

Corporate Presentation

Mar 2021



GPSC Overview

Strategic Directions (3S)

- Synergy and Integration
- Selective Growth
- S-Curve

Sustainability at GPSC

Financial Performance

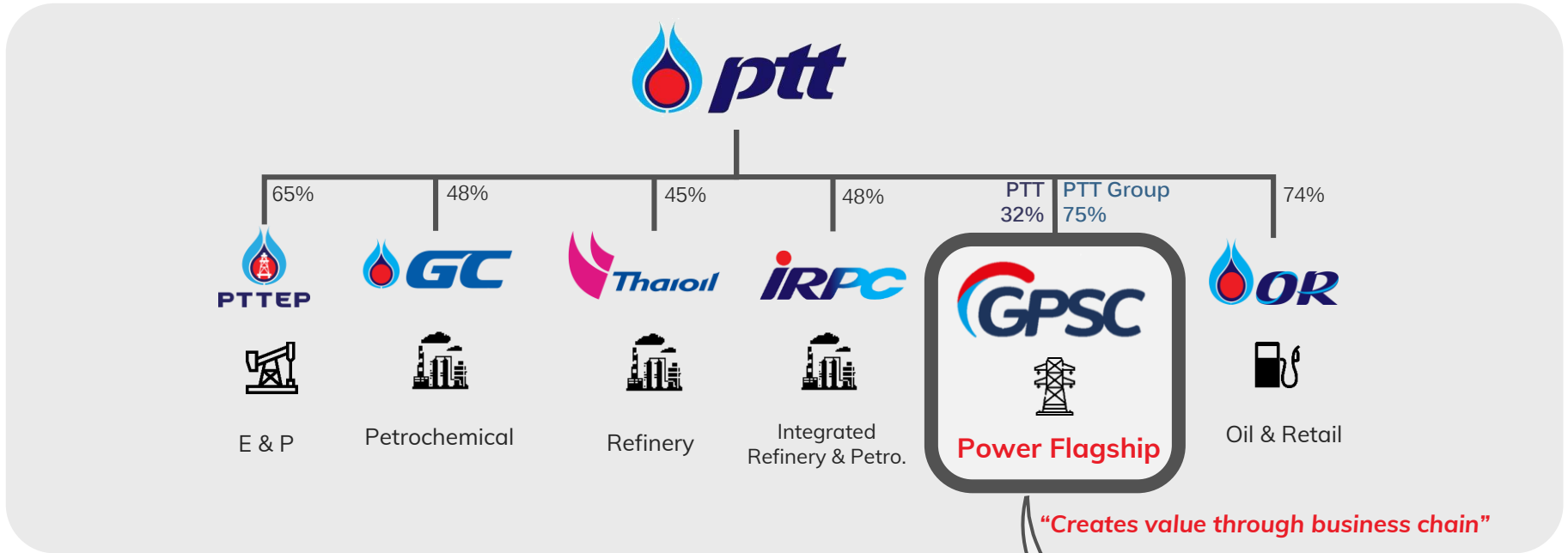
Update of Projects



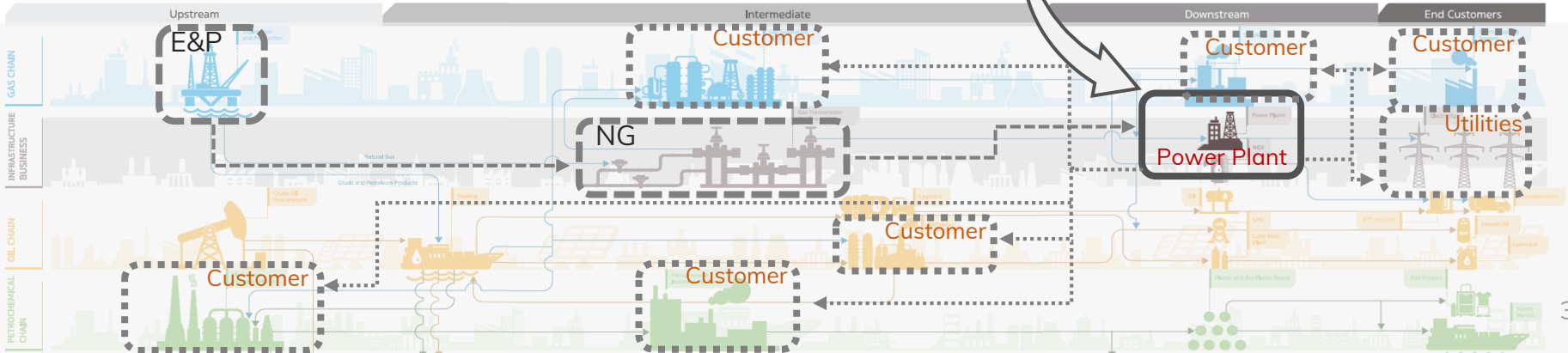


The power flagship of PTT Group

“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.”

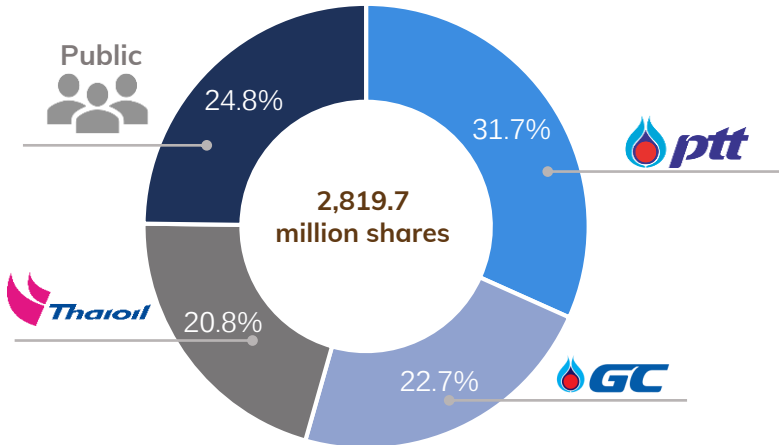


“Creates value through business chain”



GPSC Innovative Power Company at a Glance | as of 1 Mar 2021

SHAREHOLDING STRUCTURE



TOTAL EQUITY CAPACITY*

Electricity | 5,055 MW
 Steam | 2,946 T/H
 Chilled Water | 15,400 RT
 Industrial Water | 7,372 Cu.m./H
 Semi-solid Energy Storage Unit | 30 MWh

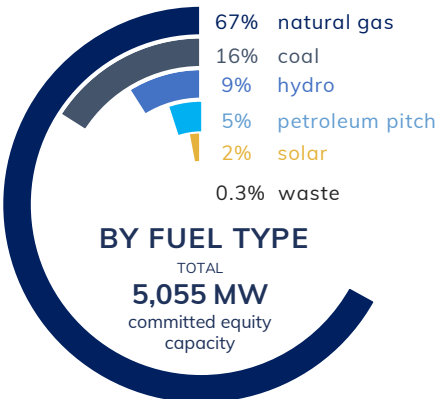
COMPANY INFORMATION

Business Type | Energy & Utilities
 Paid-up Capital | THB 28,197 million
 Market Cap. | THB 210,774.77 million
 Listed on | Stock Exchange of Thailand

