 10120.

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

The principal business operations of the Group is to generate and supply electricity, steam and water for industrial use to the government and industrial customers.

The consolidated and separate financial statements were authorised for issue by the Board of Directors on 9 February 2021.

2 Accounting policies

The consolidated and separate financial statements have been prepared in accordance with Thai Financial Reporting Standards (TFRS).

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

The preparation of financial statements in conformity with TFRS requires management to use certain critical accounting estimates and to exercise its judgement in applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas that are more likely to be materially adjusted due to changes in estimates and assumptions are disclosed in Note 9.

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

3 New and amended financial reporting standards

3.1 New and amended financial reporting standards that are effective for accounting period beginning on or after 1 January 2020 and have significant impacts to the Group.

a) Financial instruments

The new financial standards related to financial instruments are as follows:

TAS 32	Financial instruments: Presentation
TFRS 7	Financial instruments: Disclosures
TFRS 9	Financial instruments
TFRIC 16	Hedges of a net investment in a foreign operation
TFRIC 19	Extinguishing financial liabilities with equity instruments

The new financial reporting standards related to financial instruments introduce new classification and measurement requirements for financial instruments as well as provide derecognition guidance on financial assets and financial liabilities. The new guidance also provides an option for the Group to apply hedge accounting to reduce accounting mismatch between hedged item and hedging instrument. In addition, the new rule provides detailed guidance on financial instruments issued by the Group whether it is a liability or an equity. Among other things, they require extensive disclosure on financial instruments and related risks.

The new classification requirements of financial assets require the Group to assess both i) business model for holding the financial assets; and ii) cash flow characteristics of the asset whether the contractual cash flows represent solely payments of principal and interest (SPPI). The classification affects the financial assets' measurement. The new guidance requires assessment of impairment of financial assets as well as contract assets and recognition of expected credit loss from initial recognition.

On 1 January 2020, the Group has adopted the financial reporting standards related to financial instruments in its financial statements. The impact from the first-time adoption has been disclosed in Note 4.

b) TFRS 16, Leases

Where the Group is a lessee, TFRS 16, Leases will result in almost all leases being recognised on the statement of financial position as the distinction between operating and finance leases is removed. A right-of-use asset and a lease liability will be recognised, with exception on short-term and low-value leases.

On 1 January 2020, the Group has adopted the new lease standard in its financial statements. The impact from the first-time adoption has been disclosed in Note 4.

3.2 New and amended financial reporting standards that are effective for accounting period beginning or after 1 January 2021 and the Group has not yet adopted these standards.

a) Revised Conceptual Framework for Financial Reporting added the following key principals and guidance:

- Measurement basis, including factors in considering difference measurement basis
- Presentation and disclosure, including classification of income and expenses in other comprehensive income
- Definition of a reporting entity, which maybe a legal entity, or a portion of an entity
- Derecognition of assets and liabilities

The amendment also includes the revision to the definition of an asset and liability in the financial statements, and clarification to the prominence of stewardship in the objective of financial reporting.

b) Amendment to TFRS 3, Business Combination amended the definition of a business which requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs. The definition of the term 'outputs' is amended to focus on goods and services provided to customers and to exclude returns in the form of lower costs and other economic benefits.

c) Amendment to TFRS 9, Financial instruments and TFRS 7, Financial instruments: disclosures amended to provide relief from applying specific hedge accounting requirements to the uncertainty arising from interest rate benchmark reform such as IBOR. The amendment also requires disclosure of hedging relationships directly affected by the uncertainty.

d) Amendment to TAS 1, Presentation of financial statements and TAS 8, Accounting policies, changes in accounting estimates and errors amended to definition of materiality. The amendment allows for a consistent definition of materiality throughout the Thai Financial Reporting Standards and the Conceptual Framework for Financial Reporting. It also clarified when information is material and incorporates some of the guidance in TAS 1 about immaterial information.

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

4 Impacts from the first-time adoption of the new financial reporting standards

The Group has adopted financial reporting standards relating to financial instruments (TAS 32, TFRS 7 and TFRS 9) and lease standard (TFRS 16). The new accounting policies applied from 1 January 2020 were disclosed in Note 5.

The Group has adopted those accounting policies from 1 January 2020 by applying the modified retrospective approach. The comparative figures have not been restated. The reclassifications and the adjustments arising from the changes in accounting policies were therefore recognised in the statement of financial position as of 1 January 2020.

The impact of first-time adoption of new financial reporting standards on the consolidated and separate statements of financial position are as follows:

		Consolidated financial statements			
	Notes	As at 31 December 2019 Previously reported Million Baht	TAS 32 and TFRS 9 Million Baht	TFRS 16 Million Baht	As at 1 January 2020 Restated Million Baht
Assets					
Current asset					
Trade and other receivables, net	4.2	6,935	-	(30)	6,905
Non-current assets					
Finance lease receivable, net	4.2	2,525	-	(208)	2,317
Other long-term investment	4.1.3	2	(2)	-	-
Financial assets measured at fair value through other comprehensive income	4.1.3	-	63	-	63
Right-of-use assets	4.2	-	-	1,995	1,995
Deferred tax assets, net (*)		3,116	144	47	3,307
Total restated assets		12,578	205	1,804	14,587
Liabilities and equity					
Current liabilities					
Trade and other payables	4.1.4, 4.2	4,451	(42)	(4)	4,405
Derivative liabilities	4.1.1, 4.1.4	-	27	-	27
Current portion of lease liabilities, net	4.2	-	-	62	62
Non-current liabilities					
Long-term loans from financial institutions, net	4.1.4	16,328	15	-	16,343
Derivative liabilities	4.1.1, 4.1.4	-	1,815	-	1,815
Lease liabilities, net	4.2	-	-	1,937	1,937
Deferred tax liabilities, net (*)		1,189	(2)	-	1,187
Other non-current liabilities	4.1.1, 4.1.4	14,212	(401)	-	13,811
Total restated liabilities		**36,180**	**1,412**	**1,995**	**39,587**

(*) The effect from the first-time adoption of new financial reporting standards.

	Notes	Consolidated financial statements			
		As at 31 December 2019 Previously reported Million Baht	TAS 32 and TFRS 9 Million Baht	TFRS 16 Million Baht	As at 1 January 2020 Restated Million Baht
Liabilities and equity (continued)					
Equity					
Retained earnings - Unappropriated		18,016	-	-	18,016
- Fair value of derivatives	4.1.4	-	(91)	-	(91)
- Measurements of financial liabilities	4.1.1	-	(10)	-	(10)
- Measurements of finance lease receivable	4.2	-	-	(181)	(181)
Total retained earnings - Unappropriated		18,016	(101)	(181)	17,734
Other components of equity		(220)	-	-	(220)
- Cost of hedge	4.1.4	-	21	-	21
- Cash flow hedge	4.1.4	-	(878)	-	(878)
- Income tax on hedging items through other comprehensive income (*)		-	(12)	-	(12)
- Measurement of equity investment at fair value through other comprehensive income	4.1.3	-	61	-	61
- Income tax on measurement of equity investment at fair value through other comprehensive income (*)		-	92	-	92
Total other comprehensive income		(220)	(716)	-	(936)
Non-controlling interests	4.1.4, 4.2	6,560	(389)	(10)	6,161
Total restated equity		24,356	(1,206)	(191)	22,959
Total restated liabilities and equity		60,536	206	1,804	62,546

(*) The effect from the first-time adoption of new financial reporting standards.

	Notes	Separate financial statements			
		As at 31 December 2019 Previously reported Million Baht	TAS 32 and TFRS 9 Million Baht	TFRS 16 Million Baht	As at 1 January 2020 Restated Million Baht
Assets					
Non-current assets					
Other long-term investment	4.1.3	2	(2)	-	-
Financial assets measured at fair value through other comprehensive income	4.1.3	-	63	-	63
Right-of-use assets	4.2	-	-	254	254
Total restated assets		2	61	254	317
Liabilities and equity					
Current liabilities					
Trade and other payables	4.1.1	2,520	(2)	-	2,518
Current portion of lease liabilities, net	4.2	-	-	15	15
Non-current liabilities					
Derivative liabilities	4.1.1, 4.1.4	-	473	-	473
Lease liabilities, net	4.2	-	-	239	239
Deferred tax liabilities, net (*)		314	(2)	-	312
Other non-current liabilities	4.1.1, 4.1.4	879	(401)	-	478
Total restated liabilities		3,713	68	254	4,035
Equity					
Other components of equity		(7)	-	-	(7)
- Cost of hedge	4.1.4	-	21	-	21
- Cash flow hedge	4.1.4	-	(91)	-	(91)
- Income tax on hedging items through other comprehensive income(*)		-	(12)	-	(12)
- Measurement of equity investment at fair value through other comprehensive income	4.1.3	-	61	-	61
- Income tax on measurement of equity investment through other comprehensive income (*)		-	14	-	14
Total other comprehensive income		(7)	(7)	-	(14)
Total restated equity		(7)	(7)	-	(14)
Total restated liabilities and equity		3,706	61	254	4,021

(*) The effect from the first-time adoption of new financial reporting standards.

4.1 Financial instruments

The first-time adoption of the new financial reporting standards related to financial instruments has made significant affects on the Group's accounting practices in the following areas.

4.1.1 Classifications of financial instruments

On 1 January 2020, the measurement categories and carrying amounts of financial assets and financial liabilities were as follows.

	Consolidated financial statements				
	Measurement categories		Carrying amounts		
	Previously reported (TAS 105 and other TAS)	Restated (TFRS 9)	Previously reported Million Baht	Restated Million Baht	Difference Million Baht
Current financial assets					
Cash and cash equivalents	Amortised cost	Amortised cost	16,005	16,005	-
Deposits at a financial institution used as collateral	Amortised cost	Amortised cost	165	165	-
Trade and other receivables	Amortised cost	Amortised cost	6,935	6,935	-
Non-current financial assets					
Finance lease receivable, net	Amortised cost	Amortised cost	2,525	2,525	-
Deposits at a financial institution used as collateral	Amortised cost	Amortised cost	200	200	-
Other long-term investments (Financial assets measured at fair value through other comprehensive income)	Cost less impairment	FVOCI	2	63	61
Long-term loans to related parties	Amortised cost	Amortised cost	283	283	-
Current financial liabilities					
Trade and other payables	Amortised cost	Amortised cost	4,451	4,409	(42)
Current-portion of long-term loans from financial institutions, net	Amortised cost	Amortised cost	1,261	1,261	-
Dividend payable	Amortised cost	Amortised cost	12,564	12,564	-
Derivative liabilities	Unrecognised	FVPL, FVOCI	-	27	27
Other current liabilities	Amortised cost	Amortised cost	498	498	-
Non-current financial liabilities					
Long-term loans	Amortised cost	Amortised cost	16,328	16,343	15
Derivative liabilities	Unrecognised	FVPL, FVOCI	-	1,815	1,815
Debentures	Amortised cost	Amortised cost	12,546	12,546	-
Other non-current liabilities	Amortised cost	Amortised cost	401	-	(401)

Note
FVOCI = Fair value through other comprehensive income
FVPL = Fair value through profit or loss

	Separate financial statements				
	Measurement categories		Carrying amounts		
	Previously reported (TAS 105 and other TAS)	Restated (TFRS 9)	Previously reported Million Baht	Restated Million Baht	Difference Million Baht
Current financial assets					
Cash and cash equivalents	Amortised cost	Amortised cost	9,790	9,790	-
Trade and other receivables	Amortised cost	Amortised cost	2,224	2,224	-
Short-term loans to related parties	Amortised cost	Amortised cost	1,159	1,159	-
Non-current financial assets					
Other long-term investments (Financial assets measured at fair value through other comprehensive income)	Cost less impairment	FVOCI	2	63	61
Long-term loans to related parties	Amortised cost	Amortised cost	2,773	2,773	-
Current financial liabilities					
Trade and other payables	Amortised cost	Amortised cost	2,520	2,518	(2)
Short-term loans from related parties	Amortised cost	Amortised cost	3,547	3,547	-
Dividend payable	Amortised cost	Amortised cost	12,000	12,000	-
Other current liabilities	Amortised cost	Amortised cost	289	289	-
Non-current financial liabilities					
Long-term loans from financial institutions, net	Amortised cost	Amortised cost	6,590	6,590	-
Derivative liabilities	Unrecognised	FVOCI	-	473	473
Debentures, net	Amortised cost	Amortised cost	12,546	12,546	-
Other non-current liabilities	Amortised cost	Amortised cost	401	-	(401)

Note
FVOCI = Fair value through other comprehensive income
FVPL = Fair value through profit or loss

4.1.2 Impairment of financial assets

The Group has following financial assets that are subject to the expected credit loss model:

- Cash and cash equivalents
- Trade and other receivables
- Finance lease receivable
- Loans to related parties

As at 1 January 2020, the Group was required to revise its impairment methodology of financial asset according to TFRS 9. The management determined that the loss on impairment of items above is immaterial.

4.1.3 Classification and measurement of investments in equity instruments (previously called other long-term investment)

The Group had equity instrument presented as other long-term investment and measured at cost of Baht 2 million in the consolidated and separate statement of financial position. This instrument was reclassified and measured at fair value through other comprehensive income. The Group recognised the corresponding adjustment of Baht 49 million in the other components of equity on 1 January 2020.

4.1.4 Derivatives and hedging activities

Derivative contracts are made to reduce uncertainty over future cash flows. Such uncertainty arises from change of interest and exchange rates, as well as coal price fluctuations. These derivative contracts comprise interest rate swaps, cross currency and interest rate swaps, foreign currency forwards and commodity swaps.

Before 1 January 2020 the Group did not recognise derivatives as assets or liabilities in the financial statements. The derivative contracts and related fair values were disclosed in the note. On 1 January 2020, the Group recognised fair value of derivatives in the financial statements and applied hedge accounting for the first time for certain derivative contracts which were designated and qualified as the cash flow hedge as disclosed in note 7.

On 1 January 2020, the Group recognised the cumulative adjustment from the first-time adoption of hedge accounting to other components of equity in the consolidated and separate financial statements of Baht 765 million and Baht 56 million, respectively and the cumulative adjustment of Baht 91 million to the retained earnings in the consolidated financial statements in respect of derivative contracts that the Group does not apply the hedge accounting.

As at 1 January 2020, the Group recognised culmulative adjustments of the fair value of the derivatives in other components of equity and retained earnings (gross balance before income tax) as follows.

