

BNP Paribas Energy Transition Days

November 25, 2021



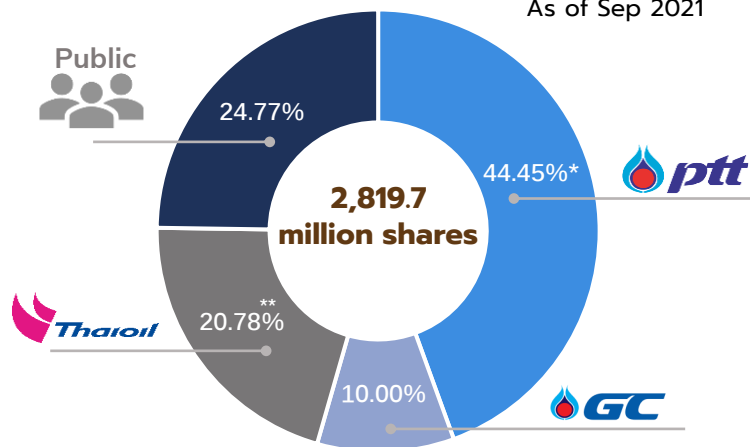


The power and smart energy flagship of PTT Group

*"GPSC, The global leading innovative and sustainable power company, the core business is to **generate and supply electricity and utilities** to customers and also **developing new S-Curve business** to create value to stakeholders."*

GPSC's shareholding structure

As of Sep 2021



**TOP is under the process of regulatory work to divest not exceeding 10.8% of GPSC.

* PTT stake includes 1.91% hold via SMH, a wholly-owned indirect subsidiary of PTT.

COMPANY INFORMATION (as of Nov 18, 2021)

Business Type | Energy & Utilities listed on SET

Paid-up Capital | THB 28,197 million

Market Cap. | THB 214,299 million

CREDIT RATINGS

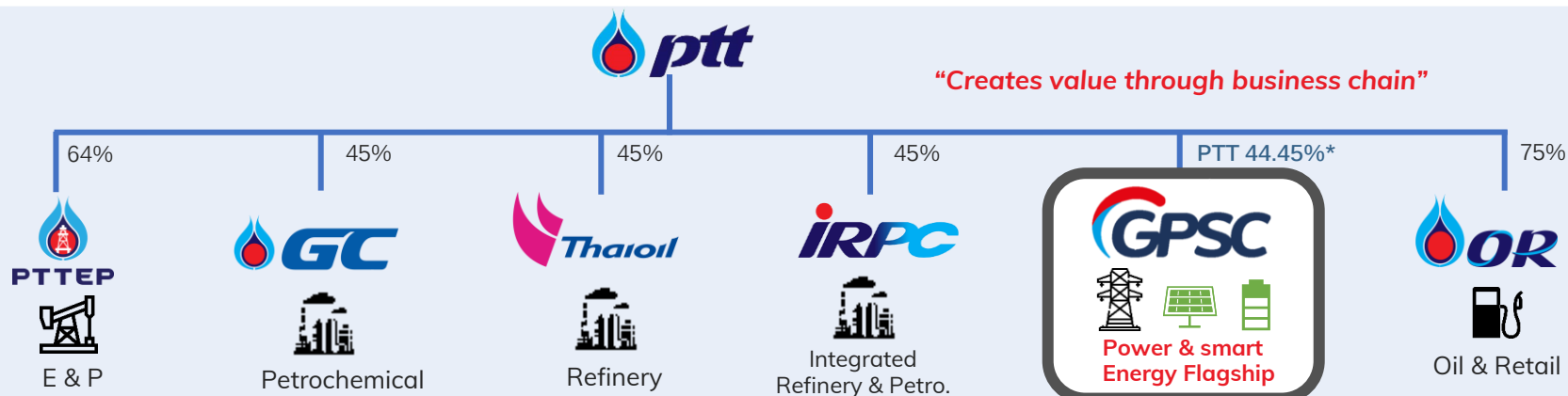
AA+



BBB-
A+(tha)

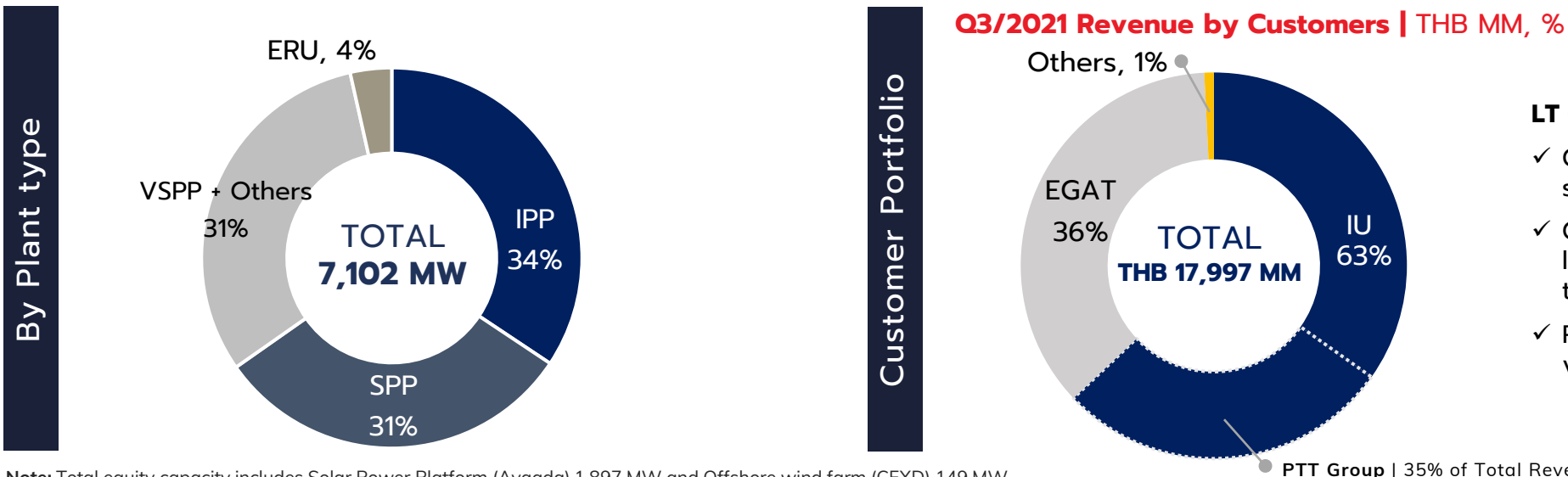
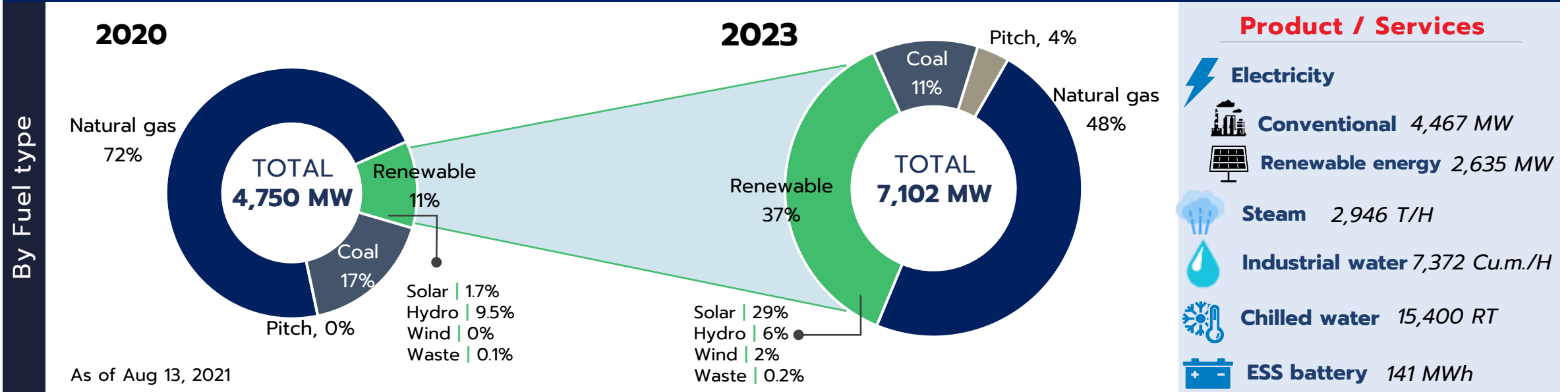
FitchRatings

PTT Group's Business



* PTT stake includes 1.91% hold via SMH

Total committed equity capacity



LT OFF-TAKE CONTRACTS

- ✓ Guaranteed market and source of revenue
- ✓ Guarantee a minimum level of profit in regard to their investment
- ✓ Price adjustment formula, varying with fuel price

Note: Total equity capacity includes Solar Power Platform (Avaada) 1,897 MW and Offshore wind farm (CFXD) 149 MW.

1. GPSC Corporate Strategy

2. Financial Performance

3. Update of Projects

4. Outlook



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Corporate Strategy 2021 | Background



UN CLIMATE
CHANGE
CONFERENCE
UK 2021

IN PARTNERSHIP WITH ITALY

What was agreed at Glasgow climate conference?