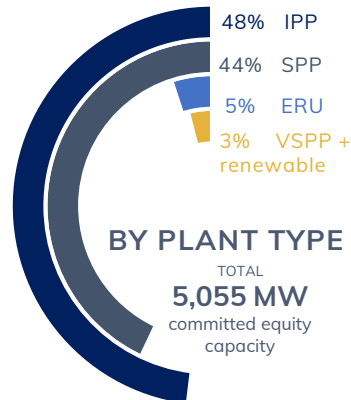
CREDIT RATINGS

BBB- **S&P Global**
 AA- **TRIS RATING**
A Strategic Partner of EPC
 A+(tha) **Fitch Ratings**

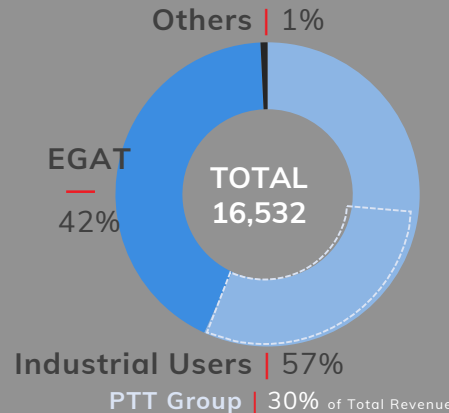
BY FUEL TYPE



BY PLANT TYPE



Q4/2020 Revenue by Customers | THB million, %



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

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

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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

“Better performance than targets in 2020 from collaboration, hardworking and responsibility”

Year **2020**, the recognized synergy value is approx. **THB 701 mm** (After tax) from O&M, procurement and corporate functions.

MOVE FORWARD  Next Episode

THB >1.6 bn per year

Recurring synergy from 



Ramp up with full synergy value contribution by 2024



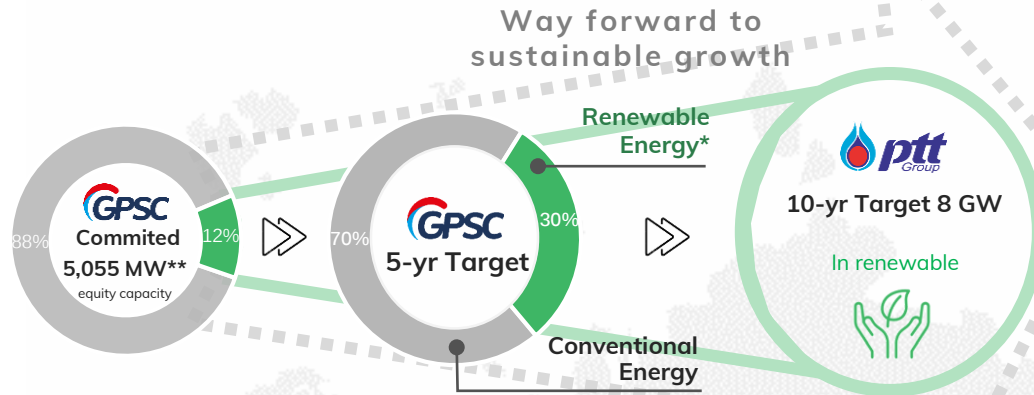
Operational Excellence

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

Major activities below:

- **Performance Benchmarking** : benchmarking of the group’s competitiveness
- **Best Practice Sharing**: Expand knowledge application for higher productivity
- **Zero Unplanned Shutdown**: To ensure can prevent unplanned shutdown to minimize damage and impact on communities and the environment.
- **Continuous Performance Improvement**: Involves continuous operation improvement to ensure sustainable competitiveness.

S2 Selective Growth



GPSC Selective Growth

Thailand



Conventional & Renewable

International



Conventional



Renewable

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

GPSC's Focus Countries:

Thailand, [Myanmar](#), [Vietnam](#), [Taiwan](#), [India](#) and [China](#)



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

S3 S-Curve Business



S-Curve Business

Battery Manufacturer



Move toward System Integrator
E-mobility & Demand creations



One-stop service smart solution provider

Digital Energy and Expand business

GPSC Battery : G-CELL

G-CELL Core Values



Safer

Greener

Reliable



Semi-Solid Battery Unique Design



Shorter Process



Remove **40%** Inactive Material



No binder Needed



Low Risk of Contamination

Target Applications



E-Mobility



Energy Storage

Application and Target Market for Semi-Solid Energy Storage Unit

Energy Storage Unit (30 MWh)

Mobility: EV Bus

- Bangkok Mass Transit Authority
- PTT Group shuttle bus

Commercial & Industrial

- Charging station
- Industrial Estate

Micro-Grid

- Remote Area

Residential Energy Storage System (RESS)

- Property Development
- Backup server

Others Business

- Energy Storage Mobility
- Others



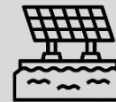
ESS FOR GC's INNOVATION CENTER (Launched: Feb 2020)



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



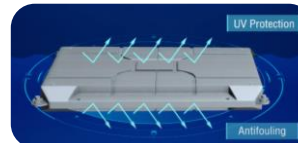
First offshore floating solar farm 100 kW floating solar farm installed for seaside of PTT Tank



100 kW Offshore Floating Solar



Floating solar farm would cut the electricity cost of **PTT Tank** and reduce carbon dioxide emission



GC developed special plastic "InnoPlus HD8200B" for retardance of barnacle-bore and antifouling floating pontoon



CHPP designed and installed the floating solar system

S3 Applications and Achievement in Renewable & Smart Energy Projects

Solar PPPA and Energy Management for Retail Customers

Target Market



PTT Group network



Reputable Industrial & commercial



Government offices, University, Hospitals

Product

Solar PPPA: Synergy with partners

EPC: Exclusive EPC

ESS: Partnership with strategic suppliers, tech experts

Pontoon: Market development & add more reference sites

Others business: Initiative & pilot projects



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

1.74 MW
Solar Rooftop



Solar Rooftop: Mono PERC Half-Cell Module (1.68 MW)



Solar Rooftop: Bifacial cells (60 kW)

4.312 MW
Floating Solar



Using special-grade polyethylene floating pontoons developed by GC

100-200 kWh
Lithium-ion BESS



High efficiency BESS with management of solar power generation for optimum energy production's decision-making

AI &
Smart Energy
Platform



Blockchain-based smart grid and AI



Cutting-edge innovation and smart energy platform for inter-building energy trading and real-time management

VISTEC SMART ENERGY MANAGEMENT (Phase II: Q1/2021)






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



@Wangchan Valley | Smart Natural Innovation Platform

SMART Energy Management

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



150 kWh G-Box, a Battery Energy Storage System at PTT station | Creating solutions to meet the EV trends



G-Box, the development of G-cell using semi-solid technology



The installation will lower daytime peak load, supplying mainly for EV and creating electricity stability for the station



The system will storage energy during the off-peak for peak period, to reduce electricity bills.



