

– Translation –



Gulf Energy Development Public Company Limited

MANAGEMENT DISCUSSION AND ANALYSIS OF THE COMPANY'S PERFORMANCE

For the Quarter and the Year Ended December 31, 2021

The Management Discussion and Analysis of the Company's Performance (the "MD&A") is intended to present and analyze the Company's results of operations and financial position at the end of the accounting period. Such information may change in the future. The MD&A is primarily prepared in Thai. In cases where the content in the translation contains any conflict or is interpreted differently from the Thai version, the Thai version shall prevail.

For questions or queries, please contact our Investor Relations Department: Tel: +66 (0) 2080-4488 or Email: ir@gulf.co.th

EXECUTIVE SUMMARY

KEY EVENTS IN 2021

Projects that commenced commercial operation

Gulf SRC Power Project (“GSRC”) units 1 and 2, with an installed power generation capacity of 662.5 MW each, located in Chonburi province, commenced the commercial operation on March 31 and October 1, 2021, respectively. GSRC is a gas-fired IPP power plant project in which the Company holds 70% equity stake, with total installed power generation capacity of 2,650.0 MW, of which units 3-4 are scheduled to commence commercial operation in March and October 2022, respectively.

DIPWP power project phase 1, with an installed power generation capacity of 40 MW, located in Duqm Special Economic Zone, Oman, commenced the commercial operation for power on December 1, 2021. DIPWP is a gas-fired captive power plant project in which the Company indirectly holds 49% equity stake, with total installed power generation capacity of approximately 326 MW, of which the rest of the phases are scheduled to commence commercial operation in 2023.

Investment in Thailand

Additional investment in the ordinary shares of PTT Natural Gas Distribution Company Limited (“PTT NGD”)

The Company increased its investment in PTT NGD by acquiring additional 2% of ordinary shares from CPB Equity Company Limited, resulting in the shareholding of 42% as of April 20, 2021. PTT NGD operates a natural gas distribution business by investing in distribution pipeline systems to serve industrial users in 13 industrial areas in the Bangkok Metropolitan Region and in Rayong province.

Tender Offer for all Securities of Intouch Holdings Public Company Limited (“INTUCH”), excluding the 18.93% held by the Company, at the offer price of THB 65.00 per share during the offer period from June 29, 2021 to August 4, 2021. After the completion of the tender offer, resulting in the Company holding a total shareholding of 42.25% in INTUCH.

Directorship in INTUCH, ADVANC and THCOM, with INTUCH’s Extraordinary General Meeting of Shareholders No. 1/2021 has passed the resolution to appoint 4 of GULF’s representatives to be INTUCH’s directors, effective as of October 1, 2021.

Moreover, INTUCH’s Board of Directors’ meeting had proposed a list of representatives from INTUCH to be appointed as directors of ADVANC and THCOM. In this regard, ADVANC’s Board of Directors’ meeting No. 11/2021 has passed the resolution to appoint 3 of GULF’s representatives to be ADVANC’s directors. In addition, THCOM’s Board of Directors’ meeting No. 12/2021 has passed the resolution to appoint 2 of GULF’s representatives to be THCOM’s directors. The appointment of directors in ADVANC and THCOM was effective on October 21, 2021.

Contracts and agreements signing

Public Private Partnership (PPP Gross Cost) contract signing for M6 and M81 Intercity Motorway projects on September 29, 2021, between Department of Highways and BGSR 6 & BGSR 81, joint venture companies in which the Company holds an equity interest of 40.00% who operates the Bang Pa-In - Nakhon Ratchasima (M6) Intercity Motorway and Bang Yai - Kanchanaburi (M81) Intercity Motorway projects. The contract is divided into 2 parts including; (1) design and construction of system works, and (2) Operation and Maintenance (O&M) for a period of 30 years. The projects are scheduled to start commercial operations in 2024.

Memorandum of Understanding to establish a data center business in Thailand on September 30, 2021 between the Company and Singtel in order to capture to the rapid growth in digital infrastructure in Thailand, by utilizing energy-efficient technologies and green energy solutions to reduce greenhouse gas emissions and support sustainable operations.

Public Private Partnership (PPP) contract signing for Laem Chabang Port Phase 3, Terminal F project on November 25, 2021, between the Port Authority of Thailand and GPC, a joint venture company in which the Company holds an equity interest of 40.00%, to develop and operate the Laem Chabang Port Phase 3, Terminal F project, located in Chonburi province, to design, construct, operate, and maintain of Terminals F1 and F2 to facilitate the handling of containers through automation technologies, with capacity of at least 4,000,000 TEU/year. GPC will receive revenues from terminal operations such as berth hire charges, container handling charges, wharfage charges, and other fees as stipulated in the PPP contract for a period of 35 years. The Terminal F1 and F2 is scheduled to commence commercial operation in 2025 and 2029, respectively.

Financial Activities

Allotment of the Company's unsecured and unsubordinated debentures valued THB 30,000 million offered to institutional investors and high net worth investors on September 29, 2021. The Company was assigned the company rating 'A' and the debentures were assigned rating 'A-' by TRIS Rating Company Limited. The debentures' allotment was in series of 4 tranches starting from 3, 5, 7, and 10 years with an average interest rate of 2.51% per annum and an average tenor of 5.9 years.

ECONOMIC SITUATION

Although the Thai economy was still affected by the COVID-19 outbreak in 2021, there was a slight recovery from 2020, mainly due to the domestic demand and industrial production sector which improved from the relaxation of lockdown measures in the country, coupled with the international tourism sector which started to resume activities in accordance with the government's re-opening policy, and the export value that expanded from the volume growth as well as the price which increased in tandem with the higher global commodity prices.

For the economic outlook in 2022, the Bank of Thailand forecasted that the Thai economy will grow at approximately 3.4%, primarily supported by domestic consumption, private sector's investments, the recovery of the number of foreign tourists as vaccines become more widely available, and the supporting policies from the government, despite the potential delays of private sector's investments, and the export sector that are still affected by the Omicron variant of COVID-19 virus. However, the supply disruption in several industries and the price volatility of energy and commodities, as well as the instability of global financial markets, are the factors that may pressure the economic recovery in the up coming period.

Electricity demand in Thailand

Based on the database from Energy Policy and Planning Office ("EPPO"), Ministry of Energy, Thailand's electricity demand in 2021 slightly recovered by 1.8% from the same period last year. The recovery of electricity demand was mainly from the industrial and household sector, as the demand in 2020 was abnormally low as a result of the first wave of COVID-19 outbreak in Thailand. Another factor supporting the growing demand in 2021 was from the export sector which grew in tandem with the economic recovery of the world and Thailand's trading countries. However, the third wave of COVID-19 outbreak in Thailand during the end of 2021 has negatively affected the electricity demand from the business sector. Nevertheless, the uncertainty of Thailand's electricity demand has little effect on the Company's performance, as the Company has power purchase agreements with Electricity Generating Authority of Thailand ("EGAT"). Under such agreements, IPP power plants will receive Availability Payment from EGAT even when the power plants are not required to dispatch electricity, while SPP power plants has a contractual minimum offtake amount from EGAT. Besides, the Company currently sells 86% of its electricity to EGAT, and only 14% of electricity is sold to industrial customers, restraining the impact of COVID-19.

Thai Baht currency situation

In 2021, the Thai Baht largely depreciated against the US Dollar. In Q1'21, Thai Baht depreciated together with other currencies in the region while US Dollar appreciated following the large-scale economic stimulation of the US government. Later in Q2'21 to Q3'21, Thai Baht continued to depreciate from the 3rd round of COVID-19 virus outbreak in Thailand, coupled with the FED's signaling for the possibility of faster interest rate increase. However, in the middle of Q4'21, Thai Baht appreciated from the better economic sentiment due to Thailand's re-opening plan, and depreciated again in December 2021 from the tendency of monetary policy tightening in Developed Markets, along with the outbreak of the Omicron variant of COVID-19 virus in Thailand. Further into 2022, the BOT forecasted that Thai Baht exchange rate has a tendency be volatile from the uncertainty of COVID-19, and the monetary policy of Developed Market countries in the high inflation environment.

However, as the electricity selling price structure for IPP and SPP power plants in Thailand partially correlates with the change in Thai Baht / US Dollar exchange rate, the Group structures its long-term loan for its power plants to be partially in USD, in order for the cash flow received and paid to be in harmonized in terms of currency (natural hedge), as a foreign exchange rate risk hedging method.