	Consolidated financial statements			Separate financial statements		
	Cash flow hedges reserve Million Baht	Cost of hedging reserve Million Baht	Retained earnings Million Baht	Cash flow hedges reserve Million Baht	Cost of hedging reserve Million Baht	Retained earnings Million Baht
Derivative contracts not qualifying as hedge accounting						
- Foreign currency forwards	-	-	(19)	-	-	-
Derivative contracts qualifying as hedge accounting						
- Commodity swaps	(4)	-	-	-	-	-
Total derivative liabilities - current	(4)	-	(19)	-	-	-
Derivative contracts not qualifying as hedge accounting						
- Foreign currency forwards	-	-	(72)	-	-	-
Derivative contracts qualifying as hedge accounting						
- Cross currency and interest rate swaps	(91)	21	-	(91)	21	-
- Interest rate swaps	(783)	-	-	-	-	-
Total derivative liabilities - non-current	(874)	21	(72)	(91)	21	-

4.2 Leases

On adoption of TFRS 16, the Group recognised lease liabilities in relation to leases which had previously been classified as "operating leases" under the principles of TAS 17 Leases. These liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate as of 1 January 2020. The weighted average lessee's incremental borrowing rates applied to the lease liabilities on 1 January 2020 were from 1.8% to 2.7%.

The Group recognised right-of-use assets at the amount equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position as at 31 December 2019.

	Consolidated financial statements Million Baht	Separate financial statements Million Baht
Operating lease commitments disclosed as at 31 December 2019	955	171
(Less): Discounted using the lessee's incremental borrowing rate of at the date of initial application	(821)	(78)
(Less): Short-term leases recognised on a straight-line basis as expense	(85)	(38)
Add: Adjustments as a result of a different treatment of extension and termination options	1,950	199
Lease liabilities recognised as at 1 January 2020	**1,999**	**254**
Lease liabilities - Current portion	62	15
Lease liabilities - Non-current portion	1,937	239
	1,999	**254**

For leases previously classified as finance leases, the Group recognised the carrying amount of the lease asset and lease liability immediately before transition as the carrying amount of the right-of-use asset and the lease liability at the date of initial application. The measurement principles of TFRS 16 are only applied after that date.

The recognised right-of-use assets relate to the following types of assets:

	Consolidated financial statements		Separate financial statements	
	31 December 2020 Million Baht	1 January 2020 Million Baht	31 December 2020 Million Baht	1 January 2020 Million Baht
Land	1,977	1,947	342	240
Buildings	8	8	-	-
Vehicles	4	40	1	14
Total right-of-use assets, net	**1,989**	**1,995**	**343**	**254**

Practical expedients applied

In applying TFRS 16 for the first time of the leases before 1 January 2020, the Group has used the following practical expedients permitted by the standard:

- the use of a single discount rate to a portfolio of leases with reasonably similar characteristics
- reliance on previous assessments on whether leases are onerous
- the accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2020 as short-term leases
- the exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease, and
- elect not to reassess whether a contract is, or contains a lease as defined under TFRS 16 at the date of initial application but relied on its assessment made applying TAS 17 and TFRIC 4 Determining whether an Arrangement contains a Lease.

In addition, the Group has considered that some portion of finance lease receivable is foreign currency. These explicit financial reporting standards defined that the initial recognition of foreign currency transaction is contract rate and translated into the functional currency using the exchange rates prevailing at the dates of the transactions, and subsequently measured at the closing exchange rate at the period-ended. Consequently, the Group recognised the accumulated transactions to the retained earnings as at 1 January 2020 amounting to Baht 191 million in the consolidated financial statements.

5 Accounting policies

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

5.1 Principles of consolidation

5.1.1 Subsidiaries

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

In the separate financial statements, investments in subsidiaries are accounted for using cost method less impairment (if any).

5.1.2 Associates

Associates are all entities over which the Group has significant influence but not control or joint control. Investments in associates are accounted for using the equity method of accounting.

In the separate financial statements, investments in associates are accounted for using cost method less impairment (if any).

5.1.3 Equity method

The investment is initially recognised at cost which is consideration paid and directly attributable costs.

The Group's subsequently recognises shares of its associates' profits or losses and other comprehensive income. The subsequent cumulative movements are adjusted against the carrying amount of the investment.

When the Group's share of losses in associates equals or exceeds its interest in the associates, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associates.

5.1.4 Intercompany transactions on consolidation

Intra-group transactions, balances and unrealised gains on transactions are eliminated. Unrealised gains on transactions between the Group and its associates are eliminated to the extent of the Group's interest in the associates. Unrealised losses are also eliminated in the same manner unless the transaction provides evidence of an impairment of the asset transferred.

5.2 Foreign currency translation

5.2.1 Functional and presentation currency

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

5.2.2 Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the profit or loss.

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

5.2.3 Group companies

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

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

5.3 Cash and cash equivalents

In the statements of cash flows, cash and cash equivalents includes cash on hand, deposits held at call, short-term highly liquid investments with maturities of three months or less from acquisition date.

5.4 Trade receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 30 - 60 days and therefore are all classified as current.

Trade receivables are recognised initially at the amount of consideration that is unconditional unless they contain significant financing components, they are recognised at fair value. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

5.5 Fuel, spare parts and supplies for machines

Fuel, spare parts and supplies for machines are stated at the lower of cost or net realisable value.

Cost of fuel, spare parts and supplies for machines are determined by the moving average basis method. Fuel includes coal and diesel. Spare parts and supplies for machines are classified as spare parts and supplies for machines used for specific equipment in power plants and spare parts and supplies for machines used for other general equipment.

The cost of purchase comprises both the purchase price and costs directly attributable to the acquisition of the fuel, spare parts and supplies for machines, such as import duties and transportation charges, less all attributable discounts. The allowance for obsolescence of spare parts and supplies for machines is made on an aging analysis.

5.6 Financial asset

For the year ended 31 December 2020

5.6.1 Classification

From 1 January 2020, the Group classifies its debt instrument financial assets in the following measurement categories depending on i) business model for managing the asset and ii) the cash flow characteristics of the asset whether they represent solely payments of principal and interest (SPPI).

- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss); and
- those to be measured at amortised cost.

The Group reclassifies debt investments when and only when its business model for managing those assets changes.

For investments in equity instruments, the Group has an irrevocable election at the time of initial recognition to account for the equity investment at fair value through profit or loss (FVPL) or at fair value through other comprehensive income (FVOCI) except those that are held for trading, they are measured at FVPL.

5.6.2 Recognition and derecognition

Regular way purchases, acquires and sales of financial assets are recognised on trade-date, the date on which the Group commits to purchase or sell the asset. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

5.6.3 Measurement

At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at FVPL are expensed in profit or loss.

Financial assets with embedded derivatives are considered in their entirety when determining whether the cash flows are solely payment of principal and interest.

5.6.4 Debt instruments

Subsequent measurement of debt instruments depends on the Group's business model for managing the asset and the cash flow characteristics of the financial assets. There are three measurement categories into which the Group classifies its debt instruments:

- Amortised cost: Financial assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortised cost. Interest income from these financial assets is included in interest income using the effective interest rate method. Any gain or loss arising on derecognition and foreign exchange gains and losses are recognised directly in profit or loss and presented in other gains (losses) and currency exchange gain (loss), respectively. Impairment losses are presented as a separate line item in the profit or loss.

- FVOCI: Financial assets that are held for i) collection of contractual cash flows; and ii) for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through other comprehensive income (OCI), except for 1) the recognition of impairment gains or losses, 2) interest income using the effective interest method, and 3) foreign exchange gains and losses which are recognised in profit or loss. When the financial assets are derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and recognised in other gains/(losses). Interest income is presented in separate line item. Impairment expenses are presented separately in profit or losses.

- FVPL: Financial assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net within other gains (losses) from measurement of financial instruments in the period in which it arises.

5.6.5 Equity instruments

The Group measures all equity investments at fair value. Where the Group has elected to present fair value gains and losses on equity instruments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as dividend income when the right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in other gains (losses).

Impairment losses and reversal of impairment losses on equity investments are reported together with changes in fair value.

5.6.6 Impairment

From 1 January 2020, the Group applies the TFRS 9 simplified approach and general approach in measuring the impairment of trade receivables and lease receivables under Power Purchase Agreement, which applies lifetime expected credit loss, from initial recognition, for all trade receivables and lease receivables under Power Purchase Agreement.

To measure the expected credit losses by using simplified approach, the management grouped the receivables based on shared credit risk characteristics and the days past due. The expected credit loss rates are based on payment profiles, historical credit losses as well as forward-looking information and factors that may affect the ability of the customers to settle the outstanding balances. In addition to the simplified approach, the management applies the general approach, which is to consider the individual assessments by using the discounted cashflow method. For this, management uses an estimate debtor's future cash flows based on the original effective interest rate.

For other financial assets carried at amortised cost and FVOCI, the Group applies TFRS 9 general approach in measuring the impairment of those financial assets. Under the general approach, the 12-month or the lifetime expected credit loss is applied depending on whether there has been a significant increase in credit risk since the initial recognition.

The significant increase in credit risk (from initial recognition) assessment is performed every end of reporting period by comparing i) expected risk of default as of the reporting date and ii) estimated risk of default on the date of initial recognition.

The Group assesses expected credit loss by taking into consideration forward-looking information and past experiences. The expected credit loss is a probability-weighted estimate of credit losses (probability-weighted present value of estimated cash shortfall). The cash shortfall is the difference between all contractual cash flows that are due to the Group and all cash flows expected to receive, discounted at the original effective interest rate.

When measuring expected credit losses, the Group reflects the following:

- probability-weighted estimated uncollectible amounts
- time value of money; and
- supportable and reasonable information as of the reporting date about past experience, current conditions and forecasts of future situations.

Impairment and reversal of impairment losses are recognised in profit or loss and included in administrative expenses.

For the year ended 31 December 2019

Investments in non-marketable equity securities other than investments in subsidiaries and associate are classified as general investments and presented under other long-term investments. The classification is dependent on the purpose for which the investments were acquired. Management determines the appropriate classification of its investments at the time of the purchase and re-evaluates such designation on a regular basis.

General investments are initially recognised at cost, which is equal to the fair value of consideration paid plus transaction cost and are carried at cost less allowance for impairment.

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

On disposal of an investment, the difference between the net disposal proceeds and the carrying amount is charged or credited to the profit or loss. In the event that the investments are partially disposed, the book value of disposed investments are identified by weighted average method of book value of the total amount.

5.7 Property, plant and equipment

Property, plant and equipment are initially stated at historical cost. All plant and equipment are subsequently stated at historical cost less accumulated depreciation and allowance for impairment (if any). Initial cost includes expenditure that is directly attributable to the acquisition of the items. These can include the initial estimate of costs of dismantling and removing the item, and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period.

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

Depreciation is calculated using the straight line method to allocate their cost to their residual values over their estimated useful lives, except land, which is considered to have an indefinite life as follows:

	Years
Power plants and water plant	3 to 40
Buildings and leasehold improvements	5 to 30
Machinery, tools and equipment	5 to 25
Furniture, fixture and office equipment	3, 5 and 10
Vehicles	5

Depreciation of Houay Ho Power Company Limited's power plant is calculated using the unit of production method.

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

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

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

5.8 Intangible assets

The assets with limited life are initially stated at historical cost and subsequently stated at cost less accumulated amortisation and impairment losses (if any). The amortisation is calculated using the straight-line method over their estimated useful lives, as follows:

	Years
Deferred right to use grid system	22 to 24
Deferred right to use transmission line	25
Deferred right to use pipe rack	3 to 16
Deferred right of way	16 to 31
Deferred right to use gas pipeline	13 to 28
Deferred right to use dedicated berth	14
Computer software	3 to 10

5.9 Impairment of assets

Assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment or more frequently if events or changes in circumstances indicate that it might be impaired. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the carrying amount of the assets exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to disposal and value in use.

Where the reasons for previously recognised impairments no longer exist, the impairment losses on the assets concerned other than goodwill is reversed.

5.10 Leases

For the year ended 31 December 2020

Leases - where the Group is the lessee

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term.

The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. However, for leases of real estate for which the group is a lessee, it has elected not to separate lease and non-lease components and instead accounts for these as a single lease component.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payment that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise small items of office furniture.

Leases - where the Group is the lessor

When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income is recognised over the term of the lease which reflects a constant periodic rate of return. Initial direct costs are included in initial measurement of the finance lease receivable and reduce the amount of income recognised over the lease term.

Rental income under operating leases (net of any incentives given to lessees) is recognised on a straight-line basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

For the year ended 31 December 2019

The determination of whether an arrangement is or contains a lease shall be based on the substance of the arrangement, and not merely the legal form. It requires an assessment of whether (a) the fulfilment of the arrangement is dependent on the use of specific assets and (b) the arrangement conveys a right to use such assets.

If the arrangement is a lease or contains a lease, payments and other consideration required by the arrangement shall be separated into those for the lease and those for other elements (e.g. for services and the cost of inputs) on the basis of their relative fair values. The lease element of the arrangement shall be classified as a finance lease or an operating lease.

Leases - where the Group is the lessee

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

Leases of assets where the lessee has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the inception of the lease at the lower of the fair value of the leased assets and the present value of the minimum lease payments. Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the liabilities balance outstanding. The corresponding rental obligations, net of finance charges, are included in other long-term payables. The interest element of the finance cost is charged to profit or loss over the lease period so as to achieve a constant periodic rate of interest on the remaining balance of the liability for each period. The assets acquired under finance leases is depreciated over the shorter period of the useful life of the asset and the lease term.

Leases - where the Group is the lessor

Lease in which a significant portion of the risk and rewards of ownership are retained by the lessee are classified as finance lease. When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income. Lease income (interest income from finance lease receivable) is recognised over the term of the lease using the net investment method, which reflects a constant periodic rate of return.

Lease in which a significant portion of the risk and rewards of ownership are retained by the lessor are classified as operating lease. Assets leased out under operating leases are included in property, plant and equipment in the statement of financial position. They are depreciated over their expected useful lives on a basis consistent with other similar property, plant and equipment owned by the Group.

5.11 Financial liabilities

For the year ended 31 December 2020

5.11.1 Classification

Financial instruments issued by the Group are classified as either financial liabilities or equity securities by considering contractual obligations.

- Where the Group has an unconditional contractual obligation to deliver cash or another financial asset to another entity, it is considered a financial liability unless there is a predetermined or possible settlement for a fixed amount of cash in exchange of a fixed number of the Group's own equity instruments.

- Where the Group has no contractual obligation or has an unconditional right to avoid delivering cash or another financial asset in settlement of the obligation, it is considered an equity instrument.

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

5.11.2 Measurement

Financial liabilities are initially recognised at fair value and are subsequently measured at amortised cost.

5.11.3 Derecognition and modification

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled, or expired.

Where the terms of a financial liability are renegotiated/modified, the Group assesses whether the renegotiation / modification results in the derecognition of that financial liability. Where the modification results in an extinguishment, the new financial liability is recognised based on fair value of its obligation. The remaining carrying amount of financial liability is derecognised. The difference as well as proceed paid is recognised as administrative expense.

Where the modification does not result in the derecognition of the financial liability, the carrying amount of the financial liability is recalculated as the present value of the renegotiated / modified contractual cash flows discounted at its original effective interest rate. The difference is recognised in administrative expense.

For the year ended 31 December 2019

Borrowings

Borrowings are recognised initially at the fair value, net of transaction costs incurred. Borrowings are subsequently stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised in profit and loss over the period of the borrowings.

