



GLOBAL POWER SYNERGY PUBLIC
COMPANY LIMITED

THE INNOVATIVE POWER FLAGSHIP
OF PTT GROUP



Fixed Income Investor Presentation

October 2019

LOCAL RATING

TRIS
RATING
A Strategic Partner of DBP

AA-

FitchRatings

A+(tha)

INTERNATIONAL RATING

**STANDARD
& POOR'S**

BBB-

Disclaimer

This document has been prepared by Global Power Synergy Public Company Limited (“GPSC” or the “Company”) solely for use at a fixed income investor presentation for information purposes only.

The information contained in this document has not been independently verified and is subject to change without notice. No representation, warranty or undertaking, express or implied, is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of the information or the opinions contained herein. None of the Company, any of its affiliates, management, employees, advisors or representatives shall have any liability and responsibilities whatsoever (directly or indirectly, in negligence or otherwise) for any circumstances as well as any damages or loss howsoever arising from any use of or reliance on this document or its contents or otherwise arising in connection with the document.

This document contains forward-looking statements based on currently held beliefs, expectation of future events and assumptions of the management of the Company as of the respective dates indicated herein. Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, financial condition, performance or achievements of the Company or industry results to differ materially from those expressed or implied by such forward-looking statements. There can be no assurance that the results and events contemplated by the forward-looking statement will in fact occur or that assumptions are correct. The Company disclaims any obligation to update or otherwise revise these forward-looking statements to reflect future events or developments.

This document is strictly confidential and being given solely for your information and may not be shared, copied, reproduced or redistributed to any other person in any manner.



Company Overview



Financial Highlights













Investment Highlights



Proposed Offering and Timeline

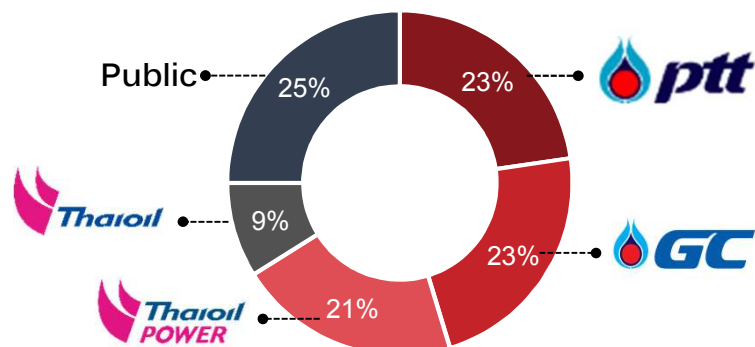
PTT Public Company Limited, GPSC's Parent Company : The largest Energy Conglomerate in Thailand

		Business Area	Company	PTT's Holding (%)	Activities
Upstream		 E&P	PTTEP	65.29%	Exploration and production
		 Coal	PTT Global Management	100%	Coal business
		 LNG	PTT Global LNG PTT LNG	50% 100%	LNG value chain LNG receiving terminal
Intermediate		Gas	Gas Pipeline*	100%	Sole owner/operation of the transmission pipeline
			S&M*	100%	Supply & marketing of natural gas
			GSP*	100%	Extracting hydrocarbon contents in natural gas for petrochemical's feedstock
Downstream		Trading	Trading*	100%	Import/Export/Out-out trading of petroleum and petrochemical products
		 Oil Marketing	PTTOR**	100%	Retail service stations and commercial marketing
		 Petrochemical & Refining	PTTGC TOP IRPC	48.18% 48.03% 48.05%	Petrochemical flagship Refinery flagship Integrated refinery & petrochemical
Technology & Engineering		 Power		22.58% (Held by PTT Group 75%)	Power flagship New S-Curve business of PTT group

Note: *Businesses directly operated by PTT PLC **Transferred asset to PTTOR on July 1, 2018
Source: PTT's Investor Update May 2019

GPSC Innovative Power at a Glance

GPSC's Shareholding Structure



Thai Oil Power is 74% held by Thai Oil and 26% by PTT
As of 4 September 2019

Company Information

Head Office	555/2 Energy Complex Building B, 5th Floor, Vibhadi-Rangsit Road, Chatuchak, Bangkok, Thailand
Business Type	Energy & Utilities
Registered Capital	THB 28,197 million (USD 914.2 million)
Paid-up Capital	THB 14,983 million (USD 485.7 million)
Market Cap (As of 25 Sep 2019)	THB 102,633.55 million (USD 3,327.3 million)

Note: Use FX = 30.846 THB/USD ; the w.a. selling rate announced by the BOT on 15 Aug 2019



Total Equity Capacity¹ in 2019

⚡ Electricity 5,026 MW

☁ Steam 2,876 T/H

COMBINED CYCLE / COGENERATION / THERMAL²



⚡ Electricity 4,463 MW
☁ Steam 2,876 T/H
💧 Chilled Water 15,400 RT
🏭 Industrial Water 7,372 Cu.m./H

RENEWABLE ENERGY



⚡ Electricity 114 MW

HYDROELECTRIC



⚡ Electricity 449 MW

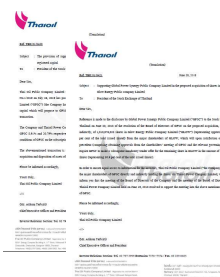
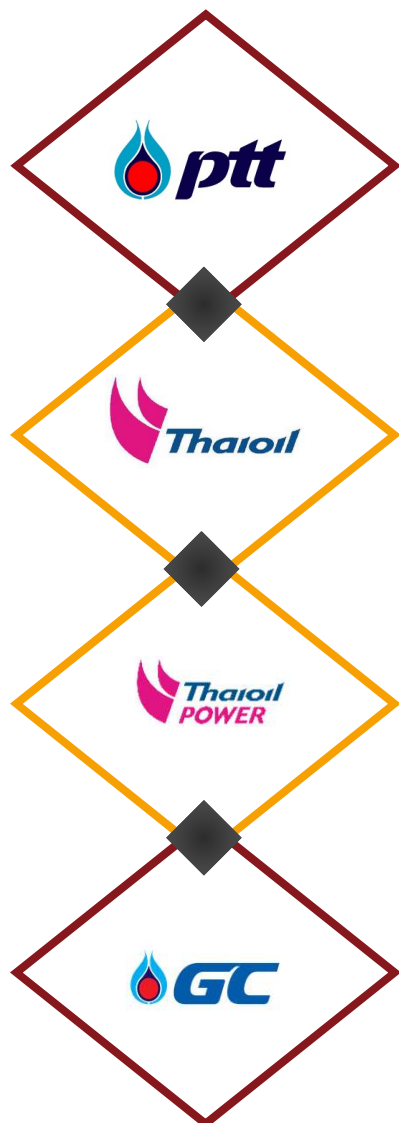
OTHER BUSINESSES



24M Technologies, Inc. (USA)
Business Service Alliance Co., Ltd.