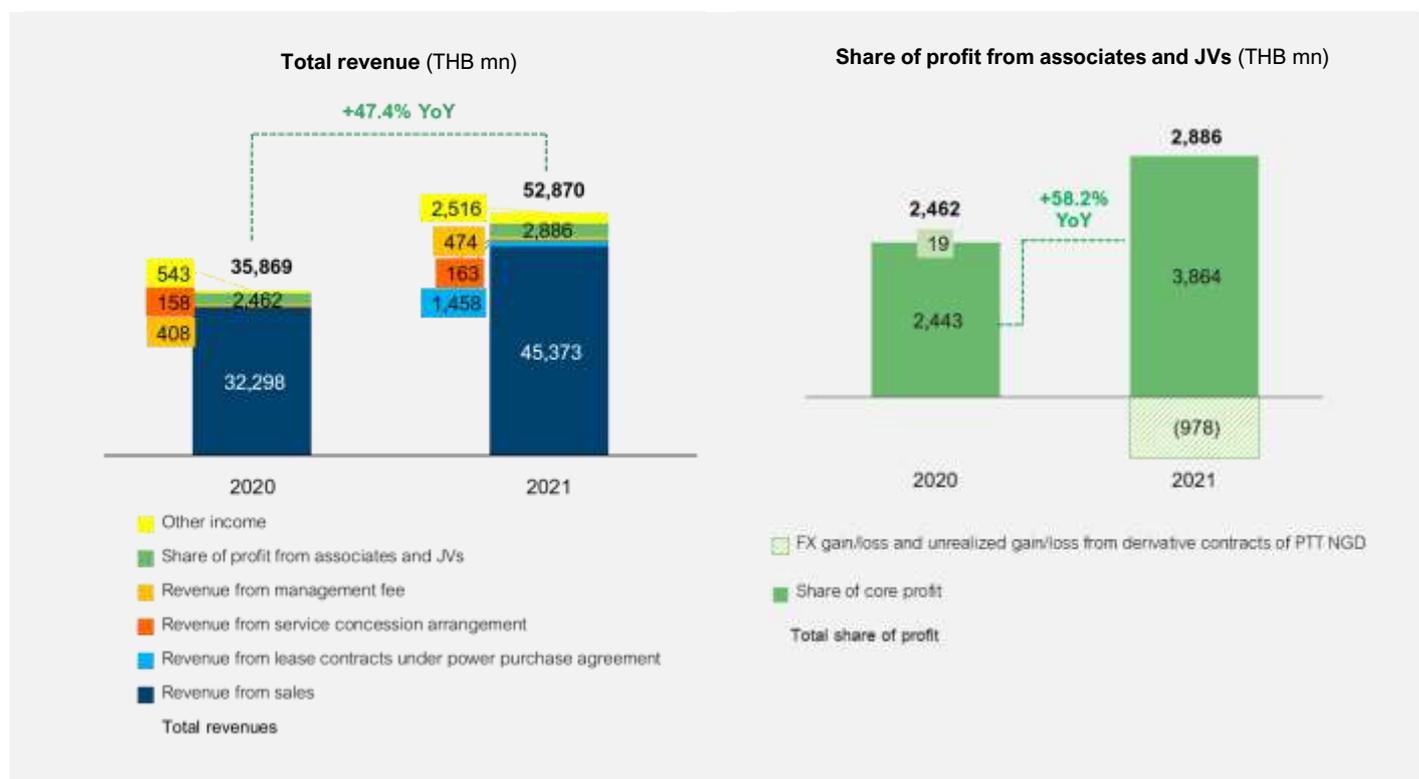
FINANCIAL PERFORMANCE OVERVIEW

	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from sales, lease contracts under power purchase agreement, management fee, and service concession arrangement	9,309	11,903	15,287	28.4%	64.2%	32,863	47,467	44.4%
Share of profit (loss) from associates and JVs	979	175	1,936	1003.6%	97.8%	2,462	2,886	17.2%
Other income	21	1,702	31	-98.2%	46.9%	543	2,516	363.2%
Total revenues	10,309	13,780	17,254	25.2%	67.4%	35,869	52,870	47.4%
EBITDA ⁽¹⁾	4,172	6,034	6,706	11.1%	60.7%	13,462	22,152	64.5%
Profit for the period	2,736	1,679	3,864	130.1%	41.3%	6,144	9,167	49.2%
Profit attributable to owners of the parent	1,844	1,588	3,043	91.6%	65.0%	4,282	7,670	79.1%
Less: gain (loss) on exchange rate attributable to owners of the parent	612	(767)	242	131.6%	-60.4%	(189)	(1,227)	-549.4%
Less: unrealized gain (loss) on derivatives of PTT NGD	(7)	62	73	18.7%	1119.0%	(7)	86	1289.7%
Core Profit ⁽²⁾	1,239	2,293	2,728	18.9%	120.1%	4,478	8,812	96.8%
Share of Core Profit from associates and JVs ⁽³⁾	442	690	1,699	146.1%	284.1%	2,443	3,864	58.2%
Basic earnings per share (THB)	0.16	0.14	0.26	91.6%	60.7%	0.39	0.65	67.6%

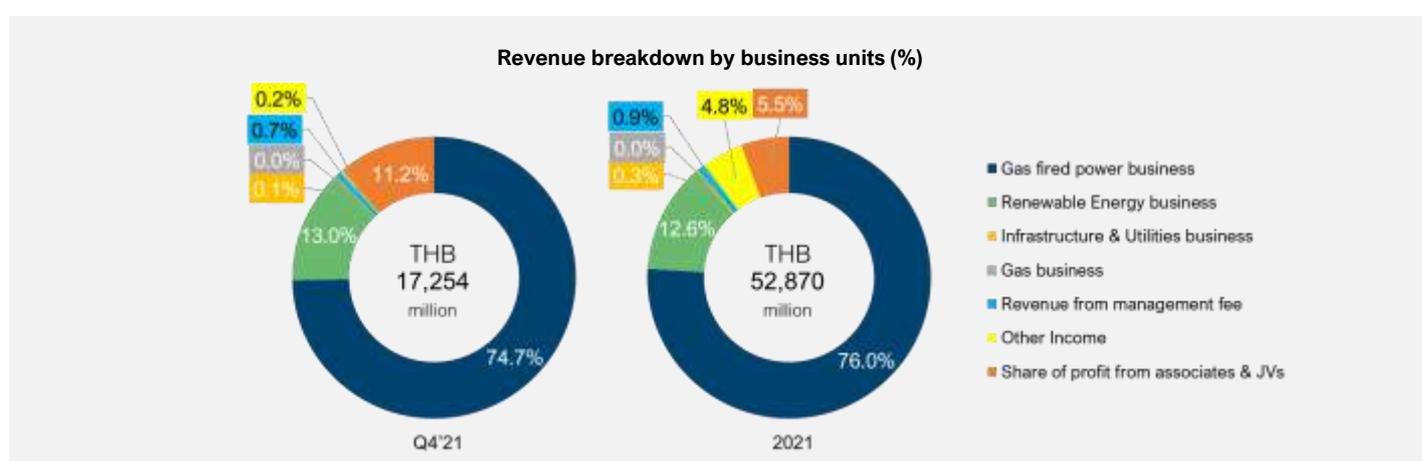
⁽¹⁾ EBITDA = Earnings before Interest, Taxes, Depreciation, and Amortization, gain (loss) on exchange rate of the Company and of GJP and INTUCH, and unrealized gain (loss) on derivatives of PTT NGD

⁽²⁾ Core Profit = profit attributable to owners of the parent before gain (loss) on exchange rate and unrealized gain (loss) on derivatives of PTT NGD

⁽³⁾ Share of Core Profit from associates and JVs = share of profit (loss) from associates and JVs before gain (loss) on exchange rate of GJP and INTUCH and unrealized gain (loss) on derivatives of PTT NGD



Revenue breakdown by Business Unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Gas fired power business	6,964	10,414	12,889	23.8%	85.1%	29,277	40,184	37.3%
Renewable Energy business	2,220	1,317	2,248	70.8%	1.3%	3,021	6,647	120.0%
Infrastructure & Utilities business	27	50	22	-56.6%	-20.3%	158	163	3.3%
Gas business	-	-	-	n.a.	n.a.	-	-	n.a.
Revenue from management fee	98	123	128	3.9%	30.4%	408	474	16.4%
Other income	21	1,702	31	-98.2%	46.9%	543	2,516	363.2%
Share of profit from associates and JVs	979	175	1,936	1003.6%	97.8%	2,462	2,886	17.2%
Total Revenue	10,309	13,780	17,254	25.2%	67.4%	35,869	52,870	47.4%



Total revenue in Q4'21 was recorded at THB 17,254 million, an increase of 67.4% YoY, and 25.2% QoQ. For the year 2021, total revenue was THB 52,870 million, an increase of 47.4% YoY, with the main factors as follows:

- 1) Revenue from Gas-Fired Power business was at THB 12,889 million in Q4'21, and THB 40,184 million for the year 2021, accounting for 76.0% of total revenues for the year.

For Q4'21, revenue increased by 85.1% YoY and 23.8% QoQ, and increased by 37.3% for the year 2021, mainly from the revenue recognition of GSRC units 1-2 since their commercial operation dates on March 31 and October 1, 2021, as well as from the average electricity selling price per unit which increased in line with higher natural gas price. Moreover, GMP group recorded higher electricity and steam sales volume to industrial users.

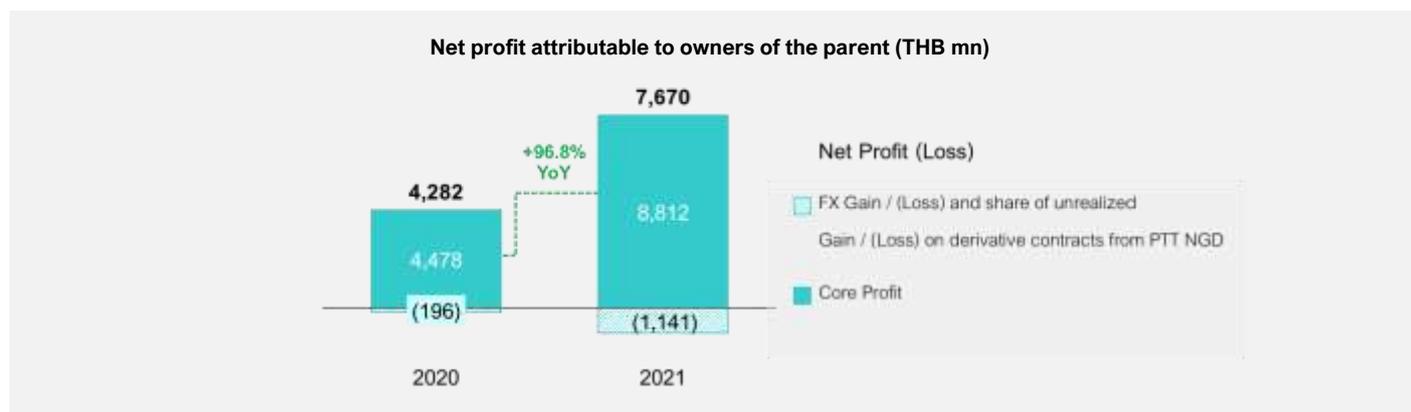
- 2) Revenue from Renewable Energy business was THB 2,248 million in Q4'21, and THB 6,647 million for the year 2021, accounting for 12.6% of total revenues for the year.

For Q4'21, revenue increased 1.3% YoY, primarily due to the depreciation of Thai Baht against US Dollar and Euro currencies, which resulted in the higher selling price per unit booked in Thai Baht from the BKR2 offshore wind power project in Germany and GTN1 and GTN2 solar projects in Vietnam, despite the slightly softened sales volume from the aforementioned projects. However, when compared to Q3'21, revenue increased 70.8% QoQ from the revenue of BKR2 offshore wind power project which entered its high season. For the year 2021 compared to 2020, revenue increased 120.0% YoY, mainly from the full year performance of BKR2 offshore wind project, compared to 1 quarter of performance recognized in 2020, coupled with the full year performance contribution from GCG biomass project which commenced its commercial operation in March 1, 2021.

- 3) Revenue from Infrastructure & Utilities business was THB 22 million in Q4'21, and THB 163 million for the year 2021, accounting for 0.3% of total revenues for the year, from service concession arrangement revenue for the

land reclamation work of MTP3 industrial port development project, which is scheduled to be completed in 2024, and the Company began to recognize such revenue since Q3'20.

- 4) **Revenue from Management Fee was THB 128 million in Q4'21, and THB 474 million for the year 2021, accounting for 0.9% of total revenues for the year** from the revenue received from the provision of management services by the Company to its associate GJP which increased as stipulated in the service agreement, and from services provided to HKP project and SPP power plants under GEC.
- 5) **Other income was THB 31 million in Q4'21, and THB 2,516 million for the year 2021**, mainly from the dividend income from INTUCH of THB 2,349 million which was booked in Q1'21 and Q3'21 following the increase in the Company's investment in INTUCH during the year 2021. However, the Company will record a share of profit from INTUCH instead of dividend income from Q4'21 onwards.
- 6) **Share of profit from associates and JVs was THB 1,936 million in Q4'21, and THB 2,886 million for the year 2021, accounting for 5.5% of total revenues for the year.**
 - **In Q4'21, share of profit increased by 97.8% YoY**, mainly from the recognition of share of profit from INTUCH for the first time, and a share of Core Profit from GJP which increased from the higher Availability Payment revenue due to the depreciation of Thai Baht, despite the share of FX gain and an unrealized gain on derivatives of associates which was recorded in Q4'21 at THB 238 million which was lower than in Q4'20 which recorded a net gain from these items of THB 537 million. However, **when compared with Q3'21, share of profit increased by 1,003.6% QoQ**, mainly from the share of profit from INTUCH. Furthermore, the Company also recorded share of FX gain and an unrealized gain on derivatives of associates in Q4'21, while these items resulted in a net loss of THB 515 million in Q3'21.
 - **For the year 2021 when compared to 2020, share of profit increased by 17.2% YoY** from the recognition of share of profit from INTUCH and higher share of profit from PTT NGD after the Company invested 40% in PTT NGD in December 2020, and increased the equity interest to 42% in April 2021. Share of Core Profit from GJP remained at a similar level as last year. However, in 2021, the Company recorded a net loss of THB 978 million share of FX loss and an unrealized gain on derivatives of associates, compared to in 2020, which recorded THB 19 million net gain from these items.