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

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

5.12 Borrowing Cost

General and specific borrowing costs directly attributable to the acquisition or construction of qualifying assets (assets that take several time to get ready for its intended use) are added to the cost of those assets less investment income earned from those specific borrowings. The capitalisation of borrowing costs is ceased when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete.

Other borrowing costs are expensed in the period in which they are incurred.

5.13 Current and deferred income taxes

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

Current tax

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

Deferred income tax

Deferred income tax is recognised on temporary differences arising from differences between the tax base of assets and liabilities and their carrying amounts in the financial statements. However, deferred income tax is not recognised for temporary differences arise from:

- initial recognition of an asset or liability in a transaction other than a business combination that affects neither accounting nor taxable profit or loss is not recognised
- investments in subsidiaries, associates and joint arrangements where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax is measured using tax rates of the period in which temporary difference is expected to be reversed, based on tax rates and laws that have been enacted or substantially enacted by the end of the reporting period.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets and liabilities and when the deferred tax balances relate to the same taxation authority. Current tax assets and tax liabilities are offset where the entity has a legally enforceable right to offset and intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

5.14 Employee benefits

The Group operates various post-employment benefits schemes. The Group has both defined benefit and defined contribution plans.

5.14.1 Defined contribution

The Group provides provident fund, which is contributed by the employees and the Group, and managed by an external fund manager in accordance with the Provident Fund Act. B.E. 2530. The Group has no legal or constructive obligations to pay further contributions once the contributions have been paid even if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. The contributions are recognised as employee benefit expense when they are due.

5.14.2 Retirement benefits

The Group provides for post-employment benefits, payable to employees under the labour laws applicable in Thailand and other countries in which the Group has its operations, or when the term of service is terminated according to the agreement between the Group and employees. Typically defined benefit plans define an amount of retirement benefit that an employee will receive on retirement, usually depends on many factors such as age, years of service and compensation.

The liability in respect of employee benefits is the present value of the defined benefit obligation at the end of the reporting date which is calculated by an independent actuary using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting estimated future cash flows using yields on government bonds that matches the terms and currency of the expected cash outflows.

Remeasurement gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

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

5.14.3 Other long-term benefits

The Group gives gold rewards to employees when they have worked for the Group for 10, 15, 20, 25 and 30 years.

These obligations are measured similar to defined benefit plans except remeasurement gains and losses that are charged to profit or loss.

5.15 Provisions

5.15.1 General provisions

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

5.15.2 Provisions for decommissioning cost

The Group recognises provision for decommissioning costs, which are provided at the onset of completion of the project, for the estimate of the eventual costs that relate to the removal of the power and water plants. The recognised provision for decommissioning costs are based on future removal cost estimates and incorporate many assumptions such as abandonment times and future inflation rate and discounted to present value at the discount rate estimated by the management. Those costs are included as part of the power plants.

5.16 Revenue recognition

Revenue are recorded net of value added tax. They are recognised in accordance with the provision of goods or services, provided that collectibility of the consideration is probable.

Multiple element arrangements involving delivery or provision of multiple products or services are separated into distinct performance obligations. Total transaction price of the bundled contract is allocated to each performance obligation based on their relative standalone selling prices or estimated standalone selling prices. Each performance obligation is recognised as revenue on fulfillment of the obligation to the customer as details below.

Revenue under the Power Purchase Agreements (PPA)

a) Revenue under the PPA which are not classified as lease

- The Group recognises Capacity Payments or Availability Payments which are the revenue for operations in maintaining power availability of power plants as agreed with EGAT and industrial customers in accordance with terms of PPA. The Group recognises this revenue in profit or loss when rendering services to customer according to the agreements. If the Group receives consideration above the services rendered, the Group recognises the excess consideration as a contract liability. On the other hand, if the Group receives consideration less than the services rendered, the Group recognises the consideration as a contract asset.

- Energy Payments are recognised at a point in time when the controls over the products are transferred to the customers as agreements. The revenue from Energy Payments are recognised based on transaction price net of output tax, rebates and discounts.

b) Revenue under the Power Purchase Agreements which are classified as lease

- Revenue from finance lease under power purchase agreements is recognised on an effective interest method over the period of the agreements. Rental income from operating lease under the power purchase agreements is recognised on a straight-line basis over the period of the agreements.
- Service income under finance lease agreements related to power purchase agreements, which comprises the revenue for operations in maintaining power availability of power plants, other service income and Energy Payments received from finance lease receivable with respect to the leased assets, is recognised when the services have been rendered. A contract liability is recognised when the customer paid consideration more than the Group provided services. A contract asset is recognised when the customer paid consideration lower than the Group provided services.
- Contingent rents are recognised in profit or loss in the period in which they are incurred. Contingent rent is that portion of lease payments that is not fixed in amount but varies based on a future factor, such as the amount of use or production.

Revenue under the steam and water purchase agreements

Revenue under the steam and water purchase agreements are recognised at a point in time when the controls over the products are transferred to the customers as agreements. The revenue are recognised based on transaction price net of output tax, rebates and discounts.

Dividend income

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

Interest income

Interest income are recognised by the effective interest rate method.

5.17 Dividend distribution

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

5.18 Derivatives and hedging activities

For the year ended 31 December 2020

5.18.1 Embedded derivative and derivatives that do not qualify for hedge accounting

Embedded derivative that is separately accounted for and derivatives that do not qualify for hedge accounting is initially recognised at fair value. Changes in the fair value are included in gain (loss) from measurement of financial instruments, net.

Fair value of derivative is classified as a current or non-current following its remaining maturity.

5.18.2Hedge accounting

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The Group designates certain derivatives as either:

- hedges of the fair value of i) recognised assets or liabilities or ii) unrecognised firm commitments (fair value hedges)
- hedges of a particular risk associated with the cash flows of i) recognised assets and liabilities and ii) highly probable forecast transactions (cash flow hedges).

At inception of the hedge relationship, the Group documents i) the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items and ii) its risk management objective and strategy for undertaking its hedge transactions.

The full fair value of a hedging derivative is classified as a current or non-current asset or liability following the maturity of related hedged item.

Cash flow hedges that qualify for hedge accounting

The effective portion of changes in the fair value of derivatives that are designated and qualified as cash flow hedges is recognised in the cash flow hedge reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss within gain (loss) from measurement of financial instruments,net.

The Group has entered into foreign currency forward contracts, interest rate swap contracts, cross currency and interest rate swap contracts and commodity swap agreement to hedge forecast transactions. The Group generally designates only the change in fair value related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component are recognised as the cash flow hedge reserve in the other comprehensive income within equity. The change in the forward element that relates to the hedged item ('aligned forward element') is recognised as the cost of hedging reserve in other comprehensive income within equity.

In some cases, the Group may designate the full change in fair value of the derivatives (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire contract are recognised as the cash flow hedge reserve in the other comprehensive income within equity.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remains in equity until the forecast transaction occurs. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to profit or loss.

For the year ended 31 December 2019

The Group is party to derivative financial instruments, which mainly comprise foreign currency forward contracts, interest rate swap contracts and interest rate swap contracts and cross currency swap contracts.

Foreign currency forward contracts protect the exposure from movements in exchange rates by determining the future exchange rate that assets or liabilities in foreign currencies will be received or paid. Foreign currency forward contracts are recognised in the financial statements on the contract date. Any fee, premiums or discounts arising from foreign currency forward contracts are amortised over the contract's period.

Interest rate swap contracts protect the exposure from movements in interest rates. Any differential to be paid or received on the interest rate swap contracts is recognised as a component of finance costs as incurred. Gains and losses from early cancellation of interest rate swap contracts is recognised in profit or loss.

Cross currency and interest rate swap contracts protect the exposure from movements in exchange rates and interest rates in the future. Cross currency and interest rate swap contracts will be translated into functional currency, at contracted rates and revalued by using exchange rates prevailing at the reporting date. The differences on exchange rates are recognised in profit or loss and the differences on the interest rate are recognised as a component of finance costs.

5.19 Financial Guarantee Contract

Financial guarantee contracts are recognised as a financial liability at the time the guarantee is issued. The liability is initially measured at fair value and subsequently at the higher of:

- The amount determined in accordance with the expected credit loss model under TFRS 9; and
- The amount initially recognised less the cumulative amount of income recognised in accordance with the principles of TFRS 15.

The fair value of financial guarantees is determined based on the present value of the difference in cash flows between a) the contractual payments required under the debt instrument; and b) the payments that would be required without the guarantee, or the estimated amount that would be payable to a third party for assuming the obligations.

Where guarantees in relation to loans or other payables are provided for no compensation, the fair values are accounted for as contributions and recognised as part of the cost of the investment.

5.20 Segment reporting

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

6 Financial risk management

6.1 Financial risk

The Group exposes to a variety of financial risk: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. The Group uses derivative financial instruments to hedge certain exposures.

The Group's risk management is controlled by a central treasury department under policies approved by the Board of Directors. The central treasury department identifies, evaluates and manages financial risks in close co-operation with the Group's operating units. The board provides written principles for overall risk management, as well as policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative and other financial instruments as well as investment of excess liquidity.

The use of derivative contracts that are speculative in nature is prohibited. All derivative contracts must be approved by the Board of Directors of each company within the Group.

Where all relevant criteria are met, hedge accounting is applied to remove the accounting mismatch between the hedging instrument and the hedged item.

6.1.1 Market risk

a) Foreign exchange risk

The Group are exposed to foreign exchange risk from future commercial transactions, and net monetary assets and liabilities that are denominated in a currency that is not the entity's functional currency.

Financial instruments using for risk management

The Group uses a combination of foreign currency forwards and cross currency and interest rate swap to hedge its exposure to foreign currency risk. Under the Group's policy, the critical terms of the forwards and options must align with the hedged items. In respect of foreign currency risk arising from the generation and sale of electricity to EGAT, the formula for the calculation of the Availability Payment and Energy Payment charged to EGAT allows for the minimisation of the impact of foreign currency risk.

Exposure

The Group's exposure to foreign currency risk at the end of the reporting period, expressed in Baht are as follows:

	Consolidated financial statements					
	As at 31 December 2020			As at 31 December 2019		
	US Dollar Million Baht	Euro Million Baht	Swedish Krona Million Baht	US Dollar Million Baht	Euro Million Baht	Swedish Krona Million Baht
Cash and cash equivalents	110	-	-	185	-	-
Trade and other receivables, net	27	-	-	59	-	-
Trade and other payables	407	833	-	757	64	-
Long-term loans from financial institutions	7,907	-	-	8,534	-	-
Derivative contracts not qualifying as hedge accounting						
- Foreign currency forwards	-	463	-	-	508	-
Derivative contracts qualifying as hedges accounting						
- Foreign currency forwards	718	-	1,483	-	-	-
- Cross currency and interest rate swaps	2,588	-	-	2,598	-	-

	Separate financial statements					
	As at 31 December 2020			As at 31 December 2019		
	US Dollar Million Baht	Euro Million Baht	Swedish Krona Million Baht	US Dollar Million Baht	Euro Million Baht	Swedish Krona Million Baht
Trade and other receivables, net	-	-	-	9	-	-
Trade and other payables	22	780	-	16	52	-
Long-term loans from financial institutions	2,588	-	-	2,598	-	-
Derivative contracts qualifying as hedges accounting						
- Foreign currency forwards	718	-	1,483	-	-	-
- Cross currency and interest rate swaps	2,588	-	-	2,598	-	-

Effects of hedge accounting on the financial position and performance

The effects of the foreign currency-related hedging instruments on the Group's and the Company's financial position and performance are as follows:

Foreign currency forward contracts

	Consolidated and separate financial statements	
	Power plant construction service contract US Dollar Million Baht	**Power plant construction service contract Swedish Krona Million Baht**
As at 31 December 2020		
Carrying amount (liability)	(25)	125
Notional amount	US Dollar 23 Million	Swedish Krona 387 Million
Maturity date	15 January 2021 - 30 January 2023	15 January 2021 - 15 December 2022
Change in discounted spot value of outstanding hedging instruments since 1 January	(28)	130
Change in value of hedged item used to determine hedge effectiveness	28	(130)
Weighted average hedged rate for outstanding hedging instruments (including forward points)	Baht 29.89 - 31.45 to US Dollar 1	Baht 3.33 - 3.43 to Swedish Krona 1

Cross currency and interest rate swap contract

	Consolidated and separate financial statements
	Long-term loan US Dollar Million Baht
As at 31 December 2020	
Carrying amount (liability)	(477)
Notional amount	US Dollar 86.5 Million
Maturity date	22 February 2022
Change in intrinsic value of outstanding hedge instruments since 1 January	3
Change in value of hedged item used to determine hedge effectiveness	(3)
Weighted average hedged rate for outstanding hedging instruments (including forward points)	Baht 35.02 to US Dollar 1
SWAP rate	2.79%

Sensitivity

As shown in the table above, the Group is primarily exposed to changes in Baht and US Dollar, Baht and Euro and Baht and Swedish Krona exchange rates. The sensitivity of profit or loss to changes in the exchange rates arises mainly from financial assets and financial liabilities denominated in US Dollar, Euro and Swedish Krona and the impact on other components of equity arises from foreign currency forward contracts and cross currency and interest rate swap contracts designated as cash flow hedges.

	Consolidated financial statements		Separate financial statements	
	Impact to net profit	Impact to other components of equity	Impact to net profit	Impact to other components of equity
	2020 Million Baht	2020 Million Baht	2020 Million Baht	2020 Million Baht
US Dollar to Baht exchange rate				
- increase 10%*	(606)	101	(2)	75
- decrease 10%*	606	(102)	2	(75)
Euro to Baht exchange rate				
- increase 10%*	(40)	-	(78)	-
- decrease 10%*	40	-	78	-
Swedish Krona to Baht exchange rate				
- increase 10%*	-	142	-	142
- decrease 10%*	-	(142)	-	(142)

** Holding all other variables constant*

b) Interest rate risk

The Group's main interest rate risk arises from long-term borrowings with variable rates, which expose the Group to cash flow risk. Group policy is to maintain at fixed rate, using floating-to-fixed interest rate swaps to achieve this when necessary. Generally, the Group enters into long-term borrowings at floating rates and swaps them into fixed rates that are lower than those available if the Group borrowed at fixed rates directly. As at 31 December 2020 and 2019, the Group's borrowings at variable rate were mainly denominated in Baht and US Dollar.

The exposure of the Group's borrowings to interest rate changes at the end of the reporting period are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Long-term loans from financial institutions, net				
- Fixed rate borrowing	6,996	3,997	6,995	3,997
- Variable rate borrowing	12,332	13,592	2,585	2,593
Total Long-term loans from financial institutions, net	19,328	17,589	9,580	6,590
Debentures, net				
- Fixed rate borrowing	12,548	12,546	12,548	12,546
Total debentures, net	12,548	12,546	12,548	12,546

An analysis by maturities is provided in note 6.1.3.

Instruments used by the Group

The Group entered into interest rate swaps covering 100% (2019: 100%) of the variable loan principal outstanding. The fixed interest rates of the interest rate swap contracts range between 1.96% and 4.49% (2019: 1.96% and 4.49%), and the variable rates of the loans from the market reference rate are as disclosed in Note 23.1.