- A scheme to **cut 30% of current methane emissions by 2030** has been agreed by more than 100 countries.
- **More than 40 countries** - which include major coal- users including Poland, Vietnam and Chile - **agreed to shift away from coal.**
- Some 450 financial organisations, who between them control \$130tn, agreed to back "clean" technology, such as renewable energy, and **direct finance away from fossil fuel-burning industries.**



1. Digitalization:

Grid modernization and smart energy management

2. Decarbonization

RE50@50 + ESS, CCUS and Hydrogen

3. Decentralization

Smart microgrid & infrastructure development

4. De-regulation

Third Party Access, new price structure

5. Electrification

EV30@30 and Charging station



Powering life with Future energy and Beyond GPSC play all in PTT's new Future Energy Vision

1 Future Energy

Champion



Renewable



Energy
Storage &
system related

Champion

Key role
(EV battery,
Quick charger)



EV Value
Chain



Hydrogen

Key role
(Generation,
Application)

Beyond

2

Life science

- Pharmaceutical
- Medical device
- Nutrition

3

High Value Business

4

Mobility & Lifestyle



S1

Strengthen & Expand the Core

- Best in class operations
- Customer-centric utility
- Expansion into adjacencies (e.g., water)



S2

Scale-up Green energy

- Solar power scale-up
- Wind power scale-up
- ESS-RE hybrid power entry



S3

S-curve & Batteries

- Energy storage systems
- EV & Mobility batteries
- New S-Curves



S4

Shift to Customer-centric Solutions

- Distributed generation
- District cooling
- Energy Management Services (EMS)

S1 Strengthen and expand the Core

To drive “**Operational Excellence**” across all assets of GPSC

Strategic pillar

Key focus



Safety



Reliability



Profitability



Sustainability

Safety culture campaign

- Total Recordable Injury Rate (TRIR)

Reliability improvement

- Plant integrity review & management
- Replace critical equipment

Synergy benefit

- THB >1.6 bn per year recurring synergy and ramp up with full synergy value contribution by 2024

Set-up as functional

- To drive the behavior & mindset



Digital
Operation
Transformation



Power & Steam
Network
management



Benefit uplift
Profitability &
Reliability



Improve reliability & efficiency to
maintain industrial customers' demand

Becoming a “**customer centric utility**” player will enable GPSC to become a competitive player by retaining existing and grow new customers



Best-in-class operation



Customer-centric utility
service provider

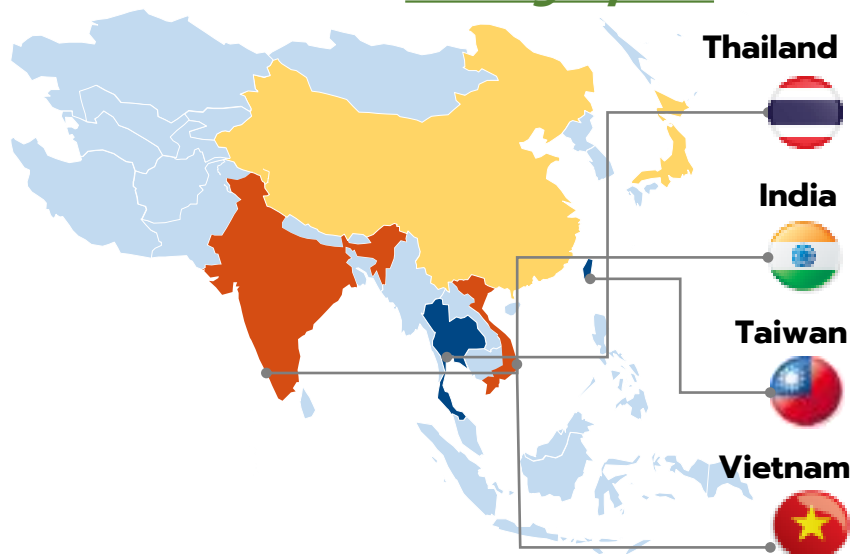


Expansion into adjacencies



Priority 2nd home market and focusing on platform growth in Renewable energy

Strategic pillar



Key focus

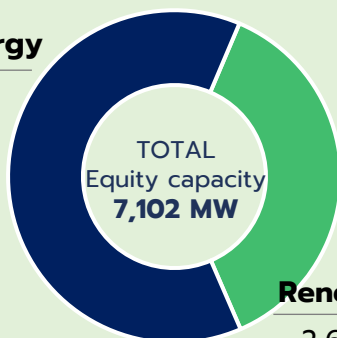
- Seeking new opportunities of hybrid RE
- Solar PPPA
- Capture the opportunities with new National Energy Plan (NEP)
- Using Avaada investment platform to execute projects
- To dispatch staffs as the secondment to build expertise & keep monitoring performance to GPSC
- Focusing on current project including;
 - **Sheng Yang Energy**: Solar project of 25 MW equity capacity through GRP
 - **CFXD**: Offshore wind of 149 mw equity capacity through GRSC TW
- Joint development with PTT group and strategic partners



GPSC Aspiration: "To be top 3 power company in SEA *with more than half of MW from green portfolio*"

Conventional Energy

4,467 MW, 63%



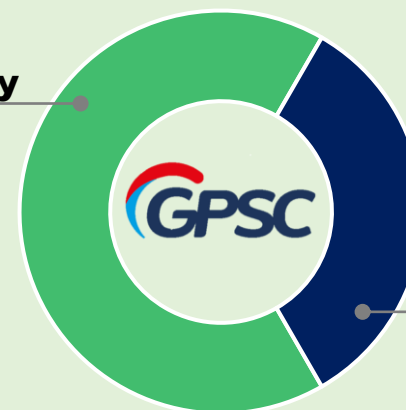
Renewable Energy

2,635 MW, 37%

2021-2023

Renewable Energy

8,000 MW

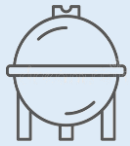


Conventional Energy

2030

GPSC will take lead in new S-Curve, Batteries and Digital power businesses

S-curve



H2 Value Chain

Study and
Exploring
technology



CO2 Capture



Digital Power

Develop
smart energy
platform



Batteries

Key Drivers to make **Thailand and ASEAN EV** happen

Government
Incentive

EV Makers



Battery &
Components

Infrastructure

Service

PTT Group Collaboration & Value Chain Development



EV Platform



EV Autonomous Pilot



Battery Cell Technology



Giga-scale Capability



Local R&D



Capability & Collaboration



Smart Station



EV Quick Charge



Charging Solution

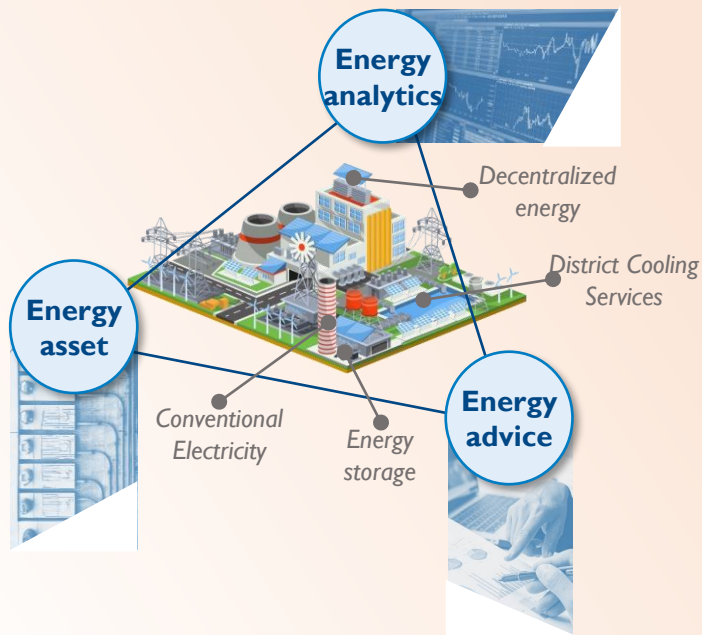


Digital Platform



Energy management services to provide all-round energy support

Concept of Energy Management services



VISTEC
VIDYASIRIMEDHI
INSTITUTE OF SCIENCE AND TECHNOLOGY

Smart Energy Management

- ✓ 1.39 MW renewable energy (solar roof + floating)
- ✓ 1.2 MWh ESS, Renewable optimization and Zero-import building
- ✓ Blockchain P2P energy trading, EV chargers and Artificial Intelligence



The Solar Orchestra Project

All-in-one Package to Support Solar Roof Manufacturing and Carbon Reduction

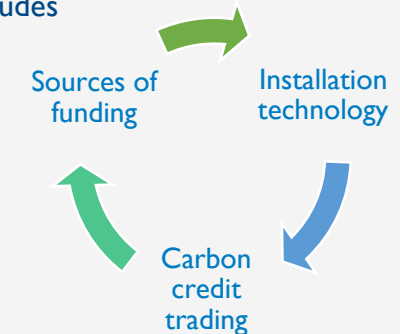


GPSC



Provide the body of knowledge regarding electrical energy and renewable energy to Thai entrepreneurs

- GPSC, CHPP, Exim Bank, TGO, and NEO reached an agreement to partner up on an investment in solar rooftop, carbon credit registration and certification under the comprehensive Solar Orchestra project, which includes



- The project's solar rooftop capacity is expected to reach beyond 100MW by the end of 2022

4 KEY ACTION PLANS



REDUCE FOSSIL PORTFOLIO

- Improve energy efficiency
- Reduce coal portfolio
- Adopt Carbon Capture, Usage and Storage (CCUS) technology
- Adopt Hydrogen (H₂) as fuel
- Adopt best practice operational excellence



GROW RENEWABLES

- Green portfolio optimization, e.g.,
- Hybrid renewable energy with Energy Storage System (ESS)
- Green Hydrogen (H₂)



ENHANCE INFRASTRUCTURE

- Smart grid, e.g., DR/EMS, micro grid, etc.
- Energy Storage System (ESS)



TRADING/OFFSET ACTIVITY

- Biological storage, e.g., reforestation
- Negative emission technology

TARGET Net Zero GHG Mission



5-10 Years Target:

**Carbon intensity reduction
-10% by 2025 & -35% by 2030.**



SM FRAMEWORK

SDGs

Power Accessibility



Quality of Life



ECO system



Sustainable Innovation



GPSC | Sustainability Initiatives to Achieve SDGs and Objectives

FRAME
WORK

SDGs

KEY INITIATIVES

Power Accessibility



Enhance stability of access

Smart Energy Management

VISTEC
VIDYASIRI MEDICAL



EECI



- Clean Energy Generation
- Flexibility Distributed Generation
- No Clean Energy Shedding

PTT TANK



Quality of Life



Empower better living

Light for Better Life



Solar Rooftop System to schools in Rayong



Solar Rooftop System to Koh Sichang Hospital



Solar Rooftop System to Thanyarak Hospital in Mae Hong Son

ECO system



Eco-system of driving clean energy

Sourcing Sustainable Materials



- Sustainable Procurement and Supplier Management
- GPSC Group sustainable way in operations

Operating Low Carbon Utilities & Green Products

Operation

- Efficiency Improvement
- Green energy scale-up
- Greenhouse gas reduction initiatives
- Battery cell manufacturing



Products

- Low carbon products
- Renewable energy
- Smart grids
- Stationary/ Mobility battery ESS
- EPC Contractor for Solar Rooftop, Solar Floating installation and Energy Management such as "Solar Orchestra"



Sustainable Innovation



Sustainable Innovation for the corporation

GPSC Young Social Innovator



PTT Group SMART Farming by GPSC (Restart Thailand)

- Basic training in agriculture and technology
- Smart farming technology installation and business plan creation



1. GPSC Corporate Strategy

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3. Update of Projects

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Q3/2021 | Highlight

Q3/2021 Events & Highlights



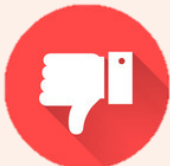
Highlights

Higher demand from industrial customers due to limited COVID-19 impact

Better synergy outcome

mainly from operation and maintenance – power and steam network integration, commercial activities, procurement and maintenance management.