- **Core Profit in Q4'21 was recorded at THB 2,728 million, and in 2021 was recorded at THB 8,812 million**
 - **For Q4'21, Core Profit increased by 120.1% YoY and 18.9% QoQ**, primarily from the performance of GSRC units 1-2 which commenced commercial operation during the year, and the share of profit from INTUCH which was recorded for the first time in Q4'21. Moreover, when compared to Q3'21, the performance contribution from BKR2 offshore wind project significantly improved due to the seasonal factor.
 - **For the year 2021 compared to 2020, Core Profit increased by 96.8% YoY**, mainly from the commercial operation commencement of GSRC units 1-2, full year performance recorded from the BKR2 offshore wind project, and the improved performance from the power plants under GMP group. Moreover, dividend income

from INTUCH increased from the Company's higher equity interest in INTUCH; however, from October 1, 2021 onwards, the Company will record share of profit from INTUCH as an associate, and will no longer record dividend income from INTUCH in the future. As such, in Q4'21, the Company recorded a share of profit from INTUCH for the first time.

- **Net profit attributable to owners of the parent in Q4'21 was recorded at THB 3,043 million, and in 2021 was recorded at THB 7,670 million**
 - **For Q4'21, Net profit attributable to owners of the parent rose by 65.0% YoY and 91.6% QoQ**, increased in the same direction as the Core Profit; however, in Q4'21, the Company recorded FX gain attributable to owners of the parent and unrealized gain on derivatives of associates totaling of THB 316 million, compared to THB 605 million gain from the items in Q4'20, and THB 705 million loss from the items in Q3'21.
 - **For the year 2021 compared to 2020, Net profit attributable to owners of the parent rose by 79.1% YoY**, increased in the same direction as the Core Profit; however, in 2021, the Company recorded FX loss attributable to owners of the parent and unrealized gain on derivatives of associates totaling of THB 1,141 million loss, compared to THB 196 million loss from the items in 2020. Nonetheless, the recording of such gain(loss) on exchange rate and unrealized gain(loss) on derivatives are accounting transaction which has no impact on the cash flow and performance of the Group at all.

SUMMARY OF THE COMPANY'S FINANCIAL POSITION ENDED DECEMBER 31, 2021

- **Total assets as of December 31, 2021 were equal to THB 362,674 million, an increase of THB 117,093 million (+47.7%)** from December 31, 2020, mainly attributable to the higher investment value in INTUCH, following Company's additional investment in equity interest of INTUCH to 42.25%, and the change in accounting treatment for its investment in INTUCH from other non-current financial asset to investment in associates, which requires the Company to adjust its average acquisition cost of INTUCH to fair value as of the effective date of the change in accounting method.
- **Total liabilities as of December 31, 2021 were equal to THB 255,165 million, an increase of THB 81,664 million or (+47.1%)** from December 31, 2020, mainly from long term loans from financial institutions which were used for the Company's investment in INTUCH, and the issuance of the Company's 1/2021 debentures which was used as working capital for business expansion. GSRC and GPD projects also drew down loans in accordance with the construction progress.
- **Total equity as of December 31, 2021 was THB 107,509 million, an increase of THB 35,429 million or (+49.2%)** from December 31, 2020, from the Company's operating performance, unrealized gain from adjusting average acquisition cost of INTUCH to fair value as of October 1, 2021, and fair value of interest rate swap derivatives, which was measured as required under TFRS 9 and recorded within other components of shareholders' equity.
- **As of December 31, 2021, the Group recorded a net interest-bearing debt (including lease liabilities) to equity ratio at 1.77 times**, which is lower than the Company's bond covenant of 3.50 times.

OPERATING RESULTS BY BUSINESS UNITS

Gas-Fired Power Business Performance

Gas-Fired Power Business	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from electricity sold to EGAT	5,106	8,010	10,078	25.8%	97.4%	22,500	30,745	36.6%
Revenue from electricity sold to industrial users	1,729	1,853	1,921	3.7%	11.1%	6,318	7,323	15.9%
Revenue from steam sold to industrial users	129	160	196	22.6%	52.1%	460	659	43.4%
Revenue from lease contracts under power purchase agreement	-	390	694	78.2%	n.a.	-	1,458	n.a.
Total Revenue from Gas-Fired Power Business	6,964	10,414	12,889	23.8%	85.1%	29,277	40,184	37.3%

Revenue from Sales (Gas-Fired Power business)

In Q4'21, Gas-Fired Power Generation business recorded revenue from sales and lease contracts under power purchase agreement at THB 12,889 million, an increase of 85.1% YoY when compared to Q4'20 mainly due to the recognition of revenue from electricity sales to EGAT and revenue from lease contracts under power purchase agreement according to TFRS 16 from GSRC unit 1-2 projects, after their commercial operation commencement on March 31 and October 1, 2021. In addition, 12SPPs under GMP group recorded a higher revenue from electricity sold to EGAT and industrial users, which were in line with the higher electricity and steam sales volume to industrial users, both from the existing customers and from the Company's customer base expansion. Apart from the higher electricity sales volume, Energy Payment revenue for the Gas-Fired Power Generation business group also increased in line with the natural gas price, as the gas cost for SPP power plants rose from 214.03 THB/mmbtu in Q4'20 to 336.74 THB/mmbtu in Q4'21 (+57.3% YoY).

Compared to Q3'21, Gas-Fired Power Generation business recorded 23.8% QoQ higher revenue from sales and lease contracts under power purchase agreement, mainly due to the commercial operation commencement of GSRC unit 2 project on October 1, 2021. Moreover, the revenue from electricity and steam sales from Gas-Fired Power Generation business also increased in tandem with the higher natural gas price (the cost of natural gas of SPPs increased from 268.61 THB/mmbtu in Q3'21 to 336.74 THB/mmbtu in Q4'21 (+25.4% QoQ)), resulting in the higher Energy Payment revenue as well. Nevertheless, the electricity sales volume to EGAT of GMP group softened by 6.8% as there were 2 planned maintenance shutdown (B-inspection) in Q4'21, compared to the previous quarter where there was no power plant which underwent B-inspection. Nevertheless, electricity sales of GSRC group slightly declined from the weakened electricity demand in the country, causing EGAT to dispatch less electricity.

For the year 2021, revenue from sales and lease contracts under power purchase agreement for the Gas-Fired Power Generation business was recorded at THB 40,184 million, an increase of 37.3% YoY, primarily resulted from the commercial operation commencement of GSRC unit 1-2 projects as previously mentioned, and revenue from the 12SPPs under GMP group which increased from the higher electricity and steam sales volume, as the industrial users' load factor rose from 56% in 2020 to 60% in 2021, mainly increased in electronics components, automotive, packaging, and steel sectors. Moreover, the electricity and steam selling price per unit also increased in tandem with the higher natural gas price, as the SPPs gas cost increased from 244.51 THB/mmbtu in 2020 to 266.02 THB/mmbtu in 2021 (+8.8% YoY)

Revenue drivers for Gas-Fired Power Generation business

Electricity and steam sales volume	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
Power projects under GMP								
Electricity sold to EGAT (GWh)	1,854	1,983	1,848	-6.8%	-0.3%	7,541	7,559	0.2%
Electricity sold to IUs (GWh)	519	568	592	4.2%	14.1%	1,914	2,238	16.9%
Steam sold (tons)	180,262	163,081	183,044	12.2%	1.5%	649,497	713,329	9.8%
Power projects under IPD								
Electricity sold to EGAT (GWh)	-	878	857	-2.4%	n.a.	-	2,946	n.a.

Average selling price per unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
Power projects under GMP								
Electricity sold to EGAT (THB/kWh)	2.74	3.17	3.75	18.3%	36.9%	2.98	3.16	6.1%
Electricity sold to IUs (THB/kWh)	3.21	3.21	3.26	1.4%	1.5%	3.26	3.20	-1.6%
Steam sold (THB/ton)	640.6	962.5	1,050.1	9.1%	63.9%	701.03	908.10	29.5%
Power projects under IPD								
Electricity sold to EGAT (THB/kWh)	-	2.08	4.58	120.0%	n.a.	-	2.76	n.a.

Renewable Energy Business Performance

Renewable Energy Business	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
	<i>THB mn</i>	<i>THB mn</i>	<i>THB mn</i>			<i>THB mn</i>	<i>THB mn</i>	
Revenue from electricity sold to EGAT and PEA	177	184	172	-6.1%	-2.7%	569	698	22.8%
Revenue from electricity sold to IUs	-	0.3	0.6	136.7%	n.a.	-	0.8	n.a.
Revenue from electricity sold to EVN	117	126	120	-4.5%	2.8%	526	494	-6.1%
Revenue from electricity sold to Ørsted Energy	1,926	1,007	1,947	93.4%	1.1%	1,926	5,445	182.7%
Revenue from Solar Rooftop construction for IUs	-	0.3	8	3113.6%	n.a.	-	8	n.a.
Total Revenue from Renewable Energy Business	2,220	1,317	2,248	70.8%	1.3%	3,021	6,647	120.0%

Revenue from Sales (Renewable Energy business)

In Q4'21, the Renewable Energy business recorded revenue from sales at THB 2,248 million, an increase of 1.3% YoY compared to Q4'20. The revenue of BKR2 offshore wind power project in Germany was recorded at a similar level as in Q4'20, as the selling price per unit in Thai Baht-equivalent increased from the exchange rate of Thai Baht against Euro currency which was weaker in Q4'21 compared to Q4'20. The higher selling price per unit was able to compensate the sales volume which was slightly lower from the decreased wind speed, and the Capacity Factor in Q4'21 was recorded at 47.5% compared to 52.7% in Q4'20. Nevertheless, the curtailment of BKR2 project did not have any effect on the Company's revenue as BKR2 project received full compensation for the total amount of electricity that was affected as if there were no curtailment.

For GTN1 & GTN2 solar power projects in Vietnam, revenue from electricity sold to EVN increased by 2.8% YoY from the depreciation of Thai Baht against US Dollar which resulted in the higher selling price per unit when converted to Thai Baht, although the electricity sales volume in Vietnam was softened from the temporary curtailment, as a result of the COVID-19 outbreak which led to stricter lock down measures in Vietnam when compared to the same period of last year.