The interest rate swap contracts require settlement of net interest receivable or payable between 3 months and 6 months. The settlement dates coincide with the dates on which interest is payable on the underlying debt.

Effect of hedge accounting on the financial position and performance

The effects of the interest rate-related hedging instruments on the Group financial position and performance are as follows:

Interest rate swap contracts

	Consolidated financial statements	
	Long-term loan Baht Million Baht	Long-term loan US Dollar Million Baht
As at 31 December 2020		
Carrying amount (liability)	(494)	(942)
Notional amount	Baht 3,616 Million	US Dollar 207 Million
Maturity date	29 October 2021 - 31 January 2027	15 December 2023 - 31 October 2028
Change in fair value of outstanding hedge instruments since 1 January	30	(220)
Change in value of hedged item used to determine hedge effectiveness	(30)	220
Weighted average strike rate for outstanding hedging instruments	3.60% - 4.44%	1.96% - 4.49%

In addition, the Group has entered into a cross currency and interest rate swap contract to hedge its floating interest rate risk on foreign currency borrowings which are not in its functional currencies. The impact of these interest rate hedging instruments on the Group's financial position and operational results is disclosed together with the hedging foreign exchange rate risk in Note 6.1.1 (a).

Sensitivity

Profit or loss is sensitive to higher or lower interest income from loan to related parties, and interest expenses from borrowings as a result of changes in interest rates. Other components of equity changes as a result of an increase or decrease in the fair value of the cash flow hedges of borrowings and the fair value of interest rate swap contract through other comprehensive income.

	Consolidated financial statements		Separate financial statements	
	Impact to net profit	Impact to other components of equity	Impact to net profit	Impact to other components of equity
	2020 Million Baht	2020 Million Baht	2020 Million Baht	2020 Million Baht
Interest rate - increase 1.0%*	2	301	2	33
Interest rate - decrease 1.0%*	(2)	(301)	(2)	(33)

* Holding all other variables constant

c) Price risk

The Group exposures to the fluctuations in coal price from Global Coal Newcastle Index which is partly consumed as fuel in electricity generation by the Group. The Group monitors coal price index in order to plan a purchase of coal at appropriate quantity and price and the Group also entered into commodity swap agreements to for coal to manage such risk. As at 31 December 2020, the Group did not have the commodity swap agreement.

6.1.2 Credit risk

Credit risk arises from cash and cash equivalents, contractual cash flows of debt investments carried at amortised cost, derivative financial instruments as well as credit exposures to customers, including outstanding receivables.

a) Risk management

The Group has no material credit risks for cash and short-term investments. This is because the Group uses quality financial institutions for cash and short-term investments. The Group manages credit risk by categorising the risks. To reduce potential risks for deposits with banks and financial institutions, the Group has laid down a policy to limit the transactions to be made with a particular financial institution and to invest surplus only in low-risk investments. In its experience, the Group has never suffered any losses from cash and investments.

For trade receivables, the Group's sales are made to state-owned enterprises and industrial users under the terms and conditions of the long-term Power Purchase Agreements and the long-term Electricity and Steam Sales and Purchase Agreements. There are no significant concentrations of credit risk for the Group's customers. However, the Group regularly monitors credit term compliance granted to each customers.

b) Impairment of financial assets

The Group and the Company have following financial assets that are subject to the expected credit loss model:

- Cash and cash equivalents
- Financial assets measured at amortised cost
- Trade and other receivables
- Finance lease receivables
- Loan to related parties

Management considered the amount of those expected credit losses on financial assets are immaterial.

6.1.3 Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities and the availability of funding through an adequate amount of committed credit facilities to meet obligations when due and to close out market positions. Due to the dynamic nature of the underlying businesses, the Group Treasury maintains flexibility in funding by maintaining availability under committed credit lines.

The tables below analyse the maturity of financial liabilities grouping based on their contractual maturities. The amounts disclosed are the contractual undiscounted cash flows.

	Consolidated financial statements				
The maturity of financial liabilities as at 31 December 2020	**Within 1 year Million Baht**	**1 - 5 years Million Baht**	**Over 5 years Million Baht**	**Total Million Baht**	**Carrying amount Million Baht**
Trade and other payables	5,095	-	-	5,095	5,095
Lease liabilities	104	420	2,331	2,855	2,040
Long-term loans from financial institutions and related interest	1,554	14,765	4,446	20,765	19,404
Debentures and related interest	6,018	4,918	3,032	13,968	12,722
Corporate income tax payable	572	-	-	572	572
Value added tax payable	219	-	-	219	219
Total financial liabilities that are not derivatives	13,562	20,103	9,809	43,474	40,052
Derivative contracts not qualifying as hedge accounting					
- Foreign currency forwards	17	69	-	86	72
Derivative contracts qualifying as hedges accounting					
- Foreign currency forwards	10	11	-	21	25
- Interest rate swaps	349	933	204	1,486	1,436
- Cross currency and interest rate swaps	56	427	-	483	477
Total derivatives	432	1,440	204	2,076	2,010
Total	13,955	21,543	10,013	45,551	42,062

	Separate financial statements				
The maturity of financial liabilities as at 31 December 2020	**Within 1 year Million Baht**	**1 - 5 years Million Baht**	**Over 5 years Million Baht**	**Total Million Baht**	**Carrying amount Million Baht**
Trade and other payables	3,020	-	-	3,020	3,020
Lease liabilities	19	83	366	468	349
Long-term loans from financial institutions and related interest	207	9,959	-	10,166	9,631
Debentures and related interest	6,018	4,918	3,032	13,968	12,722
Short-term loans from related parties	6,212	-	-	6,212	6,212
Corporate Income Tax payable	199	-	-	199	199
Total financial liabilities that are not derivatives	15,676	14,960	3,398	34,033	32,133
Derivative contracts qualifying as hedges accounting					
- Foreign currency forwards	10	11	-	21	25
- Cross currency and interest rate swaps	56	427	-	483	477
Total derivatives	66	438	-	504	502
Total	15,741	15,398	3,398	34,537	32,635

6.2 Capital management

Risk management

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

As at 31 December, net debt to equity ratio of the Group are as follows:

	Consolidated financial statements	
	2020 Million Baht	**2019 Million Baht**
Net debt	44,908	18,305
Equity (including non-controlling interests)	42,333	29,647
Net debt to equity ratio	**1.06**	**0.6**

7 Derivative and hedging activities

As at 31 December 2020, the Group had following derivative contracts.

	Consolidated financial statements	Separate financial statements
	Million Baht	Million Baht
Current derivative assets		
Derivative contracts qualifying as hedge accounting		
- Foreign currency forwards	54	54
Total current derivative assets	54	54
Non-current derivative assets		
Derivative contracts qualifying as hedge accounting		
- Foreign currency forwards	71	71
Total non-current derivative assets	71	71
Current derivative liabilities		
Derivative contracts not qualifying as hedge accounting		
- Foreign currency forwards	(16)	-
Derivative contracts qualifying as hedge accounting		
- Foreign currency forwards	(12)	(12)
- Interest rate swaps	(70)	-
Total current derivative liabilities	(98)	(12)
Non-current derivative liabilities		
Derivative contracts not qualifying as hedge accounting		
- Foreign currency forwards	(56)	-
Derivative contracts qualifying as hedges accounting		
- Foreign currency forwards	(13)	(13)
- Cross currency and interest rate swaps	(477)	(477)
- Interest rate swaps	(1,366)	-
Total non-current derivative liabilities	(1,912)	(490)

7.1 Classification of derivatives

Derivatives are for the purpose of hedging against economic risks, not for investment for profit. The Group applies hedge accounting for some derivatives. This qualifies as a cash flow hedge instrument with a hedge ratio of 1:1 based on the relationship of the underlying risk variables between the hedged item and the hedging instrument. However, if a derivative contract doesn't meet the criteria for hedge accounting, it's classified as trading and measured at fair value through profit or loss.

The Group presents fair value of derivative contracts as current and non-current based on each maturity of hedged items.

7.2 Hedge effectiveness

Hedge effectiveness is determined at the inception of the hedge relationship, and through periodic prospective effectiveness assessments, to ensure that an economic relationship exists between the hedged item and hedging instrument.

Exchange rate risk

For hedges of foreign currency purchases, the Group enters into hedge relationships where the critical terms of the hedging instrument match exactly with the terms of the hedged item. The Group therefore performs a qualitative assessment of effectiveness. If changes in circumstances affect the terms of the hedged item such that the critical terms no longer match exactly with the critical terms of the hedging instrument, the Group uses the hypothetical derivative method to assess effectiveness.

In hedges of foreign currency purchases, ineffectiveness may arise if the timing of the forecast transaction changes from what was originally estimated, or if there are changes in the credit risk of the derivative counterparty.

Interest rate risk

The Group enters into interest rate swaps that have similar critical terms as the hedged item, such as reference rate, reset dates, payment dates, maturities and notional amount. The Group mostly enters into hedge relationships of its floating interest rates loans where the critical terms of the hedging instrument match exactly with the terms of the hedged item over the agreement period.

Hedge ineffectiveness for interest rate swaps is assessed using the same principles as for hedges of foreign currency purchases. It may occur due to the credit value/debit value adjustment on the interest rate swaps which is not matched by the loan and differences in critical terms between the interest rate swaps and loans.

7.3 Hedging reserves

Hedging reserves comprise hedging costs and cash flow hedge reserves. The cash flow hedge reserve is used to recognise gain/loss relating to the effective portion of the change in fair value of the derivatives for which hedge accounting is applied.

Hedging reserves are listed in other components of equity, which consists of the following hedging instruments.

	Consolidated financial statements			
		Cash flow hedging reserves		
	Cost of hedging reserve Million Baht	Spot component of currency forwards Million Baht	Interest rate swaps Million Baht	Total cash flow hedge reserves Million Baht
Opening balance 1 January 2020	17	(76)	(705)	(781)
Add: Change in fair value of hedging instruments recognised in OCI	-	108	(443)	(335)
Add: Costs of hedging deferred and recognised in OCI	(10)	-	-	-
Less: Reclassification from OCI to profit or loss included in				
- Finance costs	-	37	331	368
- Currency exchange gain	-	(3)	-	(3)
- Property, plant and equipment, net	-	(21)	-	(21)
- Fuel	-	4	-	4
Less: Deferred tax	2	(25)	10	(15)
Closing balance 31 December 2020	9	24	(807)	(783)

Note
1) Derivatives consist of foreign currency forward, cross currency and interest rate swap and commodity swap.
2) Cost of hedges consists of cost of hedges of foreign currency forward and cross currency and interest rate swap.

	Separate financial statements			
		Cash flow hedging reserves		
	Cost of hedging reserve Million Baht	Spot component of currency forwards Million Baht	Interest rate swaps Million Baht	Total cash flow hedge reserves Million Baht
Opening balance as at 1 January 2020	17	(73)	-	(73)
Add: Change in fair value of hedging instruments recognised in OCI	-	108	-	108
Add: Costs of hedging deferred and recognised in OCI	(10)	-	-	-
Less: Reclassification from OCI to profit or loss included in				
- Finance costs	-	37	-	37
- Currency exchange gain	-	(3)	-	(3)
- Property, plant and equipment, net	-	(21)	-	(21)
Less: Deferred tax	2	(24)	-	(24)
Closing balance as at 31 December 2020	9	24	-	24

Note
1) Derivatives consist of foreign currency forward, cross currency and interest rate swap.
2) Cost of hedges consists of cost of hedges of foreign currency forward and cross currency and interest rate swap.

7.4 Amounts recognised in profit or loss

In addition to the amounts disclosed in the reconciliation of hedging reserves above, the following amounts were recognised in profit or loss in relation to derivatives presented in note 7.3.

Closing balance 31 December	Consolidated financial statements 2020 Million Baht	Separate financial statements 2020 Million Baht
Net gain (loss) on derivatives not qualifying as hedges included in net gain (loss) from measurement of financial instruments, net	16	-

8 Fair value

The following table presents financial assets and liabilities that are measured at fair value in each level including fair value of financial assets and financial liabilities. The tables exclude financial assets and liabilities measured at amortised cost where their carrying value approximated fair value.

		Consolidated financial statements				
	Fair value level	Fair value through profit or loss (FVPL) Million Baht	Fair value through other comprehensive income (FVOCI) Million Baht	Amortised cost Million Baht	Total carrying value Million Baht	Total fair value Million Baht
As at 31 December 2020						
Assets						
Financial asset						
- Other long-term investment	3	-	63	-	63	63
Derivative contracts qualifying as hedge accounting						
- Foreign currency forwards	2	125	-	-	125	125
Total assets		**125**	**63**	**-**	**188**	**188**
Liabilities						
Long-term loans from financial institutions	2	-	-	6,996	6,996	7,192
Debentures	2	-	-	12,548	12,548	12,706
Derivative contracts not qualifying as hedge accounting						
- Foreign currency forwards	2	72	-	-	72	72
Derivative contracts qualifying as hedge accounting						
- Interest rate swaps	2	1,436	-	-	1,436	1,436
- Cross currency and interest rate swap	2	477	-	-	477	477
- Foreign currency forwards	2	25	-	-	25	25
Total liabilities		**2,010**	**-**	**19,544**	**21,544**	**21,908**

		Separate financial statements				
	Fair value level	Fair value through profit or loss (FVPL) Million Baht	Fair value through other comprehensive income (FVOCI) Million Baht	Amortised cost Million Baht	Total carrying value Million Baht	Total fair value Million Baht
As at 31 December 2020						
Assets						
Financial asset						
- Other long-term investment	3	-	63	-	63	63
Derivative contracts qualifying as hedge accounting						
- Foreign currency forwards	2	125	-	-	125	125
Total assets		**125**	**63**	**-**	**188**	**188**
Liabilities						
Long-term loans from financial institutions	2	-	-	6,996	6,996	7,192
Debentures	2	-	-	12,548	12,548	12,706
Derivative contracts qualifying as hedge accounting						
- Cross currency and interest rate swap	2	477	-	-	477	477
- Foreign currency forwards	2	25	-	-	25	25
Total liabilities		**502**	**-**	**19,544**	**20,046**	**20,400**

		Consolidated financial statements				
	Fair value level	Fair value through profit or loss (FVPL) Million Baht	Fair value through other comprehensive income (FVOCI) Million Baht	Amortised cost Million Baht	Total carrying value Million Baht	Total fair value Million Baht
As at 31 December 2019						
Asset						
Financial asset						
- Other long-term investment	3	-	-	-	2	63
Total asset		**-**	**-**	**-**	**2**	**63**
Liabilities						
Long-term loans from financial institutions	2	-	-	-	3,997	3,998
Debentures	2	-	-	-	12,546	12,854
Derivative contracts						
- Foreign currency contracts	2	-	-	-	-	120
- Interest rate swaps	2	-	-	-	-	1,245
- Cross currency and interest rate swap	2	-	-	-	-	473
- Commodity swaps	2	-	-	-	-	4
Total liabilities		**-**	**-**	**-**	**16,543**	**18,694**

The Group did not reclassify and recognise financial assets and financial liabilities in accordance with the new financial reporting standards relating to financial instruments in the financial statements as at 31 December 2019.