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Sustainability at GPSC

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Update of Projects



Sustainability at GPSC | Key achievements and Ambitions

“Move towards sustainability”

Another step on the road to sustainability at the global level



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

Participated for the Corporate Sustainability Assessment (CSA)
in 2020 with top 15 percentile

Environmental

Global Power Synergy Public Co., Ltd. **80**
Industry Mean **17** / Industry Best **99** / Rank in Industry **22 of 220**

Social

Global Power Synergy Public Co., Ltd. **85**
Industry Mean **15** / Industry Best **97** / Rank in Industry **16 of 220**

Governance & Economic

Global Power Synergy Public Co., Ltd. **64**
Industry Mean **21** / Industry Best **89** / Rank in Industry **27 of 220**

Key achievements



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)

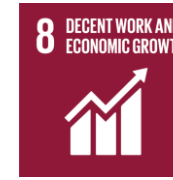
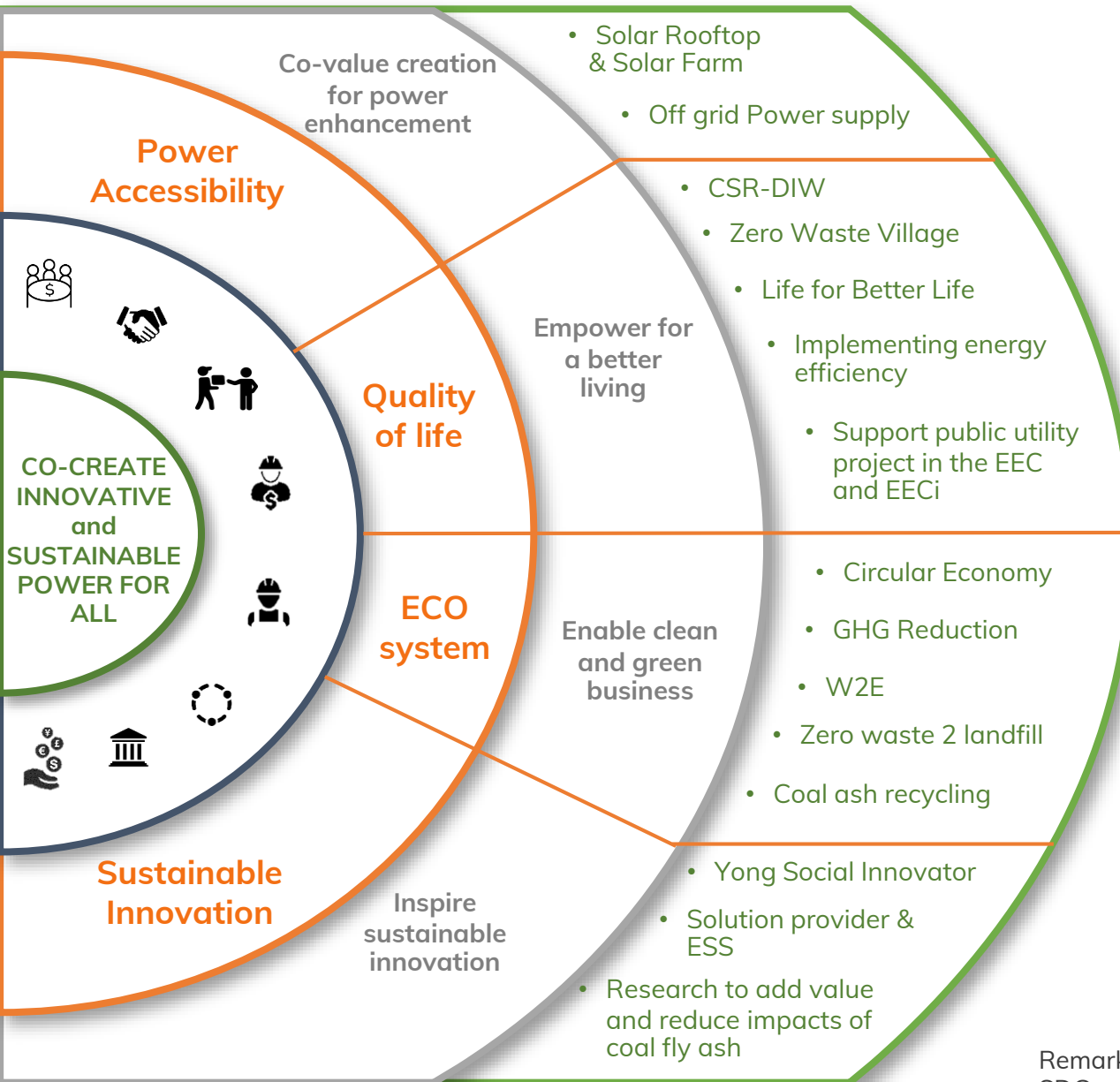


Ambitions

To Be Listed in DJSI by Y2022



Sustainability at GPSC | Framework and SDGs



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

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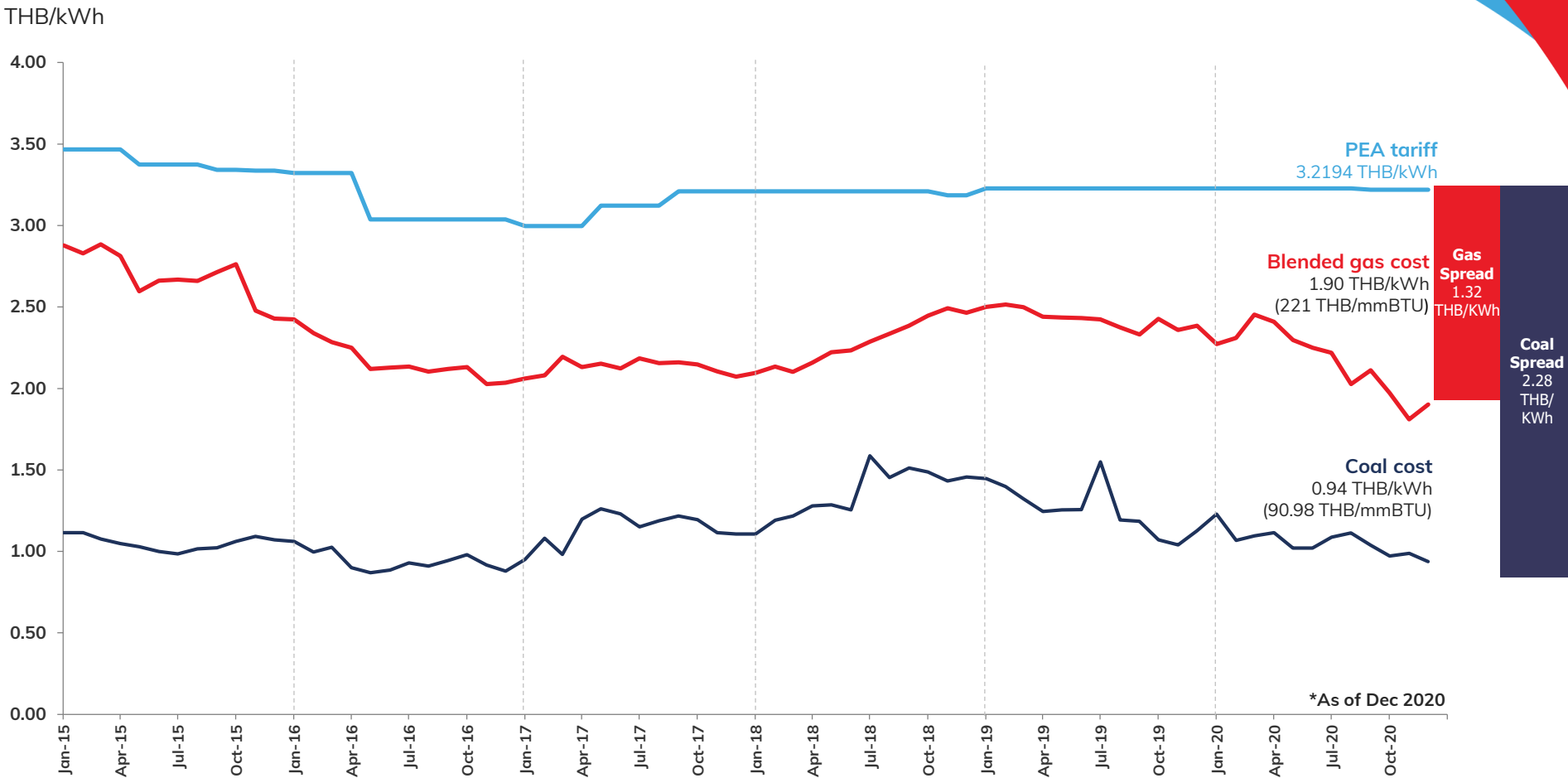
Sustainability at GPSC