Revenue contribution of GCG biomass power project in Thailand slightly decreased from last year's, in line with the electricity sales volume which decreased 3.8% YoY, as the project underwent a short-period maintenance for 2 days.

Furthermore, in 2021 the Company started to recognize revenue contribution from solar rooftop projects under the Company's subsidiary, GULF1, both from the electricity sales from the projects that started commercial operation, and the Revenue from Solar Rooftop construction for industrial users.

Compared to Q3'21, revenue from sales of Renewable Energy business increased by 70.8% QoQ mainly due to the performance of BKR2 offshore wind project in Germany which significantly recovered due to seasonal factor, as the performance in the previous quarter softened from the nature of the project's seasonality, while the 4th quarter is the high season. In Q4'21, BKR2's capacity factor was at 47.5% compared 24.7% in Q3'21.

However, electricity sales revenue of the GTN1 & GTN2 solar power plant projects in Vietnam softened by 4.5% QoQ with higher impacts from the curtailment as the COVID-19 outbreak was more severe in Q4'21, resulting in a more serious lock down measure and hence the weaker demand for electricity.

GCG biomass project recorded lower revenue from electricity sales which was in line with the lower volume of electricity sales by 6.9% QoQ, resulted from the aforementioned maintenance period.

For the year 2021 compared to 2020, revenue from sales of Renewable Energy business was recorded at THB 6,647 million (+120.0% YoY), majorly a result of the full year revenue recognition of the BKR2 offshore wind project in Germany, following the Company's investment in 50% of the project's equity interest on September 24, 2020. As for the GTN1 and GTN2 solar power project in Vietnam, the revenue declined by 6.1% from the effect of the curtailment following the strict lock down measure in the country. However, the GCG biomass project in 2021 recorded a higher sales revenue from the full year operation, after the project commenced commercial operation on March 1, 2020.

Revenue drivers for Renewable Energy business

Electricity sales volume	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
GCG biomass power project								
Electricity sold to EGAT (GWh)	44	46	42	-6.9%	-3.8%	138	173	25.0%
GTN1 & GTN2 solar power projects in Vietnam								
Electricity sold to EVN (GWh)	41	40	35	-12.1%	-13.5%	180	161	-10.3%
BKR2 offshore wind power project								
Electricity sold (GWh)	541	251	483	92.5%	-10.7%	541	1,348	149.2%
Compensation (GWh)	39	29	73	156.5%	87.9%	39	217	456.4%

Average selling price per unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
GCG biomass power project								
Electricity sold to EGAT (THB/kWh)	3.98	4.01	4.04	0.7%	1.5%	4.08	4.01	-1.6%
GTN1 & GTN2 solar power projects in Vietnam								
Electricity sold to EVN (THB/kWh)	2.90	3.11	3.17	1.8%	9.2%	2.93	3.01	2.7%
BKR2 offshore wind power project								
Electricity sold (THB/kWh)	6.71	7.14	7.04	-1.5%	4.8%	6.71	6.94	3.4%

Infrastructures & Utilities Business Performance

Infrastructures & Utilities Business	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from service concession arrangement	27	50	22	-56.6%	-20.3%	158	163	3.3%

In Q4'21, the Infrastructures & Utilities Business recorded revenue from service concession arrangement of THB 22 million, a revenue from service concession arrangement for the land reclamation work of MTP3 industrial port development project, which is scheduled to be completed in 2024, and began to be recognized in the Company's financial statement since Q3'20 in accordance with the Thai Financial Reporting Standards (TFRIC) 12. The revenue from service concession arrangement reduced 20.3% YoY and 56.6% QoQ, in line with the lower land reclamation cost in the quarter. However, for the year 2021 when compared to 2020, revenue from service concession arrangement increased by 3.3% YoY, in accordance with the project's development progress.

REVENUE FROM MANAGEMENT FEE

Revenue from Management Fee	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Revenue from Management Fee	98	123	128	3.9%	30.4%	408	474	16.4%

In Q4'21, Revenue from Management Fee was recorded at THB 128 million, an increase of 30.4% YoY and 3.9% QoQ, and for the year 2021 was recorded at 474 THB million, an increase of 16.4%, from the revenue received from the provision of management services by the Company to its associate GJP which increased as stipulated in the service agreement, and from services provided to HKP project and SPP power plant under GEC.

OTHER INCOME

Other Income	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Dividend income	-	1,681	-	n.a.	n.a.	440	2,426	451.1%
Interest income	19	20	27	37.7%	41.4%	83	83	-0.1%
Other income	2	1	3	192.4%	115.3%	20	8	-61.9%
Total Other Income	21	1,702	31	-98.2%	46.9%	543	2,516	363.2%

In Q4'21, other income was recorded at THB 31 million, an increase of 46.9% YoY when compared to Q4'20, primarily from the interest income from the service concession arrangement of MTP3 industrial port development project. However, when compared to Q3'21, other income decreased by 98.2% QoQ mainly from the absence of dividend income from INTUCH at THB 1,666 million which was recorded in Q3'21, while there is no dividend income recorded in Q4'21.

For the year 2021, other income was recorded at THB 2,516 million, an increase of 363.2% YoY mainly increased from dividend income from INTUCH which was recorded in 2021 of THB 2,349 million, compared to THB 440 million in the previous year, a result of the Company's increased equity interest in INTUCH. However, since October 1, 2021, the Company will record performance contribution from INTUCH as a share of profit from associate, and will no longer record dividend income from INTUCH in the future.

COST AND EXPENSE STRUCTURE

Cost of sales structure	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Cost of sales	5,870	8,848	10,815	22.2%	84.2%	23,369	34,027	45.6%
<i>Fuel cost</i>	3,936	6,774	8,669	28.0%	120.3%	17,631	25,749	46.0%
<i>Operations and maintenance cost</i>	436	483	485	0.4%	11.3%	1,202	1,973	64.1%
<i>Depreciation</i>	1,177	1,231	1,229	-0.1%	4.4%	3,281	4,830	47.2%
<i>Others</i>	321	360	431	19.9%	34.6%	1,255	1,474	17.5%
Cost of service concession arrangement	25	42	20	-51.8%	-20.2%	146	146	0.2%
Cost of service	48	54	55	2.4%	15.6%	187	215	14.8%
Total cost of sales and service	5,943	8,944	10,890	21.8%	83.2%	23,702	34,388	45.1%
Selling and administrative expenses	878	589	692	17.6%	-21.2%	2,116	2,297	8.6%
Total operating costs and administrative expenses	6,821	9,533	11,582	21.5%	69.8%	25,782	36,685	42.3%

Cost of sales

Cost of sales in Q4'21 was THB 10,815 million, an increase from the same period of last year by 84.2% YoY, mainly increased in the fuel cost, due to the higher fuel consumption volume and the higher fuel cost per unit, as the average cost of natural gas for SPP power plants rose 57.3% YoY. At the same time, the commercial operation commencement of GSRC unit 1-2 projects on March 31 and October 1, 2021 also resulted in the higher fuel cost, operations and maintenance cost, and depreciation cost recognized into the Company's consolidated financial statement. Moreover, the fuel cost was higher from the power plants under GSRC group which partially used diesel oil for its operation for some period in the quarter, and the power plants under GMP group which recorded higher fuel consumption in tandem with the higher sales volume.

Compared to Q3'21, cost of sales increased by 22.2% QoQ. The fuel cost escalated from the higher fuel consumption following the commercial operation of GSRC unit 2 project which commenced commercial operation on October 1, 2021, coupled with the higher natural gas cost (average cost of natural gas per unit for SPP power plants increased 25.4% QoQ). Moreover, the usage of diesel oil as a source of fuel for GSRC group for some period also contributed to the higher fuel cost for the Company's group as well.

For the year 2021, Cost of sales increased by THB 45.6% YoY, a result of the GSRC unit 1-2 projects which commenced their commercial operation during the year 2021, and the recognition of BKR2 offshore wind project's costs for the full year, after the Company invested in 50% equity interest of the project in September 2020. Furthermore, natural gas cost for the Gas-Fired Power Generation Business also increased (average cost of natural gas per unit for SPP power plants increased 8.8% YoY), and the power plants under GMP group recorded an increased fuel consumption which was in line with the higher sales volume.

Cost drivers

Consumption and average cost per unit	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			
Natural gas (SPP under GMP)								
Consumption (thousand mmbtu)	17,959	19,162	18,255	-4.7%	1.6%	71,104	73,755	3.7%
Average cost per unit (THB/mmbtu)	214.03	268.61	336.74	25.4%	57.3%	244.51	266.02	8.8%
Natural gas and Diesel (IPP under GSRC)								
Natural gas consumption (thousand mmbtu)	-	5,589	4,468	-20.1%	<i>n.a.</i>	-	17,685	<i>n.a.</i>
Natural gas average cost per unit (THB/mmbtu)	-	259.17	327.41	26.3%	<i>n.a.</i>	-	263.47	<i>n.a.</i>
Diesel consumption (thousand litres)	-	-	30,445	<i>n.a.</i>	<i>n.a.</i>	-	30,445	<i>n.a.</i>
Diesel average cost per unit (THB/litre)	-	-	28.12	<i>n.a.</i>	<i>n.a.</i>	-	28.12	<i>n.a.</i>
Biomass (Wood)								
Consumption (ton)	81,877	74,589	83,041	11.3%	1.4%	239,364	296,865	24.0%
Average cost per unit (THB/ton)	1,202	996	1,047	5.1%	-12.9%	1,117	1,088	-2.6%

Cost of construction fee under concession arrangement

Cost of construction fee under service concession arrangement is a cost incurred from MTP3 industrial port development project for the infrastructure part which is recorded in accordance with TFRIC 12 standard. **In Q4'21, cost of construction fee under service concession arrangement was THB 20 million, a decrease of 20.2% YoY and 51.8% QoQ**, reduced from the lower land reclamation cost. However, **for the year 2021, cost of construction fee under service concession arrangement was THB 146 million, an increase of 0.2% YoY**, grew in tandem with the progress of project development.

Cost of service

Cost of service is a cost incurred from the Company providing management services to its associate GJP, to HKP, and to SPPs under GEC Group. **In Q4'21, cost of service was THB 55 million, an increase of 15.6% YoY and 2.4% QoQ**, mainly from a higher personnel related cost. **For the year 2021, cost of service was THB 215 million, increased by 14.8% YoY when compared to 2020** mainly from the services provided to HKP power plant project and the higher personnel related cost.

Administrative expenses

In Q4'21, administrative expenses were THB 692 million, a decrease of 21.2% YoY, as there was a one-time expense related to BKR2 offshore wind farm acquisition recorded in the same period of last year. However, **when compared to Q3'21, administrative expenses increased by 17.6% QoQ, and for the year 2021, administrative expenses was recorded at THB 2,297 million, an increase of 8.6% YoY**, due to recognition of administrative expenses which increased in line with the growing number of power plants under the Group.