Lower OPEX from cost management



Lowlights

Higher fuel cost from upward trend of natural gas & coal price

Unplanned outages

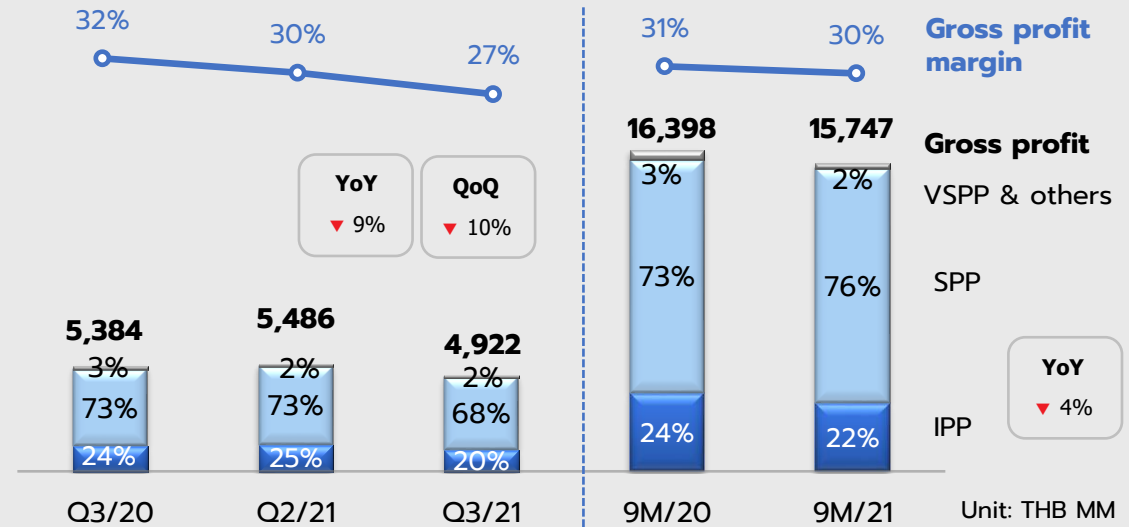
- **GHECO-One's unplanned outage 28 days (30 Aug – 27 Sep 21)**
 - Loss mitigation by selling coal to SPP3, which will realize the benefit in Q4/21
- **GLOW Energy Phase 5's unplanned outage since 14 Aug 21**
 - The plant is expected to resume normal operation in Feb 22
- **GLOW Energy Phase 5's unplanned outage during 4 Jun - 18 Oct 20 and 6 Dec 20 – 1 Apr 21**
 - ▲ **GPSC expects to recognize the remaining insurance claim from previous incident by this year**
(Recognized partial insurance claim THB 310 MM in Q2/21)

Shares of loss from Avaada

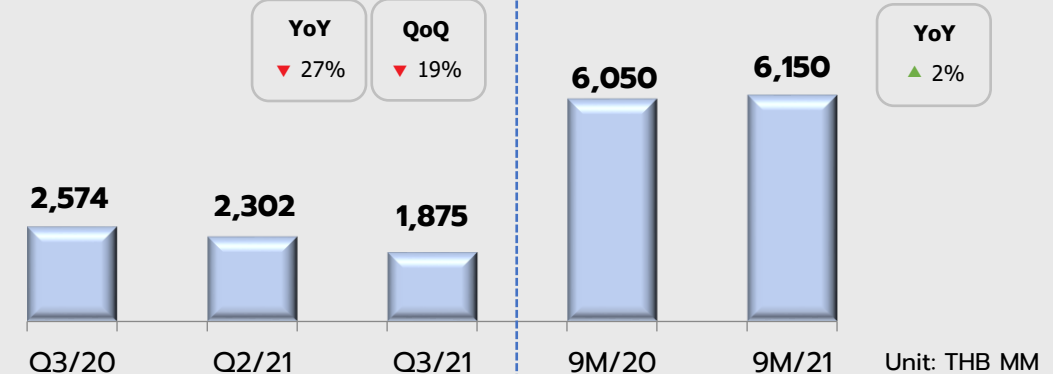
YTD: THB -31 MM mainly from finance cost and MTM derivative loss