Note: 1) Equity capacity includes 100% stake in GLOW, GRP and ERU
2) Equity capacity includes ERU

Concrete Support from GPSC's Major Shareholders

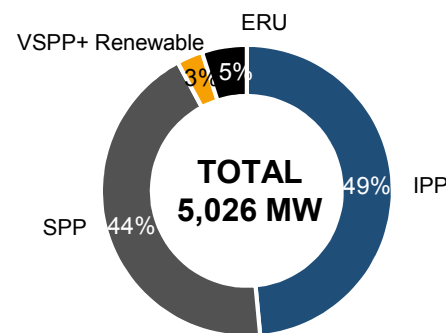
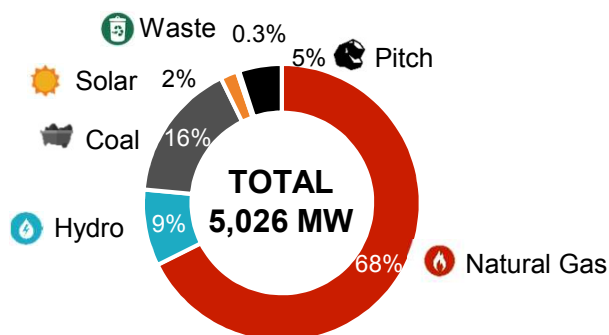


- On **June 18, 2018**, PTT issued letter to support GPSC's proposed acquisition of shares in GLOW.
- On **July 23, 2018**, PTT issued letter to grant short-term facilities to GPSC amounting of up to THB 27,000 million to support the acquisition.
- On **July 26, 2019**, PTT issued letter with the following information:
 - To subscribe the newly issued shares in a proportionated amount of PTT's existing shareholding in GPSC as well as the remaining shares from the existing shareholders of GPSC who have fully subscribed for the shares in accordance with their rights
 - To provide support to Thaioil Power Company Limited (TP) (PTT holds 26.0% stake in TP) with the amount of up to THB 4,000 million for registered capital increase plan in GPSC on July 26, 2019.

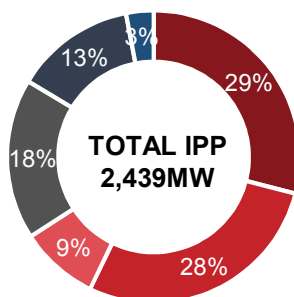
- On **June 20, 2018**, TOP issued letter to support GPSC's proposed acquisition of shares in GLOW.
- On **July 26, 2019**, TOP announced that TOP and TP (73.99% owned by TOP) will support GPSC capital increase.

- On **June 20, 2018**, GC issued letter to support GPSC's proposed acquisition of shares in GLOW.
- On **July 25, 2018**, GC issued letter to provide short-term facilities to GPSC amounting of up to THB 8,000 million to support the acquisition.
- On **July 26, 2019**, GC issued letter to subscribe GPSC's newly issued shares proportionately.

GPSC's Business Portfolio by Fuel and Plant Type

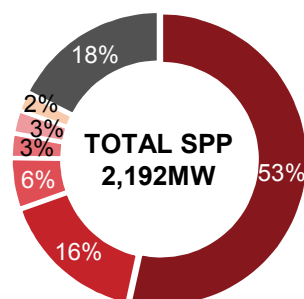


IPP, 49%



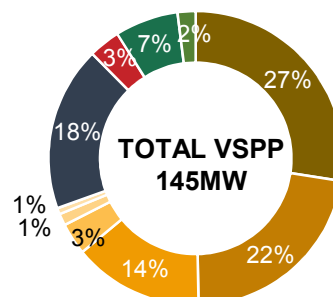
Natural gas	
Sriracha Power Plant	700MW
GLOW IPP	677MW
Ratchaburi Power (RPCL)	210MW
Coal	
GHECO-ONE	429MW
Hydro	
Xayaburi Power (XPCL)	321MW
Houay Ho	102MW

SPP, 44%



Natural gas	
Glow Co-Generation	1,171MW
Rayong CUP 1-3	354MW
IRPC-CP (Phase 1-2)	122MW
Bangpa-in Cogeneration BIC (Phase 1-2)	59MW
NNEG	56MW
Rayong CUP 4	45MW
Coal	
Glow Co-Generation	385MW

VSPP + Renewable , 3%



Solar	
Solar Project	39.5MW
Thai Solar Renewable TSR (SSE1)	32MW
Ichinoseki Solar Power (ISP1)	21MW
Combined Heat and Power Producing (CHPP Solar)	5MW
Glow Energy Solar PV Rooftop	2MW
Glow Energy Solar Plant	1MW
Hydro	
Nam Lik 1 Power (NL1PC)	26MW
Natural gas	
CHPP	5MW
Waste	
Rayong WTE	10W
Chonburi Clean Energy (CCE)	3MW

ERU , 5%



Pitch	
Thaioil	250MW



GPSC's VISION and MISSION

VISION



The Global Leading
Innovative and Sustainable
Power Company

MISSION



- Create long-term shareholders' value with profitable growth
- Deliver reliable energy through operational excellence to customers
- Conduct business with social and environmental responsibility
- Seek innovation in power and utility efficiency management through energy storage technology

Well-versed Board of Directors

Our directors have mix of skills and experiences to deliver meaningful growth at GPSC



Pailin Chuchottaworn

- Independent Director/ Chairman of the Board, GPSC
- Former Deputy Minister of Transport
- Former President and CEO of PTT Public Company Limited
- Former Learned Commissioner, The Securities and Exchange Commission
- Former Director, Power of innovation and power of learning
- Former Director, Bangkok Bank Public Company Limited



Kurujit Nakornthap

- Independent Director / Chairman of the Nomination and Remuneration Committee/ Chairman of the Corporate Governance Committee, GPSC
- Independent Director, Padaeng Industry Public Company Limited
- Former Permanent Secretary, Ministry of Energy
- Former Director and Chairman of the Board, Electricity Generating Authority of Thailand



