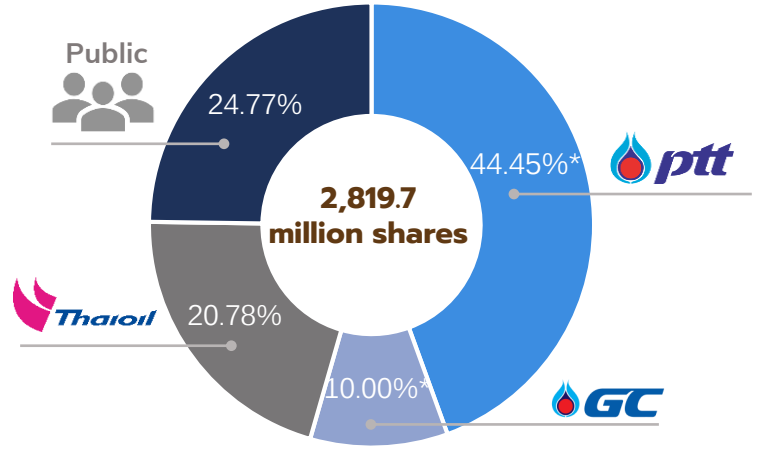
DBS Regional Clean Energy

July 1, 2021

The power 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



* PTT stake includes 1.91% hold via SMH, a wholly-owned indirect subsidiary of PTT. The transaction was completed on June 8, 2021.

COMPANY INFORMATION (as of June 28, 2021)

Business Type | Energy & Utilities listed on SET

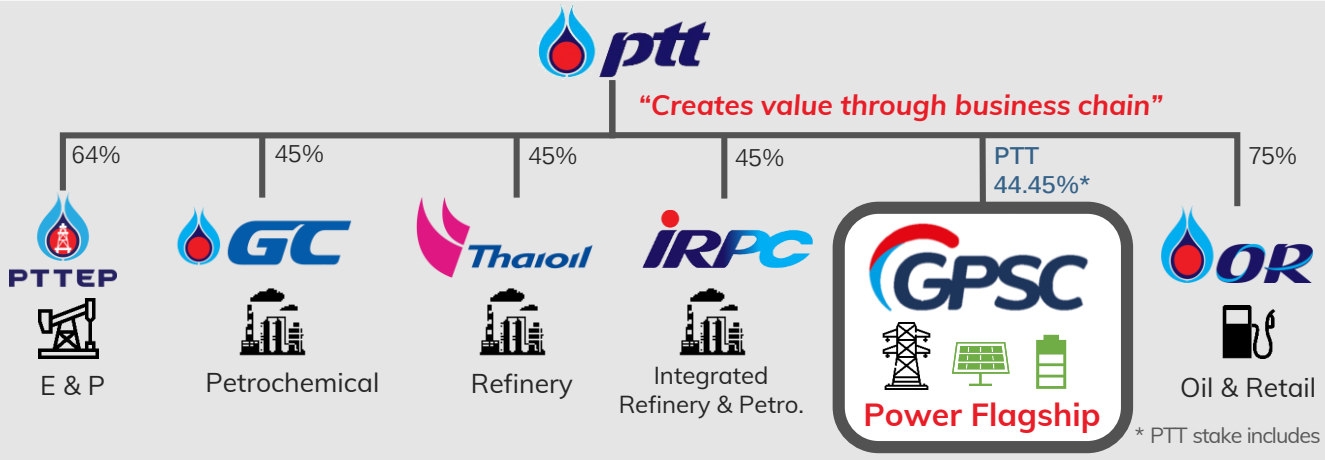
Paid-up Capital | THB 28,197 million

Market Cap. | THB 204,430 million

CREDIT RATINGS

BBB-	S&P Global
AA-	TRIS RATING
A+(tha)	FitchRatings

PTT Group's Business

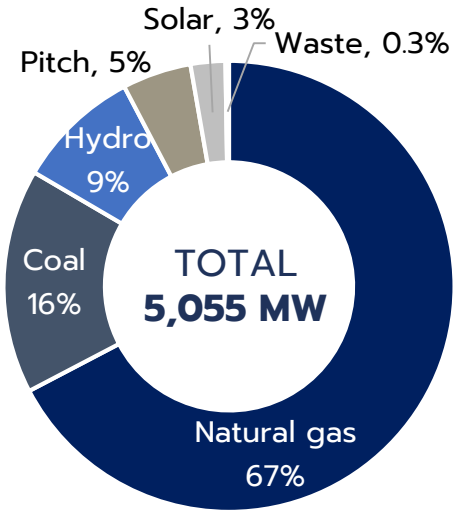


* PTT stake includes 1.91% hold via SMH

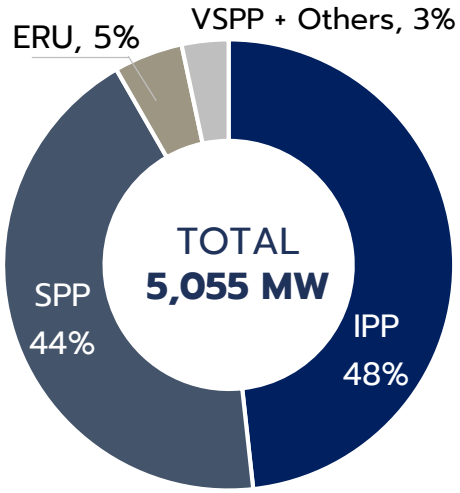
GPSC's Current business portfolio

Equity capacity (%)

By Fuel type



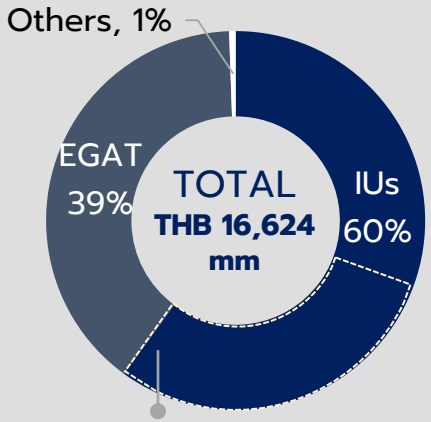
By Plant type



Customer portfolio & services

Revenue by customer

Q1/2021 Revenue by Customers | THB million, %



PTT Group | 31% of Total Revenue

LT OFF-TAKE CONTRACTS

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

Product / Services

Electricity	Steam	Industrial water
4,467 MW	*2,946 T/H*	*7,372 Cu.m./H*

Renewable energy	ESS battery	Chilled water
588 MW	*141 MWh*	*15,400 RT*

Note: *Total equity capacity includes GRP restructuring which GPSC sold 50% of GRP's shares to PTT's subsidiary.

GPSC milestones | transforming to "Utility of the Future"

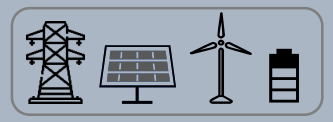
2013-2014

GPSC established

- Founded through merging of PTT Utility Company and Independent Power (Thailand)
- 8 of PTT's power assets were transformed to GPSC

2015-2018

Scale up organization



- Portfolio expansion in Thailand and overseas
- Merger and Acquisition of GLOW
- Investment in 24M

2019-2021

Consolidation & Innovation

- Synergy & operational excellence with GLOW
- Scaling up of battery manufacturing business

2021 onwards

Utility of the future – growth driven by diversification

- ✓ Geographical expansion
- ✓ Building second home countries
- ✓ Diversified business (integrated utilities, energy management, renewable energy etc.
- ✓ S-curve business (smart energy, future energy, battery value chain, etc.)

Sustainability at GPSC

Strategic Directions (3S)

- Synergy and Integration
- Selective Growth
- S-Curve

Outlook

Q&A

Move towards sustainability

Sustainability & Climate Change Strategy

Sustainability Management Framework

Power Accessibility

Enhance stability of access by investing in distributed energy technologies and infrastructure

Quality of Life

Empower better living by providing occupational training program, light for a better life program and zero-waste village