FINANCE COSTS

Finance costs	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Interest expense	970	1,311	1,618	23.4%	66.8%	3,358	5,000	48.9%
Guarantee fee	9	10	9	-8.6%	2.6%	22	37	70.5%
Arrangement fee	14	300	32	-89.4%	127.8%	55	361	555.5%
Commitment fee	36	87	22	-74.9%	-40.0%	160	162	1.2%
Other costs	11	46	57	23.9%	400.2%	70	35	-49.6%
Total finance costs	1,040	1,753	1,737	-0.9%	67.0%	3,665	5,596	52.7%

Finance costs in Q4'21 were THB 1,737 million, an increase of 67.0% YoY and for the year 2021 finance costs were THB 5,596 million, an increase of 52.7% YoY, from the higher interest expense and fees related to the long-term loans from financial institutions which were used for the Company's additional investment in INTUCH. Furthermore, there were interest expenses added from the Company's recent debenture issuance, and the finance cost of the GSRC unit 1-2 projects which were booked after the projects' commercial operation commencement.

When compared to Q3'21, finance costs reduced by 0.9% QoQ, as in the previous quarter, there was a one-time loan arrangement fee for the long-term loans used for the Company's additional investment in INTUCH, resulting in the total finance costs for Q3'21 to be abnormally high. However, in Q4'21 there was additional interest expense for the Company's 1/2021 debenture which was booked for the full quarter, after being issued in September 2021. When combining the two aforementioned factors, the Company's total finance cost in Q4'21 remain unchanged from the previous quarter.

SHARE OF PROFIT FROM ASSOCIATES & JOINT VENTURES

The Group recorded a share of profit from associates and joint ventures of THB 1,936 million in Q4'21. If excluding the impact from GJP's gain on exchange rate of THB 152 million, which incurred from translating long-term debts denominated in USD to Thai Baht using the exchange rate at the end of the accounting period, INTUCH's gain on exchange rate of THB 12 million, and unrealized gain on derivatives of PTT NGD of THB 73 million, share of Core Profit from associates and JVs in Q4'21 was THB 1,699 million, an increase of 284.1% YoY and 146.1% QoQ.

For the year 2021, share of profit from associates and joint ventures was recorded at THB 2,886 million. If excluding the impact from GJP's loss on exchange rate of THB 1,076 million, INTUCH's gain on exchange rate of THB 12 million and unrealized gain on derivatives of PTT NGD of THB 86 million, share of Core Profit from associates and JVs in 2021 was THB 3,864 million, an increase of 58.2% YoY, with the contributing factors as follows;

Share of profit from associates and JVs	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Share of profit from INTUCH	-	-	1,105	n.a.	n.a.	-	1,105	n.a.
Share of profit from GJP	977	34	676	1869.4%	-30.9%	2,487	1,370	-44.9%
Share of profit from PTTNGD	3	129	105	-18.6%	3378.5%	3	300	9819.6%
Share of profit from GJP1	-	-	0	n.a.	n.a.	-	0	n.a.
Share of profit from Gulf WHA MT	1	1	1	27.6%	-32.2%	(1)	3	403.4%
Share of profit from BSE	(0)	(0)	(0)	-2.8%	-1133.3%	(7)	(1)	80.7%
Share of profit from HKH	(2)	(2)	(6)	-155.1%	-264.7%	(8)	(14)	-88.4%
Share of profit from BPH	0	0	0	70.6%	61.1%	1	1	13.6%
Share of profit from BGSR 6	0	(0)	(2)	-609.1%	-1400.0%	0	(2)	-1441.4%
Share of profit from BGSR 81	0	(0)	(2)	-558.3%	-1680.0%	0	(2)	-1774.5%
Share of profit from GPC	-	-	(0)	n.a.	n.a.	-	(0)	n.a.
Share of profit from GMIM	-	5	42	766.8%	n.a.	-	88	n.a.
Share of profit from a project in Oman	(1)	10	18	86.3%	1332.4%	(13)	38	384.6%
Total share of profit from associates and JVs	979	175	1,936	1003.5%	97.8%	2,462	2,886	17.2%
Less: Gain (loss) on exchange rate from INTUCH's share of profit	-	-	12	n.a.	n.a.	-	12	n.a.
INTUCH's share of Core Profit	-	-	1,093	n.a.	n.a.	-	1,093	n.a.
Less: Gain (loss) on exchange rate from GJP's share of profit	544	(577)	152	126.4%	-72.0%	26	(1,076)	-4162.6%
GJP's share of Core Profit	433	611	523	-14.4%	20.7%	2,461	2,446	-0.6%
Less: Unrealized gain (loss) on derivatives of PTT NGD	(7)	62	73	18.7%	1119.0%	(7)	86	1289.7%
PTT NGD's share of Core Profit	10	67	32	-52.9%	210.0%	10	214	1993.1%
Total share of Core Profit from associates and JVs	442	690	1,699	146.1%	284.1%	2,443	3,864	58.2%

Share of profit from an associate GJP

Share of profit from an associate GJP before gain (loss) on exchange rate in Q4'21 was THB 523 million (+20.7% YoY), although the power plants under GJP group recorded lower volume of electricity sold to EGAT, but the depreciation of Thai Baht against US Dollar when compared to the same period of last year had led to the higher Availability Payment. However, the 7SPPs under GJP group recorded a softened performance which was affected by the natural gas price which increased at a higher rate than the electricity selling price, as the natural gas cost rose by 57.3% YoY, while the average electricity selling price to EGAT and industrial users increased by 38.5% and 1.5%, respectively. Nevertheless, the volume of electricity and steam sold to industrial users from the 7SPPs was able to expand, especially in the textiles, food & beverages, and electronic components sectors.

Compared to Q3'21, share of Core Profit from an associate GJP softened by 14.4% QoQ, mainly reduced from the performance of the 7SPPs which was pressured by the natural gas price which increased at a higher rate than the electricity selling price (the natural gas cost of SPPs increased by 25.4% QoQ, while the average electricity selling price to EGAT and industrial users increased by 20.3% and 1.4%, respectively). Nonetheless, the volume of electricity and steam sold from the 7SPPs remained stable from the previous quarter.

For the year 2021, share of Core Profit from an associate GJP was THB 2,446 million, a level similar from the previous year. The electricity and steam sales volume to industrial users which grew from the previous quarter was able to fully compensate the softened performance of the 7SPPs which was affected by the cost of natural gas which increased at a higher rate than the average electricity selling price per unit, and the sales volume to EGAT which slightly reduced from last year.

Volume of electricity, steam and chilled water sold by power projects under GJP

Volume of electricity, steam and chilled water sold	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
				%QoQ	%YoY			%YoY
2 IPPs								
Electricity sold to EGAT (GWh)	673	301	570	89.3%	-15.3%	5,476	5,392	-1.5%
7 SPPs								
Electricity sold to EGAT (GWh)	1,093	1,126	1,085	-3.7%	-0.7%	4,427	4,363	-1.4%
Electricity sold to industrial users (GWh)	281	290	287	-1.0%	2.0%	1,105	1,168	5.7%
Steam sold (tons)	78,019	82,376	82,595	0.3%	5.9%	291,606	336,860	15.5%
Chilled water sold (million refrigeration tons)	7	7	6	-13.1%	-9.0%	25	27	8.0%

Share of profit from an associate PTT NGD

Share of Core Profit from an associate PTT NGD was recorded at THB 32 million in Q4'21, an increase of 210.0% YoY. The Company started realizing share of profit from PTT NGD after invested in 40% of the shares in December 2020, and increased the investment to 42% in April 2021. **When compared with Q3'21, core profit from an associate PTT NGD decreased 52.9% QoQ,** a result of the lower gross margin per unit which reduced by 38% QoQ due to the cost which increased at a higher rate than the selling price. However, the sales volume in Q4'21 was at 8.3 million mmbtu (+6.4% QoQ). Nevertheless, in Q4'21, PTT NGD recorded THB 73 million unrealized gain on derivative contracts which was entered to hedge against fluctuations of the selling price, resulting from the fuel oil price that increased to a higher level in the previous quarter, compared to THB 62 million unrealized gain on derivative contracts of in Q3'21.

For the year 2021, share of Core Profit from an associate PTT NGD was recorded at THB 214 million, with gas sales volume recorded at 31.9 million mmbtu, and unrealized gain on derivative contracts of THB 86 million.

Share of profit from an associate INTUCH

Share of Core Profit from an associate INTUCH was recorded for the first time in Q4'21 at THB 1,093 million, after the Company's increased its equity interest in INTUCH to 42.25% on August 4, 2021, followed by INTUCH's Extraordinary General Meeting of Shareholders No. 1/2021 which has passed the resolution to appoint 4 of GULF's representatives to be INTUCH's directors, effective as of October 1, 2021, resulting in the Company realizing performance from INTUCH as an associate from October 1, 2021 onwards.

GAIN / LOSS FROM EXCHANGE RATE

Gain (loss) on exchange rate primarily results from loans of the power projects under the GMP and IPD group that were denominated in a foreign currency (USD), which the Group is required to record unrealized gain (loss) on exchange rate incurred from translating long-term debts denominated in USD to Thai Baht using the exchange rate at the end of the accounting period. In cases where the Thai Baht appreciates against USD, the Group will record a gain on exchange rate, as the Group's amount of outstanding debts converted to Thai Baht is lower. The reverse will occur if the Thai Baht depreciates against USD. However, since the long-term debts have not reached the due dates yet, such gain (loss) on exchange rate is only recognized as unrealized gain (loss).

Moreover, in Q3'20, the Company has granted a loan in EUR to its subsidiary GIH, which incorporated in Singapore, to invest in BKR2 offshore wind project, and at the same time partially entered into Cross Currency Swap (CCS) agreements to hedge against exchange rate fluctuations, causing the Company to recognize unrealized gain(loss) from exchange rate from converting EUR denominated loan to related party to THB, and mark to market the fair value of the CCS at the end of each accounting period. In cases where the Thai Baht appreciates against EUR, the Group will record a loss on exchange rate, as the Group's amount of outstanding loan to related parties converted to Thai Baht is lower. The reverse will occur if the Thai Baht depreciates against EUR. Currently, GIH has a EUR denominated loan from the Company in the higher amount than the loan GIH has given to BKR2. However, as the accounting standard requires that foreign currency denominated financial assets and loans, which is not in the functional currency of each country that a company is incorporated in, to be translated to income statement, GIH which has functional currency in USD but has debtor and loan

payable in EUR, must also record unrealized gain (loss) from foreign exchange for the items. As a result, exchange rate between USD and EUR affects the Company's consolidated financial statement as well. In cases where the USD depreciates against EUR, GIH will record an unrealized loss on exchange rate, and the reverse will occur if the USD appreciates against EUR.

At the end of Q4'21, Thai Baht appreciated against USD by 0.498 THB/USD, and appreciated against EUR by 1.468 THB/EUR compared to Q3'21, resulting in the Group to record unrealized gain on exchange rate on USD denominated loan and unrealized loss on EUR denominated loan that the Company granted to GIH. Nonetheless, USD appreciated against EUR by 0.03 USD/EUR compared to Q3'21, resulting in GIH to record a net unrealized gain on the exchange rate difference between EUR denominated debtors and loan payable, resulting in the Group to record a net gain on exchange rate in Q4'21 of THB 237 million.