		Separate financial statements				
As at 31 December 2019	**Fair value level**	**Fair value through profit or loss (FVPL) Million Baht**	**Fair value through other comprehensive income (FVOCI) Million Baht**	**Amortised cost Million Baht**	**Total carrying value Million Baht**	**Total fair value Million Baht**
Asset						
Financial asset						
- Other long-term investment	3	-	-	-	2	63
Total asset		**-**	**-**	**-**	**2**	**63**
Liabilities						
Long-term loans from financial institutions	2	-	-	-	3,997	3,998
Debentures	2	-	-	-	12,546	12,854
Derivative contracts						
- Cross currency and interest rate swap	2	-	-	-	-	473
Total liabilities		**-**	**-**	**-**	**16,543**	**17,325**

The Group did not reclassify and recognise financial assets and financial liabilities in accordance with the new financial reporting standards relating to financial instruments in the financial statements as at 31 December 2019.

Fair value of following financial assets and financial liabilities measured at amortised cost where their carrying value approximated fair value are as follows:

Consolidated financial statements	Separate financial statements
Financial assets	**Financial assets**
- Cash and cash equivalents	- Cash and cash equivalents
- Deposits at financial institutions used as collateral	- Financial assets measured at amortised cost (Note 13)
- Financial assets measured at amortised cost (Note 13)	- Trade and other receivables, net
- Trade and other receivables, net	- Short-term loans to related parties
- Financial lease receivable, net	- Long-term loans to related parties
- Long-term loans to related parties	
Financial liabilities	**Financial liabilities**
- Trade and other payables	- Trade and other payables
- Dividend payables	- Short-term loans from related parties
- Other current liabilities	- Dividend payables
- Lease liabilities, net	- Other current liabilities
- Long-term loans from financial institutions (Floating interest rate)	- Lease liabilities, net
	- Long-term loans from financial institutions (Floating interest rate)

8.1 Valuation techniques used to measure fair value level 2

Valuation techniques used to measure fair value level 2 for derivatives are as follows:

- Fair value of forward foreign exchange contracts is determined using forward exchange rates that are quoted in an active market.
- Fair value of interest rate swaps agreements is determined using forward interests extracted from observable yield curves.
- Fair value of cross currency and interest rate swap contracts is determined using forward interests extracted from observable yield curves and using forward exchange rates that are quoted in an active market.
- Fair value of commodity swap agreement is calculated by using forward price of coal.

8.2 Valuation techniques used to measure fair value level 3

Changes in level 3 financial assets measured at fair value through other comprehensive income for the year ended 31 December 2020 is as follows:

	Consolidated and separate financial statements
	Financial assets measured at fair value through other comprehensive income
	Million Baht
Opening balance as at 1 January 2020 - as restated	63
Gains recognised in other comprehensive income	-
Closing balance as at 31 December 2020	63

The Group did not reclassify and recognise financial assets in accordance with the new financial reporting standards relating to financial instruments in the financial statements as at 31 December 2019.

The following table summarises the quantitative information about the significant unobservable inputs used in level 3 fair value measurements.

	Consolidated and separate financial statements		
	Fair value		Range of inputs
	31 December 2020 Million Baht	Unobservable inputs	31 December 2020
Financial assets measured at fair value through other comprehensive income	63	Growth rate of cash flows	0%
		Risk-adjusted discount rate	8%

Relationship of unobservable inputs to fair value are shown as follows:

			Consolidated and separate financial statements	
			Change in fair value	
			Increase in assumptions	Decrease in assumptions
			31 December 2020	31 December 2020
	Unobservable inputs	Movement	Million Baht	Million Baht
Financial assets measured at fair value through other comprehensive income	Growth rate of cash flows	1%	Increase by 9.64	Decrease by 7.50
	Risk-adjusted discount rate	1%	Decrease by 6.94	Increase by 8.93

The Group's valuation processes

Significant unobservable input of fair value hierarchy level 3 is risk adjusted discount rate. It is estimated based on public companies' weighted average cost of capital that, are in opinion of the Group, in a comparable financial position with the counterparty in the contract.

9 Critical accounting estimates and judgements

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are outlined below.

Fair value of derivatives

The fair value of derivatives that are not traded in an active market is determined using valuation techniques. The Group uses judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period. Details of key assumptions used are included in Note 8.

10 Segment information - consolidated financial statement [1]

The Group has two segments which comprise Small Power Producer Business (SPP) and Independent Power Producer Business (IPP) as follows:

For the years ended 31 December	SPP Business		IPP Business		Total	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Revenues from sales and services	32,176	36,396	12,519	13,323	44,695	49,719
Revenue from finance lease	-	-	387	464	387	464
Cost of sales and services	(24,905)	(30,013)	(9,547)	(9,730)	(34,452)	(39,743)
Gross profit	7,271	6,383	3,359	4,057	10,630	10,440
Currency exchange gain (loss), net	(3)	2	60	526	57	528
Interest income and other income	677	504	17	38	694	542
Dividend income	6	8	-	-	6	8
Gain from disposal of investment in a subsidiary	-	742	-	-	-	742
Gain (loss) from disposals of property, plant and equipment, net	(20)	(104)	1	(155)	(19)	(259)
Gain from measurement of financial instruments, net	-	-	16	-	16	-
Loss from impairment of property, plant and equipment	(45)	(129)	-	-	(45)	(129)
Administrative expenses	(919)	(624)	(193)	(274)	(1,112)	(898)
Finance costs	(918)	(960)	(1,420)	(1,381)	(2,338)	(2,341)
Share of profit from investment in an associate	40	1	-	-	40	1
Profit before income tax	6,089	5,823	1,840	2,811	7,929	8,634
Income tax	(1,035)	(1,051)	(196)	174	(1,231)	(877)
Profit for the year	5,054	4,772	1,644	2,985	6,698	7,757
Other comprehensive income (expense)	86	(5)	(156)	(117)	(70)	(122)
Total comprehensive income for the year	5,140	4,767	1,488	2,868	6,628	7,635

[1] The transactions disaggregated for each segment are after inter-company eliminations.

For the years ended 31 December	SPP Business		IPP Business		Total	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Timing of revenue recognition						
At a point in time	28,898	32,722	7,218	7,957	36,116	40,680
Over time	3,278	3,674	5,301	5,366	8,579	9,039
Total revenue from sales and services	32,176	36,396	12,519	13,323	44,695	49,719

Geographic information

Financial information by geographic area is as follows:

	Revenue from sales and services		Non-current assets	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Thailand	44,418	49,309	76,293	75,714
Lao PDR	664	874	2,145	2,354
Total	45,082	50,183	78,438	78,068

For the years ended 31 December 2020 and 2019, the Group earns revenue from a single customer from both SPP and IPP businesses totalling approximately Baht 22,277 million and Baht 25,785 million, respectively, of the Group's total revenue.

11 Cash and cash equivalents

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Cash on hand and deposits at financial institutions - maturities within three months	8,494	12,285	5,134	7,590
Promissory notes - maturities within three months	-	3,720	-	2,200
Total cash and cash equivalents	8,494	16,005	5,134	9,790

As at 31 December 2020, the Group's deposits at financial institutions of totalling Baht 2,305 million (as at 31 December 2019: Baht 1,949 million) were used as collateral to secure credit facilities obtained from financial institutions. However, the pledged deposits at financial institutions can be withdrawn in accordance with the objective and conditions stipulated in the loan agreements for use as working capital required in the normal course of their businesses (Note 23).

12 Deposits at a financial institution used as collateral

As at 31 December 2020, deposits at a financial institution used as short-term collateral represented deposits in savings accounts of the Group amounting to Baht 167 million (as at 31 December 2019: Baht 165 million) which have been pledged as collateral for its long-term loans from financial institutions for the purpose of repayment of principal due in the next period as described in Note 23.

As at 31 December 2020 and 2019, deposit at a financial institution used as long-term collateral represented deposit in savings account of a subsidiary amounting to Baht 200 million which has been pledged as long-term collateral with a financial institution for another subsidiary's foreign currency forward contracts.

13 Financial assets measured at amortised cost

As at 31 December 2020, financial assets measured at amortised cost represented fixed deposit with maturities over three months but not later than one year. The financial assets of the Group and the Company bear interest rates at 0.6% per annum (As at 31 December 2019: none).

14 Trade and other receivables, net

As at 31 December	Notes	Consolidated financial statements		Separate financial statements	
		2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Trade receivables - other parties, net		4,818	5,681	1,278	1,537
Trade receivables - related parties, net	33.1	599	572	783	610
Total trade receivables, net		5,417	6,253	2,061	2,147
Current portion of finance lease receivable	16	432	453	-	-
Other receivables		145	220	39	42
Other receivables - related parties	33.1,33.2	68	9	37	35
Total trade and other receivables, net		6,062	6,935	2,137	2,224

Trade receivables as at 31 December can be analysed by aging as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Other parties				
Not due	4,813	5,689	1,276	1,546
Overdue less than 1 month	1	1	-	-
Overdue 1 - 2 months	-	-	-	-
Overdue 2 - 3 months	-	-	-	-
Overdue more than 3 months	39(1)	37(1)	37(1)	37(1)
	4,853	5,727	1,313	1,583
Less Provision for contract discount	(35)	(46)	(35)	(46)
Total trade receivables - other parties, net	4,818	5,681	1,278	1,537
Related parties				
Not due	624	599	808	637
Less Provision for contract discount	(25)	(27)	(25)	(27)
Total trade receivables - related parties, net	599	572	783	610
Total trade receivables, net	5,417	6,253	2,061	2,147

(1) The outstanding of trade receivables which are overdue more than 3 months, amounting to Baht 37 million, is due from EGAT, which resulted from an expiration date dispute of the Power Purchase Agreement entered into by the subsidiary (Project 1). The subsidiary submitted a dispute to the Thai Arbitration Institute (TAI) and on 21 November 2019, the TAI ruled that the expiration date of Project 1's Power Purchase Agreement was 31 March 2017, which gave the subsidiary the right to receive outstanding balance due from EGAT. Subsequently, on 18 February 2020, EGAT petitioned the Central Administrative Court to revoke the award of the TAI. Currently, the case remains in process at the Central Administrative Court.

15 Fuel, spare parts and supplies for machines, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Coal	699	1,236	-	-
Diesel	169	172	-	-
Spare parts and supplies for machines	4,894	4,897	1,069	1,011
	5,762	6,305	1,069	1,011
Less Provision for obsolescence of spare parts and supplies for machines	(266)	(266)	(76)	(76)
Total fuel, spare parts and supplies for machines, net	5,496	6,039	993	935

16 Finance lease receivable, net

As at 31 December	Consolidated financial statements			
	Minimum lease payment		Present value of minimum lease payment	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Less than 1 year	757	866	432	453
Later than one year and not later than five years	2,408	2,970	1,573	1,790
Later than five years	409	860	376	735
	3,574	4,696	2,381	2,978
Less Deferred financial revenue	(1,193)	(1,718)		
Present value of minimum payment	2,381	2,978		
Finance lease receivable can be analysed as follows:				
- current portion of finance lease receivable			432	453
- non-current portion of finance lease receivable			1,949	2,525
			2,381	2,978

17 Investments in subsidiaries and an associate

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Investments in subsidiaries (Note 17.1)	-	-	29,155	29,155
Investment in an associate (Note 17.2)	365	333	-	-
Total investments in subsidiaries and an associate	365	333	29,155	29,155

17.1 Investments in subsidiaries

The significant movement of investments in subsidiaries for the year ended 31 December can be analysed as follows:

	Separate financial statements	
	2020 Million Baht	2019 Million Baht
Opening net book value	29,155	29,155
Additional (disposal) investment in subsidiaries	-	-
Closing net book value	29,155	29,155

The detail of investments in subsidiaries are as follows:

Company	Business	Separate financial statements							
		Portion of ordinary shares held by the Company		Portion of ordinary shares held by the Group		Cost method		Dividend for the year	
		2020 %	2019 %	2020 %	2019 %	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Glow SPP 2 Company Limited	Generate and supply electricity and steam for industrial use	100	100	-	-	4,942	4,942	251	524
Glow SPP 3 Company Limited	Generate and supply electricity, steam and water for industrial use	100	100	-	-	7,379	7,379	897	849
Glow SPP 11 Company Limited	Generate and supply electricity and water for industrial use	100	100	-	-	2,154	2,154	-	300
Glow Company Limited and its subsidiaries	Provide management services, consultant services and management advisory for related companies	100	100	-	-	7,115	7,115	970	3,170
- Subsidiaries									
Houay Ho Thai Company Limited	Invest in other companies	-	-	49[2]	49[2]	-	-	-	-
Houay Ho Power Company Limited [1]	Generate and supply electricity to EGAT and Electricity du Lao (EDL)	-	-	67.25	67.25	-	-	-	-
Glow IPP Company Limited	Generate and supply electricity to EGAT	-	-	95	95	-	-	-	-
Glow Energy Myanmar Company Limited [1]	Provide technical and consultancy services for power sector	-	-	100	100	-	-	-	-
Glow IPP 2 Holding Company Limited and its subsidiaries	Invest in other companies	100	100	-	-	7,565	7,565	1,545	1,249
- Subsidiaries									
GHECO-One Company Limited	Generate and supply electricity to EGAT	-	-	65	65	-	-	-	-
Glow IPP 3 Company Limited	Develop power generation projects	-	-	100	100	-	-	-	-
Total investments in subsidiaries						29,155	29,155	3,663	6,092

(1) All subsidiaries incorporate in Thailand, excepted Houay Ho Power Company Limited which incorporates in Lao People's Democratic Replublic and Glow Energy Myanmar Company Limited which incorporates in the Republic of the Union of Myanmar.

(2) Houay Ho Thai Company Limited is an indirect subsidiary of the Company because the Group has the power to govern the financial and operating policies.

As at 31 December 2020 and 2019, the Group pleged the common shares of GHECO-One Company Limited and Houay Ho Power Company Limited as collateral for their long-term loans from financial institutions (Note 21).

Summarised financial information for its subsidiaries with material non-controlling interests

Set out below are the summarised financial information for each subsidiary that has non-controlling interests that are material to the Group. The amounts disclosed for each subsidiary are before inter-company eliminations.