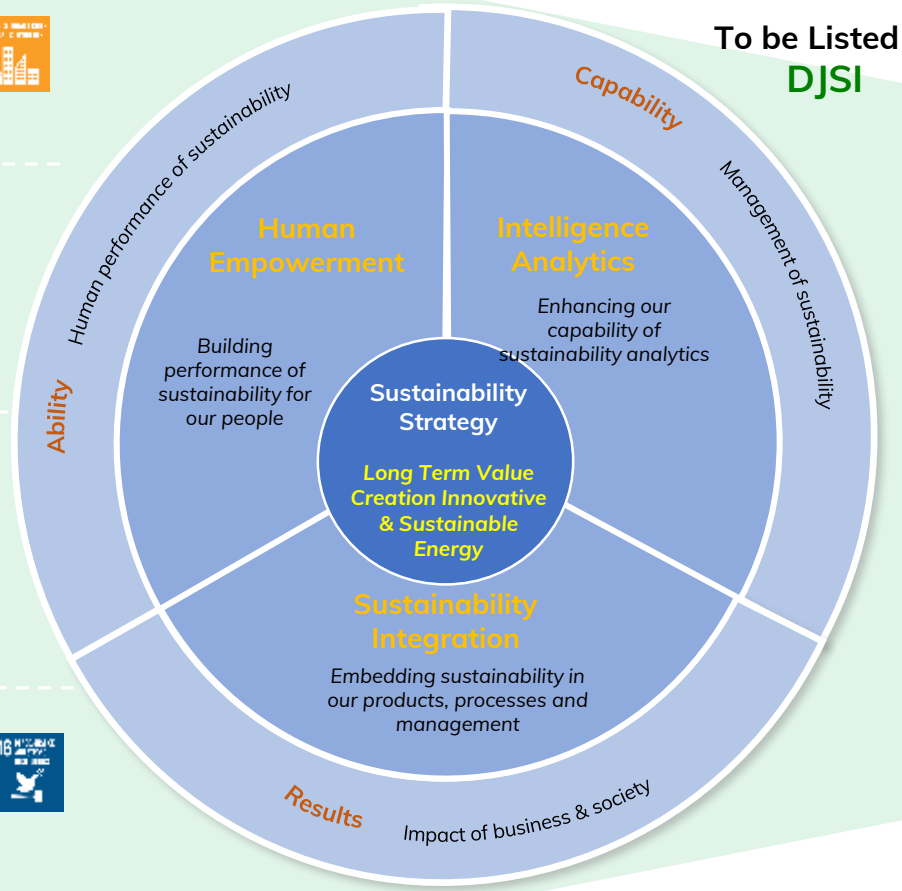
Eco - system

Eco-system of driving clean energy, cultivating the Circular Economy concept and easing environmental impacts

Sustainable Innovation

Sustainable Innovation for the corporation to drive improvement initiatives through Artificial Intelligence (AI) and Blockchain, innovation culture and youth social innovation

Long Term Values Creation Innovative & Sustainable Energy



To be Listed in **DJSI**

Aim to **NET ZERO**

Sustainability | Net Zero Framework

The route to net zero for utilities

INTERNAL

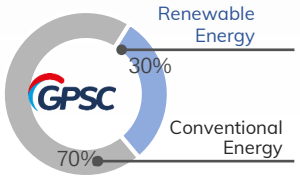
Reduce fossil fuel usage

- Adopt best practice operational excellence
- Retrofit non-renewable power plants, etc.

Grow renewables

Execute the growth strategy as planned by

- Develop solar and wind power plants
- Integrate distributed solar and Switch to microgrid, etc.



Enhance infrastructure

- ESS with renewable energy generation support and EMS
- Implement digital transformation
- Study and adopt CCUS, etc.

EXTERNAL

Trading / Offsets

- Study carbon credits, emissions trading schemes, shadow carbon pricing, etc.

Note: ESS : Energy Storage System
EMS : Energy Management System
CCUS : Carbon Capture, Utilization and Storage

Sustainability at GPSC

Strategic Directions (3S)

- **Synergy and Integration**
- **Selective Growth**
- **S-Curve**

Outlook

Q&A

Strategic Directions and Growth Strategy | 3S Strategy

SYNERGY & INTEGRATION

- Synergy Capture
- Customer Centric
- ROE Uplift

SELECTIVE GROWTH

- Thailand Business Development
- International Business Development
- Co-investment with PTT
- New Businesses

S-CURVE BUSINESS

- Battery manufacturer with own R&D
- System Integrator
- Digital Energy

S1 Synergy and Integration

Synergy and Integration

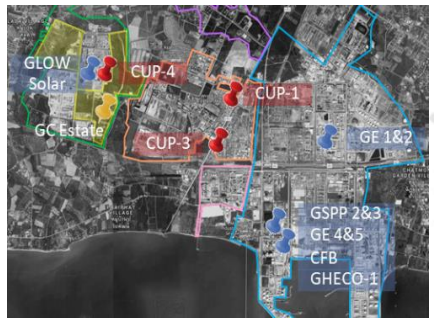
Q1/2021, the recognized synergy value is approx.
THB 224 mm (After tax)

mainly from operation and maintenance, the management of power and steam network integration and coal ash management

THB >1.6 bn per year
recurring synergy from GIP INFINITE POWER

Ramp up with full synergy value *contribution by 2024*

Key Synergy Initiatives



- **Enhance reliability** in Maptaput via Power and Steam Integration
- Aligning **best practice** to increase maintenance and procurement **productivity and cost saving**
- Corporate Function & IT Synergy

Operational Excellence (OpEx)

"To be **Top of Operational Excellence** in power and utilities business"

Strengthen the core = Foundation for future

- Best-in-class operation
- Customer-centric utility service provider

Explore & Innovate

- Build capabilities
- Setup and scale up S-curve and new business

S1 Synergy and Integration

To drive **"Operational Excellence"** across all assets of GPSC

Shareholder satisfaction

Customer satisfaction and engagement

Safety	Reliability	Profitability	Sustainability
• Align LOTO and Permit to Work procedures • Quality Job Safety Analysis • Introduce "Hold Point" in Permit to Work • Standardize Behavioral Based Safety KPIs across all plants	• GPSC-Glow Inter-connection (power& Steam) • Predictive Maintenance • Classify critical equipment and replace obsolete equipment • Replace Obsolete Relay Protections • Gen/Load Shedding • "Go Live" Mgmt. of Change • Cascade Reliability KPI to all O&M Staff	• GPSC-Glow Inter-connection (power& Steam) • Enhance Linear Pro. Optimization Tool • Performance Monitoring of Major Equipment • IoT for Energy Savings • Plant O&M Cost Management • Outage Interval Optimization • Successful New-Built Project hand Over	• Competency and Gap Closing • Incident Management Process (P-D-C-A) • Quality RCA • End-Stage Operations Organization • Best Practice Sharing • Use Yammer for group communication • Succession Planning • Industries Benchmarking • Develop HV Competence Center

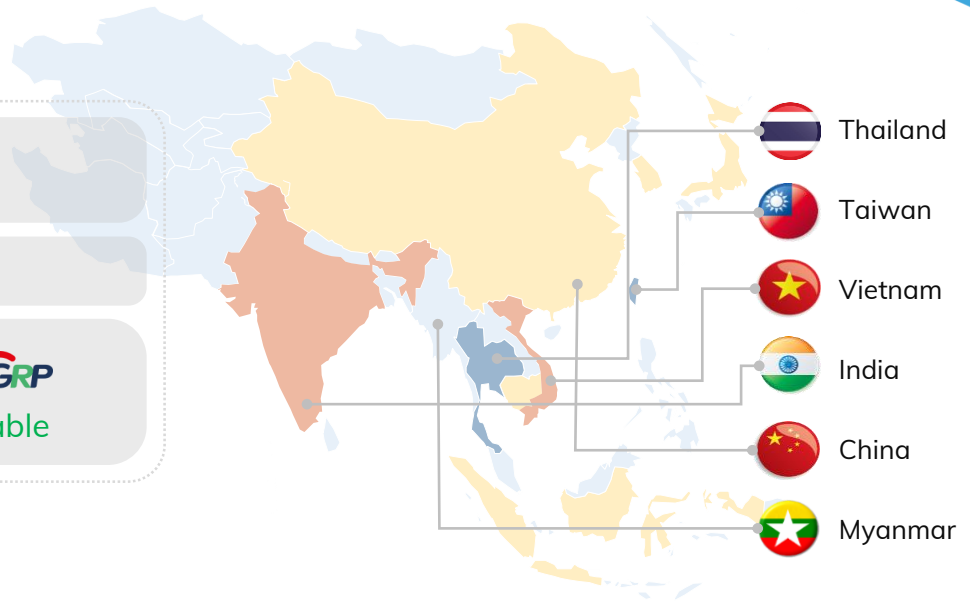
Enablers

- **Organization and people:** ACT Spirit, Effective Communication, Qualifications, Analytical Skills, HV Competence Center
- **OEMS:** SSHE, ORM, RAI, OPS, VCM, CPM, MOC
- **Digital Transformation:** Lean Process, New ERP Implementation, Data Management, Robotic, Sensors