In Q4'21, a total unrealized gain on exchange rate attributable to the owners of the parent was recorded at THB 242 million, comprised of THB 164 million gain on exchange rate from the associate GJP and INTUCH, and THB 78 million gain on exchange rate from the Company and its subsidiaries.

For the year 2021, the group realized a total unrealized loss on exchange rate at THB 1,075 million, a result of the depreciation of Thai Baht against USD by 3.3861 THB/USD when compared to the end of 2020. Although the Company recorded a gain from the depreciation of Thai Baht against EUR by 1.0134 THB/EUR, and an unrealized gain on the exchange rate difference between EUR denominated debtors and loan payable of GIH from the appreciation of USD against EUR by 0.0975 USD/EUR. In summary, **for 2021, a total unrealized loss on exchange rate attributable to the owners of the parent was recorded at THB 1,227 million**, comprised of THB 1,064 million loss on exchange rate from the associate GJP and INTUCH, and THB 163 million loss on exchange rate from the Company and its subsidiaries.

Gain (loss) on exchange rate	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Gain (loss) on exchange rate	455	(725)	237	132.7%	-47.8%	(134)	(1,075)	-703.5%
Less: Gain (loss) on exchange rate attributable to non-controlling interests	387	(535)	159	129.8%	-58.8%	89	(912)	-1125.8%
Gain (loss) on exchange rate attributable to the owners of the parent	68	(190)	78	141.0%	14.6%	(215)	(163)	24.4%
Add: Gain (loss) on exchange rate attributable to share of profit from an associate	544	(577)	164	128.5%	-69.8%	26	(1,064)	4117.5%
Total gain (loss) from exchange rate attributable to owners of the parent	612	(767)	242	131.6%	-60.4%	(189)	(1,227)	-549.4%

FX Rate at End of Period

	(THB / USD)	(THB / EUR)	(USD / EUR)*
Q3'20	31.8258	36.7782	-
Q4'20	30.2068	36.4949	1.2290
Q1'21	31.5052	36.3346	1.1706
Q2'21	32.2219	37.7588	1.1902
Q3'21	34.0908	38.9765	1.1604
Q4'21	33.5929	37.5083	1.1315

*Based on the exchange rate in Singapore.

PROFIT

Profit for the period	Q4'20	Q3'21	Q4'21	Change		2020	2021	Change
	THB mn	THB mn	THB mn	%QoQ	%YoY	THB mn	THB mn	%YoY
Gross profit	3,367	2,959	4,397	48.6%	30.6%	9,161	13,079	42.8%
<i>Gross profit from sales and lease contracts under power purchase agreement</i>	3,314	2,882	4,323	50.0%	30.4%	8,929	12,804	43.4%
<i>Gross profit from service from concession arrangement</i>	2	8	2	-80.5%	-20.3%	12	17	42.3%
<i>Gross profit from management services</i>	50	69	73	5.2%	44.6%	220	259	17.7%
EBITDA ⁽¹⁾	4,165	6,034	6,706	11.1%	60.7%	13,462	22,152	64.5%
Profit for the period	2,736	1,679	3,864	130.1%	41.3%	6,144	9,167	49.2%
Profit attributable to owners of the parent	1,844	1,588	3,043	91.6%	65.0%	4,282	7,670	79.1%
Less: Gain (loss) on exchange rate attributable to owners of the parent	612	(767)	242	131.6%	-60.4%	(189)	(1,227)	-549.3%
Less: unrealized gain (loss) on derivatives of PTT NGD	(7)	62	73	18.7%	1119.0%	(7)	86	1289.7%
Core Profit⁽²⁾	1,239	2,293	2,728	18.9%	120.1%	4,478	8,812	96.8%
<i>Gross profit margin (sales)</i>	36.1%	24.6%	28.6%	4.0%	-7.5%	27.6%	27.3%	-0.3%
<i>Gross profit margin (services)</i>	51.4%	56.3%	56.9%	0.7%	5.6%	54.0%	54.6%	0.6%
<i>EBITDA margin</i>	40.5%	43.8%	38.9%	-4.9%	-1.6%	37.5%	41.9%	4.4%
<i>Net profit margin⁽³⁾</i>	17.9%	11.5%	17.6%	6.1%	-0.2%	11.9%	14.5%	2.6%
<i>Net profit for the period / Total revenue (excl. share of profit from associates and JVs)</i>	29.3%	12.3%	25.2%	12.9%	-4.1%	18.4%	18.3%	-0.1%
<i>Core Profit margin</i>	12.0%	16.6%	15.8%	-0.8%	3.8%	12.5%	16.7%	4.2%

⁽¹⁾ EBITDA = Earnings before Interest, Taxes, Depreciation, and Amortization, gain (loss) on exchange rate of the Company and of GJP and INTUCH, and unrealized gain (loss) on derivatives of PTT NGD

⁽²⁾ Core Profit = profit attributable to owners of the parent before gain (loss) on exchange rate and unrealized gain (loss) on derivatives of PTT NGD

⁽³⁾ Net profit margin = profit attributable to owners of the parent / Total Revenue

Gross profit

Gross profit in Q4'21 was THB 4,397 million, an increase of 30.6% YoY compared to Q4'20, mainly increased from the gross profit from sales and lease contracts under power purchase agreement, from the profit recognition of GSRC unit 1-2 projects after its commercial operation date on March 31 and October 1, 2021, which could entirely compensate the softened gross profit margin from sales which was pressured by the higher natural gas cost. (natural gas cost for SPP power plants rose by 57.3% YoY, while the average electricity selling price per unit to EGAT and industrial users increased 36.9% YoY and 1.5% YoY, respectively). Nonetheless, as 86% of the Company's electricity is sold to EGAT with the natural gas cost being entirely passed through in the selling price to EGAT, and only 14% of the electricity is being sold to industrial users, the impact of the higher natural gas price to the Company's performance is limited. However, gross profit from services increased by 44.6% YoY from the higher revenue from management fee from the provision of management services by the Company to its associate GJP, HKP, and power plants under GEC group.

Compared to Q3'21, gross profit grew by 48.6% QoQ. Gross profit from sales and lease contracts increased from the performance of BKR2 offshore wind project which substantially recovered from the previous quarter (+99.0% QoQ) due to the seasonal factor. Also, wind power projects have a lower cost of sales by nature when compared to gas-fired power projects. Moreover, the Gas-fired Power business received a higher Availability Payment from the commercial operation commencement of the GSRC unit 2 project, despite the slightly softened electricity sales volume of the GSRC group. From the factors mentioned, gross profit margin from sales was able to increase by 4.0% QoQ, although being pressured by the natural gas price which increased at a higher rate than the electricity selling price. (natural gas cost per unit of the SPP power projects under GMP group increased by 25.4% QoQ, while the electricity selling price to EGAT and industrial users increased by 18.3% QoQ and 1.4% QoQ, respectively). Nevertheless, gross profit from services grew 5.2% QoQ from the revenue from management fee for an associate GJP, HKP, and power plants under GEC group as mentioned earlier.

For the year 2021, gross profit was THB 13,079 million, an increase of 42.8% YoY, from the profit recognition from GSRC unit 1-2 projects which commenced commercial operation during the year, the full year profit contribution from BKR2 offshore wind project, and the performance of the power plants under GMP group which improved in the same direction with the higher electricity sales volume to EGAT and industrial users. However, gross profit margin from sales remained at a similar level as last year's, supported by the gross profit margin of BKR2 offshore wind project, which is generally superior than the gas-fired power projects', that was able to offset the effect from the average natural gas cost of the gas-fired SPP power projects which increased at a higher rate than the electricity selling price.

EBITDA

EBITDA in Q4'21 was THB 6,706 million, increased by 60.7% YoY and 11.1% QoQ, and **for the year 2021, EBITDA was THB 22,152 million, increased by 64.5% YoY**, which moved in tandem with Core Profit.

Core Profit

Core Profit was recorded at THB 2,728 million in Q4'21, an increase of 120.1% YoY from Q4'20, mainly from:

- 1) Profit contribution from GSRC power plant units 1-2 which commenced commercial operation on March 31 and October 1, 2021.
- 2) Recognized 284.1% YoY higher share of Core Profit from associates, mainly due to the share of profit from INTUCH of THB 1,093 million which was realized for the first time in Q4'21, and share of Core Profit from GJP which improved from the appreciation of Thai Baht against USD when compared to the same period of last year, resulting in the higher Availability Payment received.

When compared with Q3'21, Core Profit increased by 18.9% QoQ, mainly from:

- 1) Profit contribution from GSRC power plant unit 2 which commenced commercial operation on October 1, 2021.
- 2) Performance from BKR2 offshore wind project improved by 99.0% QoQ due to seasonal factor.
- 3) Share of Core Profit from associates in Q4'21 increased by 146.1% from the recognition of share of profit from INTUCH, despite the softened share of Core Profit from GJP as the performance of the 7 SPPs power projects were pressured by the natural gas price that rose at the higher rate than the average electricity selling price per unit.

For the year 2021, Core Profit was at THB 8,812 million, increased by 96.8% YoY, mainly from:

- 1) Profit contribution from GSRC power plant units 1-2 which commenced commercial operation during the year.
- 2) Recognized full year contribution from BKR2 wind power project, compared to 2020 which recorded performance from BKR2 project for only 1 quarter.
- 3) SPP power projects under GMP group recorded an improved performance which grew in tandem with the higher electricity and steam sales volume to industrial users, although being pressured by the natural gas cost which increased at a higher rate than the average electricity selling price.
- 4) Dividend received in 2021 increased by 451.1% from 2020, mainly increased from the dividend from INTUCH, after the Company increased its equity interest in INTUCH during the year. However, from October 1, 2021 onwards, the Company will record performance contribution from INTUCH as a share of profit from an associate instead of dividend income.
- 5) Recorded 58.2% YoY higher share of Core Profit from associates, primarily from the share of profit from INTUCH which was booked in Q4'21 for the first time, coupled by a higher share of profit from PTT NGD. However, the share of Core Profit from GJP remained at the similar level as 2020, as the higher electricity and steam sales volume to industrial users, and the higher gross profit from the 2IPPs under GJP group were able to offset the effects from the softened electricity sales volume to EGAT, and the natural gas cost which rose at the higher rate than the average selling price per unit.

Net profit attributable to the owners of the parent

Net profit attributable to the owners of the parent in Q4'21 was THB 3,043 million, an increase of 65.0% YoY, mainly grew from the commercial operation commencement of GSRC unit 1-2 projects, the share of profit from INTUCH, and higher share of Core Profit from GJP. However, net profit attributable to the owners of the parent grew at a lower rate than the Core Profit, as there was a gain on exchange rate and unrealized gain on derivatives totaling of THB 316 million in Q4'21, which was lower than in Q4'20 which record a total gain from the items at THB 605 million.