Payungsak Chartsutipol

- Independent Director / Chairman of the Audit Committee and the Risk Management Committee, GPSC
- Former Chairman of the Corporate Governance Committee, GPSC
- Former Chairman, Board of Executive Directors, Krungthai Bank Public Company Limited
- Former Chairman, Federation of Thai Industries



Maj.Gen. Chaowalek Chayansupap

- Independent Director / Member of Audit Committee/ Member of the Nomination and Remuneration Committee, GPSC
- Former Member of the Corporate Governance Committee, GPSC
- Former Army Expertise, Royal Thai Army
- Former Deputy Infantry Center Commandant, Royal Thai Army



Nicha Hiranburana Thuvatham

- Independent Director / Member of the Corporate Governance Committee, GPSC
- Deputy Secretary-General to the Prime Minister for Administrative Affairs, Office of the Prime Minister
- Deputy Director, Prime Minister Delivery Unit



Boonchai Chunhawiksit

- Director, GPSC
- Senior Executive Vice President, Upstream Petrochemical Business PTT Global Chemical Public Company Limited

Well-versed Board of Directors (Cont'd)

Our directors have mix of skills and experiences to deliver meaningful growth at GPSC



Wittawat Svasti-Xuto

- Director / Member of the Nomination and Remuneration Committee/ Member of the Risk Management Committee, GPSC
- Chief Technology and Engineering Officer, PTT Public Company Limited
- Director, PTT Global Chemical Public Company Limited
- Former Senior Executive Vice President, Innovation and Digital, PTT Public Company Limited



Wuttikorn Stithit

- Director, GPSC
- Senior Executive Vice President, Gas Business Unit, PTT Public Company Limited
- Former Executive Vice President, Natural Gas Distribution, PTT Public Company Limited
- Former Vice President, Natural Gas Wholesales Marketing, PTT Public Company Limited



Wirat Uanarumit

- Director / Member of the Risk Management Committee, GPSC
- Chief Executive Officer and President, Thai Oil Public Company Limited
- Former Chief Operating Officer, Upstream Petroleum and Gas Business Group, PTT Public Company Limited
- Former Chief Financial Officer, PTT Public Company Limited



Kongkrapan Intarajang

- Director, GPSC
- Chief Executive Officer, PTT Global Chemical Public Company Limited



Peangpanor Boonklum

- Director / Member of the Corporate Governance Committee, GPSC
- Senior Executive Vice President / Group General Counsel, Office of General Counsel, PTT Public Company Limited



Bandhit Thamprajamchit

- Independent Director / Member of the Corporate Governance Committee
- Former Executive Vice President-Manufacturing Thai Oil Public Company Limited



Chawalit Tippawanich

- Director / Secretary to the Board / Member of the Risk Management Committee / President and Chief Executive Officer, GPSC
- Senior Executive Vice President, PTT Public Company Limited

Highly Experienced Management Team

Proven Track Record and Expertise in Thai Energy and utilities Industry



**Smornchai
Khoonrak**

EVP
Operations

35 years in PTT Group
Energy & utilities industry
both onshore and offshore
operation