Summarised statement of financial position

As at 31 December	GHECO-One Company Limited		Houay Ho Power Company Limited		Total	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Current assets	6,432	8,271	399	570	6,831	8,841
Current liabilities	1,866	3,589	356	367	2,222	3,956
Total current net assets	4,566	4,682	43	203	4,609	4,885
Non-current assets	32,833	33,070	2,145	2,354	34,978	35,424
Non-current liabilities	23,507	22,122	687	948	24,194	23,070
Total non-current net assets	9,326	10,948	1,458	1,406	10,784	12,354
Net assets	13,892	15,630	1,501	1,609	15,393	17,239
Non-controlling interests	4,862	5,469	592	589	5,454	6,058

Summarised statement of comprehensive income

For the years ended 31 December	GHECO-One Company Limited		Houay Ho Power Company Limited		Total	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Revenue	10,398	11,521	668	893	11,066	12,414
Profit for the year	672	1,944	235	329	907	2,273
Other comprehensive expense	(134)	-	(22)	(118)	(156)	(118)
Total comprehensive income	538	1,944	213	211	751	2,155
Profit allocated to non-controlling interests	188	680	70	69	258	750
Dividends paid to non-controlling interests	419	564	60	47	479	611

Summarised statement of cash flows

	GHECO-One Company Limited		Houay Ho Power Company Limited		Total	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Net cash generated from operating activities	3,387	4,801	443	714	3,830	5,515
Net cash used in investing activities	(89)	(272)	(18)	(6)	(107)	(278)
Net cash used in financing activities	(4,378)	(3,857)	(597)	(567)	(4,975)	(4,424)
Net increase (decrease) in cash and cash equivalents	(1,080)	672	(172)	141	(1,252)	813
Cash and cash equivalents at the beginning of year	3,269	2,601	308	172	3,577	2,773
Exchange losses on cash and cash equivalents	(1)	(4)	(2)	(5)	(3)	(9)
Cash and cash equivalents at the end of the year	2,188	3,269	134	308	2,322	3,577

17.2 Investment in an associate

The significant movement of investment in an associate for the year ended 31 December can be analysed as follows:

	Consolidated financial statements	
	2020 Million Baht	2019 Million Baht
Opening net book value	333	332
Share of profit from investment in an associate	40	1
Dividend income	(8)	-
Closing net book value	365	333

The detail of the investment in an associate incorporated in Thailand is as follows:

		Consolidated financial statements					
		Portion of ordinary shares held by the Group		Cost method		Equity method	
Company	Business	2020 %	2019 %	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Eastern Seaboard Clean Energy Company Limited and its subsidiaries	Studying, generating and supply electricity for industrial use including generating electricity from renewable energy	33.33	33.33	339	339	365	333
Total investment in an associate				339	339	365	333

18 Property, plant and equipment, net

	Consolidated financial statements							
	Land Million Baht	Power plants and water plant Million Baht	Building and leasehold improvement Million Baht	Machinery, tools and equipment Million Baht	Furniture, fixtures and office equipment Million Baht	Vehicles Million Baht	Construction in progress Million Baht	Total Million Baht
As at 1 January 2019								
Cost	712	124,860	527	681	343	49	507	127,679
Less Accumulated depreciation	-	(52,649)	(265)	(526)	(299)	(45)	-	(53,784)
Net book value	712	72,211	262	155	44	4	507	73,895
For the year ended 31 December 2019								
Opening net book value	712	72,211	262	155	44	4	507	73,895
Disposal of investment in a subsidiary	(63)	(1,881)	(4)	(1)	(2)	-	(7)	(1,958)
Transfer to inventory	-	(11)	-	-	-	-	-	(11)
Additions	-	232	-	7	28	-	929	1,196
Transfer in (out)	-	980	-	2	5	-	(987)	-
Disposals, net	-	(271)	-	-	-	-	(2)	(273)
Loss on impairment	-	(129)	-	-	-	-	-	(129)
Depreciation	-	(3,935)	(24)	(29)	(19)	(2)	-	(4,009)
Exchange rate differences on translation of financial statements	-	(191)	(1)	-	-	-	-	(192)
Closing net book value	649	67,005	233	134	56	2	440	68,519
As at 31 December 2019								
Cost	649	118,313	500	664	349	38	440	120,953
Less Accumulated depreciation	-	(51,179)	(267)	(530)	(293)	(36)	-	(52,305)
Allowance for impairment	-	(129)	-	-	-	-	-	(129)
Net book value	649	67,005	233	134	56	2	440	68,519

	Consolidated financial statements							
	Land Million Baht	Power plants and water plant Million Baht	Building and leasehold improvement Million Baht	Machinery, tools and equipment Million Baht	Furniture, fixtures and office equipment Million Baht	Vehicles Million Baht	Construction in progress Million Baht	Total Million Baht
For the year ended 31 December 2020								
Opening net book value	649	67,005	233	134	56	2	440	68,519
Transfer to inventory	-	(11)	-	-	-	-	-	(11)
Additions	-	39	1	9	12	8	2,402	2,471
Increase in provisions for decommissioning cost	-	327	-	-	-	-	-	327
Transfer in (out)	-	391	16	(1)	6	-	(412)	-
Disposals, net	-	(184)	(6)	-	-	-	-	(190)
Loss on impairment	-	(45)	-	-	-	-	-	(45)
Reversal of allowance for impairment	-	129	-	-	-	-	-	129
Depreciation	-	(3,791)	(26)	(27)	(20)	(2)	-	(3,866)
Exchange rate differences on translation of financial statements	-	(1)	-	-	-	-	-	(1)
Closing net book value	649	63,859	218	115	54	8	2,430	67,333
As at 31 December 2020								
Cost	649	116,991	501	660	370	38	2,430	121,639
Less Accumulated depreciation	-	(53,087)	(283)	(545)	(316)	(30)	-	(54,261)
Allowance for impairment	-	(45)	-	-	-	-	-	(45)
Net book value	649	63,859	218	115	54	8	2,430	67,333

	Separate financial statements							
	Land Million Baht	Power plants Million Baht	Building and leasehold improvement Million Baht	Machinery, tools and equipment Million Baht	Furniture, fixtures and office equipment Million Baht	Vehicles Million Baht	Construction in progress Million Baht	Total Million Baht
As at 1 January 2019								
Cost	81	39,290	331	271	96	4	61	40,134
Less Accumulated depreciation	-	(17,097)	(154)	(252)	(89)	(4)	-	(17,596)
Net book value	81	22,193	177	19	7	-	61	22,538
For the year ended 31 December 2019								
Opening net book value	81	22,193	177	19	7	-	61	22,538
Additions	-	217	-	2	4	-	433	656
Transfer in (out)	-	172	-	-	-	-	(172)	-
Disposals, net	-	(112)	(1)	-	-	-	-	(113)
Loss on impairment	-	(129)	-	-	-	-	-	(129)
Depreciation	-	(1,501)	(17)	(7)	(2)	-	-	(1,527)
Closing net book value	81	20,840	159	14	9		322	21,425
As at 31 December 2019								
Cost	81	39,508	330	272	100	2	322	40,615
Less Accumulated depreciation	-	(18,539)	(171)	(258)	(91)	(2)	-	(19,061)
Allowance for impairment	-	(129)	-	-	-	-	-	(129)
Net book value	81	20,840	159	14	9	-	322	21,425

	Separate financial statements							
	Land Million Baht	Power plants Million Baht	Building and leasehold improvement Million Baht	Machinery, tools and equipment Million Baht	Furniture, fixtures and office equipment Million Baht	Vehicles Million Baht	Construction in progress Million Baht	Total Million Baht
For the year ended 31 December 2020								
Opening net book value	81	20,840	159	14	9	-	322	21,425
Additions	-	-	-	5	1	-	2,184	2,190
Transfer in (out)	-	251	17	-	-	-	(268)	-
Increase in provisions for decommissioning cost	-	95	-	-	-	-	-	95
Disposals, net	-	(183)	-	-	-	-	(17)	(200)
Loss on impairment	-	(45)	-	-	-	-	-	(45)
Reversal of allowance for impairment	-	129	-	-	-	-	-	129
Depreciation	-	(1,452)	(18)	(6)	(2)	-	-	(1,478)
Closing net book value	81	19,635	158	13	8	-	2,221	22,116
As at 31 December 2020								
Cost	81	37,814	344	278	101	2	2,221	40,840
Less Accumulated depreciation	-	(18,134)	(186)	(265)	(93)	(2)	-	(18,679)
Allowance for impairment	-	(45)	-	-	-	-	-	(45)
Net book value	81	19,635	158	13	8	-	2,221	22,116

During the year ended 31 December 2020, the Group recognised a Baht 45 million impairment loss for some machines of power plant in the consolidated and separate statements of comprehensive income. Management determined the recoverable amount using value in use. Moreover, the Group reversed impairment loss for some machines of power plant phase 2 in the consolidated and separate statements of comprehensive income amounting to Baht 129 million which presented net with loss from write-off of equipment since the equipment was write-off during the year.

As at 31 December 2020, the Group mortgaged and pledged property, plant and equipment with net book value of Baht 30,121 million as collateral for long-term loans from financial institutions as described in Note 23 (as at 31 December 2019: Baht 31,194 million).

19 Right-of-use assets, net

	Consolidated financial statements			
	Land Million Baht	Buildings Million Baht	Vehicles Million Baht	Total Million Baht
Balance as at 1 January 2020 - Restated	1,947	8	40	1,995
Additions	-	-	14	14
Transfer	-	-	(46)	(46)
Lease modification	113	-	-	113
Depreciation	(83)	-	(4)	(87)
Balance as at 31 December 2020	1,977	8	4	1,989

	Separate financial statements		
	Land Million Baht	Vehicles Million Baht	Total Million Baht
Balance as at 1 January 2020 - Restated	240	14	254
Additions	-	4	4
Transfer	-	(15)	(15)
Lease modification	117	-	117
Depreciation	(15)	(2)	(17)
Balance as at 31 December 2020	342	1	343

The expense relating to leases that not included in the measurement of lease liabilities and right-of-use and cash outflows for leases is as follows:

	Consolidated financial statements Million Baht	Separated financial statements Million Baht
For the year ended 31 December 2020		
Expense relating to short-term leases	18	2
Total cash outflow for leases	(95)	(19)

20 Intangible assets, net

	Consolidated financial statements							
	Deferred right to use grid system Million Baht	Deferred right to use transmission line Million Baht	Deferred right to use pipe rack Million Baht	Deferred right of way Million Baht	Deferred right to use gas pipeline Million Baht	Deferred right to use dedicated berth Million Baht	Computer software Million Baht	Total Million Baht
As at 1 January 2019								
Cost	260	301	109	632	90	199	241	1,832
Less Accumulated amortisation	(216)	(136)	(101)	(386)	(50)	(30)	(180)	(1,099)
Net book value	44	165	8	246	40	169	61	733
For the year ended 31 December 2019								
Opening net book value	44	165	8	246	40	169	61	733
Additions	-	-	8	68	-	-	19	95
Disposals, net	-	(11)	-	-	-	-	-	(11)
Amortisation	(11)	(9)	(2)	(28)	(4)	(15)	(15)	(84)
Closing net book value	33	145	14	286	36	154	65	733
As at 31 December 2019								
Cost	260	282	117	700	90	199	259	1,907
Less Accumulated amortisation	(227)	(137)	(103)	(414)	(54)	(45)	(194)	(1,174)
Net book value	33	145	14	286	36	154	65	733

	Consolidated financial statements							
	Deferred right to use grid system Million Baht	Deferred right to use transmission line Million Baht	Deferred right to use pipe rack Million Baht	Deferred right of way Million Baht	Deferred right to use gas pipeline Million Baht	Deferred right to use dedicated berth Million Baht	Computer software Million Baht	Total Million Baht
For the year ended 31 December 2020								
Opening net book value	33	145	14	286	36	154	65	733
Additions	-	-	-	2	-	-	5	7
Disposals, net	-	-	-	-	-	-	-	-
Amortisation	(11)	(10)	(2)	(51)	(4)	(14)	(15)	(107)
Closing net book value	22	135	12	237	32	140	55	633
As at 31 December 2020								
Cost	260	282	117	664	90	199	264	1,876
Less Accumulated amortisation	(238)	(147)	(105)	(427)	(58)	(59)	(209)	(1,243)
Net book value	22	135	12	237	32	140	55	633

	Separate financial statements				
	Deferred right to use transmission line Million Baht	Deferred right to use pipe rack Million Baht	Deferred right of way Million Baht	Computer software Million Baht	Total Million Baht
As at 1 January 2019					
Cost	55	203	41	8	307
Less Accumulated amortisation	(16)	(133)	(17)	(7)	(173)
Net book value	39	70	24	1	134
For the year ended 31 December 2019					
Opening net book value	39	70	24	1	134
Additions	-	1	-	2	3
Amortisation	(2)	(6)	(2)	(1)	(11)
Closing net book value	37	65	22	2	126
As at 31 December 2019					
Cost	55	204	41	10	310
Less Accumulated amortisation	(18)	(139)	(19)	(8)	(184)
Net book value	37	65	22	2	126

	Separate financial statements				
	Deferred right to use transmission line Million Baht	Deferred right to use pipe rack Million Baht	Deferred right of way Million Baht	Computer software Million Baht	Total Million Baht
For the year ended 31 December 2020					
Opening net book value	37	65	22	2	126
Additions	-	-	2	-	2
Disposal, net	-	-	-	-	-
Amortisation	(2)	(7)	(22)	-	(31)
Closing net book value	35	58	2	2	97
As at 31 December 2020					
Cost	55	204	6	10	275
Less Accumulated amortisation	(20)	(146)	(4)	(8)	(178)
Net book value	35	58	2	2	97

Deferred right to use grid system

Deferred right to use grid system represents right to use grid system of two subsidiaries. Both subsidiaries handed over and transferred the ownership of certain parts of the grid system to Electricity Generating Authority of Thailand (EGAT) to comply with PPA, under the regulation of purchasing electricity from small power producers.

Deferred right to use transmission line

Deferred right to use transmission line mainly represents the costs paid by a subsidiary for construction of transmission line in order to comply with PPA, under the regulation of purchasing electricity from independent power producers. According to the condition in such agreement, the ownership of the transmission line belongs to EGAT and a subsidiary has the right to use the transmission line over the period of the power purchase agreement 25 years.

Deferred right to use pipe rack

Deferred right to use pipe rack mainly represents the fees paid by the Company for the right to lay the Company's pipelines in the areas of Asia Industrial Estate Company Limited and Glow SPP 3 Company Limited under the Piperack Agreements.

Deferred right of way

Deferred right of way represents the right under the Memorandum of Understanding of the Group to use easement and right of way within the Siam Eastern Industrial Park for the construction, operation and maintenance of gas pipeline and network for the distribution of electricity, steam and other services over the period of right.

Deferred right to use gas pipeline

Deferred right to use gas pipeline represents the costs of gas pipeline and all related facilities of two subsidiaries that were transferred to PTT Public Company Limited in exchange for the right to use such assets throughout the period of the gas supply agreements.

Deferred right to use dedicated berth

Deferred right to use dedicated berth represents the costs of the dedicated berth of a subsidiary that was transferred to IEAT according to the condition as stipulated in the joint operation agreement. A subsidiary has the right to use the dedicated berth over the remaining 14 years of the agreement.