When compared to Q3'21, net profit attributable to the owners of the parent increased by 91.6%, primarily from the commercial operation commencement of GSRC unit 2 project, together with the share of profit from INTUCH, and the improved performance of BKR2 offshore wind project. Nevertheless, net profit attributable to the owners of the parent grew at a higher rate than the Core Profit, as there was a net loss of THB 705 million from exchange rate and derivatives in Q3'21, compared to Q4'21, which recorded net gains from these items.

For the year 2021, net profit attributable to the owners of the parent was THB 7,670 million, increased by 79.1% YoY, resulted from the commercial operation commencement of GSRC unit 1-2 projects, full year profit recognition of BKR2 offshore wind project, and received higher dividend income from INTUCH, as well as a share of profit from INTUCH which has been realized from October 1, 2021 onwards. However, in 2021, the Company recorded a loss on exchange rate and unrealized gain on derivatives totaling at the amount of THB 1,141 million, compared to a loss from the items of THB196 million in 2020. As a result, net profit attributable to the owners of the parent for the year 2021 increased at a lower rate than the Core Profit. Nonetheless, the recording of such gain(loss) on exchange rate and unrealized gain(loss) on derivatives are accounting transaction which has no impact on the cash flow and performance of the Group at all.

FINANCIAL POSITION AS OF December 31, 2021

Financial position	As of December 31, 2020	As of December 31, 2021	Change
	<i>THB mn</i>	<i>THB mn</i>	<i>%</i>
Cash, cash equivalents, short-term deposits at financial institutions used as collateral	22,998	23,953	4.2%
Trade accounts receivable	5,660	9,569	69.0%
Investments in associates and joint ventures	22,079	135,573	514.0%
Advance payments for land and power plant construction	6,701	3,017	-55.0%
Property, plant and equipment, net	129,718	130,128	0.3%
Non-current assets	28,523	3,340	-88.3%
Finance lease receivable under power purchase agreement	0	20,931	n.a.
Other assets	29,901	36,162	20.9%
Total assets	245,581	362,674	47.7%
Short-term loans from financial institutions	11,500	9,927	-13.7%
Accounts payable for power plant construction	7,170	8,155	13.7%
Trade accounts payable	1,353	3,080	127.6%
Long-term loans from financial institutions	85,936	141,765	65.0%
Debentures	43,428	71,058	63.6%
Other liabilities	24,113	21,178	-12.2%
Total liabilities	173,501	255,165	47.1%
Issued and paid-up capital	11,733	11,733	0.0%
Share premium	51,822	51,822	0.0%
Unappropriated retained earnings	7,310	35,980	392.2%
Other components of equity	(8,670)	(5,064)	41.6%
Other equity	1,831	2,125	16.0%
Total equity attributable to owners	64,027	96,596	50.9%
Non-controlling interests	8,053	10,913	35.5%
Total equity	72,080	107,509	49.2%
Total equity excluding other components of equity	80,749	112,573	39.4%

TOTAL ASSETS

Total assets as of December 31, 2021 was THB 362,674 million, an increase of THB 117,093 million (+47.7%) from December 31, 2020. The increase was attributable to the following factors:

- Investment in associates increased by 514.0% or THB 113,495 million, and other non-current financial assets decreased by 88.3% or THB 25,182 million, mainly from the Company's tender offer for INTUCH's ordinary shares during the year, and the change in accounting treatment for its investment in INTUCH from other non-current financial asset to investment in associates, which requires the Company to adjust its average acquisition cost of INTUCH to fair value as of the effective date of the change in accounting method. Moreover, investment in associates

and JVs also increased from the performance contribution from GJP and PTT NGD, and from the investment in the joint venture GPC.

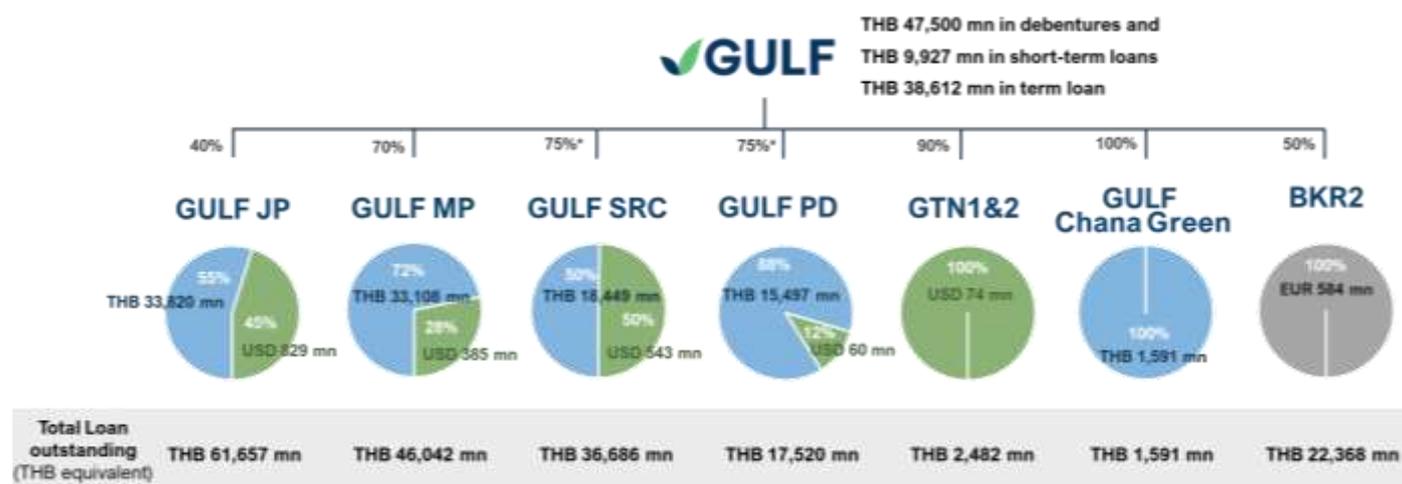
- 2) Trade accounts receivable increased by 69.0% or THB 3,908 million, in line with the increase in revenue from GSRC power plant unit 1 and 2 after its commercial operation date on March 31 and October 1, 2021.
- 3) Property, plant and equipment net increased by 0.3% or THB 410 million, primarily increased from the construction progress of GSRC, GPD, and Mekong power projects, deduct with the decreasing part that was booked in accordance with the TFRS 16 accounting standards following the commercial operation commencement of GSRC unit 1 and 2 projects, which also resulted in the finance lease receivable under power purchase agreement to increase by THB 20,931 million.
- 4) Accounts payable for property and power plant construction reduced by 55% THB 3,684 million, from the delivery of the construction works from the contractors according to the projects' milestones.
- 5) Other assets increased by 20.9% or THB 6,261 million, mainly increased from long-term loans to related party which increased by 43% from the loans given to DIPWP project in Oman to be used for power plant construction, coupled with other current financial assets which increased by 629% from short term investment, and intangible assets which increased by 14% from the right to use electrical substations and gas pipeline following the commercial operation of GSRC power plant units 1 and 2.

TOTAL LIABILITIES

Total liabilities as of December 31, 2021 was THB 255,165 million, an increase of THB 81,664 million (+47.1%) from December 31, 2020. The increase was attributable to the following factors:

- 1) Short-term debts decreased by 13.7% or THB 1,573 million from the repayment of the Company's short-term loan from financial institutions.
- 2) Trade accounts payable increased by 127.6% or THB 1,727 million from the additional cost of sales recorded after the commercial operation commencement of GSRC units 1-2.
- 3) Long-term loans from financial institutions increased by 65.0% or THB 55,829 million, primarily from the loan drawdowns for the construction of GSRC and GPD power projects, the acquisition of INTUCH's shares, and for the Company's working capital.
- 4) Debentures increased by 63.6% or THB 27,630 million, mainly increased from the issuance of the Company's 1/2021 debentures, value of THB 30,000 million, which was used for the Company's working capital for future investments.

Total debt outstanding of the Company and its subsidiaries as of December 31, 2021



* Based on % profit sharing received from GSRC & GPD

TOTAL EQUITY

Total equity as of December 31, 2021 was THB 107,509 million, an increase of THB 35,429 million (+ 49.2%) from December 31, 2020 due to following factors:

- 1) Other components of equity increased by THB 3,605 million, and non-controlling interests increased by THB 2,861 million, mostly due to the increase in fair value of interest rate swap derivative contracts which was measured as required under TFRS 9. However, such accounting record does not affect the Company's operating performance.
- 2) Unappropriated retained earnings increased by THB 28,669 million from net profit attributable to the parent company of THB 7,670 million, the change in accounting method used to record the Company's investment in INTUCH, from fair value measurement booked in other comprehensive income to Equity Method, resulting in the higher retained earnings value of the Company, caused by the unrealized gain from adjusting average acquisition cost of INTUCH to fair value as of October 1, 2021 (effective date of the change in accounting method), net with dividend payment THB 4,459 million, reserve according to legal requirement THB 294 million.

CAPITAL STRUCTURE

As of December 31, 2021, the Group recorded a debt to equity ratio of 2.37 times. However, when consider the covenant of the Company's debenture, **net interest-bearing debt (including lease liabilities) to equity was recorded at 1.77 times.**

STATEMENT OF CASH FLOWS

Statement of cash flows	For the year ended December 31, 2021
	<i>THB mn</i>
Net cash generated from (used in) operating activities	14,015
Net cash used in investing activities	(78,206)
Net cash generated from (used in) financing activities	68,128
Net increase (decrease) in cash and cash equivalents	3,937
Gain (loss) adjustment from foreign exchange translation of cash and cash equivalents	8
Cash and cash equivalents as of January 1, 2021	15,902
Cash and cash equivalents as of December 31, 2021	19,847

As of December 31, 2021, the Company and its subsidiaries recorded cash and cash equivalents of THB 19,847 million attributable to the following factors:

Net cash received from operating activities of THB 14,015 million mainly from:

- Cash from operating profit of THB 16,385 million
- Net cash paid for operating assets and liabilities THB 2,370 million

Net cash used in investing activities of THB 78,206 million mainly from:

- Payments for property, plant and equipment of THB 20,848 million, primarily for projects under GSRC, GPD, and Mekong Wind
- Payments for other financial assets of THB 59,406 million, pursuant to the Company's additional investment in ordinary shares of INTUCH

Net cash received from financing activities of THB 68,128 million mainly from:

- Net cash received from long-term loans of THB 52,528 million
- Net cash received from debentures of THB 27,015 million
- Payments for interest expense and finance costs of THB 5,346 million
- Payment for dividend of THB 6,293 million

KEY FINANCIAL RATIOS

Financial ratios	Q4'20	Q3'21	Q4'21	2020	2021
Basic earnings per share (THB)	0.16	0.14	0.26	0.36	0.65
Gross profit margin from sales (%)	36.1%	24.6%	28.6%	27.6%	27.3%
EBITDA margin	40.5%	43.8%	38.9%	37.55%	41.90%
Net profit margin ¹ (%)	17.9%	11.5%	17.6%	11.95%	14.51%
Core Profit margin ^{1,2} (%)	12.0%	16.6%	15.8%	12.5%	16.7%
Net profit for the period / Total revenue (excl. share of profit from associates and JVs)	29.3%	12.3%	25.2%	18.39%	18.34%
Return on equity (%)	10.1%	9.7%	10.2%	10.1%	10.2%
Return on assets ³ (%)	3.2%	2.8%	3.0%	3.2%	3.0%