**Rosaya
Teinwan**

EVP
Business Development and
Corporate Strategy

28 years in PTT Group
Energy & Utilities industry



**Chawalit
Tippawanich**

**President
& CEO**

14 years in PTT Group
16 years in Energy &
utilities industry



**Sirimet
Leepagorn**

EVP
Asset Management

30 years in PTT Group
Energy & Utilities industry



**Wanida
Boonpiraks**

EVP
Corporate Finance
and Accounting

29 years in PTT Group
Energy & utilities industry

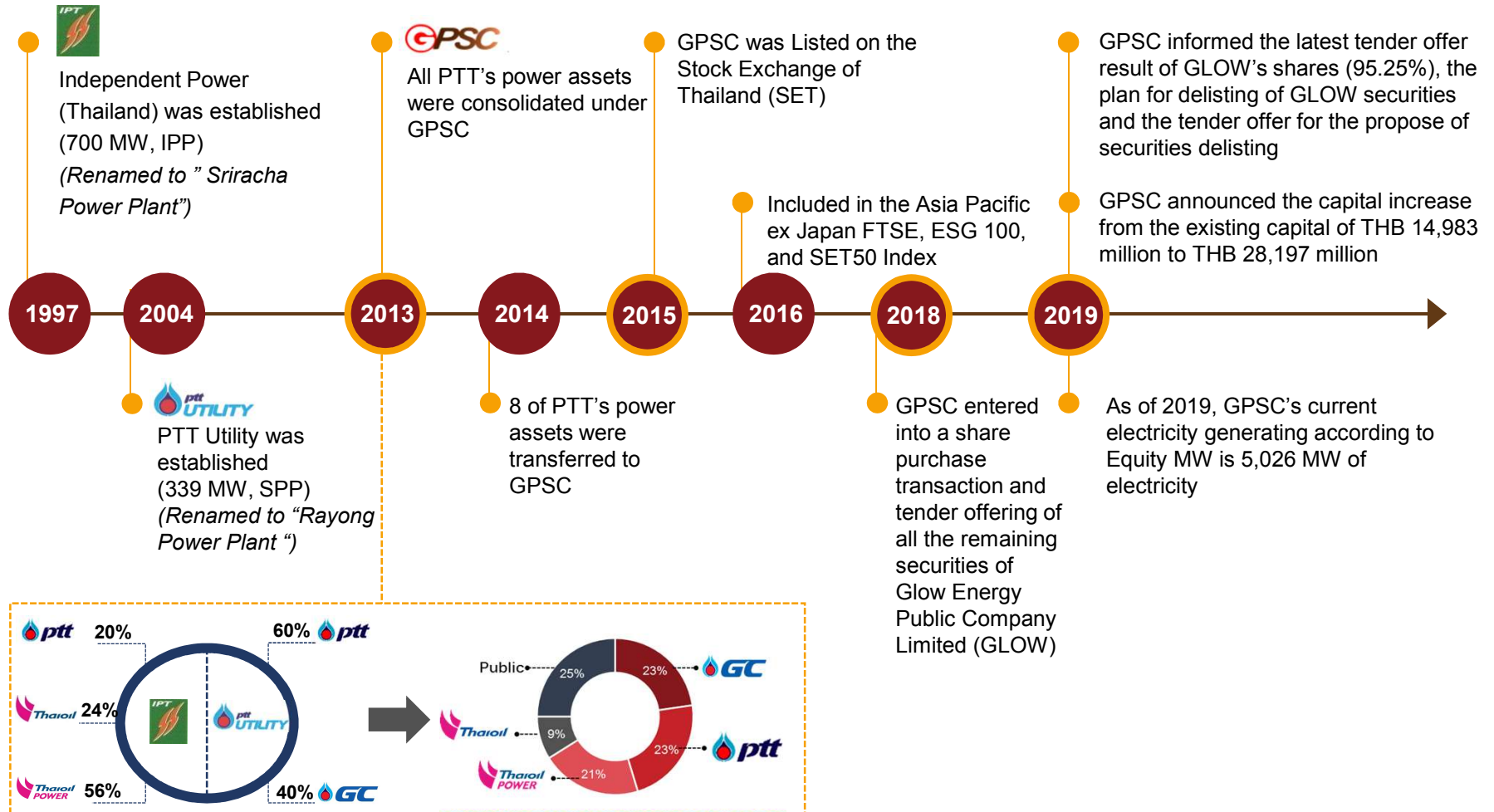


- Several senior executives have long experience working within the PTT Group and have expertise in power generating business
- Rotation policy of key staff within the PTT Group helps foster closer linkage with key shareholders in the company
- Succession planning encourage talented employees and to ensure continuity of strategies
- PTT Group regular meetings drive synergies between the key subsidiaries of the Group

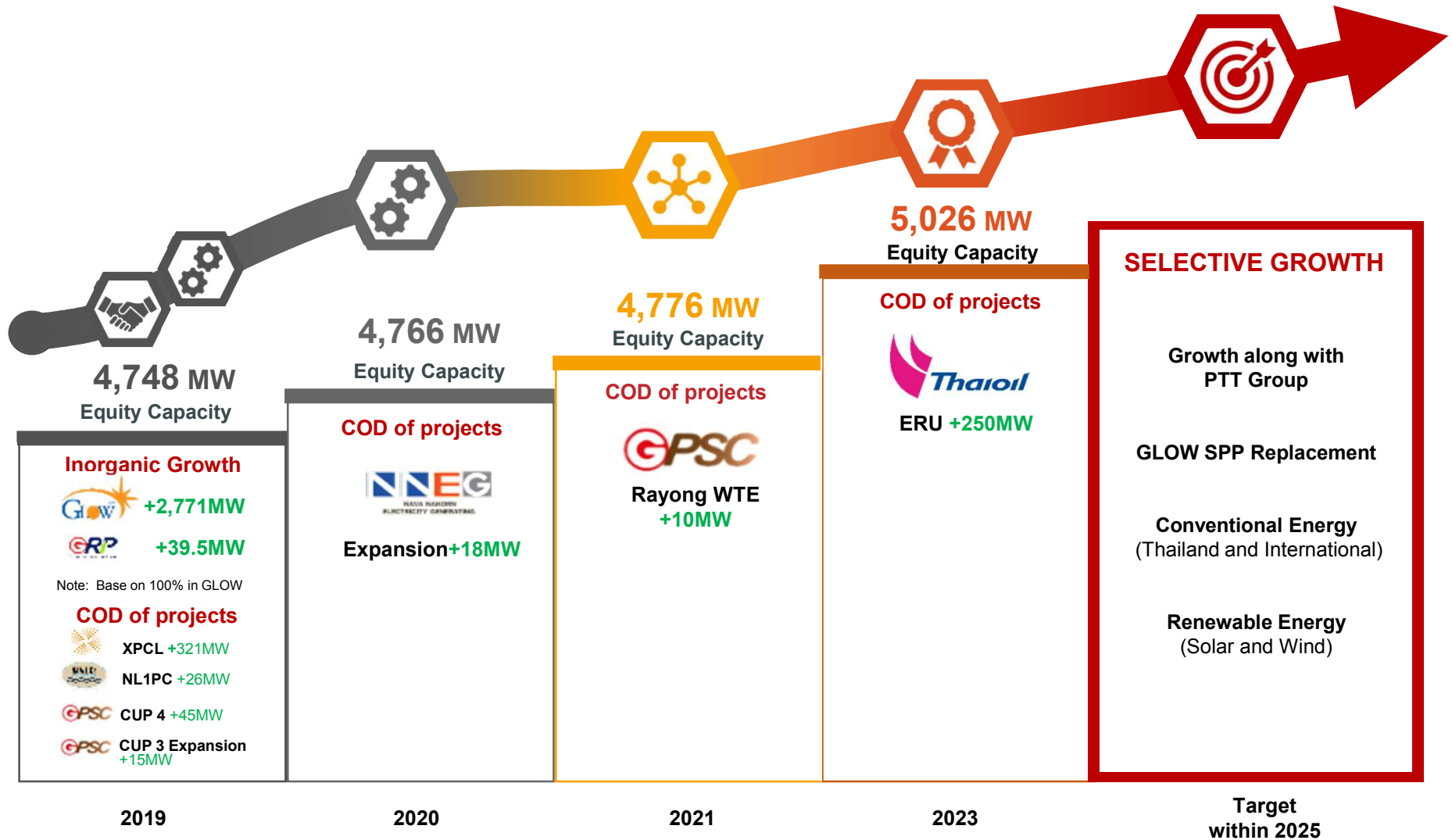


GPSC's History & Key Milestones

GPSC was founded in 2013 to be “the Power Flagship of PTT Group”. Since its inception, GPSC has proved its strong expertise in operating existing power plants, and prudently investing in the new projects.