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Update of Projects



PEA Tariff and Gas and Coal Cost Trend



Notes:

1) PEA tariff = Base tariff (simple average of >69 kV TOU 4.2 Energy charge peak and off-peak) + Ft

Dec 2020 Base Tariff = 3.3437 THB/kWh Dec 2020 Ft = - 0.1243 THB/kWh

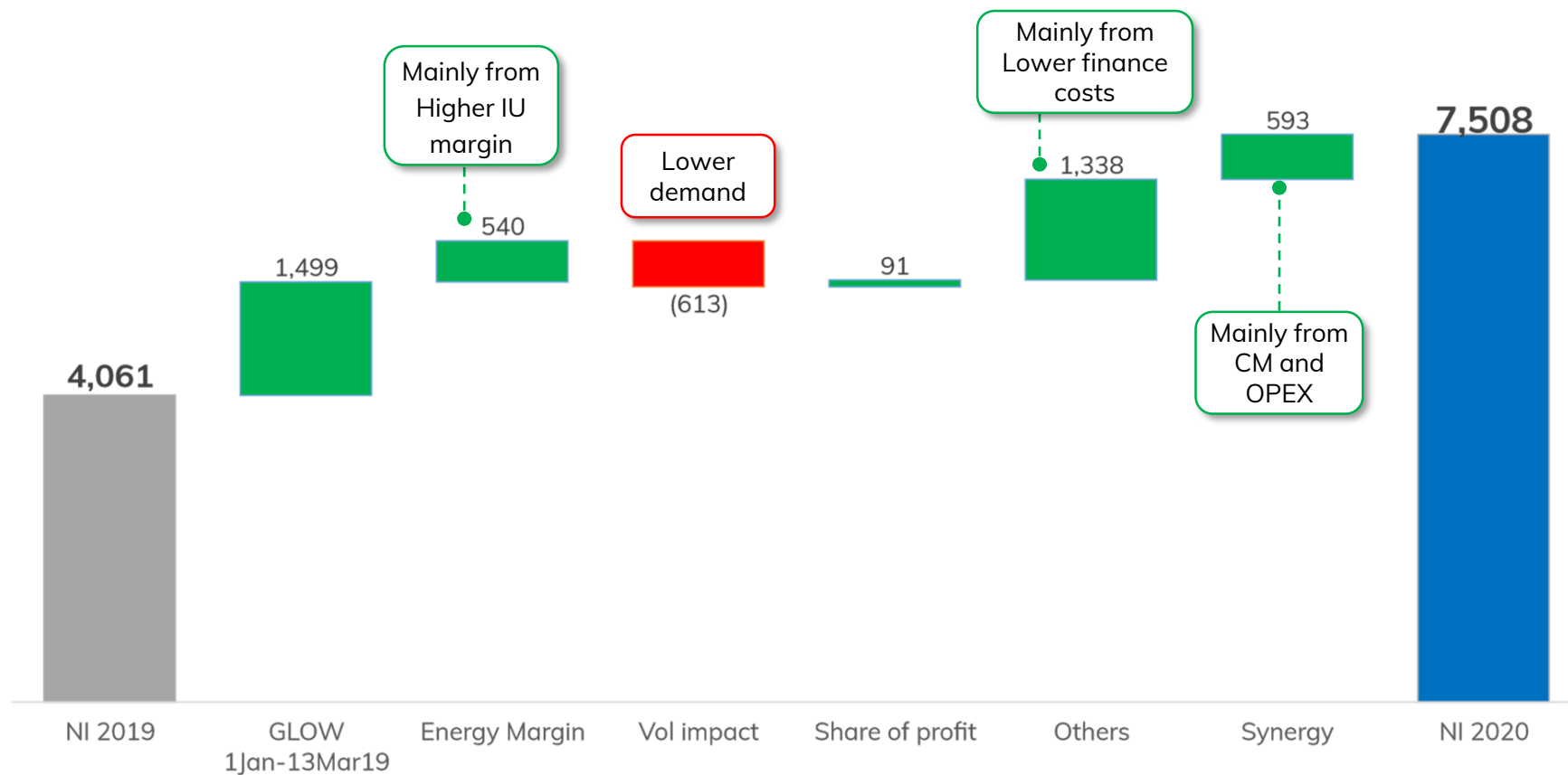
2) Blended Gas cost = Blended cost of SPP gas, cogeneration gas and industrial gas in THB/mmBTU x normalized gas-fired heat-rate at 8,600* BTU/kWh / 10⁶

3) Coal Cost = Average FOB coal cost and freight cost in THB/mmBTU x normalized coal-fired heat-rate at 10,300 BTU/kWh / 10⁶

2020 vs 2019 Net Profit

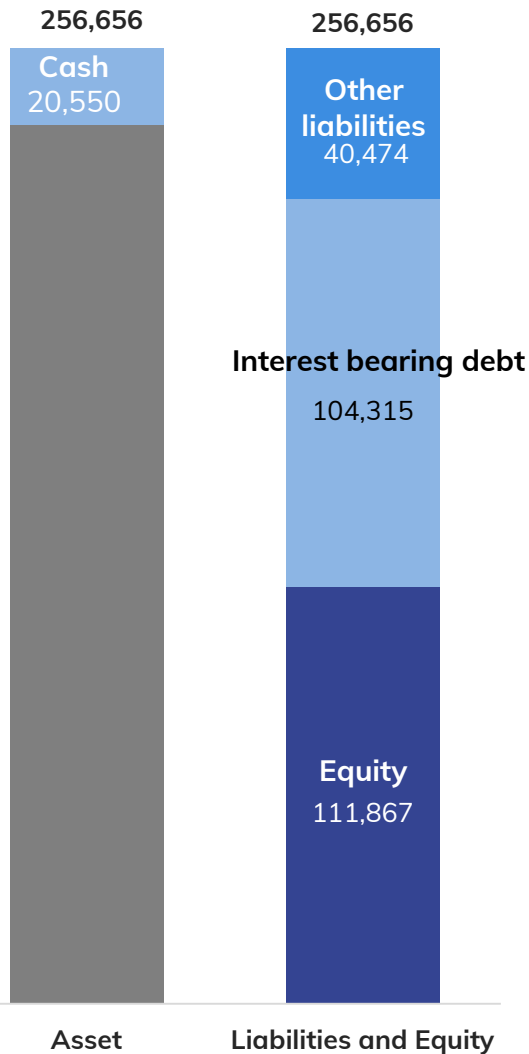
Net Profit of 2020 VS 2019 (THB million)

Net profit +3,447 MTHB (+85%) from previous year



Financial Positions and Debt Profile

Financial Positions as of end of 2020



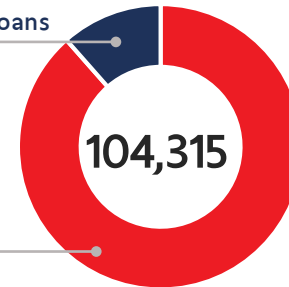
Total Interest-Bearing Debt* (THB million)