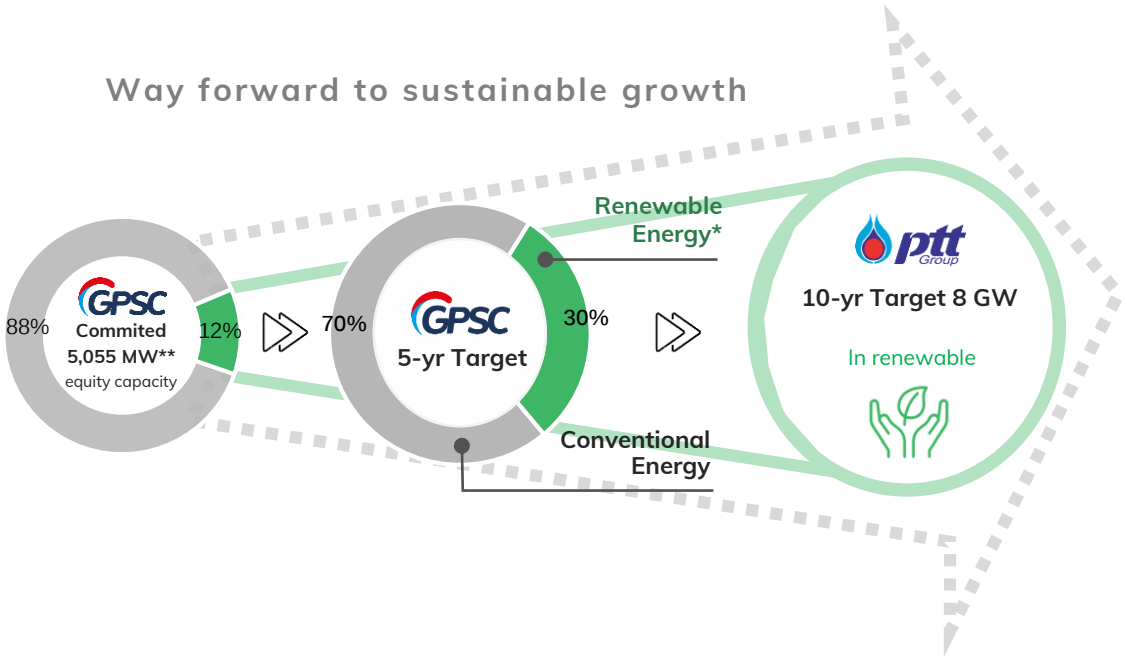
S2 Selective Growth

GPSC Selective Growth

Thailand	International	
GPSC, GPSC NPP: Conventional & Renewable	GPSC: Conventional	GPSC, GRP: Renewable



Way forward to sustainable growth



Focusing on power plant projects
by **Leveraging PTT Group's Networking**

GRP will be a ***"new energy platform"***
for PTT Group Investing especially in renewable energy businesses internationally through:

- *Pooling assets, resources & Expertise*
- *Financial capability*

Note: * Renewable energy mentioned on this page covers energy from solar, wind, waste, hydro, etc.

S3 S-Curve Business

Pilot projects and proof of concept

24M
R&D / Lab

GPSC Pilot Scale

Manufacturing Scale-up

Axiva

Business Collaboration

- Sharing of experience
- Joint procurement of Electrode Active Materials
- Right to offtake product to Thailand and etc.

Expansion with Business Ecosystems

GPSC
Commercial Scale

ESS | Non-EV mobility | EV mobility

Key enabler for GPSC's other s-curves with strong competitive advantage

One-stop service smart solution provider

Digital Energy and Expand business

Possible acceleration if market develops faster

Development and Achievements

24 February 2021 :
GPSC and OR unveiled G-BOX

150 kWh G-Box, a Battery Energy Storage System at PTT station

26 March 2021:

Collaboration with **Swap & Go** for swappable battery packs of motorcycles

29 April 2021 :

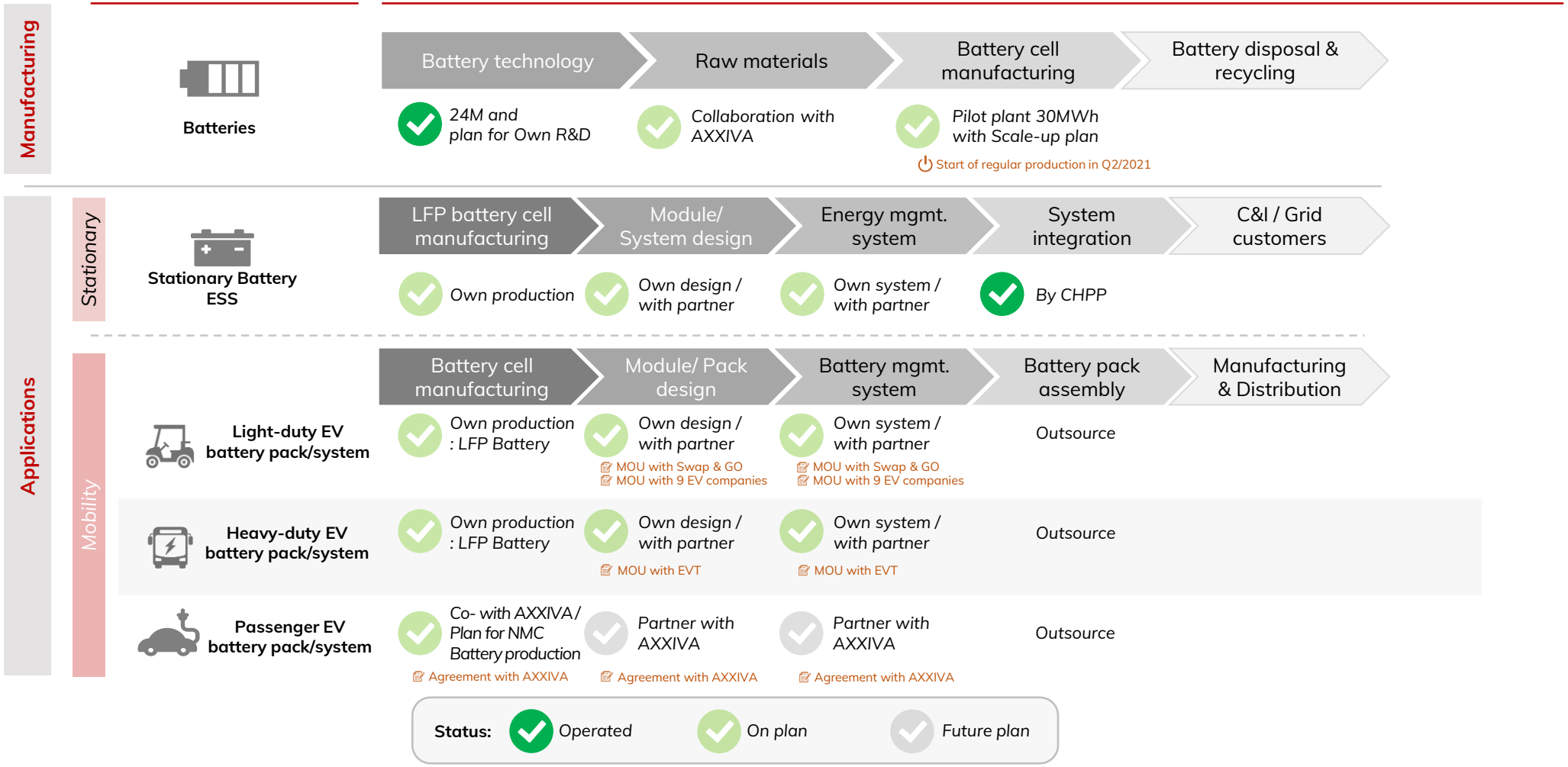
MOU with 9 companies to develop a **common battery pack** and to develop a **battery swapping platform** for charging stations.

18 May 2021:

Partners up with **Electrify** to develop and implement a P2P energy trading platform

S3 S-Curve Business

GPSC has built capabilities across different segments of the value chain, with focus on stationary battery ESS and light duty EV battery pack



S3 GPSC Battery : G-CELL and Applications

G-CELL Core Values

- Safer
- Greener
- Reliable

G-CELL Semi-Solid Battery Unique Design

- Shorter Process
- Remove **40%** Inactive Material
- **No** binder Needed
- **Low Risk** of Contamination

Application and Manufacture Development for Semi-Solid Energy Storage Unit (30 MWh p.a.)

Energy Storage

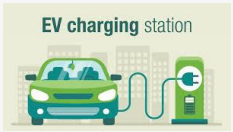
E-Mobility

Target applications

Commercial & Industrial	- Charging station - Industrial Estate
Micro-Grid	- Remote Area
Residential (RESS) and others	- Property Development - ESS Mobility and others
E-Mobility	- Battery for EVs - Battery swapping

Lead Acid Replacement

EV-Bus



ESS x EV Charger

Battery Swapping & Car Charing

Battery Pack for EV

Energy Platform

S3 Applications and Achievement in Renewable & Smart Energy Projects

VISTEC 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

6 MW Smart Energy Project at Suranaree University
To create a low carbon university

1.74 MW Solar Rooftop	4.312 MW Floating Solar	100-200 kWh Lithium-ion BESS	AI & Smart Energy Platform

- ✓ High efficiency BESS with management of solar power generation
- ✓ Blockchain-based smart grid and AI
- ✓ Cutting-edge innovation and smart energy platform

EECi @Wangchan Valley
Smart Natural Innovation Platform

SMART Energy Management

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

GC ESS FOR GC's INNOVATION CENTER
(Launched: Feb 2020)

- ✓ Increase gas engine efficiency
- ✓ Peak shift with ESS
- ✓ 250kW/1.5MWh
- ✓ Emergency backup power

PTT TANK First offshore floating solar farm
100 kW installed capacity for seaside of PTT Tank

- ✓ **PTT Tank :** Cut the electricity cost and reduce carbon dioxide emission
- ✓ **GC** developed special plastic "InnoPlus HD8200B"
- ✓ **CHPP** designed and installed the floating solar system

Sustainability at GPSC

Strategic Directions (3S)

- Synergy and Integration
- Selective Growth
- S-Curve

Outlook

Q&A

2021 Outlook

Performance Outlook

- ▲ **Synergy value** from acquisition of GLOW is expected to be THB >800 million (after tax) in 2021.
- ▲ Demand of electricity and steam in the MTP area increased by 4%, approximately.
- ▼ In 2021 , average gas price is expected to be higher 5% from Q1/2021 and coal price is expected to go up from Q1/2021.
- ■ GLOW Energy Phase 5 Plant resumed to normal operation in 2-Apr-2021. Insurance payment claim is ongoing.