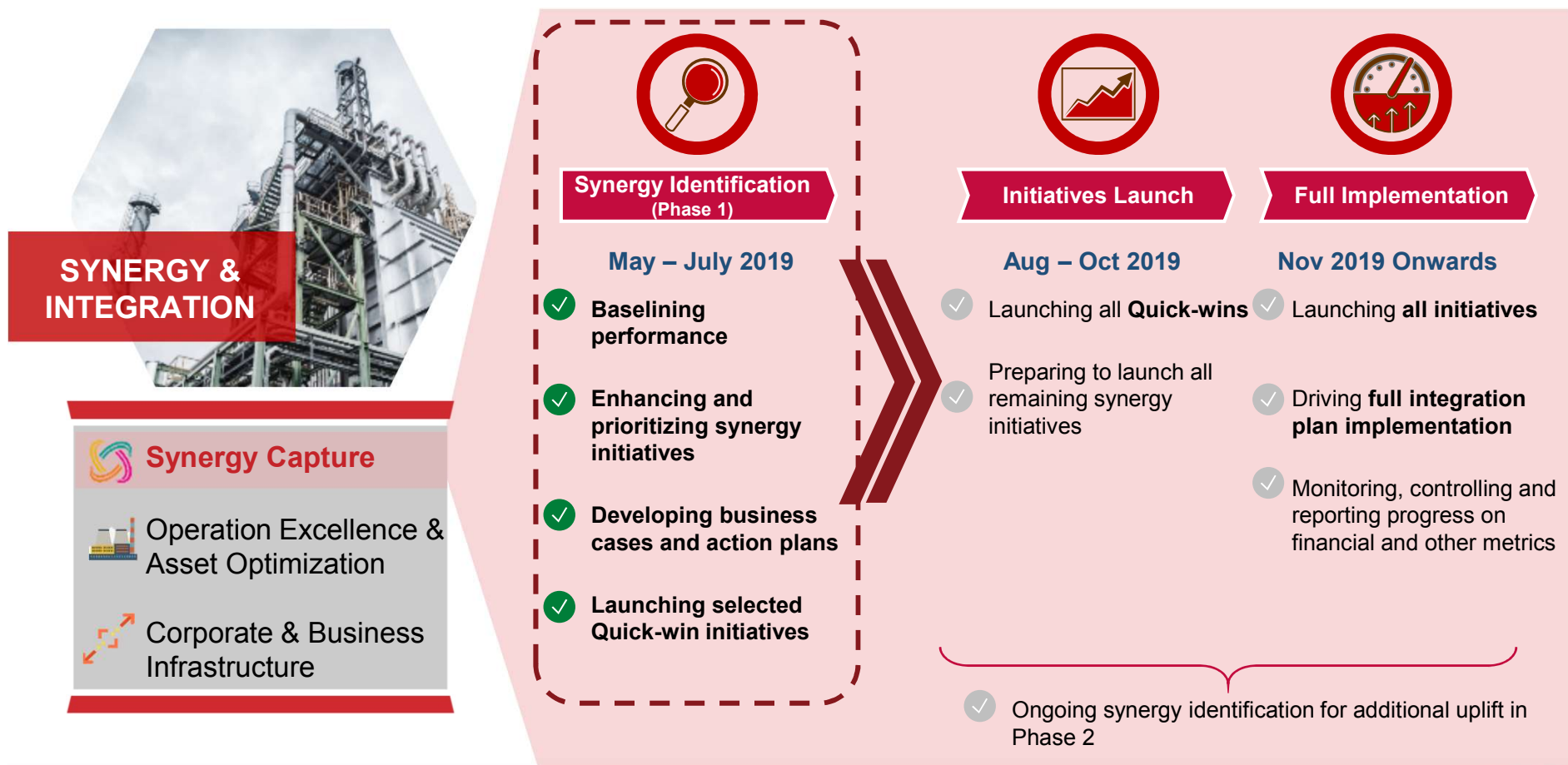
GPSC Electricity Growth Pipeline



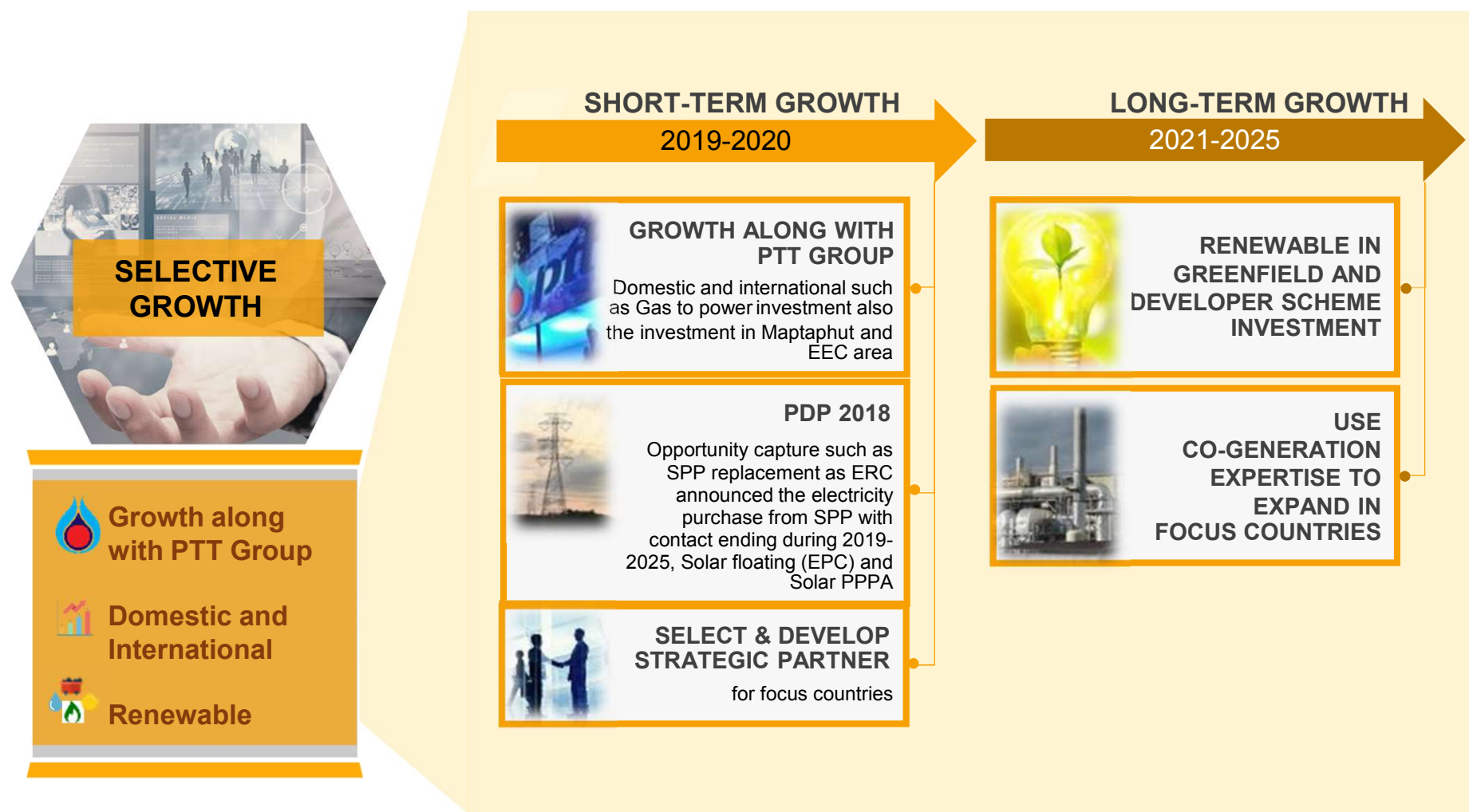
Strategic Direction and Growth Strategy 3 Pillars