Q3/2021 Performance

Gross profit & Gross profit margin by power plant type

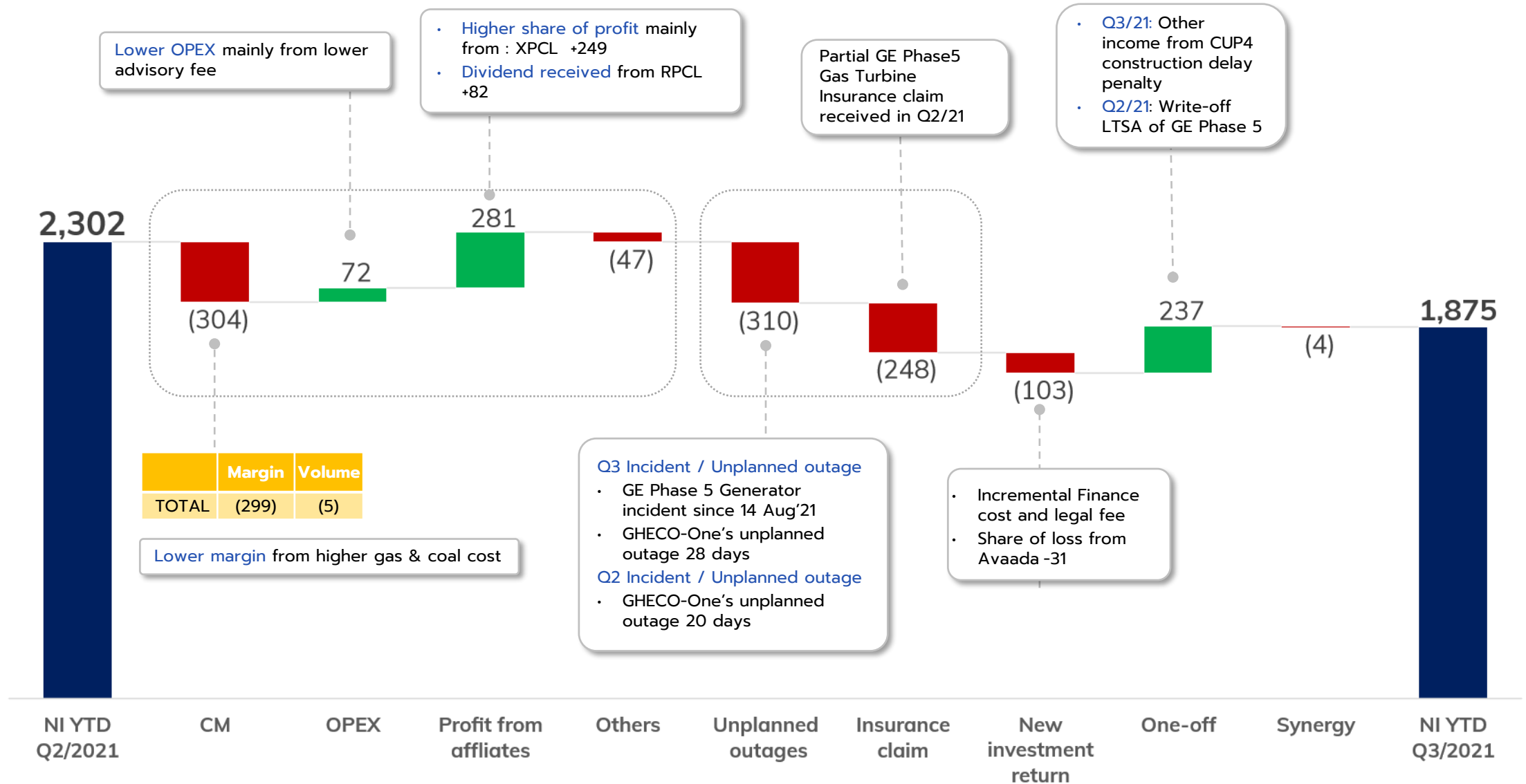


Net Income



Q3/2021 vs Q2/2021 (QoQ) Net Profit

Net Profit **-427 MTHB (19%)**



9M/2021 vs 9M/2020 (YoY) Net Profit

Net Profit **+100 MTHB (+2%)**

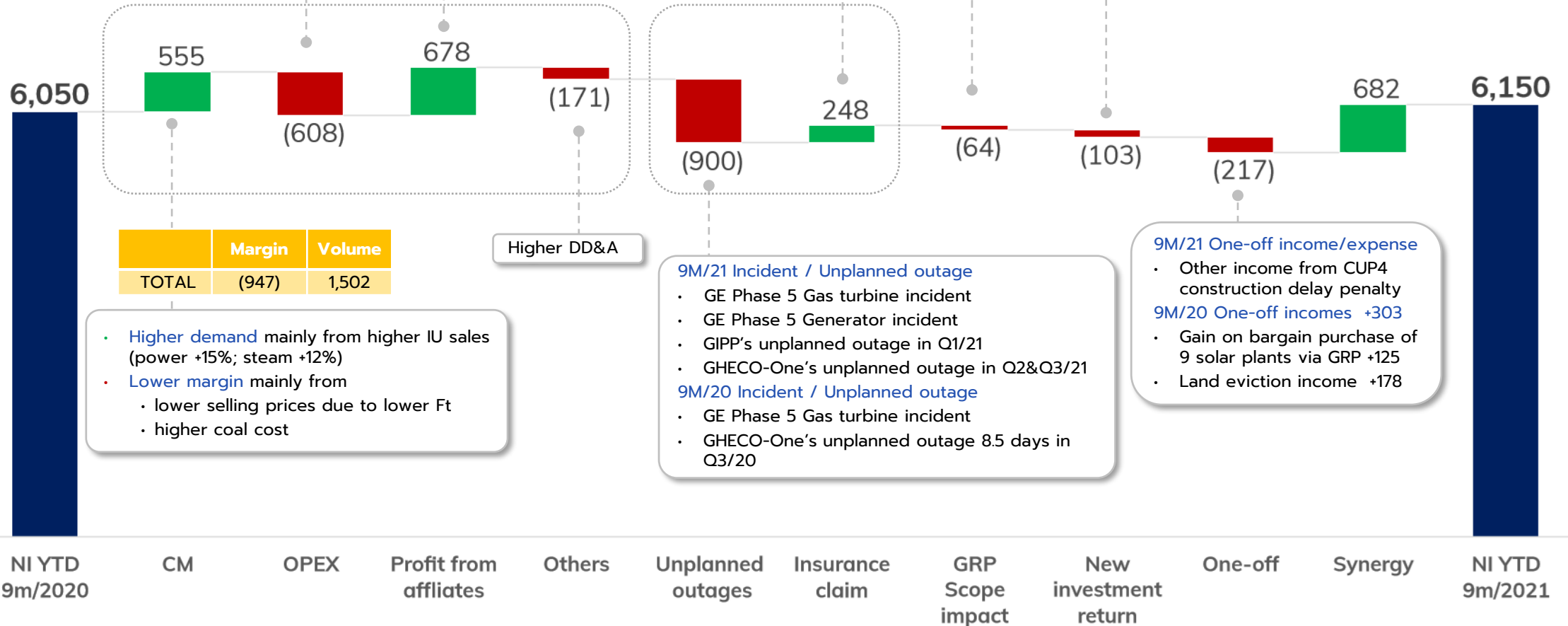
- Higher insurance premium
- Higher SG&A mainly from advisory fee and general administration
- Higher maintenance cost

Higher share of profit mainly from XPCL +755
Lower RPCL dividend

Partial GE Phase 5 insurance claim in Q2/21

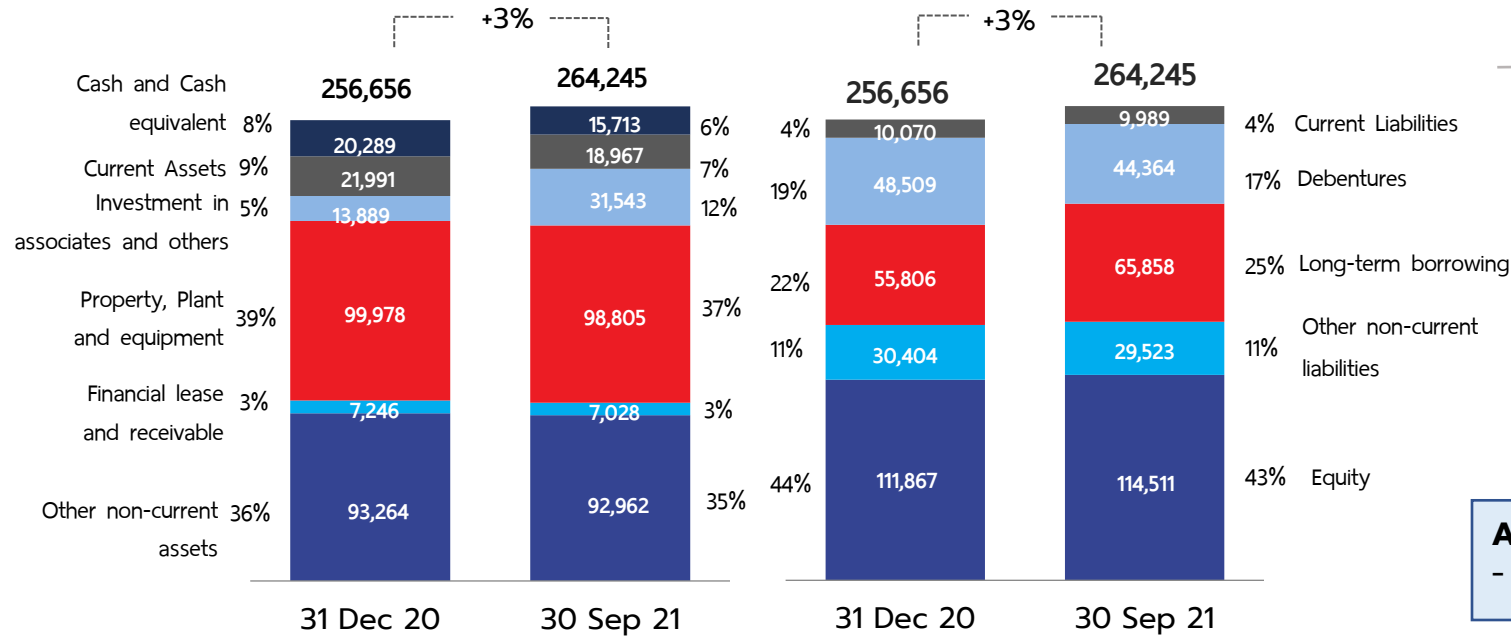
- Q1/21:
- Gain on sale of GRP shares +70
 - GRP % ownership reduction

- Incremental Finance cost and legal fee
- Share of loss from Avaada -31



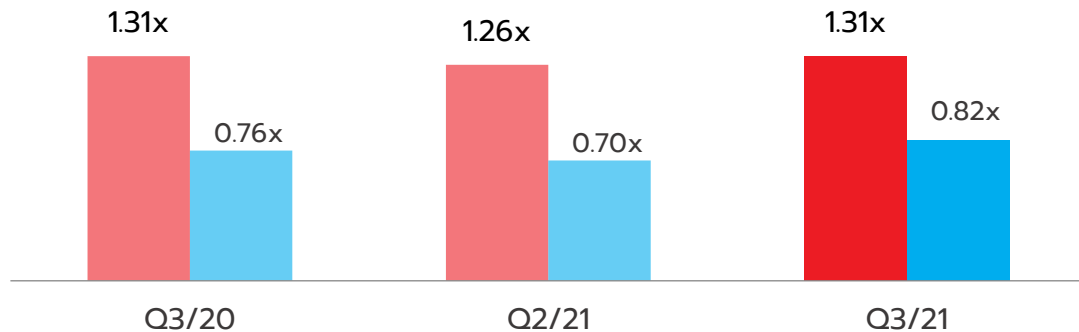
Q3/2021 | Financial Position

Summary of Financial Position



Total debt to equity and net debt to equity ratio | times

■ Total Debt to Equity
■ Net Debt to Equity



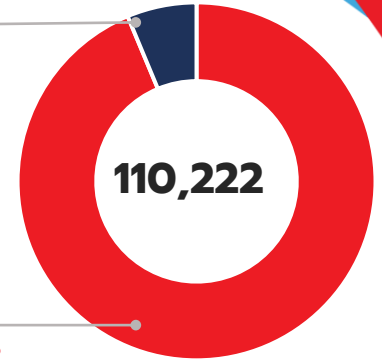
Total Interest-Bearing Debt (THB million)

Short-term loans
and current portion of long-term loans

THB 6,935 million | 6%

Non-current portion of
long-term loans and debentures

THB 103,287 million | 94%



As of Q3/2021:

- Avg. cost of debt: **2.76%** -Avg. remaining tenor: **5.1 years**

Credit Ratings

AA+

BBB-
A+(tha)

TRIS
RATING
A Strategic Partner of S&P Global

FitchRatings

1. GPSC Corporate Strategy

2. Financial Performance

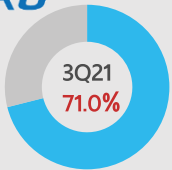
3. Update of Projects

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Energy Recovery Unit (ERU)

SCOD | 2023



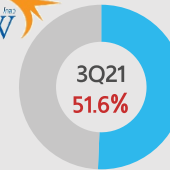
Electricity (MW)	250
Steam (ton/hr.)	175

Project updates:

- Engineering design work: more than 98% progress
- Procurement of main machinery and equipment: condenser of steam turbine and SNOX system, boilers, and high voltage transformer of steam turbine generator
- Construction: foundation and equipment work for Boilers, including Generator, Pitch Solidification and Cooling Tower
- Overall, the project has reached 71% and is expected to COD in 2023.

SPP Replacement - Stage 1 | Glow Energy Phase 2

SCOD | Q4/2022



Electricity (MW)	192
Steam (ton/hr.)	300

Project updates:

The engineering design work, procurement and construction progress has reached 51.6% and the project is on the process of installing machine, notably HPSG, Piperack, Gas Metering Station and foundation work for Gas Turbine which are on schedule.