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

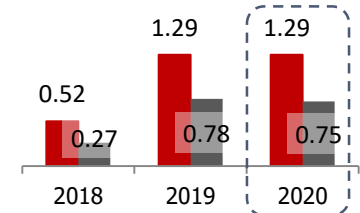
THB 11,993 million | 11%

Non-current portion of
long-term loans and
debentures

THB 92,321 million | 89%

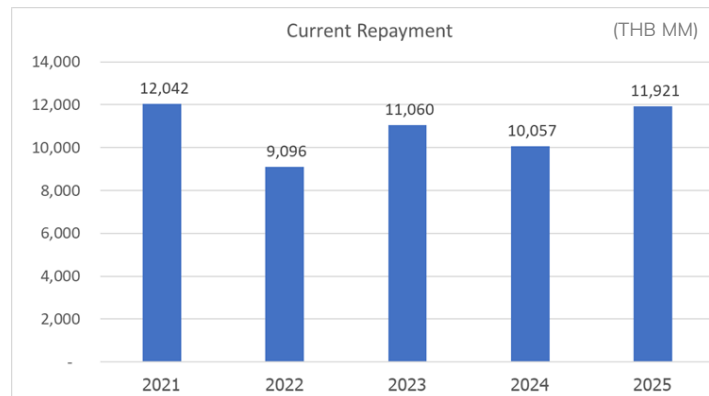


Total D/E and Net Debt/ Equity ratio (times)



Note: *accounting book value of interest bearing debt according to loan amortization

Debt Profile



As of YE2020:

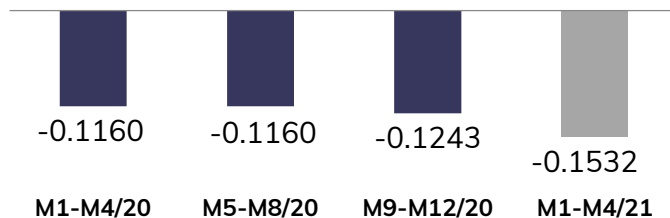
- Average Cost of Debt 3.06%
- Average Remaining Tenor : 5.5 years

2021 Outlook

Performance Outlook

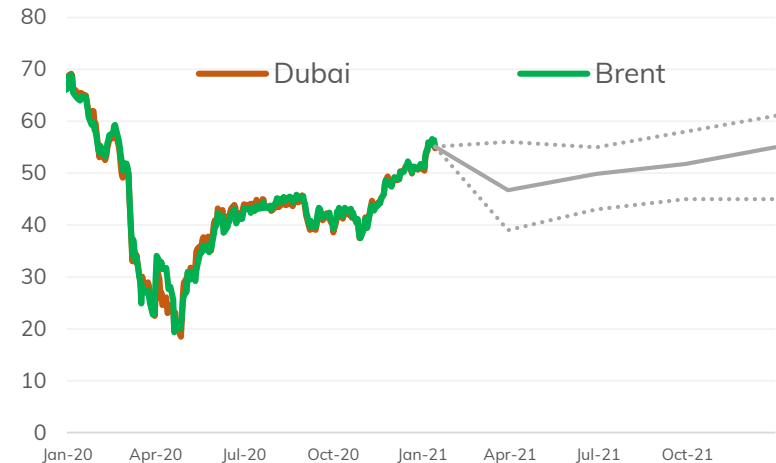
- ▲ **Synergy value** from acquisition of GLOW is expected to be THB 900 million in 2021.
- In 2021, average gas price expected to be lower than average 2020, while Coal price higher. Sideway up trend for gas price 2021 but down trend for coal price.
- ▲ Demand of electricity and steam in the MTP area increased by 4%, approximately.
- GLOW Energy Phase 5 Plant will resume normal operation in April 2021, tentatively. Insurance payment claim is ongoing.
- ▼ GHECO-one has a major planned maintenance in Q1/2021.

Ft



Recently announced Ft for M1-M4/2021 is -15.32 Satang/unit.

Key Assumptions



- **Natural gas price** is forecasted to increase slightly in the same direction with crude oil with lag time 6 – 12 months.
 - NG price will slightly increase from Q1/2021.
 - Blended gas cost of SPP portfolio is expected around 240 THB/MMBTU at year-end.
- **Coal price** is forecasted to slightly decrease from Q1/2021. Price range is expected about US\$ 75-80 per ton (NewCastle) at year-end.

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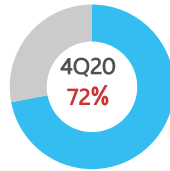
Financial Performance

Update of Projects



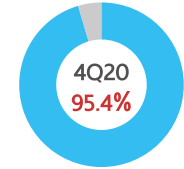
Update of Projects

Semi-Solid Energy Storage Unit | 30 MWh



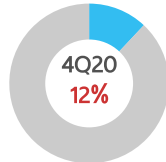
Capacity (MWh/yr.) 30

Rayong Waste to Energy (WTE)



Electricity (MW) 9.8

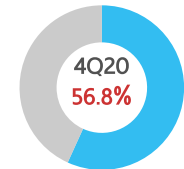
SPP Replacement - Stage 1 | Glow Energy Ph. 2



Electricity (MW) 192

Steam (ton/hr.) 300

Energy Recovery Unit (ERU)



Electricity (MW) 250

Steam (ton/hr.) 175

Q&A SESSION

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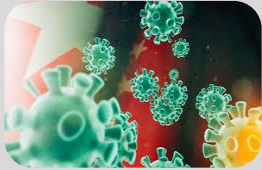
www.gpscgroup.com



2020 | A Year in Review

Overcome Emerging Challenges

COVID-19



Economic Slump



The COVID-19 pandemic results in **low energy demand** for oil, LPG, LNG and electricity, etc.

Economic slow down together with global economic uncertainties

US-China tension



Water crisis



The drought situation is more severe than 2015, resulting in lower water level, as well as the rainfall that is lower than average.

Key Achievement



Better performance & Better return to shareholders



Continue growth and build on new energy and innovation



Moving towards sustainability

React & Enablers



Agility & Responsiveness

To ensure stability and continuity of utilities to supply IUs

- **Measures against COVID-19** ex. Set up G-COVID center, safe house for operators (Golden Man)
- **Set up water crisis management team** for drought situation preparedness with mitigation plan and initiatives ex. 3Rs, sea water RO etc.



New way of work with digital literacy



New Energy New Market

- ✓ Build on new energy and innovation

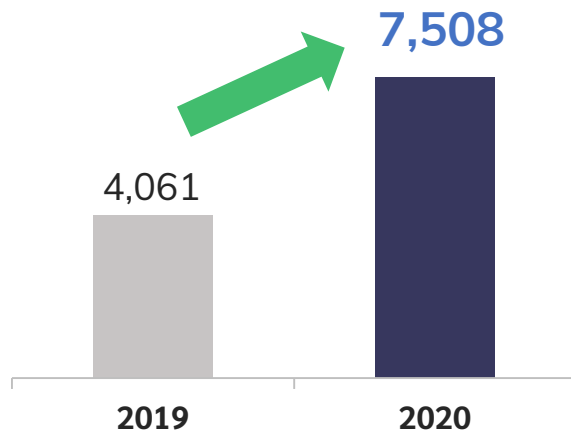


2020 | A Year in Review

“Better performance & Better return to shareholders”