GPSC is in the process of sharpening our strategic plan for responding and dealing with the challenges.

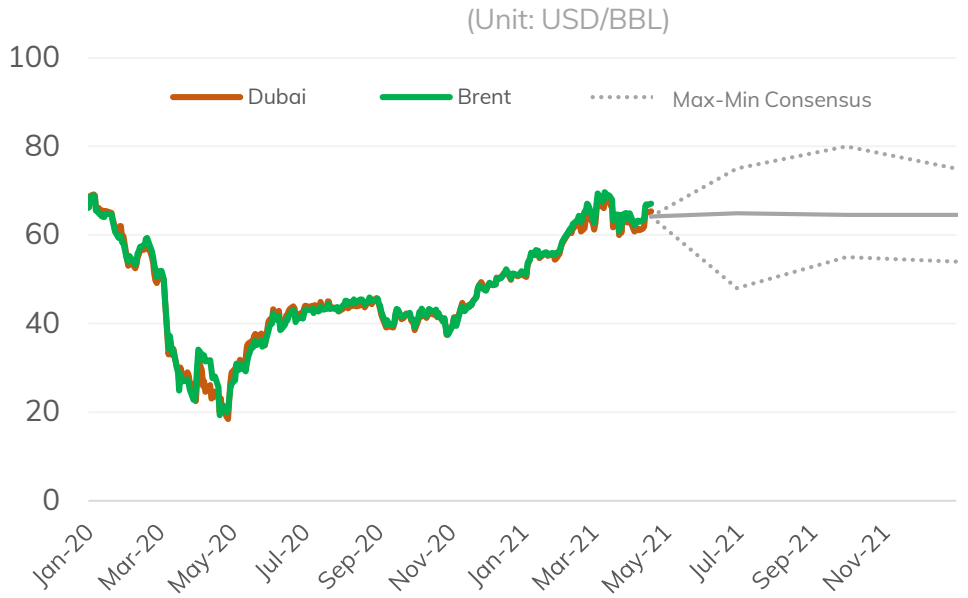
Project Closing and COD in 2021

Solar projects of 25 MW in Taiwan expected to closing in Q2/2021

Rayong Waste to Energy Project has COD on 28-May-2021

Energy Storage Unit 30 MWh p.a. expected Start of regular production in Q2/2021

Key Assumptions (Unit: USD/BBL)



- **Natural gas price** is forecasted to increase slightly in the same direction with crude oil with lag time 6 – 12 months.
  - NG price increased slightly in Q1/2021.
  - Blended gas cost of SPP portfolio is expected 10% increase at year-end.

- **Coal price**
  - Coal price spiked in Q2/2021.
  - Coal price range is expected about US$ 95-100 per ton (NewCastle) at year-end.

Q&A SESSION

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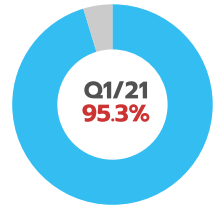
Update of Projects

Rayong Waste to Energy (WTE)

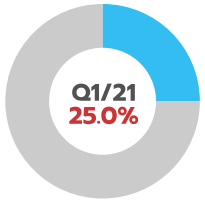
Electricity (MW)	9.8

Semi-Solid Energy Storage Unit | 30 MWh



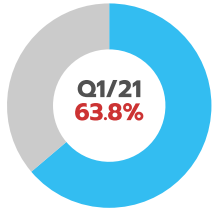
Capacity (MWh/yr.)	30

SPP Replacement - Stage 1 | Glow Energy Ph. 2



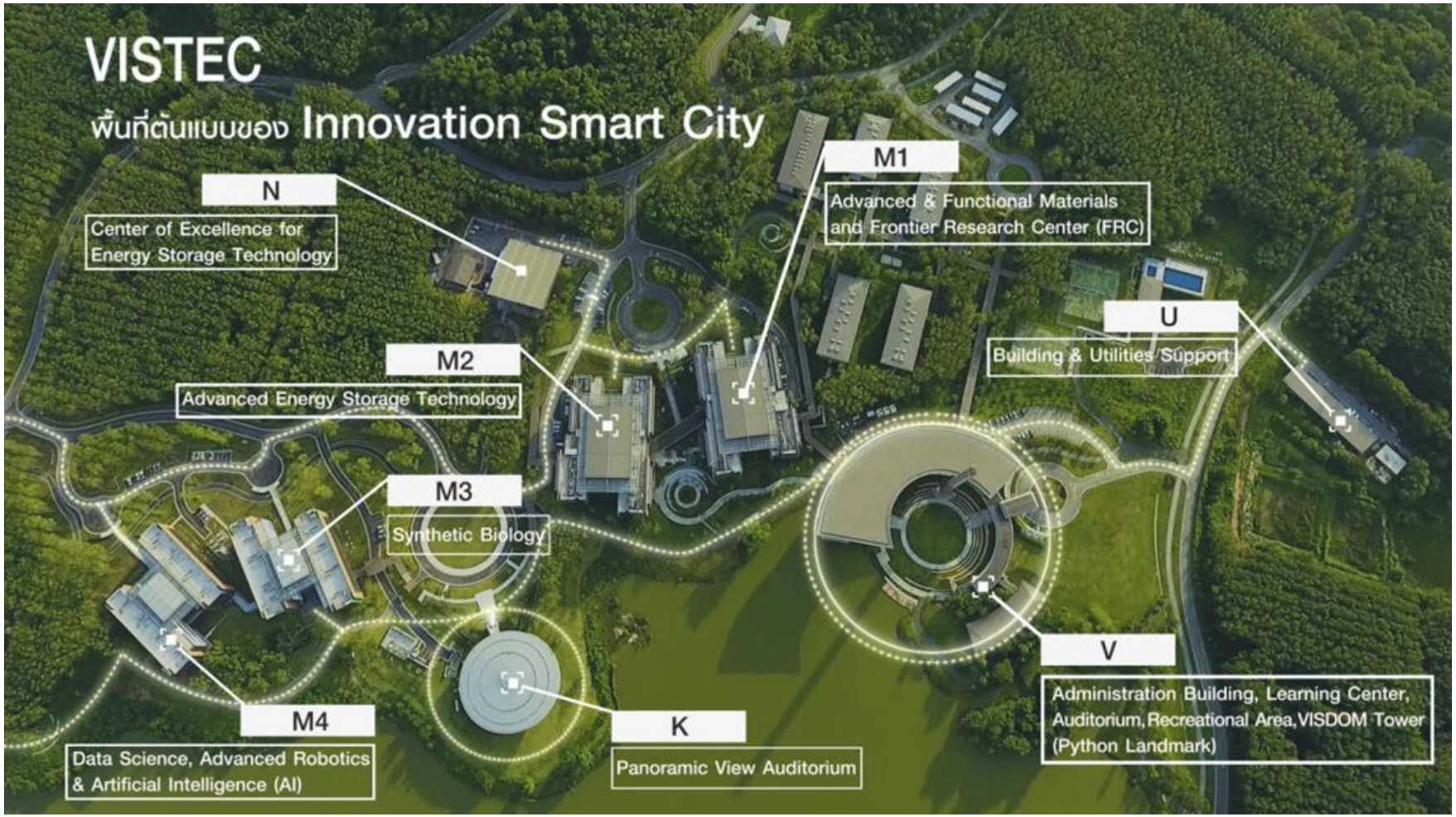
Electricity (MW)	192
Steam (ton/hr.)	300

Energy Recovery Unit (ERU)



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

VISTEC Project : One of the most completed sets of Smart Energy Management in Thailand



Smart Energy Technologies

- 1.39MWp Solar Rooftop
- 0.1MWp Solar Floating
- 1.2MWh Energy Storage
- EV Chargers
- Artificial Intelligence
- Blockchain P2P Energy Trading

Zero Solar Shedding

100% of solar energy generated will be utilized.