Avaada : Solar Power Platform in India

Operational Projects



Under Construction Projects



Contracted Capacity
4,560 MW

GPSC Hold
41.6% of shares

Project	MW	COD
Operating (13 projects)	1,500	As of Q3/2021
Under construction (13 projects)	3,060	Q4/2021 - 2023

CFXD : Offshore Wind Power Plant in Taiwan

Under Construction Projects



Contracted Capacity
595 MW

GPSC Hold
25% of shares

Project updates:

The project is under construction and expected to COD in 2024

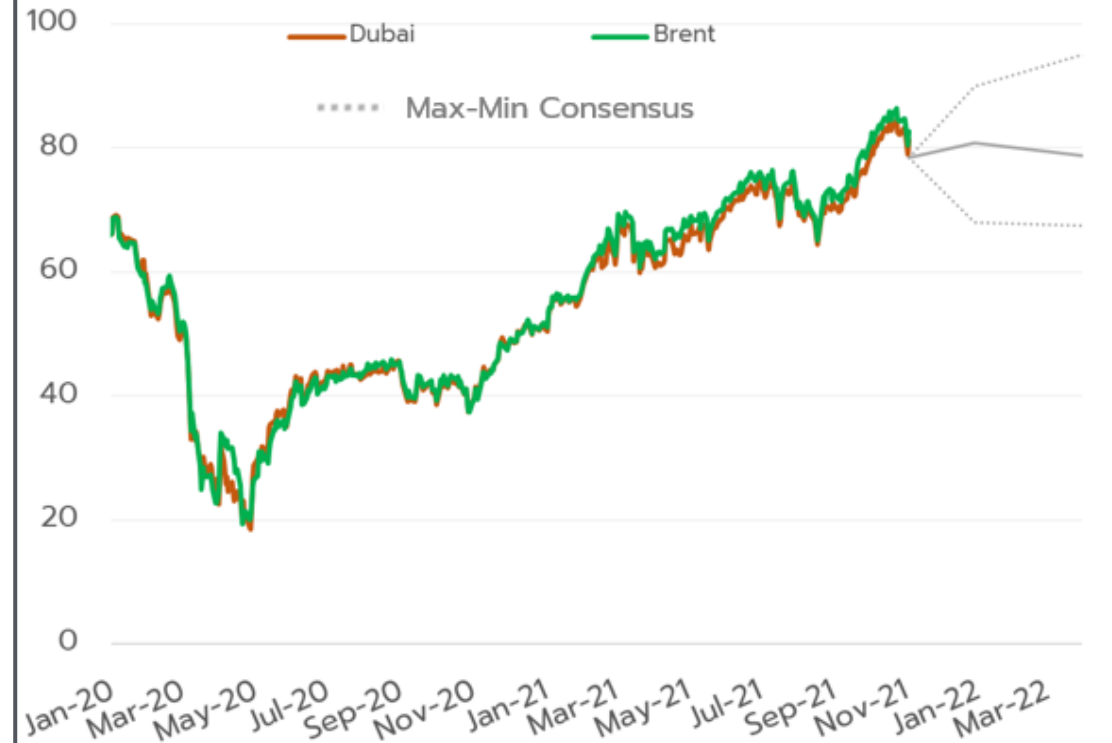
1. **GPSC Corporate Strategy**
2. **Financial Performance**
3. **Update of Projects**
4. **Outlook**



Performance Outlook

- ▲ **Synergy value** from acquisition of GLOW is expected to be not less than THB 1,400 million (after tax) in 2021.
- ▲ **Demand of electricity and steam of IU** in 2021 is expected to increased 13% and 7% from 2020, respectively.
- ▼ **Natural gas price** is forecasted to increase slightly in the same direction with crude oil with lag time 6 – 12 months.
 - NG price continues to increase at year-end 2021.
 - When compared to Q3/21, Blended gas cost of SPP portfolio is expected 10% increase at year-end.
- ▼ **Coal price**
 - Coal price range is expected about US\$ 150-160 per ton (NewCastle) at year-end.

Crude oil price outlook



Source: Reuters updated 8 Nov 2021

Q&A SESSION



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Appendix



GPSC | Key Achievement, Ambition and Sustainability Management Framework

"Move towards Sustainability" Another step on the road to sustainability at the global level

KEY ACHIEVEMENT

GPSC is now listed in Sustainability Yearbook 2021 of S&P Global

In 2020, participated in the Corporate Sustainability Assessment (CSA) with top 15 percentile



Carbon Disclosure Project
Carbon management services to a level that is managed well. (Management level: B)



The Stock Exchange of Thailand
Listed in the Thailand Sustainability Investment (THSI)



Thailand Greenhouse Gas Management Organization
Low Carbon and Sustainability Award 2020



The Asset Triple A Country Awards 2020 - Southeast Asia
Best Green Bond award (the 5 billion Baht green debentures)

AMBITION

To be listed in **DJSI** by 2022



STAKEHOLDERS

SM FRAMEWORK

Power Accessibility

Quality of Life

ECO system

Sustainable Innovation

SDGs



Goal 7
Affordable and Clean Energy



Goal 11
Sustainable Cities and Communities



Goal 8
Decent Work & Economic Growth



Goal 16
Peace and Justice



Goal 12
Responsible Consumption & Production



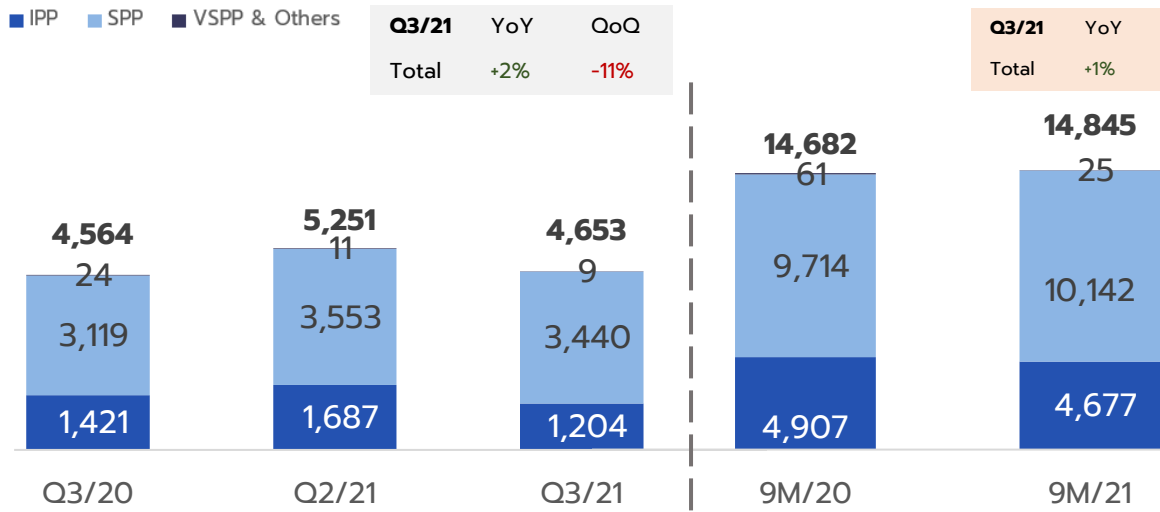
Goal 13
Climate Action



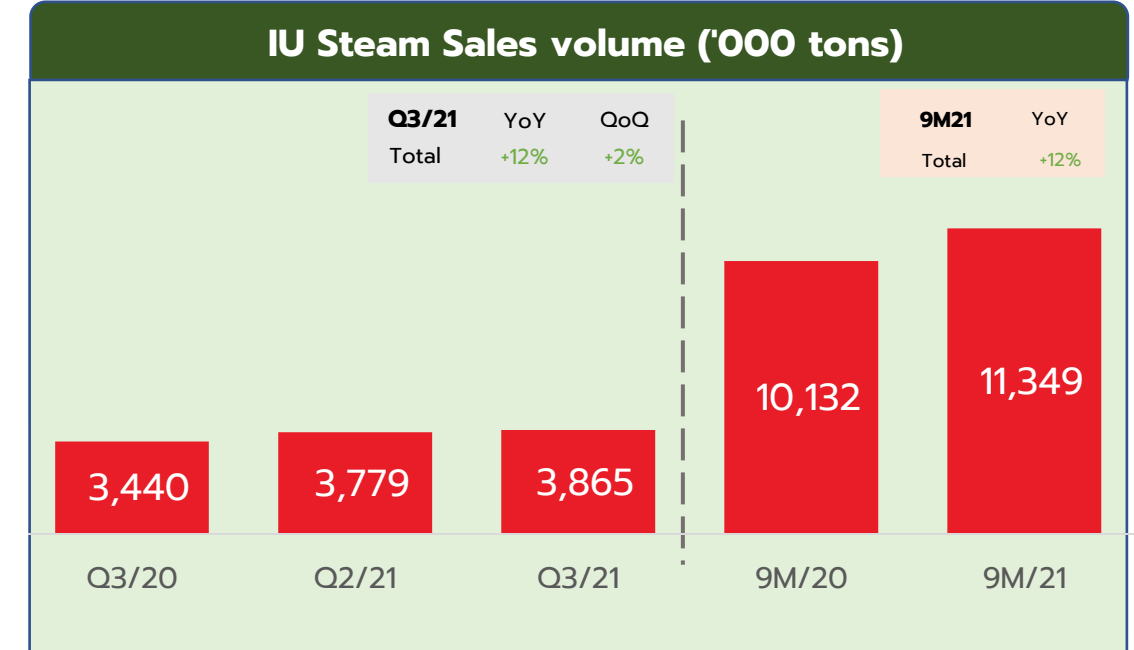
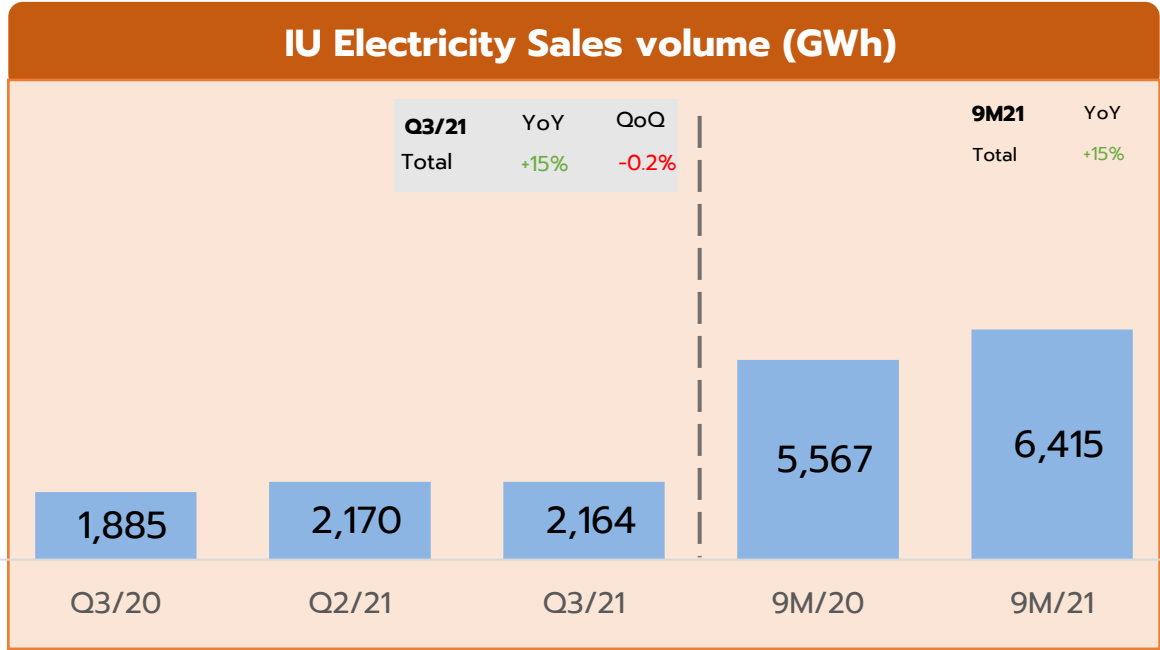
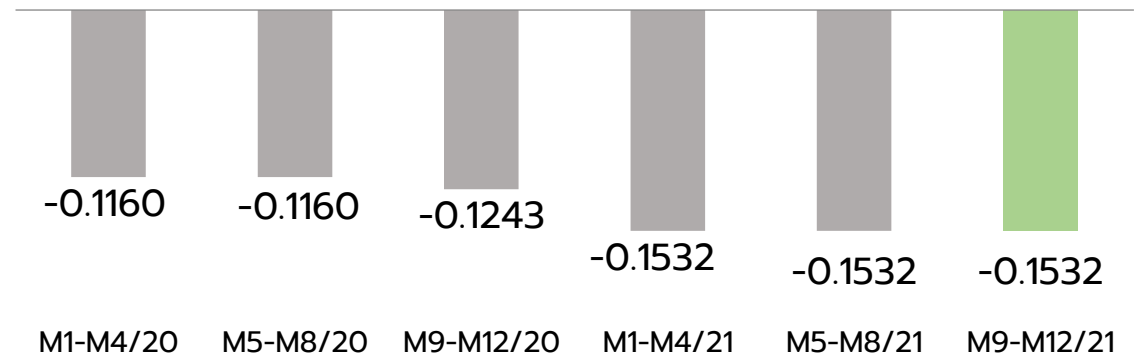
Goal 9
Industry, Innovation and Infrastructure