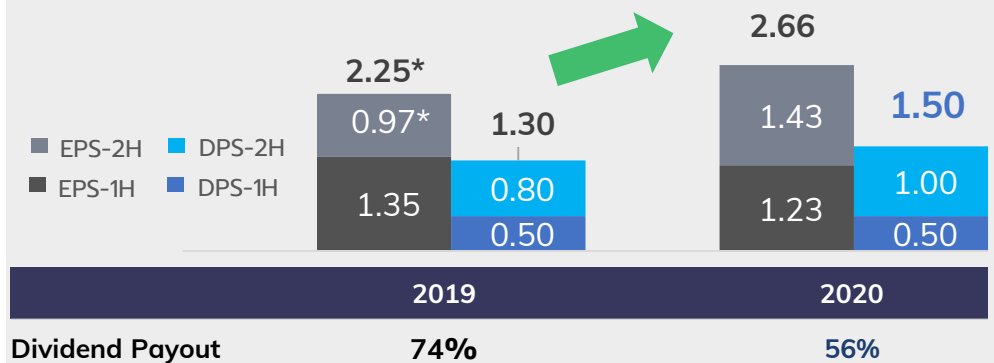
2020 FINANCIAL HIGHLIGHT

85% | increase in NI



GPSC announces 2020 dividend payment, at the rate of **THB 1.50 per share**

EPS and DPS (THB/share)



- ✓ Full year recognition of GLOW performance
- ✓ Lower avg. Natural Gas and Coal price
- ✓ Lower finance cost from capital restructuring and ST loan repayment
- ✓ Synergy value from GLOW appx. THB 701 mm

Strong Credit Profile

CREDIT RATINGS

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

All rating agencies affirmed credit rating with stable outlook.

2020 | A Year in Review

“Continue growth and build on new energy and innovation”

Key Achievement Highlight

M&A projects

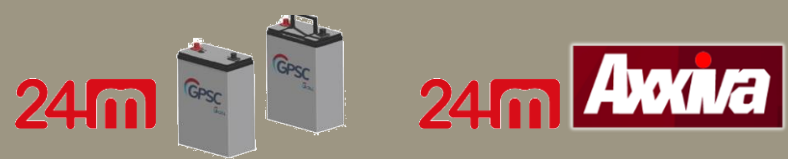


Complete acquisition of 9 Solar projects of 19.75 MW



Solar projects of 25 MW in Taiwan

New S-curve business



- G-Cell, the first made semi-solid battery cell in Thailand
- Energy Storage Unit of 30 MWh in Q2/21
- 11.1% invest in AXXIVA, battery manufacturing business in China

SPP replacement



Start construction of Glow Energy Phase 2 (SCOD 2022)



Co-investment



JV with PTT in GRP for growth in renewables



GPSC 1st Green Debentures

Success in issuing Green Debentures of THB 5,000 mm

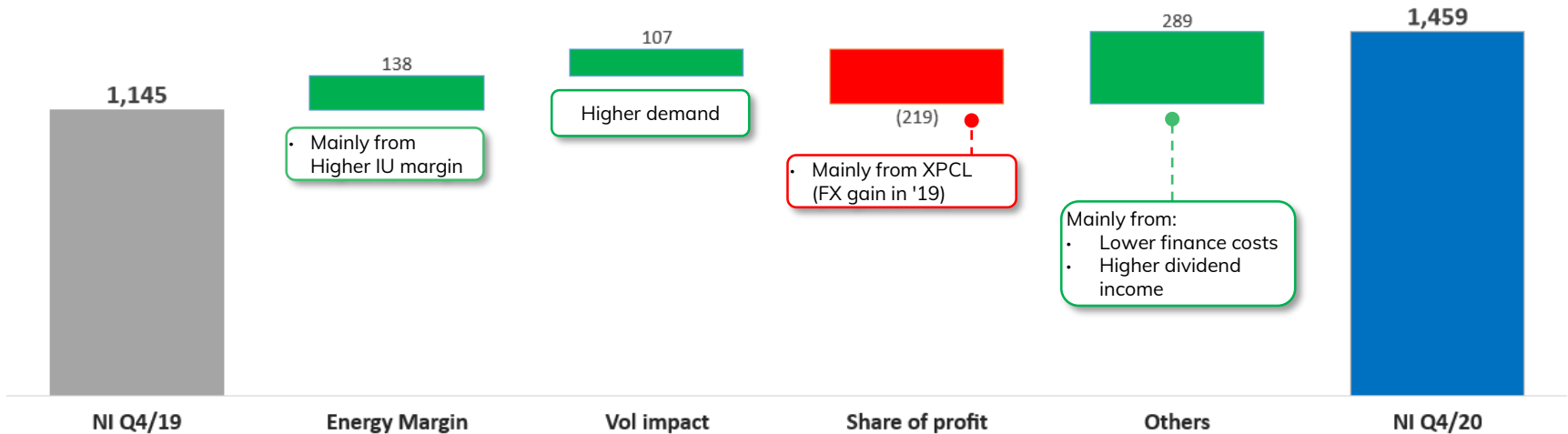
Income statement: 2020 vs 2019

GPSC GROUP (MTHB)	Y2020A	Y2019A	2020A vs 2019A		Q4/20	Q3/20	Q4/19	Q4/20 vs Q3/20		Q4/20 vs Q4/19	
Revenue	69,579	66,562	3,016	5%	16,532	16,601	18,279	(68)	(0%)	(1,747)	(10%)
Variable cost	(43,375)	(43,696)	320	1%	(10,078)	(10,055)	(12,069)	(22)	(0%)	1,992	17%
Contribution Margin	26,204	22,867	3,337	15%	6,455	6,545	6,210	(90)	(1%)	245	4%
Fixed cost	(4,854)	(4,188)	(666)	(16%)	(1,518)	(1,156)	(1,522)	(362)	(31%)	4	0%
SG&A	(1,790)	(1,896)	105	6%	(528)	(408)	(488)	(120)	(29%)	(39)	(8%)
EBITDA	19,559	16,783	2,776	17%	4,409	4,981	4,199	(572)	(11%)	210	5%
DD&A	(8,287)	(7,207)	(1,080)	(15%)	(2,046)	(2,068)	(2,163)	22	1%	116	5%
Finance cost	(4,024)	(5,140)	1,116	22%	(965)	(1,026)	(1,197)	61	6%	231	19%
Dividend income	396	185	211	114%	123	270	5	(147)	(54%)	118	2180%
Share of profit	924	837	87	10%	244	638	463	(394)	(62%)	(219)	(47%)
Net non-operating income (expense)	913	789	124	16%	146	294	155	(149)	(51%)	(9)	(6%)
Earnings before Tax	9,483	6,248	3,235	52%	1,910	3,089	1,463	(1,179)	(38%)	447	31%
Income Tax	(992)	(247)	(744)	(301%)	(141)	(314)	(43)	173	55%	(98)	(228%)
NET INCOME	8,491	6,001	2,490	41%	1,769	2,776	1,420	(1,007)	(36%)	349	25%
Non-controlling interest	(983)	(1,940)	957	49%	(311)	(201)	(275)	(109)	(54%)	(35)	(13%)
NET INCOME (owners to parent)	7,508	4,061	3,448	85%	1,458	2,574	1,145	(1,116)	(43%)	315	27%