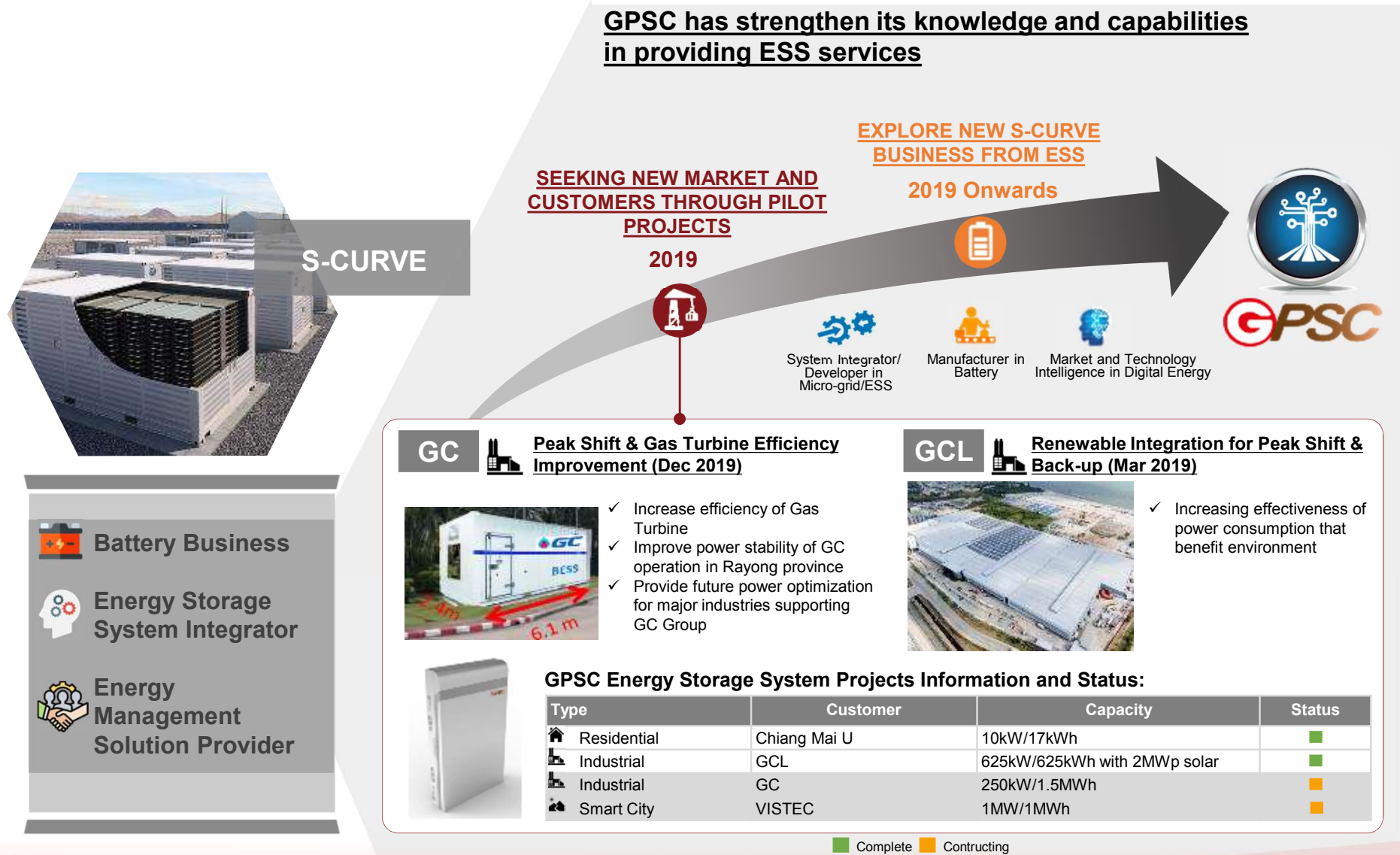
Strategic Direction and Growth Strategy **Synergy & Integration**