Zero Import Building

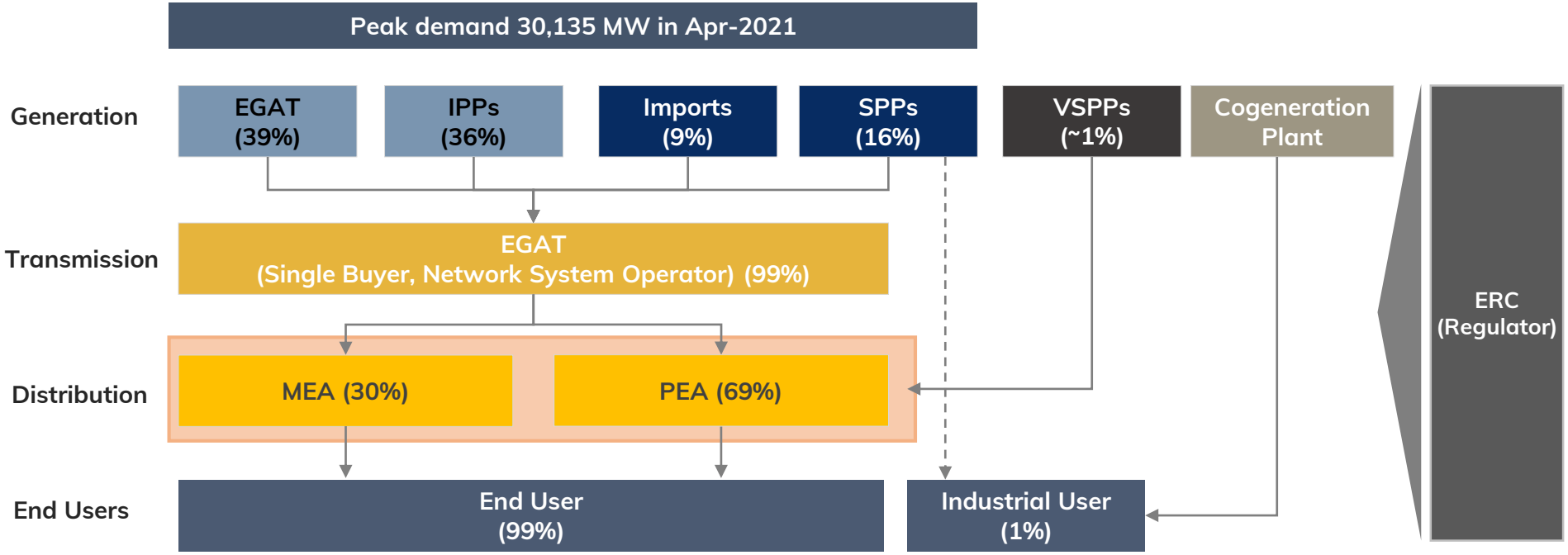
M4 will use 100% renewable energy on most days.

Peer to Peer Energy Trading

Each building can share energy surplus & demand.

Current power industry structure in Thailand

- **EGAT and IPPs dominate electricity generation market**, with the combined market share 75%.
- EGAT is the sole purchaser for almost all of the electricity generated, while VSPPs sell electricity directly to the MEA and PEA
- SPPs sell electricity to both EGAT and directly to industrial users



Definition

EGAT	Electricity Generating Authority of Thailand (State-owned entity)
IPP	Independent Power Producers
SPP	Small Power Producers
VSPP	Very Small Power Producers
MEA	Metropolitan Electricity Authority (State-owned entity)
PEA	Provincial Electricity Authority (State-owned entity)
ERC	Energy Regulatory Commission

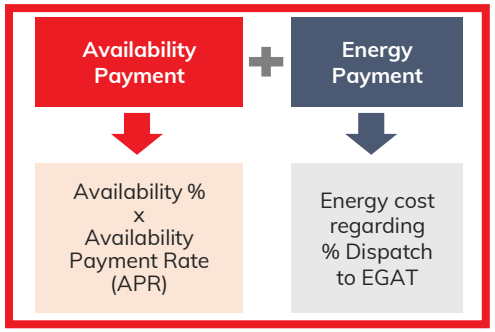
Source: EGAT and GPSC

Power Plant Definition & Revenue Structure

IPP

Independent Power Producer (IPP):

- A large power producer who has entered into the Power Purchase Agreement (PPA) with contracted capacity more than 90 MW
- IPPs are obliged to sell their entire output to EGAT



SPP

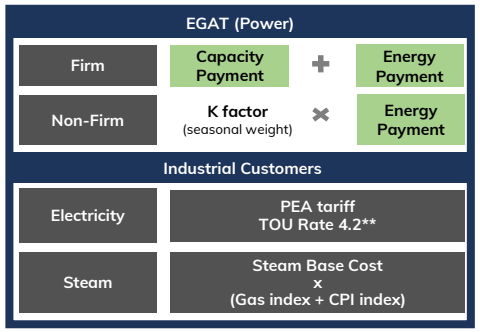
Small Power Producer (SPP) / Cogeneration (Cogen):

- A small power producer who sell their electricity to EGAT* and sell their electricity and utilities (e.g. steam, industrial water, chilled water) to Industrial customers (IUs)

Contract Type:

EGAT:
- Firm: Contract term > 5 years ; CP + EP (+ FS)**
- Non-Firm: Contract term <= 5 Years; Only EP_{NF}

IUs: Commercial contract as agreed.

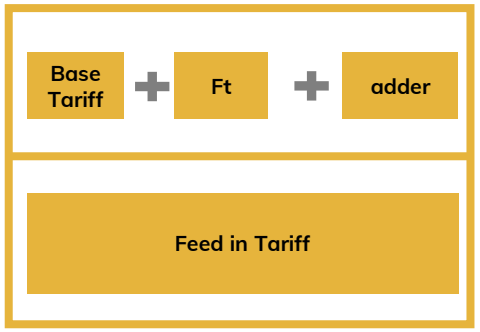


* Under various type of contracts.
** Fuel Saving (FS)
*** Reference rate with conditions: https://www.pea.co.th/

VSPP

Very Small Power Producer (VSPP):

- A very small generator whose power generating process is generated from renewable energy, cogeneration, biogas, biomass, waste heat, etc. with contracted capacity no more than 10 MW of electricity capacity
- VSPPs are able to sell power to the Distribution Utility Authority only



Sustainability at GPSC | CSR / CSV / SE

Embedded sustainability to our strategy to build

"Long Term Value Creation, Innovation & Sustainable Energy"

LIGHT FOR BETTER LIFE
Small-scale Solar PV in remote areas

Solar Rooftop to Schools in Rayong

- GPSC delivered Solar Rooftop System to 3 schools (25.9 kW) in Wangchan Valley in Rayong
- Lower emission of green house gas 93.5-187 tons of carbon/year

Solar Rooftop to Hospital in Koh Sichang

- GPSC and Thailoil delivered Solar Rooftop System (53.46 kW) to Koh Sichang Hospital to improve energy security of the hospital

Solar Rooftop to Hospital in Mae Hong Son

- GPSC and TOP delivered Solar Rooftop System (40.5 kW) to Thanyarak Hospital in Mae Hong Son

GPSC YOUNG SOCIAL INNOVATOR

2 golden prizes and 1 silver prize from 2020 The 6th World Invention Innovation Contest (WiC) in Seoul

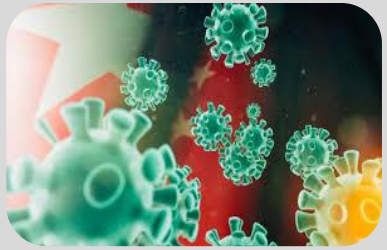
ZERO WASTE VILLAGE

Delivering a waste management learning center to Baan Phai community in Rayong

Q1/2021 | Highlight

Challenges and Concerns

COVID-19



Energy Transition

Climate Change

Operational Excellence and Readiness to move forward

Strengthen the Core

To ensure stability and continuity of utilities to supply IUs

- **Measures against COVID-19 :** The highest control measures have been implemented e.g. safe house for operators (Golden Man), refrain external parties to access the offices and operating areas.
- **Business Continuity Plans (BCP)** to give confidence that the company will be able to manage and continually operate production, without any interruption
- **Operational Excellence :** Best-in-class operation for reliability and security of the network and continuous Improvement

Growth ambitions

- Follow the **growth plan** to invest in conventional and renewable
- Increased **focus on renewables**
- Increased present **outside of Thailand**

New Businesses

- **Battery value chain**
- Expansion in **S-curve** and adjacent businesses

Q1/2021 | Highlight

Q1/21 Events & Highlights

- Stable demand from industrial customers
- Strong performance from affiliates
- Sales of 50% shares in GRP (ownership 100% → 50%)
- GLOW Energy Phase 5 resumed normal operation since 2-Apr-21
- Focus on battery's value chain & Continue develop S-Curve business

GPSC and **OR** unveiled **G-BOX**

Collaboration with **Swap & Go**

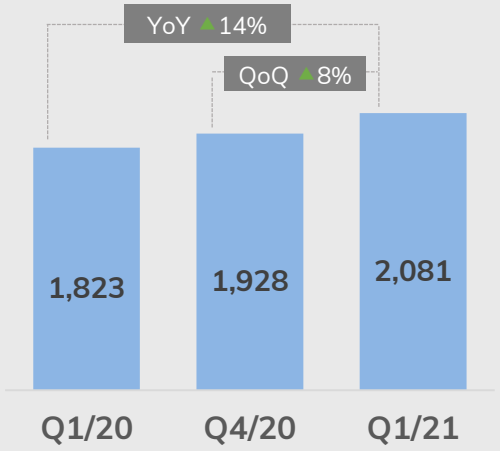
MOU with **9 companies**

Partners up with **Electrify**

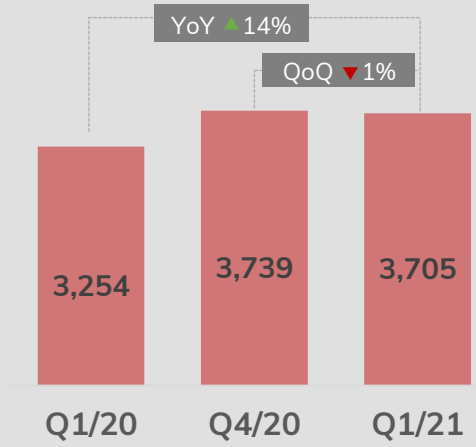
Q1/21 Performance

Sales Volume of Industrial Customers (IUs)