Q3/2021 | Key Drivers

Electricity Sales volume (GWh)

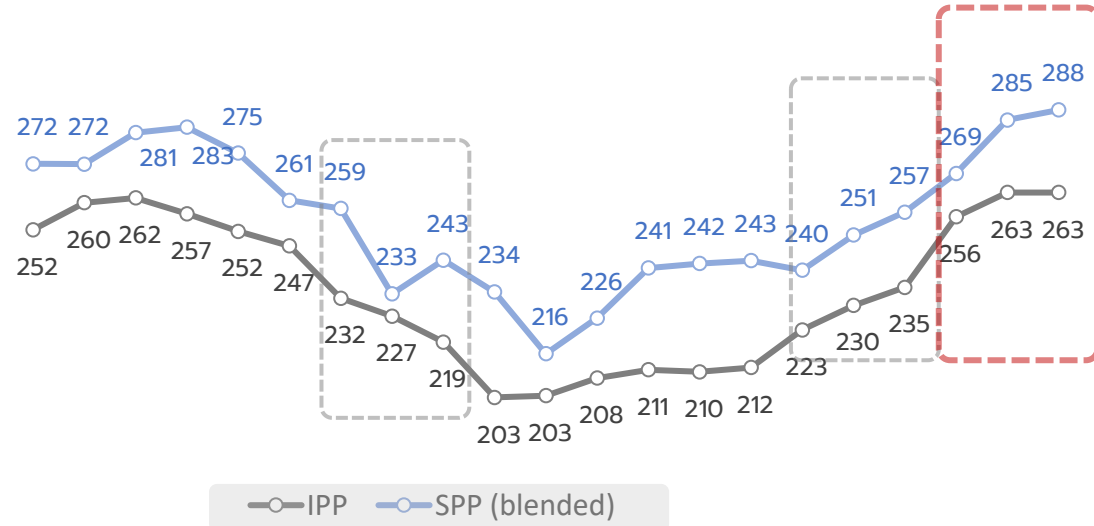


Ft (THB/kWh)

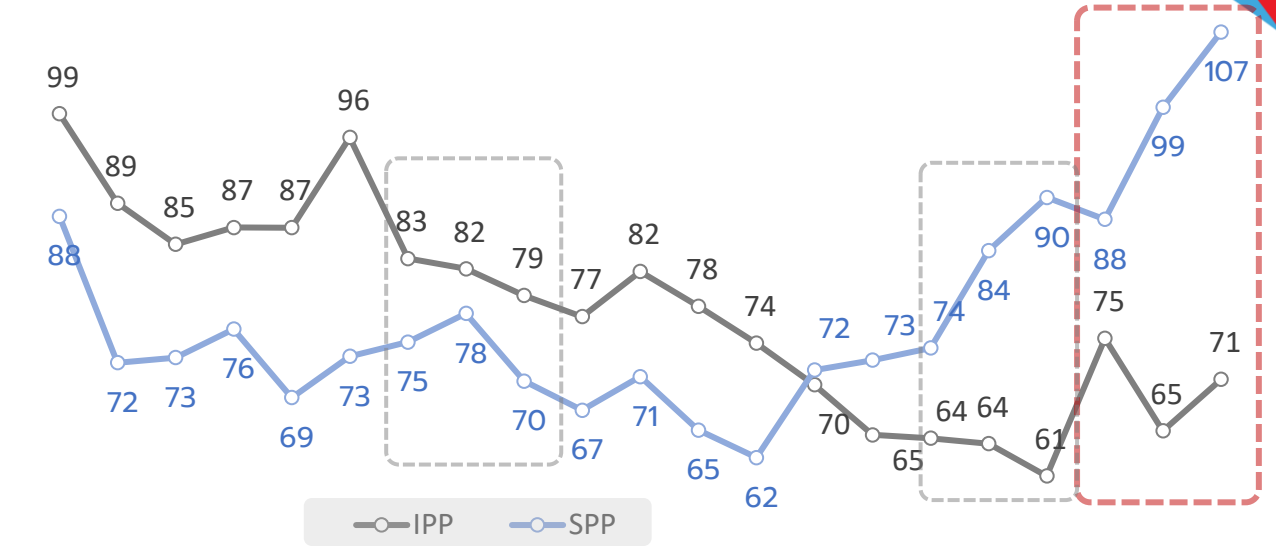


Q3/2021 | Key Drivers

Natural Gas Cost 2020 – Q2/2021 (THB/MMBTU)



Coal Cost 2020 – Q2/2021 (USD/Ton JPU)



M1/20 M2/20 M3/20 M4/20 M5/20 M6/20 M7/20 M8/20 M9/20 M10/20 M11/20 M12/20 M1/21 M2/21 M3/21 M4/21 M5/21 M6/21 M7/21 M8/21 M9/21

M1/20 M2/20 M3/20 M4/20 M5/20 M6/20 M7/20 M8/20 M9/20 M10/20 M11/20 M12/20 M1/21 M2/21 M3/21 M4/21 M5/21 M6/21 M7/21 M8/21 M9/21

IPP's Availability Rate (%)	Q3/20	Q2/21	Q3/21	Change +/-		9M/20	9M/21	Change +/-
				YoY	QoQ			YoY
Sriracha	100%	100%	100%	0%	0%	100%	100%	0%
GIPP	100%	100%	98%	(2%)	(2%)	100%	91%	(9%)
GHECO-One	88%	76%	69%	(19%)	(7%)	94%	68%	(26%)

End-month FX (THB/USD)

Jul20	31.43	Apr21	31.37	Jul21	33.09
Aug20	31.25	May21	31.44	Aug21	32.55
Sep20	31.83	Jun21	32.22	Sep21	34.09
Avg.	31.50		31.68		33.24