21 Other non-current assets

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Deferred repair and maintenance expense[1]	7,844	7,457	208	207
Less Accumulated amortisation	(5,700)	(5,191)	(58)	(3)
	2,144	2,266	150	204
Deferred financial service fee	5	5	-	-
Less Accumulated amortisation	(4)	(4)	-	-
	1	1	-	-
Deferred expenses - others	9	9	67	67
Less Accumulated amortisation	(2)	-	(21)	(19)
	7	9	46	48
Refundable deposits	77	71	49	43
Others	7	10	-	-
Total other non-current assets	2,236	2,357	245	295

(1) Deferred repair and maintenance expense represents the cost of major overhaul of the Company and two subsidiaries' power plants which amortised using the straight-line method over their estimated useful lives.

22 Trade and other payables

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Trade payables - other companies	792	856	77	106
Trade payables - related parties (Note 33.4)	1,441	1,951	1,250	1,595
Advance received	33	91	26	73
Accounts payable - acquisition of fixed assets	1,155	312	1,022	197
Other payables	151	168	36	40
Accrued interest expense	250	294	257	212
Accrued expenses	666	768	156	230
Accrued expenses - related parties (Note 33.4)	857	11	421	67
Total trade and other payables	5,345	4,451	3,245	2,520

23 Long-term loans from financial institutions, net

23.1 The long-term loans from financial institutions are as follows:

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Current portion				
Current portion of long-term loans from financial institutions				
- Thai Baht	363	403	-	-
- US Dollar	839	883	-	-
Total	1,202	1,286	-	-
Less Deferred financing fee	(39)	(25)	-	-
	1,163	1,261	-	-
Non-current portion				
Non-current portion of long-term loans from financial institutions				
- Thai Baht	10,253	7,616	7,000	4,000
- US Dollar	8,004	8,879	2,588	2,598
Total	18,257	16,495	9,588	6,598
Less Deferred financing fee	(92)	(167)	(8)	(8)
	18,165	16,328	9,580	6,590
Total long-term loans from financial institutions, net	19,328	17,589	9,580	6,590

Long-term loans from financial institutions of the Company

Long-term loans from financial institutions as at 31 December are as follows:

Thai Baht loans

Number	Outstanding balance 2020 Million Baht	Outstanding balance 2019 Million Baht	Interest rate	Principal repayment term	Interest payment period
1	4,000	4,000	Fixed percentages per annum	14 May 2023	every 6 months
2	3,000	-	Fixed percentages per annum	7 January 2025	every 6 months
Total	7,000	4,000			

US Dollar loans

Number	Outstanding balance 2020 Million US Dollar	Outstanding balance 2019 Million US Dollar	Interest rate	Principal repayment term	Interest payment period
1	86	86	US Dollar LIBOR + a certain margin per annum	22 February 2022	every 3 months
Total	86	86			

The Company's loans are partially guaranteed by Glow SPP 2 Company Limited, Glow SPP 3 Company Limited and Glow SPP 11 Company Limited. The Facility Agreements stipulate certain covenants such as the maintenance of tangible net worth, net debt to equity ratio and debt service coverage ratio.

Long-term loans from financial institutions of the subsidiaries

Long-term loans from financial institutions of the subsidiaries as at 31 December are as follows:

Thai Baht loans

Number	Outstanding balance 2020 Million Baht	Outstanding balance 2019 Million Baht	Interest rate	Principal repayment term	Interest payment period
1	3,616	4,019	THBFIX + a certain percentage per annum	31 October 2012 - 31 October 2028	every 3 months
Total	3,616	4,019			

US Dollar loans

Number	Outstanding balance 2020 Million US Dollar	Outstanding balance 2019 Million US Dollar	Interest rate	Principal repayment term	Interest payment period
1	176	196	LIBOR + a certain percentage per annum	31 October 2012 - 31 October 2028	every 3 months
2	31	41	LIBOR + a certain percentage per annum	15 June 2015 - 15 December 2023	every 6 months
Total	207	237			

The subsidiaries' loans of Baht 3,616 million and US Dollar 207 million have been mortgaged by the buildings and pledged by all machinery and equipment, including deposits at financial institutions (Note 11, 12 and 18). All rights and obligations under various agreements relating to the power plant project of the subsidiaries have been assigned as collateral in accordance with the conditions under the loan agreements. In addition, subsidiaries are required to comply with certain requirements and conditions; for example, maintaining the debt service coverage ratio and coal stockpile.

23.2 The movement of the long-term loans from financial institutions of the Group

The movement of the long-term loans from financial institutions for the year ended 31 December can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Opening net book value	17,589	19,753	6,590	6,789
Impact of the first-time adoption of the new financial reporting standards	15	-	-	-
Opening book value - As restated	17,604	19,753	6,590	6,789
Cash flows:				
Increase during the year	3,000	2,716	3,000	2,716
Repayment of loans during the year	(1,310)	(4,136)	-	(2,716)
Payment of financing fee for a new loan	(3)	(8)	(3)	(8)
Other non-cash movement:				
Unrealised gain on exchange rate	(33)	(564)	(11)	(117)
Realised (gain) loss on exchange rate from long-term loan repayment	14	(97)	-	(78)
Amortisation of deferred financing fee	51	29	4	4
Exchange rate difference on translation of financial statement	5	(104)	-	-
Closing book value	19,328	17,589	9,580	6,590

23.3 Maturity of long-term loans from financial institutions are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Less than 1 year	1,163	1,261	-	-
Later than 1 year and not later than 5 years	13,899	11,369	9,580	6,590
Later than 5 years	4,266	4,959	-	-
Total long-term loans from financial institutions, net	19,328	17,589	9,580	6,590

24 Debentures, net

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Debentures	12,555	12,555	12,555	12,555
Less Deferred financing fee	(7)	(9)	(7)	(9)
	12,548	12,546	12,548	12,546
Less Current portion of debentures	(5,554)	-	(5,554)	-
Debentures, net	6,994	12,546	6,994	12,546

All Debentures are unsubordinated and guaranteed debentures which guaranteed by Glow SPP 2 Company Limited, Glow SPP 3 Company Limited and Glow SPP 11 Company Limited. In addition, the Company has to comply with certain requirements and conditions such as the maintenance of tangible net worth, net debt to equity ratio and debt service coverage ratio.

Maturities of debentures are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Less than 1 year	5,554	-	5,554	-
Less than 1 but not later than 5 years	3,996	5,553	3,996	5,553
Later than 5 years	2,998	6,993	2,998	6,993
Total debenture, net	12,548	12,546	12,548	12,546

The movement of the debentures can be analysed as follows:

For the year ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Opening net book value	12,546	15,943	12,546	15,943
Cash flows:				
Repayment of debentures during the year	-	(3,400)	-	(3,400)
Other non-cash movement:				
Amortisation of deferred financing fee	2	3	2	3
Closing book value	12,548	12,546	12,548	12,546

25 Other non-current liabilities

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Contract liabilities (1)	13,542	13,214	-	-
Advance received for long-term right to grant of assets	332	368	348	373
Provision for decommissioning cost	535	204	203	100
Others	13	426	4	406
	14,422	14,212	555	879

(1) Advance receipts of availability payments in relation to the availabilities of a subsidiary's power plant, as agreed with EGAT and in accordance with the terms of PPA.

26 Deferred income taxes

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

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Deferred tax assets:				
Deferred tax assets to be recovered within 12 months	38	54	4	5
Deferred tax assets to be recovered after more than 12 months	3,674	3,375	142	97
	3,712	3,429	146	102
Deferred tax liabilities:				
Deferred tax liabilities to be settled within 12 months	(50)	(42)	(42)	(4)
Deferred tax liabilities to be settled after more than 12 months	(1,559)	(1,460)	(405)	(412)
	(1,609)	(1,502)	(447)	(416)
Deferred income taxes, net	2,103	1,927	(301)	(314)

The movements in the deferred income tax account are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
As at 1 January	1,927	(647)	(314)	(324)
Impact of the first-time adoption of new financial reporting standards				-
Leases	47	-	-	-
Financial instruments	146	-	2	-
Revenue	-	2,239	-	-
Opening balance - As restated	2,120	1,592	(312)	(324)
Disposal of a subsidiary	-	32	-	-
Charged/(credited) to profit or loss	(11)	302	32	9
Charged/(credited) directly to other comprehensive income	(6)	1	(21)	1
As at 31 December	2,103	1,927	(301)	(314)

The movements in deferred tax assets and liabilities are as follows:

	Consolidated financial statements							
	Finance lease receivable Million Baht	Difference of depreciation Million Baht	Provisions Million Baht	Assets under finance lease Million Baht	Contract liabilities Million Baht	Derivatives Million Baht	Lease liabilities Million Baht	Total Million Baht
Deferred tax assets								
As at 1 January 2020	315	215	251	5	2,643	-	-	3,429
Impact of the first-time adoption of new financial reporting standards								
Leases	47	-	-	-	-	-	-	47
Financial instruments	-	-	-	-	-	158	-	158
Opening balance - As restated	362	215	251	5	2,643	158	-	3,634
Charged/(credited) to profit or loss	1	(11)	-	(1)	65	(9)	14	59
Charged/(credited) directly to other comprehensive income	-	-	2	-	-	17	-	19
As at 31 December 2020	363	204	253	4	2,708	166	14	3,712
As at 1 January 2019	324	240	214	6	2,239	-	-	3,023
Disposal of a subsidiary	-	(17)	(4)	-	-	-	-	(21)
Charged/(credited) to profit or loss	(9)	(8)	40	(1)	404	-	-	426
Charged/(credited) directly to other comprehensive income	-	-	1	-	-	-	-	1
As at 31 December 2019	315	215	251	5	2,643	-	-	3,429

	Consolidated financial statements				
	Difference of depreciation Million Baht	Deferred expenses Million Baht	Derivatives Million Baht	Financial assets measured at fair value through other comprehensive income Million Baht	Total Million Baht
Deferred tax liabilities					
As at 1 January 2020	1,440	62	-	-	1,502
Impact of the first-time adoption of new financial reporting standards Financial instruments	-	-	-	12	12
Opening balance - As restated	1,440	62	-	12	1,514
(Charged)/credited to profit or loss	111	(41)	-	-	70
(Charged)/credited directly to other comprehensive income	-	-	25	-	25
As at 31 December 2020	1,551	21	25	12	1,609
As at 1 January 2019	1,405	26	-	-	1,431
Disposal of a subsidiary	(53)	-	-	-	(53)
(Charged)/credited to profit or loss	88	36	-	-	124
As at 31 December 2019	1,440	62	-	-	1,502
Deferred income taxes, net					
As at 31 December 2020					2,103
As at 31 December 2019					1,927

	Separate financial statements			
	Provisions Million Baht	Derivatives Million Baht	Lease liabilities Million Baht	Total Million Baht
Deferred tax assets				
As at 1 January 2020	102	-	-	102
Impact of the first-time adoption of new financial reporting standards Financial instruments	-	14	-	14
Opening balance - As restated	102	14	-	116
Charged/(credited) to profit or loss	22	-	3	25
Charged/(credited) directly to other comprehensive income	2	3	-	5
As at 31 December 2020	126	17	3	146
As at 1 January 2019	82	-	-	82
Disposal of a subsidiary	19	-	-	19
Charged/(credited) to profit or loss	1	-	-	1
As at 31 December 2019	102	-	-	102

	Separate financial statements				
	Difference of depreciation Million Baht	Deferred expenses Million Baht	Derivatives Million Baht	Financial assets measured at fair value through other comprehensive income Million Baht	Total Million Baht
Deferred tax liabilities					
As at 1 January 2020	413	3	-	-	416
Impact of first-time adoption of new financial reporting standards Financial instruments	-	-	-	12	12
Opening balance - As restated	413	3	-	12	428
(Charged)/credited to profit or loss	(7)	-	-	-	(7)
(Charged)/credited directly to other comprehensive income	-	-	26	-	26
As at 31 December 2020	406	3	26	12	447
As at 1 January 2019	403	3	-	-	406
(Charged)/credited to profit or loss	10	-	-	-	10
As at 31 December 2019	413	3	-	-	416
Deferred income taxes, net					
As at 31 December 2020					(301)
As at 31 December 2019					(314)

27 Legal reserve

Under the Public Limited Company Act., B.E. 2535, the Company is required to set aside as a legal reserve at least 5 percent of its net profit after accumulated deficit brought forward (if any) until the reserve is not less than 10 percent of the registered capital. The legal reserve is non-distributable.

28 Expense by nature

The following expenditure items have been changed in arriving at net profit:

	Consolidated financial statements		Separate financial statements	
For the years ended 31 December	**2020 Million Baht**	**2019 Million Baht**	**2020 Million Baht**	**2019 Million Baht**
Fuel cost	25,559	30,256	9,764	13,031
Repair and maintenance expense	1,901	1,988	544	570
Employee benefit expense	717	1,459	141	198
Depreciation and amortisation	4,571	4,517	1,585	1,543

29 Finance costs

	Consolidated financial statements		Separate financial statements	
For the years ended 31 December	**2020 Million Baht**	**2019 Million Baht**	**2020 Million Baht**	**2019 Million Baht**
Interest expense	1,492	1,627	990	967
Interest expense from contract with customers	756	640	-	-
Other financial fee	90	74	120	133
Total finance costs	2,338	2,341	1,110	1,100

30 Income tax

	Consolidated financial statements		Separate financial statements	
For the years ended 31 December	**2020 Million Baht**	**2019 Million Baht**	**2020 Million Baht**	**2019 Million Baht**
Current tax:				
Current tax on profits for the year	1,214	1,162	416	381
Adjustments in respect of prior year	6	17	4	17
Total current tax	1,220	1,179	420	398
Deferred tax:				
Decrease (increase) in deferred tax assets (Note 24)	(59)	(426)	(25)	(19)
(Decrease) increase in deferred tax liabilities (Note 24)	70	124	(7)	10
Total deferred tax	11	(302)	(32)	(9)
Income tax expense	1,231	877	388	390

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the basic weighted average tax rate applicable to profit of the home country of the Parent as follows:

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Profit before tax	7,929	8,634	6,517	8,985
Tax calculated at a tax rate of 20%	1,586	1,727	1,303	1,797
Adjustment in respect of prior year				
Tax effect of:				
Associates' results reported net of tax	(8)	-		-
Income not subject to tax	(438)	(960)	(939)	(1,443)
Deemed income	44	-	-	
Expenses not deductible for tax purpose	23	28	20	19
Difference tax rate from overseas	(14)	(19)	-	-
Difference of carrying value of disposed subsidiary	-	81	-	-
Utilisation of previously unrecognised tax losses	(7)	-	-	-
Tax losses for which no deferred income tax asset was recognised	33	3	-	-
Exchange difference on translation	6	-	-	-
Adjustment of prior year income tax	6	17	4	17
Tax charge	1,231	877	388	390

The weighted average applicable tax rate for the Group and the Company were 16% and 6%, respectively (2019: 10% and 4%, respectively).