Strategic Direction and Growth Strategy **Selective Growth**

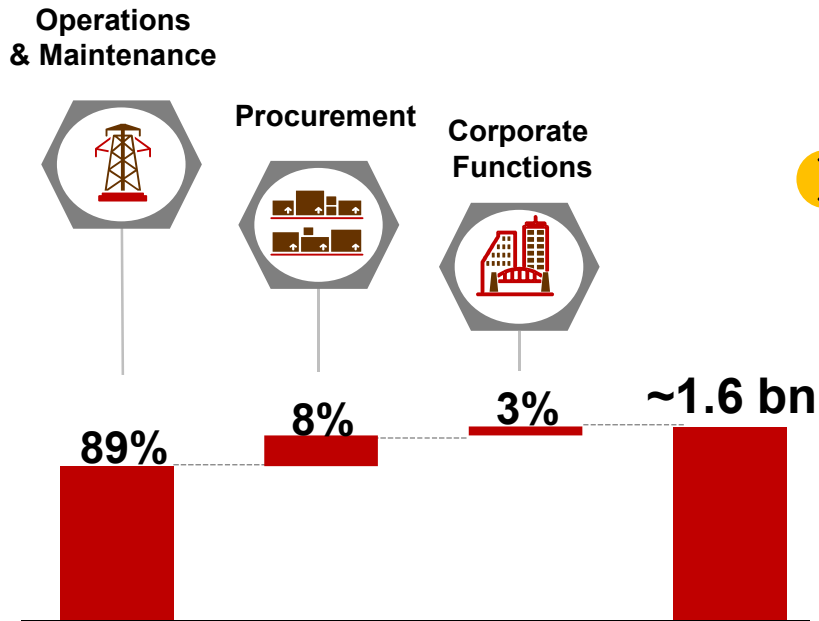


Strategic Direction and Growth Strategy S-curve



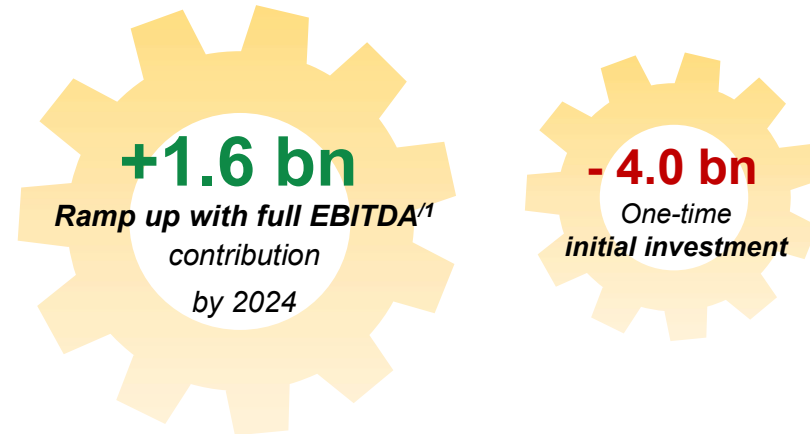
Expected Synergy Benefit

EBITDA Contribution Per Annum¹ Identified in Phase 1



Note: 1. Recurring EBITDA synergy value based on current portfolio

Phase 1 1. Recurring Benefit in Phase 1



Phase 1 2. Additional One-time Benefit



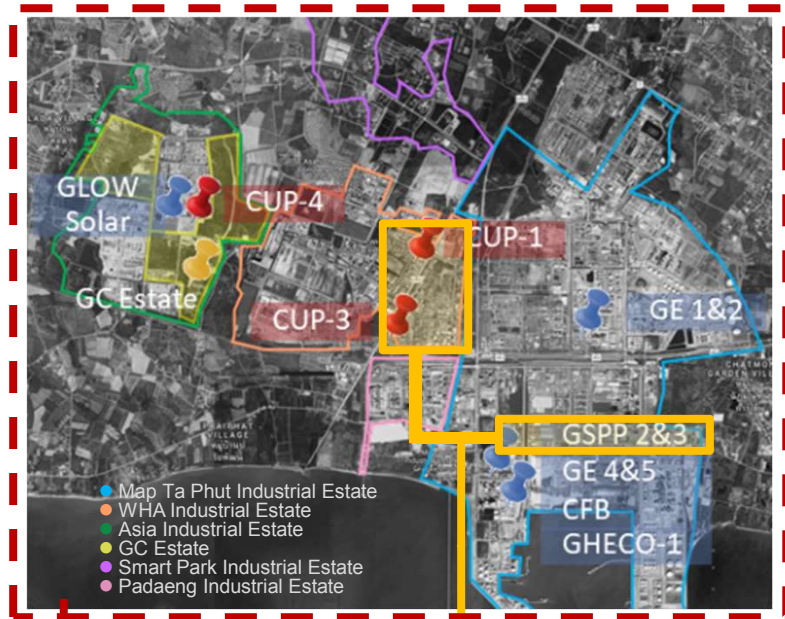
For 200 MW growth in MTP

Phase 2 3. Further Identification



Quick Wins & Big Wins

Power and Steam Integration leads to cost savings and more capacities to serve new demand



Big-win

Full Integration from Power and Steam Integration

- Rebalance production to optimize cost

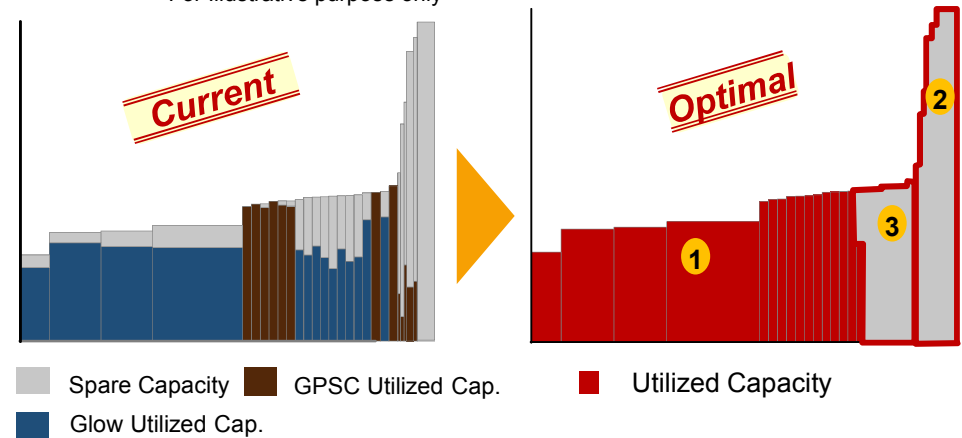
Quick-win

Immediate benefits from Power and Steam Integration

- Reduce standby time

Marginal cost per unit (THB / MWheq)

For illustrative purpose only



1

Substitute GPSC supply by GLOW's lower cost of production



2

Optimize Back-Up Capacity and Cost



3

Avoid or Delay Power Plant and Distribution Network CAPEX



4

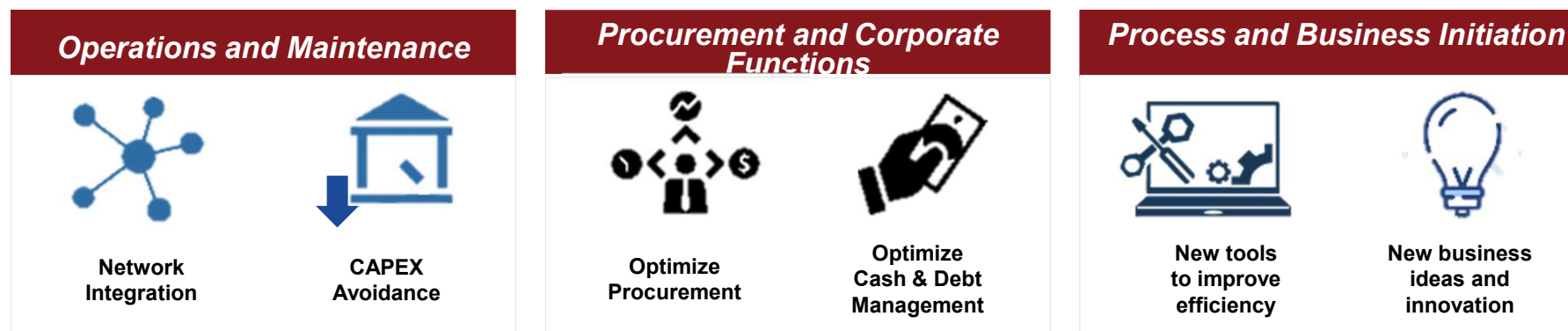
Increase Supply Opportunities

Growth Platform Strengthened by Synergies

‘Larger and Stronger Power House’