Q4/2020 vs Q4/2019 and Q3/2020 Net Profit

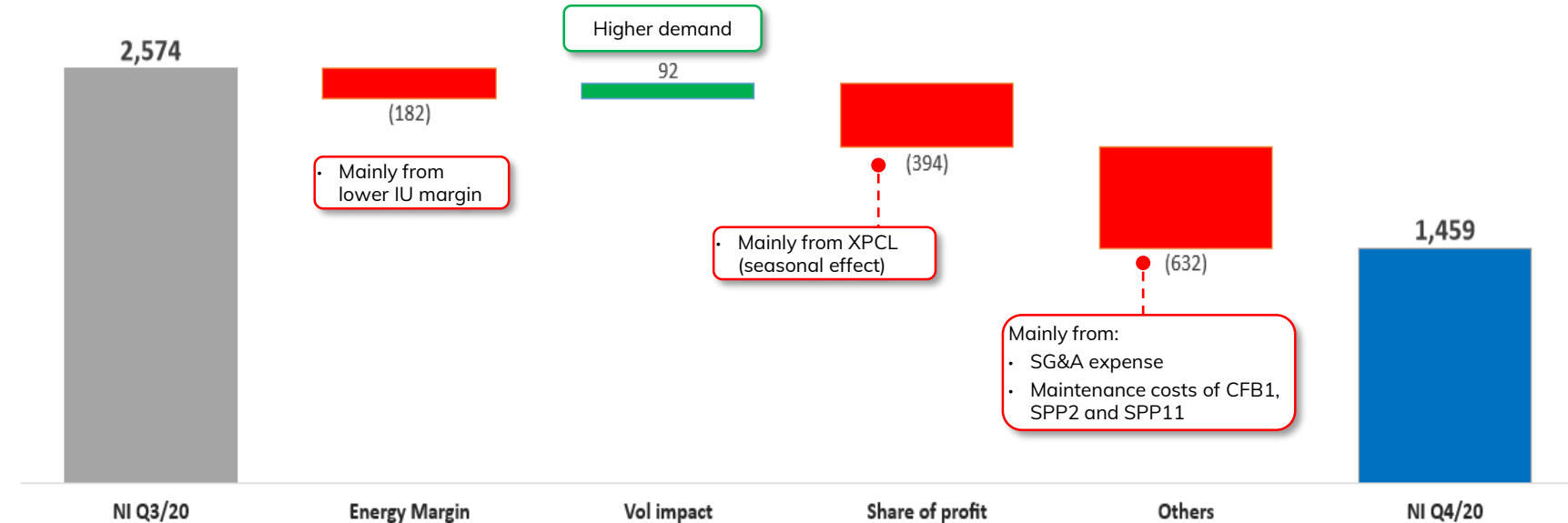
Q4/2020 VS Q4/2019 (THB million)

Net profit +314 MTHB (+27%) yoy



Q4/2020 VS Q3/2020 (THB million)

Net profit -1,115 MTHB (-43%) qoq



GPSC's Prudent Financial Policy

GPSC's FINANCIAL POLICY

- 1 Net Debt to Equity $\leq 1.0x$
- 2 Net Debt to EBITDA $\leq 4.0x$
- 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	Total capacity (MW)	Equity Power capacity (MW)	Equity Operating Power capacity (MW)	Steam (T/H)	Industrial water (Cu.m/H)	Direct shareholding (%)	COD	Tenor
IPP									
Huay Ho	IPP	152	102	102	-	-	GLOW (67%)	1999	30
Sriracha	IPP	700	700	700	-	80	GPSC (100%)	2000	25
Glow IPP	IPP	713	677	677	-	-	GLOW (95%)	2003	25
RPCL	IPP	1400	210	210	-	-	GPSC (15%)	2008	25
GHECO-One	IPP	660	429	429	-	-	GLOW (65%)	2012	25
XPCL	IPP	1285	321	321	-	-	GPSC (25%)	2019	29
Total IPP		4,910	2,439	2,439	-	80			
SPP									
Glow Energy Phase 1	SPP	-	-	-	250	1,340	GLOW (100%)	1994	-
Glow Energy Phase 2	SPP	281	281	281	300	1,180	GLOW (100%)	1996	3
Glow Energy Phase 4	SPP	77	77	77	137	2,050	GLOW (100%)	2005	25
Glow Energy Phase 5	SPP	328	328	328	160	-	GLOW (100%)	2011	-
Glow SPP 2/ GLOW SPP 3	SPP	513	513	513	190	150	GLOW (100%)	1999	25
Glow SPP 11 Phase 1	SPP	120	120	120	-	360	GLOW (100%)	2000	25
Glow SPP 11 Phase 3	SPP	42	42	42	-	-	GLOW (100%)	2006	-
Glow SPP 11 Phase 2	SPP	110	110	110	-	212	GLOW (100%)	2012	25
Glow Energy CFB 3	SPP	85	85	85	79	-	GLOW (100%)	2010	-
CUP-1	SPP	226	226	226	890	720	GPSC (100%)	2006	10-15
CUP-2	SPP	113	113	113	170	510	GPSC (100%)	2008	15
CUP-3	SPP	-	-	-	280	770	GPSC (100%)	2009	15
BIC-1	SPP	117	29.25	29.25	5	-	GPSC (25%)	2013	25
BIC-2	SPP	117	29.25	29.25	5	-	GPSC (25%)	2017	25
IRPC-CP Phase 1	SPP	45	23	23	86.7	-	GPSC (51%)	2015	25-27
IRPC-CP Phase 2	SPP	195	99.4	99.4	66.3	-	GPSC (51%)	2017	25

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

GPSC Power Plant Portfolio (2/2)

Name	Type	Total capacity (MW)	Equity Power capacity (MW)	Equity Operating Power capacity (MW)	Steam (T/H)	Industrial water (Cu.m/H)	Direct shareholding (%)	COD	Tenor
NNEG	SPP	125	38	38	9	-	GPSC (30%)	2016	25
NNEG Expansion (COD: 31-Oct-2020)	SPP	60	18	18	3	-	GPSC (30%)	2020	21
Rayong Expansion (CUP-3)	SPP	15	15	15	-	-	GPSC (100%)	2019	n/a
Rayong Expansion (CUP-4)	SPP	49	49	49	140	-	GPSC (100%)	2019	Long-term
Total SPP		2,618	2,196	2,196	2,771	7,292			
VSPP and others									
CHPP	VSPP	5	5	5	-	-	GPSC (100%)	2008	30
CHPP (Solar)	VSPP	5	5	5	-	-	GPSC (100%)	2016	25
Glow Energy Solar Plant	VSPP	1.55	1.55	1.55	-	-	GLOW (100%)	2012	25
TSR (SSE1)	VSPP	80	32	32	-	-	GPSC (40%)	2013	25
ISP1	Solar	20.8	20.59	20.59	-	-	GPSC (99%)	2017	20
GRP (NPS, WXA, PPS)	VSPP	39.5	19.75	19.75	-	-	GPSC (50%)	2014-15	25
GRP1 (Solar in Taiwan) (not closing)	Solar	55.8	25.11	-	-	-	GRP (90%)	2016-21	20
NL1PC	Hydro	65	26	26	-	-	GPSC (40%)	2019	24
Chonburi Clean Energy (CCE)	VSPP	8.6	2.87	2.87	-	-	GLOW (33%)	2019	20
Rayong WTE (under construction)	VSPP	9.8	9.8	-	-	-	GPSC (100%)	2021	18
Private PPA	Solar	21.90	21.90	4.08			GPSC Gr. (100%)	2018-21	Long-term
Total VSPP and others		313	170	117	-	-			
ERU									
ERU (under construction)	Cogen	250	250	-	175	-	GPSC (100%)	2023	25
Total ERU		250	250	-	175	-			
Total capacity		8,091	5,055	4,752	2,946	7,372			

Note: Equity capacity includes 100% stake in GLOW, ERU and GRP1
Committed equity capacity which also based on GRP restructure shareholding to be completed on Q1/2021