The tax charged/(credited) relating to component of other comprehensive income is as follows:

For the years ended 31 December	Consolidated financial statements					
	2020			2019		
	Before tax Million Baht	Tax charged (credited) Million Baht	After tax Million Baht	Before tax Million Baht	Tax credited Million Baht	After tax Million Baht
Loss from remeasurement employee benefits obligation	9	(2)	7	5	(1)	4
Cash flow hedge reserve	45	10	55	-	-	-
Cost of hedging reserves	10	(2)	8	-	-	-

For the years ended 31 December	Separate financial statements					
	2020			2019		
	Before tax Million Baht	Tax charged (credited) Million Baht	After tax Million Baht	Before tax Million Baht	Tax credited Million Baht	After tax Million Baht
Loss from remeasurement employee benefits obligation	9	(2)	7	5	(1)	4
Cash flow hedge reserve	(121)	24	(97)	-	-	-
Cost of hedging reserves	10	(2)	8	-	-	-

31 Earnings per share

Basic earnings per share is calculated by dividing the net profit attributable to shareholders of the Company by the weighted average number of ordinary shares.

	Consolidated financial statements		Separate financial statements	
	2020	2019	2020	2019
Net profit attributable to ordinary shareholders of the Company (Million Baht)	6,360	6,948	6,129	8,595
Weighted average number of ordinary shares outstanding (Million shares)	1,463	1,463	1,463	1,463
Basic earnings per share (Baht per share)	4.35	4.75	4.19	5.88

There are no potential dilutive ordinary shares in issue during the years. Therefore, diluted earnings per share are not presented.

32 Dividends

At the Board of Directors' meeting on 30 March 2020, the Board of Directors approved the payment of interim dividends for the year 2019 at Baht 2.05 per share, totalling Baht 2,999 million. These dividends were paid on 24 April 2020.

At the Board of Directors' meeting on 4 August 2020, the Board of Directors approved the payment of interim dividends for the year 2020 at Baht 1.709 per share, totalling Baht 2,500 million. These dividends were paid on 3 September 2020.

33 Transactions with related parties

ENGIE Holding (Thailand) Company Limited and ENGIE Global Developments B.V. were the Company's major shareholder until 14 March 2019. After that, the Company's major shareholder is Global Power Synergy Public Company Limited, currently holding a 99.83% 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 information of the Company's subsidiaries and an associate are described in Note 17.

Pricing policies

- Interest income and interest expense incurred from borrowings other than the cash management agreement (cash pooling) are determined based on MLR minus a certain percentage per annum. No interest is charged on advances with related parties.
- The Company and its subsidiaries have determined prices of sales and purchases of electricity, steam and water for industrial use within the Group based on average selling price charged to industrial customers of the Company and its subsidiaries.
- Service income and service expenses are determined based on the amounts stipulated in the agreements.
- Prices of purchase and sale of spare parts and coal within the Group are determined based on cost plus a certain margin.
- Management fees are determined based on the actual cost related to rendering of services plus a certain margin. The management benefit expenses have been included in management fee charged to each company.

Cash management agreement

Glow Company Limited, Glow SPP 2 Company Limited, Glow SPP 3 Company Limited and Glow SPP 1 1 Company Limited and Glow IPP 2 Company Limited participated into cash management agreement (cash pooling) with the Company and a financial institution. According to such agreement, the financial institution provides cash management services between the Company and such subsidiaries. The intercompany loan incurred under cash pooling carries interest at the lowest tier of bank interest rate.

The following material transactions were carried out with the related parties:

33.1 Trade receivables and other receivables from related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Trade receivables, net				
- Subsidiaries	-	-	191	39
- Related parties	593	572	586	571
- Parent company	6	-	6	-
	599	572	783	610
Other receivables				
- Subsidiaries	-	-	4	4
- Associates	2	3	-	-
- Parent company	63	3	-	-
- Ultimate parent company	1	1	1	1
	66	7	5	5

33.2 Short-term loans and long-term loans to related parties and related interests

Loans to related parties as at 31 December are comprised of:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Short-term loans to				
- Subsidiaries	-	-	-	1,158
	-	-	-	1,158
Long-term loans to				
- Subsidiaries	-	-	2,917	2,773
- Associate	248	283	-	-
	248	283	2,917	2,773

The movement of short-term loans to related parties for the years ended 31 December can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Opening balance	-	-	1,158	1,283
Other non-cash movement:				
Reclassify to long-term loans to related parties	-	-	(1,158)	(125)
Closing balance	-	-	-	1,158

The movement of long-term loans to related parties for the years ended 31 December can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Opening balance	283	53	2,773	2,773
Cash flows:				
Loans granted during the year	-	230	55	-
Repayment during the year	(35)	-	(1,069)	-
Other non-cash movement:				
Reclassify from short-term loans to related parties	-	-	1,158	-
Closing balance	248	283	2,917	2,773

During the year 2020, the Company and related companies amended long-term loan agreement by changing maturity date to repay principal to the company to be within 10 years. As a result, the company classify loan to related companies as long-term loans to related parties in the statement of financial position as at 31 December 2020.

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Interest receivables				
- Subsidiaries	-	-	32	30
- Associate	2	2	-	-
	2	2	32	30

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Interest income				
- Subsidiaries	-	-	130	171
- Associate	13	11	-	-
	13	11	130	171

33.3 Other assets from related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Financial assets measured at fair value through other comprehensive income (Presented as other long-term investment in 2019)				
- Related party	63	2	63	2
	63	2	2	2
Right-of-use assets, net				
- Related parties	14	-	-	-
- Ultimate parent company	29	-	-	-
	43	-	-	-
Deferred right to use pipe rack (recorded as a part of intangible assets)				
- Subsidiaries	-	-	53	58
- Related parties	5	6	5	6
- Ultimate parent company	32	36	-	-
	37	42	58	64
Deferred expenses - others (recorded as a part of other non-current assets)				
- Subsidiaries	-	-	38	40
- Ultimate parent company	7	10	-	-
	7	10	38	40

33.4 Trade payables and other payables to related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Trade payables to related parties				
- Subsidiaries	-	-	628	701
- Related parties	40	158	33	26
- Ultimate parent company	1,401	1,793	589	868
	1,441	1,951	1,250	1,595
Accrued expenses				
- Subsidiaries	-	-	26	63
- Related parties	9	11	3	4
- Parent company	848	-	392	-
	857	11	421	67
Other payables				
- Subsidiaries	-	-	2	3
- Related parties	33	6	25	6
- Parent company	2	2	-	-
	35	8	27	9

33.5 Short-term loans from related parties and related interests

Short-term loans from related parties as at 31 December are comprised of:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Short-term loans from				
- Subsidiaries	-	-	6,213	3,547
	-	-	6,213	3,547

The movement of short-term loans from related parties for the years ended 31 December can be analysed as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Opening balance	-	-	3,547	3,579
Cash flows:				
Loans granted during the year	-	-	4,737	1,586
Repayment during the year	-	-	(2,071)	(1,618)
Closing balance	-	-	6,213	3,547

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Interest payables				
- Subsidiaries	-	-	32	13
	-	-	32	13

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Baht	2019 Baht	2020 Baht	2019 Baht
Interest expenses				
- Subsidiaries	-	-	132	39
	-	-	132	39

As at 31 December 2020, the outstanding balance of short-term loans from related parties amounting to Baht 3,535 million (as at 31 December 2019: amounting to Baht 1,747 million) represents the amount of short-term loans under the cash management agreement (cash pooling).

33.6 Other liabilities from related parties

As at 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Current portion of lease liabilities, net				
- Related parties	1	-	-	-
- Ultimate parent company	4	-	-	-
	5	-	-	-
Dividend payable				
- Parent company	-	11,979	-	11,979
	-	11,979	-	11,979
Lease liabilities, net				
- Related parties	13	-	-	-
- Ultimate parent company	26	-	-	-
	39	-	-	-
Advance received from related parties (recorded as a part of other non-current liabilities)				
- Subsidiaries	-	-	155	165
- Related parties	50	61	-	2
- Ultimate parent company	5	6	-	-
	55	67	155	167

33.7 The following material transactions were carried out with the related parties

For the years ended 31 December	Consolidated financial statements 2020 Million Baht	Consolidated financial statements 2019 Million Baht	Separate financial statements 2020 Million Baht	Separate financial statements 2019 Million Baht
Revenues from sales				
- Subsidiaries	-	-	985	701
- Related parties	6,470	5,518	6,388	5,518
- Parent company	38	-	38	-
	6,508	5,518	7,411	6,219
Dividend income				
- Subsidiaries	-	-	3,663	6,092
- Related party	6	8	6	8
	6	8	3,669	6,100
Other income				
Service income				
- Subsidiaries	-	-	39	39
- Associate	8	12	-	1
- Former shareholder	-	32	-	32
- Related parties	11	9	2	2
- Parent company	61	5	-	1
- Ultimate parent company	1	1	-	-
	81	59	41	75
Sale of spare parts				
- Subsidiaries	-	-	4	8
	-	-	4	8
Cost of sales				
Purchases of products				
- Subsidiaries	-	-	2,782	1,247
	-	-	2,782	1,247
Purchase of gas, coal and chemical				
- Subsidiaries	-	-	1,032	1,090
- Related parties	890	679	318	258
- Ultimate parent company	16,611	16,311	8,423	9,216
	17,501	16,990	9,773	10,564
Purchase of spare parts				
- Subsidiaries	-	-	8	16
	-	-	8	16

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Service expenses				
- Subsidiaries	-	-	50	50
- Former shareholders	-	4	-	2
- Related parties	60	48	20	14
- Ultimate parent company	10	8	1	1
	70	60	71	67
Administrative expenses				
Management fees				
- Subsidiaries	-	-	94	413
- Parent company	792	-	366	-
	792	-	460	413
Service expenses				
- Former shareholders	-	2	-	2
- Parent company	3	7	-	-
	3	9	-	2
Finance cost				
Interest expenses				
- Ultimate parent company	5	4	-	-
	5	4	-	-
Guarantee fee				
- Subsidiaries	-	-	107	117
	-	-	107	117

33.8 Key management compensation

For the years ended 31 December	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Management benefit expenses	109	340	-	-
Total key management compensation	109	340	-	-

34 Commitments and significant agreements

34.1 Commitments

34.1.1 Capital expenditure obligations

Capital expenditure contracts as at the statement of financial position date but not recognised in the financial statements are as follows:

	Consolidated financial statements		Separate financial statements	
	2020 Million Baht	2019 Million Baht	2020 Million Baht	2019 Million Baht
Property and equipment	3,889	4,287	3,823	4,159
Spare parts	15	19	9	13
Total	3,904	4,306	3,832	4,172

34.1.2 Letter of guarantee

As at 31 December 2020 and 2019, there were outstanding letters of guarantee issued by financial institutions on behalf of the Company and its subsidiaries in respect of certain performance as required in the normal course of business of the Company and its subsidiaries as follows:

Company	Currency	2020 Million	2019 Million
Glow Energy Public Company Limited	Baht	665.9	232.1
Glow SPP 2 Company Limited	Baht	285.7	285.7
Glow SPP 3 Company Limited	Baht	536.1	535.2
Glow SPP 11 Company Limited	Baht	423.9	425.8
Glow IPP Company Limited	Baht	11.3	11.3
GHECO-One Company Limited (1)	Baht	38.5	38.5
Houay Ho Power Company Limited (2)	US Dollar	3.0	3.0

(1) The bank guarantee of GHECO-One Company Limited is guaranteed by the Company not exceeding 65 percent of the amount.

(2) On 2 February 2015, the Company has issued the letter of guarantee with amounts not exceeding an aggregate of US Dollar 3 million to a bank in order to guarantee the Houay Ho Power Company Limited's liability to EGAT under the Power Purchase Agreement.

34.1.3 Letter of credit

As at 31 December 2020, the Group has outstanding letters of credit issued by financial institutions on behalf of GHECO-One Company Limited in respect of purchase of coal totalling US Dollar 5 million (as at 31 December 2019: GHECO-One Company Limited and Glow SPP 3 Company Limited totalling US Dollar 16 million).

34.2 Significant agreements

34.2.1 Significant Power Purchase Agreements

The Group entered into PPAs with the Electricity Generating Authority of Thailand (EGAT), totalling 12 agreements. The PPAs are effective for the periods of 21 years, 25 years and 30 years starting from the commercial operation dates. The sales quantities and prices must comply with the agreements. In 2017, the Group entered into an Amendment to the two PPAs to revise their pricing structures and extend the PPAs' terms for another 3 years after the maturity dates.

34.2.2 Gas supply agreements

The Group entered into gas supply agreements (GSAs) with PTT Public Company Limited (PTT), totalling 9 agreements. The agreements are effective for periods between 4 and 21 years. The sales quantities and prices must comply with the agreements. Four of these agreements can be extended for another 4 years, commencing from the maturity dates.

34.2.3 Coal supply agreements

The Group entered into coal supply agreements with both domestic and overseas companies totalling six agreements to purchase coal. The sales quantities and prices must comply with the agreements.

34.2.4 Coal berth joint operation agreement

The Group entered into a joint operation agreement with the Industrial Estate Authority of Thailand (IEAT) to develop an area to construct a shipping berth at Map Ta Phut Industrial Estate for use in handling coal, other raw materials and necessary goods. The Group has the right to utilise this area for a period of 30 years while the Group has to pay the specified benefits to IEAT. Ownership of the dedicated berth has already been transferred to IEAT after the fifteenth year from the commencing date.

34.2.5 Operation and management services agreements

The Group entered into operation and management services agreements with two overseas companies to use its facilities for the period between 1 July 2016 and 31 December 2021. The fees must be received in compliance with the agreements.

34.2.6 Long term parts and repair agreement

The Group entered into long term parts and repair agreements with domestic and overseas companies to provide certain parts and maintenance services for power plant machines and equipment. The scope of work performed, conditions and prices must comply with the agreement.

34.2.7 Maintenance agreement

The Group entered into a Maintenance Service 230 kV Substation Agreement (MSA) with EGAT. In accordance with the MSA, EGAT commits to performing preventive maintenance services, including corrective maintenance or on-call services of the 230 kV substation and transmission line for the period of 6 years. The scope of work performed, conditions and prices must comply with the agreement.

34.2.8 Royalty agreement

In consideration for the grant and issuance of all rights, leases, permits and other benefits to the Group under the Build Operate and Transfer Agreement (BOT), the Group pays royalty to the Government of Lao PDR on a quarterly basis, within 90 days of the end of quarter. The royalty can be paid in Thai Baht, US Dollar or Kip and is paid at 3.15% during the first seven years of commercial operation and 7.2% thereafter, of sales revenue under the power purchase agreements.

35 Promotional privileges

The Group has been granted promotional privileges by the Office of the Board of Investment under promotion certificates in respect of electricity. The Company and two subsidiaries have been granted exemption from certain taxes and duties as detailed in the certificates including exemption from corporate income tax for a period of eight years from the date of first revenue. As promoted entities, these subsidiaries are required to comply with the terms and conditions specified in the promotion certificates.

Glow Energy Public Company Limited
1 Empire Tower, 38th Floor-Park Wing
South Sathorn Road, Yannawa, Sathorn, Bangkok 10120
Tel: 66 (0) 2670 1500-33
Fax: 66 (0) 2670 1548-9
www.glow.co.th