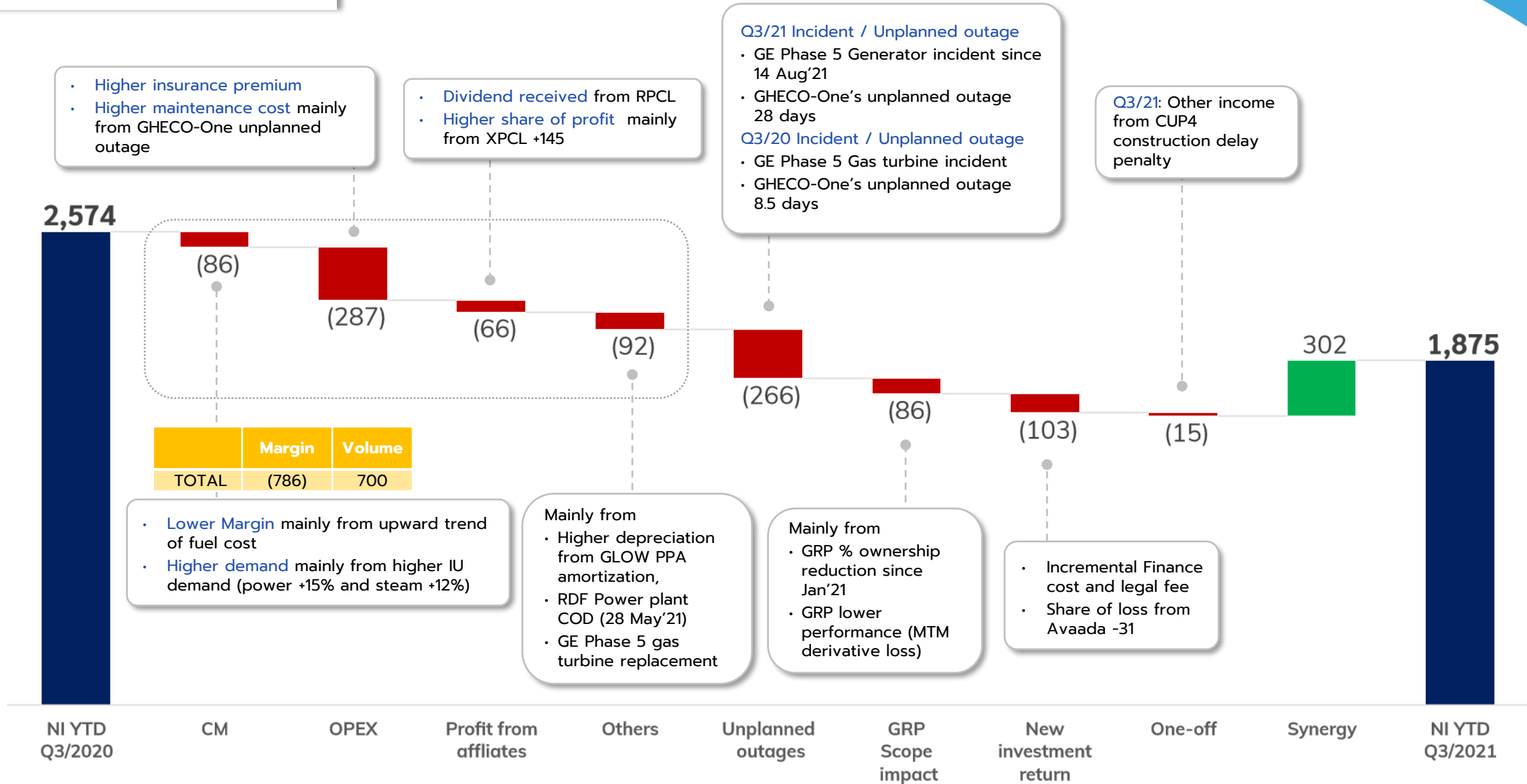
Avg.	9M20	31.78
Avg.	9M21	31.85

Q3/2021 Operating Results

Overall operating results of the Company and its subsidiaries (unit: THB million)	Q3/20	Q2/21	Q3/21	change +/-(-)		9M/20	9M/21	change +/-(-)
				YoY	QoQ			YoY
Operating revenue	16,601	18,234	17,997	8%	(1%)	53,047	52,855	(0.4%)
Cost of sales (excluding depreciation and amortization)	(11,217)	(12,748)	(13,075)	17%	3%	(36,648)	(37,108)	1%
Gross profit	5,384	5,486	4,922	(9%)	(10%)	16,398	15,747	(4%)
Selling and administrative expenses	(408)	(516)	(431)	6%	(17%)	(1,263)	(1,381)	9%
Other operating income	5	5	5	2%	0%	15	15	(3%)
EBITDA	4,981	4,975	4,496	(10%)	(10%)	15,150	14,381	(5%)
Depreciation and amortization	(2,068)	(2,172)	(2,205)	7%	2%	(6,240)	(6,431)	3%
EBIT	2,913	2,803	2,291	(21%)	(18%)	8,910	7,950	(11%)
Finance costs	(1,026)	(987)	(998)	(3%)	1%	(3,058)	(2,959)	(3%)
Other non-operating income and expenses	273	512	262	(4%)	(49%)	1,054	1,037	(2%)
Dividend received and shares of profit of associates and joint ventures	908	522	772	(15%)	48%	680	1,591	134%
Income tax expenses	(314)	(348)	(295)	(6%)	(15%)	(851)	(1,095)	29%
Profit before FX and extraordinary items	2,755	2,502	2,033	(26%)	(19%)	6,735	6,525	(3%)
Net foreign exchange gain (loss)	21	(68)	(95)	(552%)	40%	(13)	(161)	1,140%
Net profit	2,776	2,434	1,938	(30%)	(20%)	6,722	6,363	(5%)
Non-controlling interests	(201)	(132)	(63)	(69%)	(52%)	(672)	(213)	(68%)
Net profit for the Company	2,574	2,302	1,875	(27%)	(19%)	6,050	6,150	2%
Adjusted Net Income¹	2,937	2,720	2,256	(23%)	(17%)	7,149	7,335	3%
Gross profit margin (%)	32%	30%	27%	(15%)	(9%)	31%	30%	(1%)
Net profit margin (%)	16%	13%	10%	(35%)	(17%)	13%	12%	(1%)
Adjusted Net Income margin (%)	18%	15%	13%	(29%)	(16%)	13%	14%	1%

Q3/2021 vs Q3/2020 (YoY) Net Profit

Net Profit **-699 MTHB (27%)**



GPSC Power Plant Portfolio (1/2)

Name	Type	Shareholding (%)	Total capacity (MW)	Equity Power capacity (MW)	Equity Operating Power capacity (MW)	Steam (T/H)	Industrial water (Cu.m/H)	COD	Tenor
IPP									
Sriracha	IPP	GPSC (100%)	700	700	700	-	80	2000	25
Glow IPP	IPP	GLOW (95%)	713	677	677	-	-	2003	25
Huay Ho	IPP	GLOW (67%)	152	102	102	-	-	1999	30
GHECO-One	IPP	GLOW (65%)	660	429	429	-	-	2012	25
XPCL	IPP	GPSC (25%)	1285	321	321	-	-	2019	29
RPCL	IPP	GPSC (15%)	1400	210	210	-	-	2008	25
Total IPP			4,910	2,439	2,439	-	80		
SPP									
CUP-1	SPP	GPSC (100%)	226	226	226	890	720	2006	10-15
CUP-2	SPP	GPSC (100%)	113	113	113	170	510	2008	15
CUP-3	SPP	GPSC (100%)	-	-	-	280	770	2009	15
Rayong Expansion (CUP-3)	SPP	GPSC (100%)	15	15	15	-	-	2019	n/a
CUP-4	SPP	GPSC (100%)	49	49	49	140	-	2019	Long-term
Glow Energy Phase 1	SPP	GLOW (100%)	-	-	-	250	1,340	1994	-
Glow Energy Phase 2	SPP	GLOW (100%)	281	281	281	300	1,180	1996	(extension)
Glow Energy Phase 4	SPP	GLOW (100%)	77	77	77	137	2,050	2005	25
Glow Energy Phase 5	SPP	GLOW (100%)	328	328	328	160	-	2011	10-20
Glow SPP 2/ GLOW SPP 3	SPP	GLOW (100%)	513	513	513	190	150	1999	25
Glow SPP 11 Phase 1	SPP	GLOW (100%)	120	120	120	-	360	2000	25
Glow SPP 11 Phase 3	SPP	GLOW (100%)	42	42	42	-	-	2006	10-20
Glow SPP 11 Phase 2	SPP	GLOW (100%)	110	110	110	-	212	2012	25
Glow Energy CFB 3	SPP	GLOW (100%)	85	85	85	79	-	2010	10-20
IRPC-CP Phase 1	SPP	GPSC (51%)	45	23	23	86.7	-	2015	25-27
IRPC-CP Phase 2	SPP	GPSC (51%)	195	99.4	99.4	66.3	-	2017	25
NNEG	SPP	GPSC (30%)	125	38	38	9	-	2016	25
NNEG Expansion	SPP	GPSC (30%)	60	18	18	3	-	2020	21
BIC-1	SPP	GPSC (25%)	117	29.25	29.25	5	-	2013	25
BIC-2	SPP	GPSC (25%)	117	29.25	29.25	5	-	2017	25
Total SPP			2,618	2,196	2,196	2,771	7,292		

GPSC Power Plant Portfolio (2/2)

Name	Type	Shareholding (%)	Total capacity (MW)	Equity Power capacity (MW)	Equity Operating Power capacity (MW)	Steam (T/H)	Industrial water (Cu.m/H)	COD	Tenor
VSPP and others									
Rayong WTE	VSPP	GPSC (100%)	9.8	9.8	9.8	-	-	2021	18
Glow Energy Solar Plant	VSPP	GLOW (100%)	1.55	1.55	1.55	-	-	2012	25
CHPP	VSPP	GPSC (100%)	5	5	5	-	-	2008	30
CHPP (Solar)	VSPP	GPSC (100%)	5	5	5	-	-	2016	25
ISP1	Solar	GPSC (100%)	20.8	20.8	20.8	-	-	2017	20
GRP (NPS, WXA, PPS)	VSPP	GPSC (50%)	39.5	19.75	19.75	-	-	2014-15	25
GRP1 (Sheng Yang)	Solar	GPSC (45%)	55.8	25.11	25.11	-	-	2016-21	20
Avaada (Solar Power Platform)	Solar	GPSC (41.6%)	4,560	1,897	624			2018-23	15-25
TSR (SSE1)	VSPP	GPSC (40%)	80	32	32	-	-	2013	25
NL1PC	Hydro	GPSC (40%)	65	26	26	-	-	2019	24
Chonburi Clean Energy (CCE)	VSPP	GLOW (33%)	8.6	2.87	2.87	-	-	2019	20
CFXD (Offshore wind farm)	Wind	GPSC (25%)	595	149	-	-	-	2022-24	20
Private PPA	Solar	GPSC Gr. (100%)	23.40	23.40	2.99			2018-21	Long-term
Total VSPP and others			5,469	2,217	775	-	-		
ERU									
ERU (under construction)	Cogen	GPSC (100%)	250	250	-	175	-	2023	25
Total ERU			250	250	-	175	-		
Total capacity			13,247	7,102	5,410	2,946	7,372		

Note:

- Total committed equity capacity as of 12 November 2021.
- Equity capacity includes 100% stake in GLOW, CFXD, Private PPA and ERU.