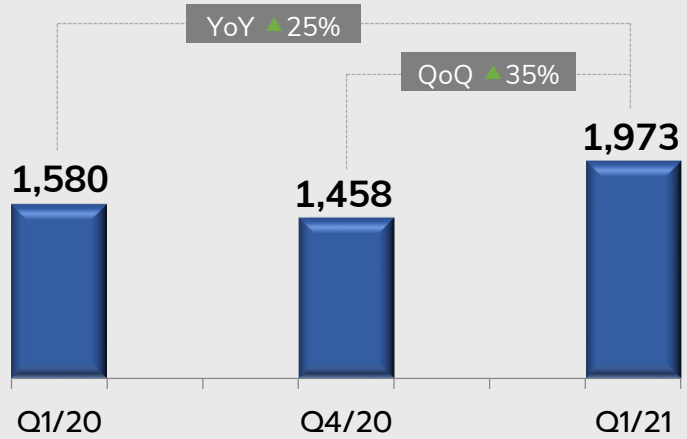
Electricity sales volume (GWh)



Steam sales volume ('000 tons)

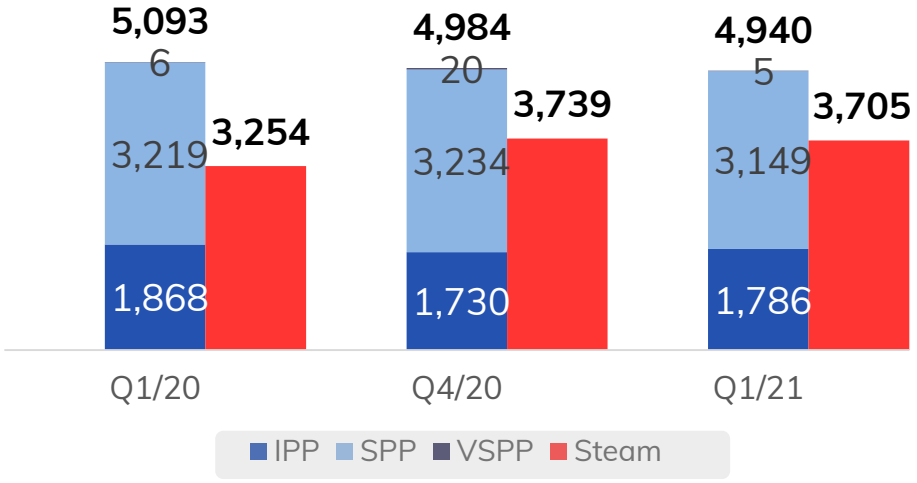


Net Income (THB MM)

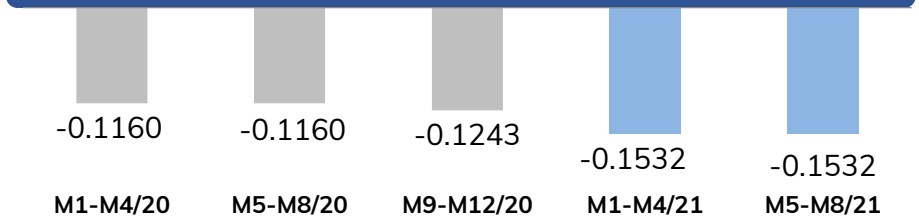


Q1/2021 Key Drivers

Electricity Sales volume (GWh) & Steam Sales volume ('000 tons)



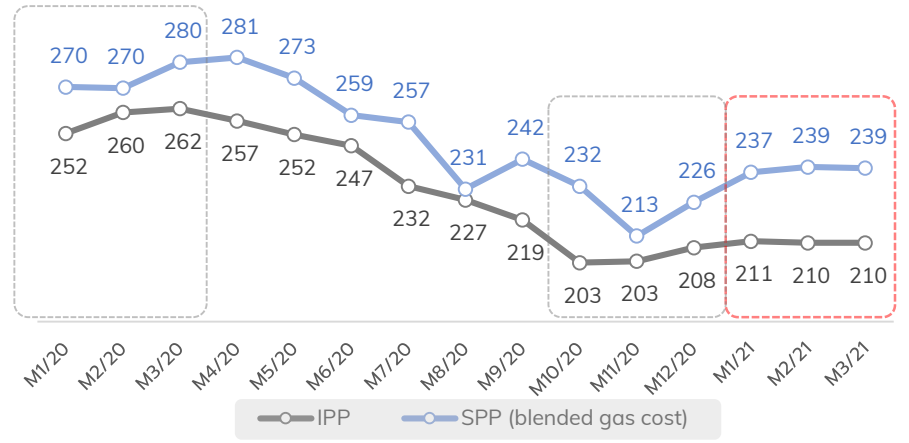
Ft (THB/kWh)



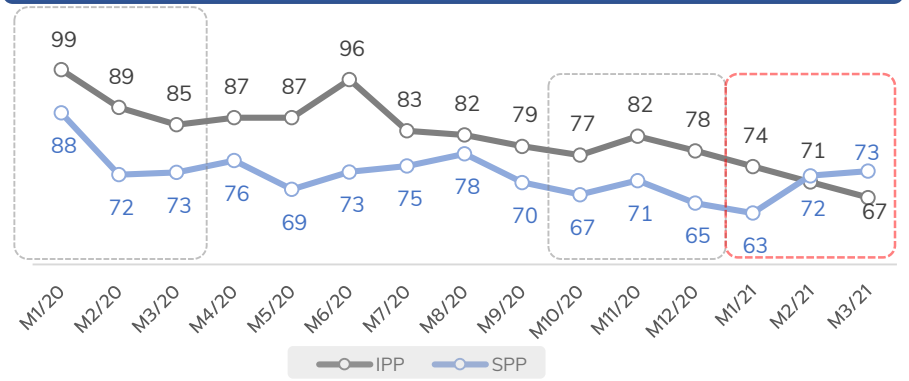
Ft for M1-M8/2021 is –15.32 Satang/unit.

IPP's Availability Rate (%)	Q1/20	Q4/20	Q1/21	Change +/(-) YoY	Change +/(-) QoQ
Sriracha Power Plant	95%	90%	99.8%	5%	10%
GIPP	100%	90%	76%	(24%)	(14%)
GHECO-One	96%	94%	59%	(37%)	(35%)

Natural Gas Cost 2020 - Q1'2021 (THB/MMBTU)



Coal Cost 2020 - Q1'2021 (USD/Ton JPU)



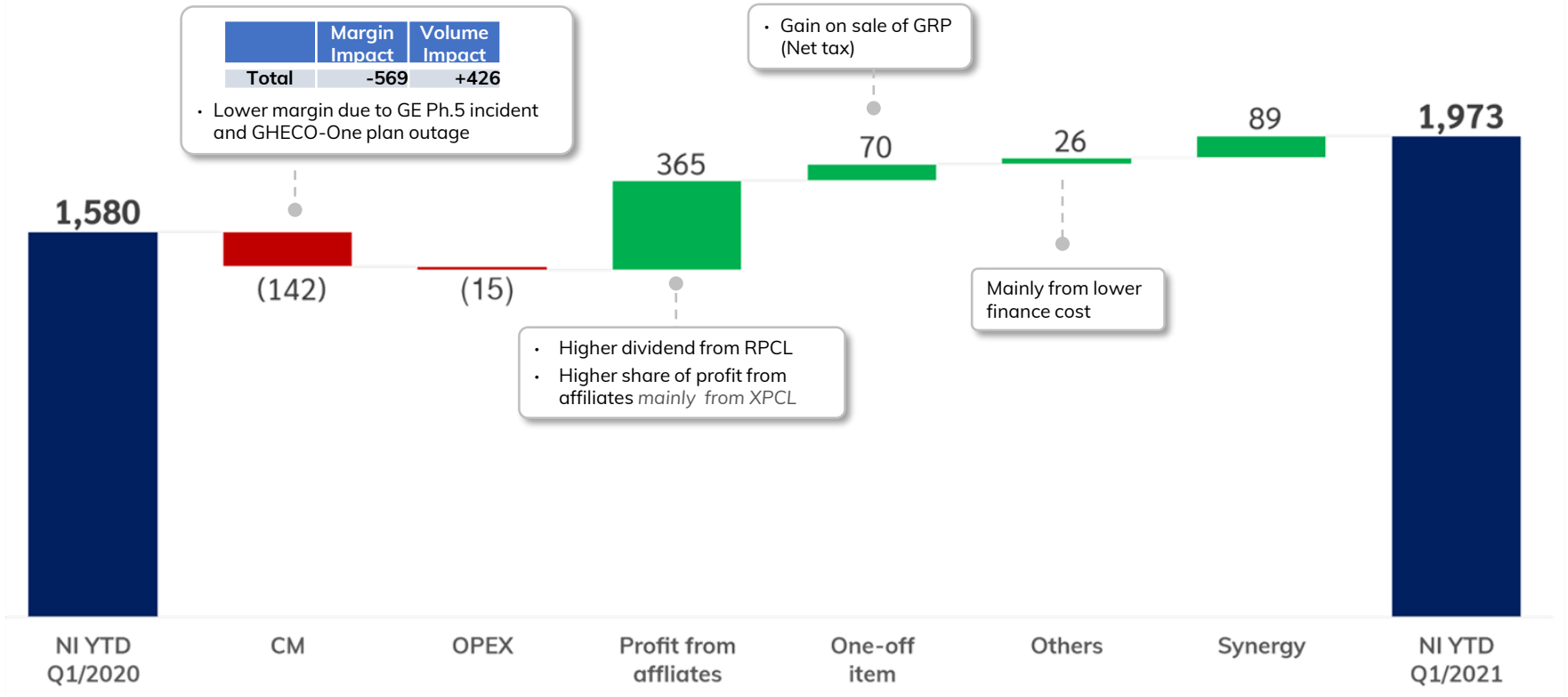
End-month FX (THB/USD)