	Dec 31, 2020	Sep 30, 2021	Dec 31, 2021
Book value per share (THB)	5.46	7.60	8.23
Current ratio (times)	1.02	1.24	1.11
Quick ratio (times)	0.93	1.09	0.92
Debt to equity (times)	2.41	2.57	2.37
Net interest-bearing debt (including lease liabilities) to equity ⁴ (times)	1.47	2.34	1.77

¹ Total revenues = revenues from sales and management fee + other income + interest income + dividend income + share of profit from associates and joint ventures

² Core Profit = profit attributable to owners of the parent before gain (loss) on exchange rate and unrealized gain (loss) on derivatives of PTT NGD

³ ROA calculated using net profit (annualized) / average total assets

⁴ Net debt to equity ratio that must be maintained in accordance with the terms and conditions (times) = Net debt to equity ratio that must be maintained in accordance with the terms and conditions is calculated by finding the difference of (a) total interest-bearing debt, (b) cash and cash equivalents and (c) deposits at financial institutions used as collateral, and divided by the issuer's equity which excludes other components of equity as shown in the consolidated financial statements audited by the issuer's auditor

PROGRESS OF PROJECTS UNDER CONSTRUCTION AND DEVELOPMENT

POWER GENERATION AND RENEWABLE ENERGY BUSINESS



Gulf SRC (Thailand)

Fuel Type	Gas-fired	
Capacity	2,650 MW (4 units, 662.5 MW each)	
SCOD	Unit 1: 31 March 2021 Unit 2: 1 October 2021	Unit 3: 31 March 2022 Unit 4: 1 October 2022
Status	Unit 1-2: Achieved commercial operation Unit 3-4: Under construction: 96.1 – 99.2% completed	



Gulf PD (Thailand)

Fuel Type	Gas-fired	
Capacity	2,650 MW (4 units, 662.5 MW each)	
SCOD	Unit 1: 31 March 2023 Unit 2: 1 October 2023	Unit 3: 31 March 2024 Unit 4: 1 October 2024
Status	Under construction with the progress as follows: Unit 1: 80.8% Unit 3: 47.9% Unit 2: 34.4% Unit 4: 30.6%	



Hin Kong Power (Thailand)

Fuel Type	Gas-fired	
Capacity	1,540 MW (2 units, 770 MW each)	
SCOD	Unit 1: March 2024 Unit 2: January 2025	
Status	Under construction: 11.3% completed	



Burapa Power (Thailand)

Fuel Type	Gas-fired	
Capacity	600 MW	
SCOD	November 2027	
Status	<ul style="list-style-type: none"> EIA approval obtained Expected to start construction by 2025 	



DIPWP (Oman)

Fuel Type	Gas-fired
Capacity	Power: approx. 326 MW Water: approx. 1,667 m ³ /hour
SCOD	Phase 1 (40 MW): 2021 Phase 2 (286 MW): 2023
Status	Phase 1: Achieved commercial operation (electricity) Phase 2: Under construction: 94.27% completed



Mekong Wind Power Project (Vietnam)

Fuel Type	Offshore Wind
Capacity	Phase 1: 30 MW Phase 2-3: 98 MW
SCOD	Phase 1: within Q2'22 Phases 2-3: within Q2'22
Status	Phase 1: Achieved commercial operation partially (4.2 megawatts) with the rest under construction: 99.84% completed Phases 2-3: Under development: 98.68% completed

INFRASTRUCTURE & UTILITIES BUSINESS



Map Ta Phut Industrial Port Development Phase 3 (Thailand)

Scope	Infrastructure: Land reclamation Superstructure: LNG terminal
Capacity	Land reclamation: 1,000 rais LNG terminal: up to 10.8 MTPA
Construction Period	Land reclamation: 2021 - 2024 LNG terminal: 2024 – 2026* *subject to LNG demand
Status	Under pre-construction period



Laem Chabang Port Development Phase 3 (Thailand)

Scope	Container berths (F1 & F2 terminals)
Capacity	At least 4 million TEU/year (operation period 35 years)
SCOD	F1 = [2025] F2 = [2029]
Status	Signed PPP Contract within November 2021 Expected to start construction within 2023



M6 & M81 Intercity Motorways (Thailand)

Scope	Operation and Maintenance of toll collection system, traffic management and control system, and other infrastructures
Capacity	M6: 196 km M81: 96 km
SCOD	[2024]
Status	EPC signed in July 2021 PPP contract signed in September 2021 Expect to start construction within December 2021

ONE BANGKOK



One Bangkok Project (Thailand)

Scope	Electricity Distribution System (Power) District Chilled Water Distribution System (DCS)
Capacity	Power: 240 MW DCS: 36,000 RT
SCOD	Phase 1 – 2022 (Power) Phase 1 – 4 2023 – 2026 (Power and DCS)
Status	<ul style="list-style-type: none"> Electricity Distribution System (Power) - Under development: 12.6% completed District Chilled Water Distribution System (DCS) - Under development: 26.1% completed

DEFINITIONS

Company	Gulf Energy Development Public Company Limited
Group	The Company, its subsidiaries, its associates and its joint ventures
ADVANC	Advanced Info Service Plc.
GEC group	Gulf Electric Public Company Limited and its subsidiaries
EGAT	The Electricity Generating Authority of Thailand
PEA	Provincial Electricity Authority
7SPPs	7 SPPs under GJP consisting of GKP1, GKP2, GTLC, GCRN, GNNK, GNLL and GNK2
12SPPs	12 SPPs under GMP consisting of GVTP, GTS1, GTS2, GTS3, GTS4, GNC, GBL, GBP, GNLL2, GNPM, GNRV1 and GNRV2
BGSR 6	BGSR 6 Co., Ltd., a JV in which the Company has a 40% stake
BGSR 18	BGSR 81 Co., Ltd., a JV in which the Company has a 40% stake
BKR2	Borkum Riffgrund 2 Offshore Wind Farm GmbH & Co. oHG, an offshore wind farm operator in Germany
BPG	Burapa Power Generation Co., Ltd., a power project operator under BPH
BSE	Bangkok Smart Energy Co., Ltd., a JV in which the Company has a 33.3% stake
BPH	Burapa Power Holding Co., Ltd., a JV in which the Company has a 35.0% stake
DIPWP	Duqm Integrated Power and Water Project, a power project operator in Oman
EPC	Engineering, procurement and construction
EVN	Vietnam Electricity
GBL	Gulf BL Co., Ltd., a power project operator under the subsidiary of GMP
GBP	Gulf BP Co., Ltd., a power project operator under the subsidiary of GMP
GCG	Gulf Chana Green Co., Ltd., a biomass project operator in which the Company has a 100% stake
GCRN	Gulf JP CRN Co., Ltd., a power project operator under the associate GJP
GJP	Gulf JP Company Limited, an associate in which the Company has a 40.0% stake
GJP1	Gulf JP1 Company Limited, an operator of solar rooftop projects under a subsidiary GULF1
GKP1	Gulf JP KP1 Co., Ltd., a power project operator under the associate GJP
GKP2	Gulf JP KP2 Co., Ltd., a power project operator under the associate GJP
GMP	Gulf MP Co., Ltd., a subsidiary in which the Company has a 70.0% stake
GMP1	Gulf MTP LNG Terminal Co., Ltd., a subsidiary in which the Company has a 70% stake
GNC	Gulf NC Co., Ltd., a power project operator under the subsidiary GMP
GNK2	Gulf JP NK2 Co., Ltd., a power project operator under the associate GJP
GNLL	Gulf NLL Co., Ltd., a power project operator under the associate GJP
GNLL2	Gulf NLL2 Co., Ltd., a power project operator under the subsidiary GMP
GNNK	Gulf JP NNK Co., Ltd., a power project operator under the associate GJP
GNPM	Gulf NPM Co., Ltd., a power project operator under the subsidiary GMP
GNRV1	Gulf NRV1 Co., Ltd., a power project operator under the subsidiary GMP
GNRV2	Gulf NRV2 Co., Ltd., a power project operator under the subsidiary GMP
GNS	Gulf JP NS Co., Ltd., a power project operator under the associate GJP
GPC	GPC International Terminal Co., Ltd., a JV in which the Company has a 40% stake
GPD	Gulf PD Co., Ltd., a power project operator under the subsidiary of IPD
GSRC	Gulf SRC Co., Ltd., a power project operator under the subsidiary of IPD
GTLC	Gulf JP TLC Co., Ltd., a power project operator under the associate GJP

GTN1	Gulf Tay Ninh 1 Joint Stock Company, a solar farm operator in Vietnam
GTN2	Gulf Tay Ninh 2 Joint Stock Company, a solar farm operator in Vietnam
GTS1	Gulf TS1 Co., Ltd., a power project operator under the subsidiary GMP
GTS2	Gulf TS2 Co., Ltd., a power project operator under the subsidiary GMP
GTS3	Gulf TS3 Co., Ltd., a power project operator under the subsidiary GMP
GTS4	Gulf TS4 Co., Ltd., a power project operator under the subsidiary GMP
Gulf WHA MT	Gulf WHA MT Natural Gas Distribution Company Limited, a JV in which the Company has a 35.0% stake
GULF1	Gulf1 Company Limited, a subsidiary in which the Company has a 100.0% stake
GUT	Gulf JP UT Co., Ltd., a power project operator under the associate GJP
GVTP	Gulf VTP Co., Ltd., a power project operator under the subsidiary GMP
HKH	Hin Kong Power Holding Co., Ltd., a JV in which the Company has a 49.0% stake
HKP	Hin Kong Power Co., Ltd., a power project operator under HKH
INTUCH	Intouch Holdings Plc.
IPD	Independent Power Development Company Limited, a subsidiary in which the Company has a 70.0% stake
IPP	Independent Power Producer in which capacity sold to EGAT is more than 90 MW
Marafiq	Centralised Utilities Company L.L.C., a JV in which the Company has a 49% stake
Mekong	Mekong Wind Power Joint Stock Company
MTP3	Map Ta Phut Industrial Port Development Phase 3
PEA	The Provincial Electricity Authority
PTT NGD	PTT Natural Gas Distribution Company Limited
Singtel	Singapore Telecommunications Limited
SPP	Small Power Producer in which capacity sold to EGAT is more than 10 MW but not more than 90 MW
TFRIC 4	Revenue recognition standard applied for the IPPs to record revenue from availability payment as income from financial lease
TFRIC 12	Thai Financial Reporting Standard applied for Service Concession Arrangements
TFRS 9	Thai Financial Reporting Standard applied for Financial Instruments
TFRS 16	Thai Financial Reporting Standard applied for Leases
THCOM	Thaicom Plc.