2021 Maintenance Schedule | Sriracha and Rayong Plants

Site	Description	Duration	2021											
			Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CUP-1	GTG-13	27 Days						12/7	MI	2/8		17/10	1Y	22/10
	HRSG-13	22 Days												
	GTG-12	20 Days									16/9	RCIE	5/10	
	GTG-16	3 Days					1/6	1Y	3/6					
	GTG-14	5 Days									17/10	1Y	22/10	
CUP-2	GTG-21	29 Days			2/3	MI	31/3		12/7	MI	2/8			
	HRSG-21	29 Days			2/3	3Y	30/3		12/7	3Y	2/8			
	GTG-22	5 Days						26/7	1Y	28/7				
CUP-4	GTG-41	5 Days											29/12	RMI 2/1
	HRSG-41	11 Days						27/6	1Y	7/7				
SRC	HRSG#1	14 Days										15/11	3Y	28/11
	HRSG#2	14 Days										15/11	3Y	28/11
	Steam Turbine.10	25 Days										15/11	CI	23/11
	GT-11	8.33 Days									7	MNI	13	
RDF	BMH Machine	7 Days												

Notes: Rayong Site					Notes: Sriracha Site				
GTG					HRSG				
HGPI	Hot Gas Path Inspection for Gas Turbine	14 days			1Y	One Year Inspection HRSG	11 days		
MI	Major Inspection for Gas Turbine	22 days			3Y	Three Year Inspection HRSG	14 days		
STG					Others				
Minor	Minor Inspection for Steam Turbine	15 days			1Y	One Year Inspection NG Station Test	Online		
1MO	2 nd Major Overhaul for Steam Turbine	23 days			5Y	Five Year Inspection NG Station (NDT)	Online		
2MO	2 nd Major Overhaul for Steam Turbine	27 days			FO	Forced Outage	Depending on physical damage		
AB									
1Y	One Year Inspection Aux. Boiler	11 days							
3Y	Three Year Inspection Aux. Boiler	13 days							
					GTG				
					CI	Combustion Inspection for Gas Turbine	8 days		
					HGPI	Hot Gas Path Inspection for Gas Turbine	26 days		
					MO	Major Overhaul for Gas Turbine	33 days		
					RCIE	Rotor and Casting Inspection Evaluation	49 days		
					HRSG				
					1Y	One Year Inspection HRSG	8 days		
					3Y	Three Year Inspection HRSG	33 days		
					Other				
					1Y	One Year Inspection NG Station Test	Online		
					5Y	Five Year Inspection NG Station (NDT)	Online		
					FO	Forced Outage	Depending on physical damage		

2022 Maintenance Schedule | Sriracha and Rayong Plants

			2022												
Description		Duration	Q1			Q2			Q3			Q4			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
CUP-1	GTG-14	22 Days	10/1	MI	31/1										
	GTG-11	14 Days		15/2	HGPI	28/2									
	AB11	13 Days		15/3	3Y	27/3									
	GTG-15	22 Days					7/6	1Y	28/6						
	GTG-16	22 Days						7/7	1Y	28/7					
CUP-2	AB21	13 Days						1/7	3Y	13/7					
CUP-3	STG31	15 Days							1/8	MI	15/8				
CUP-4	GTG-41	5 Days		6/2	RMI	10/2									
SRC	GT-11	9 Days											18/12	CI	26/12
	GT-12	9 Days											18/12	CI	26/12
RDF	BMH Machine	7 Days	10/1	1Y	16/1										
	BMH Machine	30 Days					1/6	1Y	30/6						

Notes: Rayong Site				Notes: Sriracha Site			
<u>GTG</u>				<u>HRSG</u>			<u>GTG</u>
HGPI	Hot Gas Path Inspection for Gas Turbine	14 days	1Y One Year Inspection HRSG	11 days	CI Combustion Inspection for Gas Turbine	8 days	1Y One Year Inspection HRSG
MI	Major Inspection for Gas Turbine	22 days	3Y Three Year Inspection HRSG	14 days	HGPI Hot Gas Path Inspection for Gas Turbine	26 days	3Y Three Year Inspection HRSG
RMI	Remote Minor Inspection for Gas Turbine	5 days	<u>Others</u>		MO Major Overhaul for Gas Turbine	33 days	<u>Other</u>
<u>STG</u>			1Y One Year Inspection NG Station Test	Online	RCIE Rotor and Casting Inspection Evaluation	49 days	1Y One Year Inspection NG Station Test Online
Minor	Minor Inspection for Steam Turbine	15 days	5Y Five Year Inspection NG Station (NDT)	Online			5Y Five Year Inspection NG Station (NDT) Online
1MO	2 nd Major Overhaul for Steam Turbine	23 days	FO Forced Outage	Depending on			FO Forced Outage Depending on physical damage
2MO	2 nd Major Overhaul for Steam Turbine	27 days		physical damage			
<u>AB</u>							
1Y	One Year Inspection Aux. Boiler	11 days					
3Y	Three Year Inspection Aux. Boiler	13 days					

2021 Maintenance Schedule | IRPC-CP

Main Unit	Description	Duration	2021											
			Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Block 1														
CTG 21	B	20 Days				20								
HRSG 21	B	20 Days				20								
CTG 22	B	20 Days				20								
HRSG 22	B	20 Days				20								
STG 23	MI	20 Days				20								
Block 2														
CTG 31	B	20 Days					20							
HRSG 31	B	20 Days					20							
CTG 32	C	22 Days							22					
HRSG 32	C	22 Days							22					
STG 33	MI	20 Days							20					
Aux. Boiler	YI	15 Days						15						

Notes:

MI Major Inspection

YI Yearly Inspection Aux Boiler 15 days

B CTG/HRSG Inspection Level B 20 days

C CTG /HRSG Inspection Level C 22 days

Excluded 1 Day maintenance

2022 Maintenance Schedule | IRPC-CP

Main Unit	Description	Duration	2021											
			Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Block 1														
CTG 21	A	7 Days				7								
HRSG 21	YI	7 Days				7								
CTG 22	A	7 Days				7								
HRSG 22	YI	7 Days				7								
STG 23	YI	5 Days				5								
Block 2														
CTG 31	A	7 Days					7							
HRSG 31	YI	7 Days					7							
CTG 32	A	7 Days							7					
HRSG 32	YI	7 Days							7					
STG 33	YI	5 Days							5					
Aux. Boiler	YI	7 Days						7						

Notes:

YI Yearly Inspection Aux Boiler 7 days
 A CTG/HRSR Inspection Level A 5/7 days

2021 Maintenance Schedule | GLOW's Main Units

2021														
Main Units	Description	Duration	Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
GHECO-ONE	Minor Inspection	37 Days 1/1	2Y	6/2										
GIPP: UNIT 1	Minor Inspection	5 Days									27/9	3Y	1/10	
GIPP: UNIT 2	Minor Inspection	5 Days										2/10	3Y	6/10
CFB 3	Minor Inspection	21 Days				1/5	3Y	21/5						
Phase 5	Minor Inspection	9 Days									17/10	GT-SA	25/10	
GSPP11 (Plant 2)	Minor Inspection	14 Days											1/12	3Y 14/12

2022 Maintenance Schedule | GLOW's Main Units

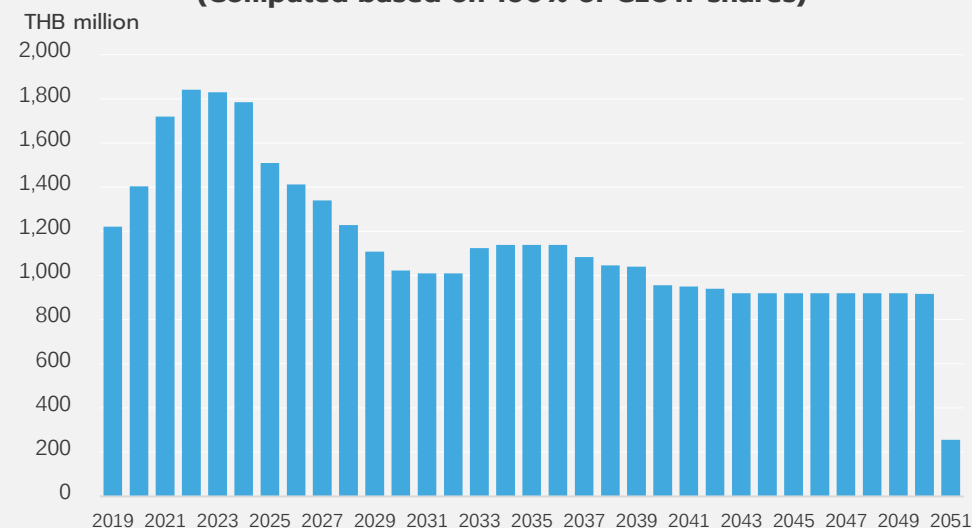
Main Units	Description	Duration	2022											
			Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
GE phase 4	CTG_3A	7 Days	10/1 MI	16/1										
GSPP2	CTG_3A_3B	4 Days	10/1 MI	13/1										
GSPP2	CTG_1A	7 Days		12/3 MI	18/3									
GSPP2	CTG_1B	7 Days				6/5 MI	12/5							
GSPP2	CTG_2A	4 Days							25/8 MI	28/8				
GSPP2	CFB_2	4 Days							26/8 MI	29/8				
GSPP3	CFB_1&2	21 Days							22/8 3Y	11/9				
GSPP11 (Plant 2)	GT_1	5 Days	14/1 MO	18/1										
GSPP11 (Plant 3)	GE_2	16 Days		13/2 MI	28/2									
GSPP11 (Plant 3)	GE_1	16 Days				25/5 MO	9/6							
GSPP11 (Plant 1)	GT_100	15 Days							17/8 MO	31/8				
HHPC (Unit 1)	Unit_1	14 Days										20/10 MI	2/11	
HHPC (Unit 2)	Unit_2	14 Days										3/11 MI	16/11	

Fair Value Measurement of Net Assets from Acquisition of Glow

unit: THB million

Items	Book Value of GLOW	Fair Value of GLOW	Differential Value
Assets	107,655	155,500	47,845
Liabilities	(56,246)	(66,497)	(10,251)
Net Assets of GLOW at 14 March 2019	51,409	89,003	37,594
Non-Controlling interests at 30.89%		(32,092)	
Total Net Asset obtained GLOW at 69.11%		56,911	
Goodwill		36,090	
Proportion of acquisition cost 69.11%		93,001	

Amortization of Fair Value Measured from Net Assets acquired from GLOW during 2019 - 2051
(Computed based on 100% of GLOW shares)



GPSC has completed the acquisition of 69.11% on 14 March 2019 at a total of THB 93,001 million, the company has measured the fair value of GLOW net assets as follows:

- The fair value uplift of THB 37,594 million from **Purchase Price Allocation (PPA)**
- **The fair value recognition of net assets** acquired from GLOW will be amortized yearly (based on the remaining period of the contract, 5 to 31 years).
- **Goodwill** will be subjected to an impairment test on a yearly basis.



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