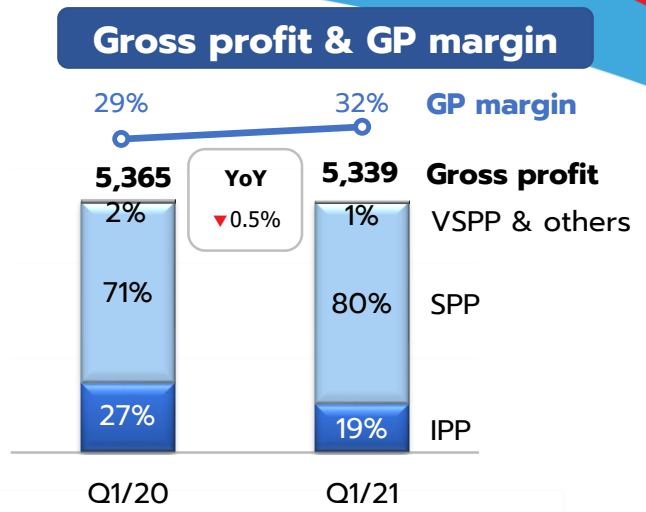
M1/20	31.30	M10/20	31.37	M1/21	30.17
M2/20	31.78	M11/20	30.45	M2/21	30.21
M3/20	32.83	M12/20	30.21	M3/21	31.51
Average	**31.97**		**30.68**		**30.63**

Q1/2021 vs Q1/2020 (YoY) Net Profit

(Unit : THB million)

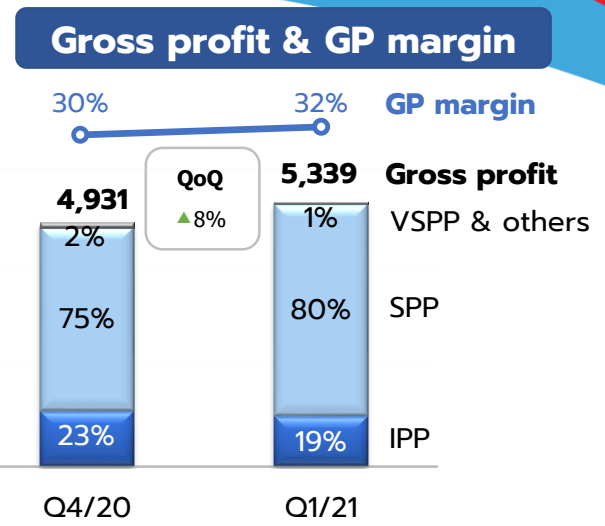
Net profit +393 MTHB (+25%)





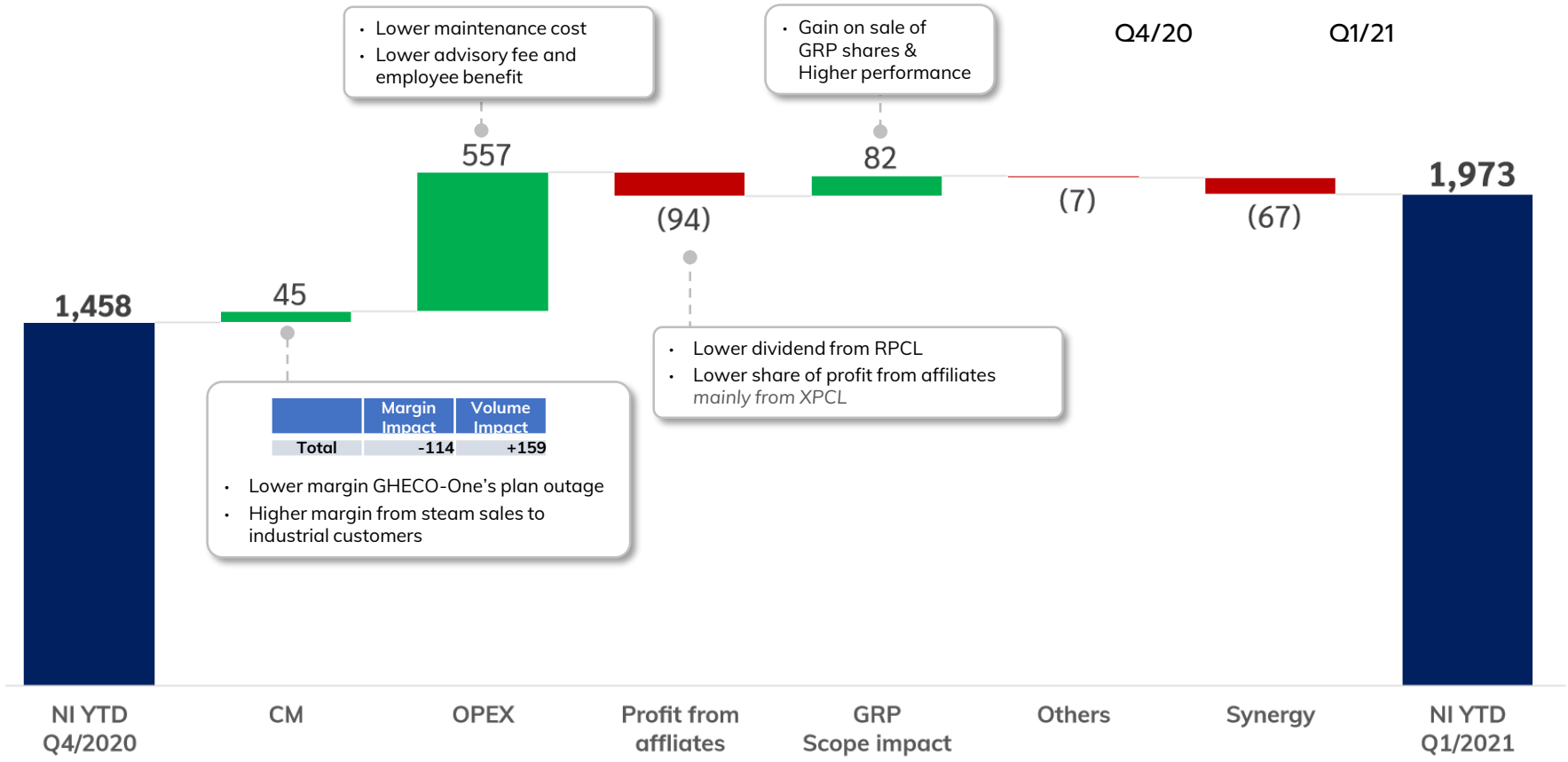
28

Q1/2021 vs Q4/2020 (QoQ) Net Profit



(Unit : THB million)

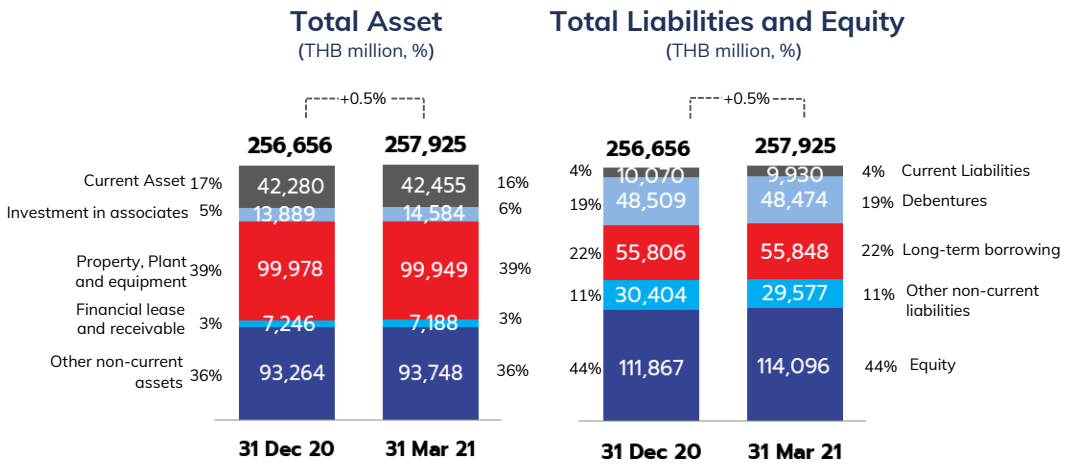
Net profit +515 MTHB (+35%)