2020 Maintenance Schedule | Sriracha and Rayong Plants

Site	Description	Duration	2020												
			Q1			Q2			Q3			Q4			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	HRSO-11	8 Days					1Y								
	GTG16/HRSO16	14 Days	HGPI/3Y												
	HRSO14	8 Days	1Y												
CUP-1	Aux. Boiler.11	8 Days			1Y										
	GTG12/HRSO12	22 Days				MI/3Y									
	HRSO13	8 Days						1Y							
	HRSO15	8 Days										1Y			
	HRSO21	8 Days			1Y										
CUP-2	GTG22/HRSO22	22 Days						MI/3Y							
	Aux. Boiler.21	8 Days						1Y							
	STG21	27 Days								2M					
	Aux. Boiler.31	13 Days								3Y					
CUP-3	Aux. Boiler.32	13 Days											3Y		
	Aux. Boiler.33	13 Days									3Y				
	Steam Turbine.31	-													
CUP-4	GTG41	5 Days													RM
	HRSO41	11 Days						1Y							
	GT11	-													
SRC	HRSO#1	8 Days													1Y
	GT12	8.33 Days													1Y
	HRSO#2	8 Days													1Y
RDF	All Equipment	7 Days											1Y		

Notes: Rayong Site

GTG			HRSO		
HGPI	Hot Gas Path Inspection for Gas Turbine	14 days	1Y	One Year Inspection HRSO	11 days
MI	Major Inspection for Gas Turbine	22 days	3Y	Three Year Inspection HRSO	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			

Notes: Sriracha Site

GTG			HRSO		
CI	Combustion Inspection for Gas Turbine	8 days	HRSO		
HGPI	Hot Gas Path Inspection for Gas Turbine	26	1Y	One Year Inspection HRSO	8 days
days			3Y	Three Year Inspection HRSO	33 days
MO	Major Overhaul for Gas Turbine	33	Other		
days			1Y	One Year Inspection NG Station Test Online	
RCIE	Rotor and Casting Inspection Evaluation	49	5Y	Five Year Inspection NG Station (NDT) Online	
days			FO	Forced Outage Depending on physical damage	

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	22 Days								12/7	MI	2/8				
	HRS-13	22 Days								12/7	3Y	2/8				
CUP-2	GTG-21	22 Days		9	MI	30										
	HRS-21	22 Days		9	3Y	30										
CUP-4	GTG-41	5 Days												15/11	RMI	9/12
	HRS-41	11 Days						27/6	1Y	7/7						
SRC	HRS#1	14 Days												15/11	3Y	28/11
	HRS#2	14 Days												15/11	3Y	28/11
	Steam Turbine.10	25 Days														
	GT-11	8.33 Days												15/11	CI	23/11
RDF	BMH Machine	7 Days											7	MNI	13	

Notes: Rayong 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			

Notes: Sriracha Site

GTG			HRSG		
CI	Combustion Inspection for Gas Turbine	8 days	HRSG		
HGPI	Hot Gas Path Inspection for Gas Turbine	26 days	1Y One Year Inspection HRSG	8 days	
MO	Major Overhaul for Gas Turbine	33 days	3Y Three Year Inspection HRSG	33 days	
RCIE	Rotor and Casting Inspection Evaluation	49 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		

2020 Maintenance Schedule | IRPC-CP

Plant	Unit	2020			
		Q1 (A)	Q2 (A)	Q3 (A)	Q4 (A)
IRPC-CP	<u>Block 1</u>				
	CTG 21	6	1	1	1
	HRSG 21	6	1	1	1
	CTG 22	6	1	1	1
	HRSG 22	6	1	1	1
	STG 23	6			
	<u>Block 2</u>				
	CTG 31	1	6	1	1
	HRSG 31	1	6	1	1
	CTG 32	1	1	1	6
	HRSG 32	1	1	1	6
	STG 33				6
	Aux. Boiler		7		

Notes:

- YI Yearly Inspection 20 days
- YI Yearly Inspection Aux Boiler 15 days
- B CTG/HRSG Inspection Level B 20 days
- C CTG /HRSG Inspection Level C 22 days
- 1 = 1 Day (24 hours)
- 2 = 2 Days (72 hours)
- 6 = 6 Days (144 hours)
- 7 = 7 Days (168 hours)

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									
HRSR 21	B	20 Days				20									
CTG 22	B	20 Days				20									
HRSR 22	B	20 Days				20									
STG 23	MI	20 Days				20									
Block 2															
CTG 31	B	20 Days					20								
HRSR 31	B	20 Days					20								
CTG 32	C	22 Days								22					
HRSR 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/HRSR Inspection Level B 20 days
- C CTG /HRSR Inspection Level C 22 days
- Excluded 1 Day maintenance

2020 & 2021 Maintenance Schedule | GLOW's Main Units

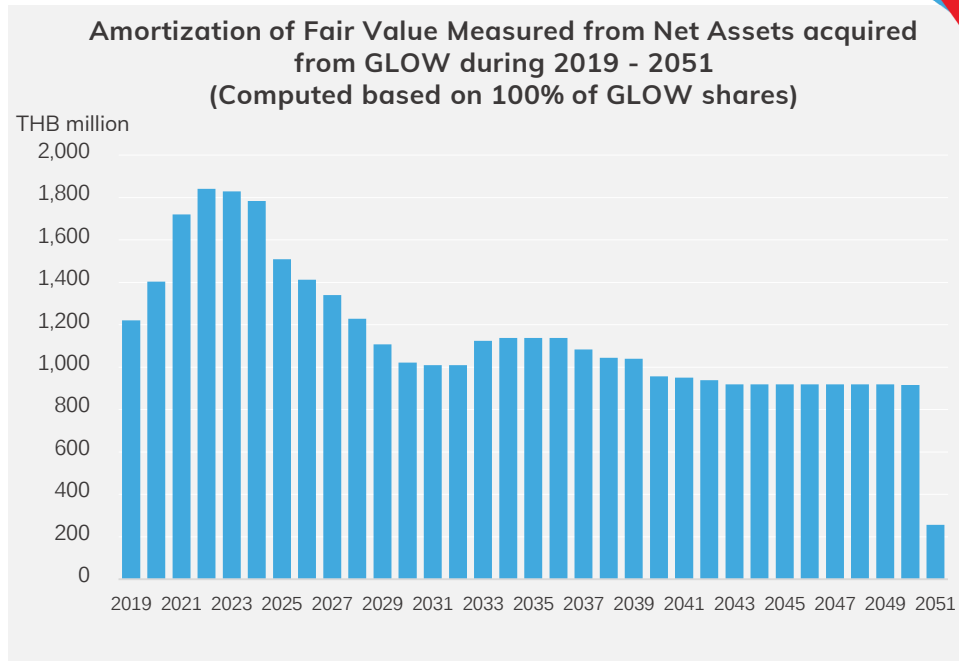
Main Units	Planned Maintenance Duration (Days)							
	2017	2018	2019	2020	2020 by quarter			
					Q1	Q2	Q3	Q4
GHECO-One	36	-	39	-				
GIPP: Unit 1	-	-	-	-				
GIPP: Unit 2	-	-	-	-				
CFB 1	38	27	5	25				25
CFB 2	27	5	21	23	2			
CFB 3	7	26	45	3			3	
Phase 5	31	5	23	-				

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										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							
GSP11 (Plant 2)	Minor Inspection	14 Days						18	3Y	31				
GSP11 (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.



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