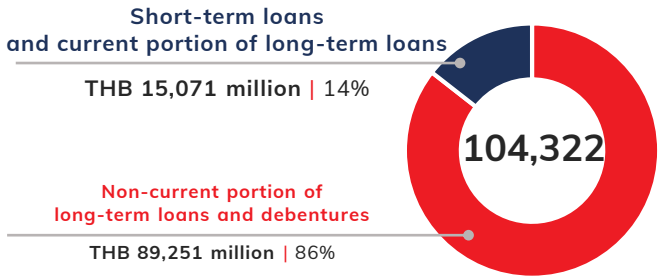
29

Financial Positions and Debt Profile

Summary of Financial Position



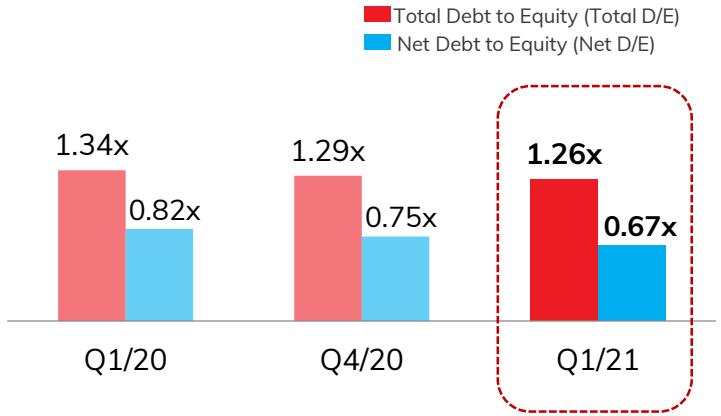
Total Interest-Bearing Debt | THB million



As of Q1/2021:

- Average cost of debt: 3.06%
- Average remaining tenor: 5.3 year

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



Credit ratings

BBB-	S&P Global
AA-	TRIS RATING
A+(tha)	FitchRatings

Q1/2021 Operating Results

Overall operating results of the Company and its subsidiaries (unit: THB million)	**Q1/20**	**Q4/20**	**Q1/21**	**change +/(-)**	
				YoY	**QoQ**
Operating revenue	18,308	16,532	16,624	(9%)	1%
Cost of sales (excluding depreciation and amortization)	(12,943)	(11,601)	(11,285)	(13%)	(3%)
Gross profit	**5,365**	**4,931**	**5,339**	**(0.5%)**	**8%**
Selling and administrative expenses	(418)	(528)	(434)	4%	(18%)
Other operating income	4	5	5	25%	(8%)
EBITDA	**4,951**	**4,409**	**4,910**	**(1%)**	**11%**
Depreciation and amortization	(2,074)	(2,046)	(2,053)	(1%)	0%
EBIT	**2,877**	**2,362**	**2,856**	**(1%)**	**21%**
Finance costs	(1,041)	(965)	(974)	(6%)	1%
Other non-operating income and expenses	174	133	264	52%	98%
Dividend received and shares of profit of associates and joint ventures	(68)	367	297	537%	(19%)
Income tax expenses	(254)	(141)	(453)	78%	222%
Profit before FX and extraordinary items	**1,688**	**1,757**	**1,990**	**18%**	**13%**
Net foreign exchange gain (loss)	(30)	12	2	106%	(85%)
Net profit	**1,658**	**1,769**	**1,992**	**20%**	**13%**
Non-controlling interests	(78)	(311)	(19)	(76%)	(94%)
Net profit for the Company	**1,580**	**1,458**	**1,973**	25%	35%
Adjusted Net Income	**1,948**	**1,813**	**2,359**	**21%**	**30%**
Gross profit margin (%)	**29%**	**30%**	**32%**	**3%**	**2%**
Net profit margin (%)	**9%**	**9%**	**12%**	**3%**	**3%**
Adjusted Net Income margin (%)	**11%**	**11%**	**14%**	**3%**	**3%**

31

GPSC's Prudent Financial Policy

GPSC's FINANCIAL POLICY

1. **Net Debt to Equity ≤ 1.0x**

2. **Net Debt to EBITDA ≤ 4.0x**

3. **Dividend Policy | Minimum dividend at the rate of not less than 30% of the net profit**

   according to the financial statements of the Company after the deduction of tax, reserved funds as required by law (with additional conditions)

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

Note: Equity capacity includes 100% stake in GLOW, ERU and GRP1

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
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**		
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 (99%)	20.8	20.59	20.59	-	-	2017	20
GRP (NPS, WXA, PPS)	VSPP	GPSC (50%)	39.5	19.75	19.75	-	-	2014-15	25
GRP1 (Solar in Taiwan) (Under closing process)	Solar	GRP (90%)	55.8	25.11	-	-	-	2016-21	20
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
Private PPA	Solar	GPSC Gr. (100%)	21.90	21.90	4.08			2018-21	Long-term
Total VSPP and others			**313**	**170**	**127**	**-**	**-**		
ERU									
ERU (under construction)	Cogen	GPSC (100%)	250	250	-	175	-	2023	25
Total ERU			**250**	**250**	**-**	**175**	**-**		
Total capacity			**8,091**	**5,055**	**4,762**	**2.946**	**7,372**		

Note: Equity capacity includes 100% stake in GLOW, ERU and GRP1

2021 Maintenance Schedule | Sriracha and Rayong Plants

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

Notes: Rayong Site

GTG
HGPI Hot Gas Path Inspection for Gas Turbine 14 days
MI Major Inspection for Gas Turbine 22 days
STG
Minor Minor Inspection for Steam Turbine 15 days
1MO 2nd Major Overhaul for Steam Turbine 23 days
2MO 2nd Major Overhaul for Steam Turbine 27 days
AB
1Y One Year Inspection Aux. Boiler 11 days
3Y Three Year Inspection Aux. Boiler 13 days

HRSG
1Y One Year Inspection HRSG 11 days
3Y Three Year Inspection HRSG 14 days
Others
1Y One Year Inspection NG Station Test Online
5Y Five Year Inspection NG Station (NDT) Online
FO Forced Outage Depending on physical damage

Notes: Sriracha Site

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

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

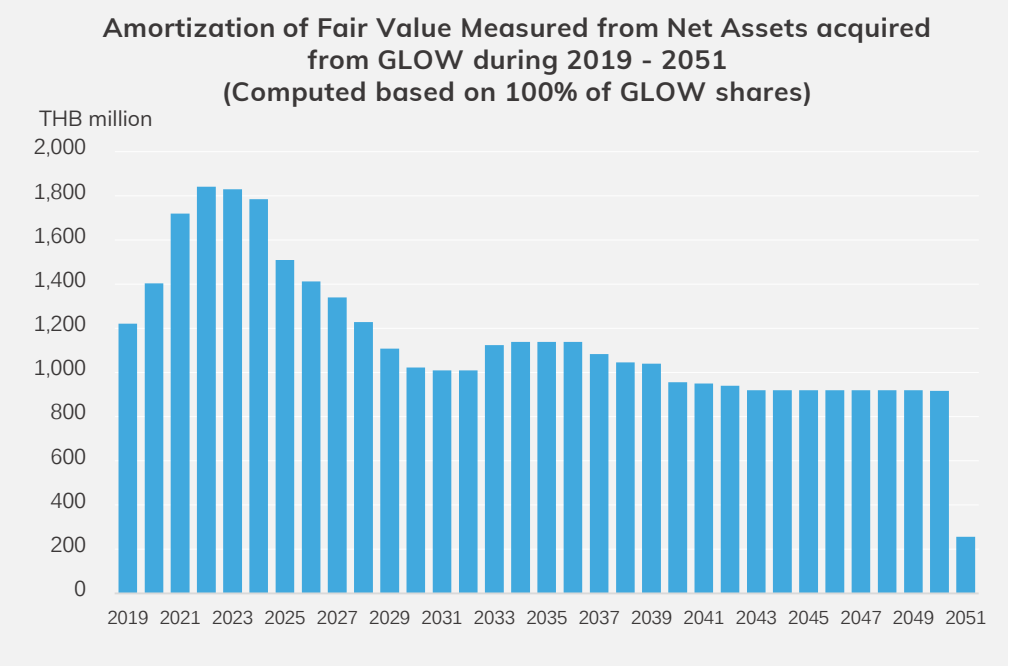
2021 Maintenance Schedule | GLOW's Main Units

Main Units	Description	Duration	2021											
			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										10	**3Y**	14
CFB 3	Minor Inspection	7 Days				22/4	**3Y**	12/5						
Phase 5	Minor Inspection	5 Days			29/3	**1.25**	2/4							
GSPP11 (Plant 2)	Minor Inspection	14 Days							18	**3Y**	31			
GSPP11 (Plant 2)	Major Inspection	5 Days										10	**5.7Y**	14

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	



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.