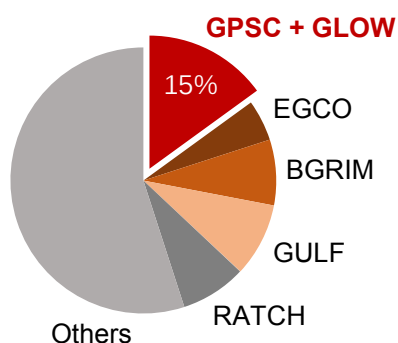
‘Continuous Synergy Realization’



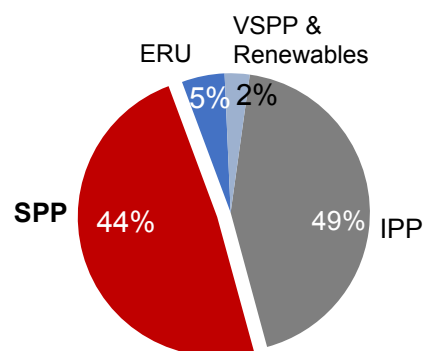
1. Leadership Position in SPP

SPP Market Share by Installed Equity MW/¹

Thailand's largest SPP player
with strong resources
and network reliability



GPSC's Committed Portfolio/²



**Committed Equity
5,026 MW**
**with SPP
2,192 MW**

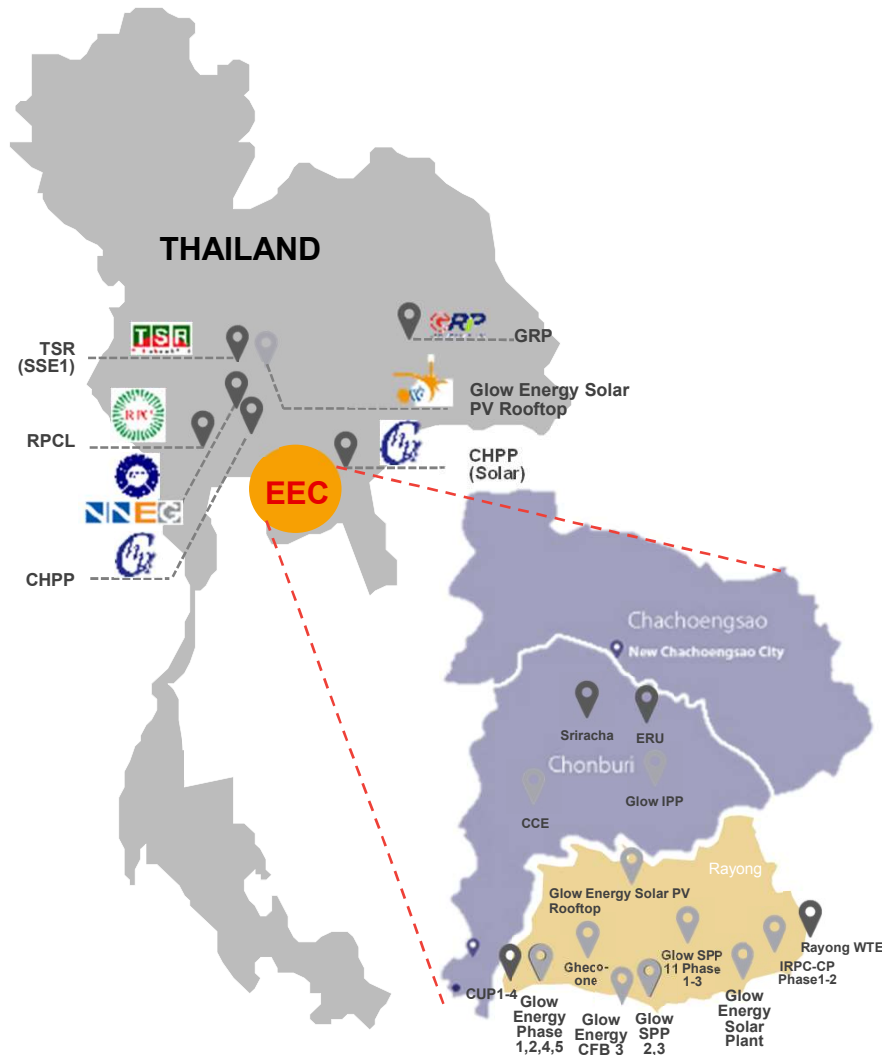
Note: 1. Data source from companies' website and ERC as of July 2019
2. Based on 100% in GLOW

**SPP Replacement Project: Stage 1 and 2 Projects
(Tentative only)**

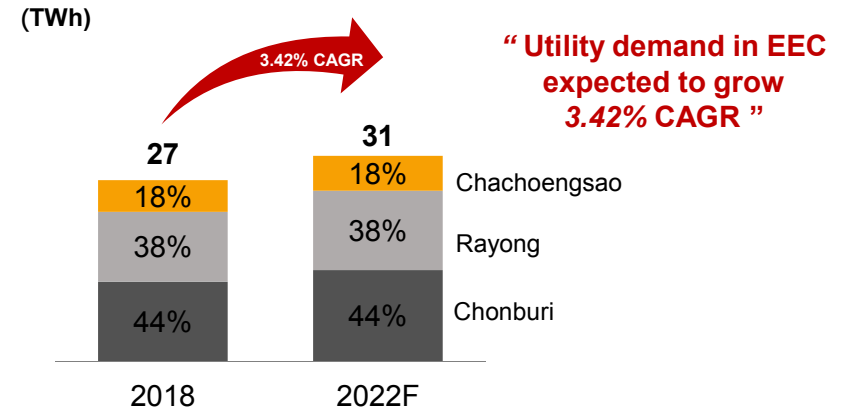
Plant	Power (MW)	Steam (TPH)	Max. EGAT PPA	Notice to proceed	SCOD
Stage 1					
GEN Phase 2	192	300	30 x 2	2020	2022
Stage 2					
GSPP2	192	300	30 x 2	2022	2024
GSPP3 (Coal)	120	168	30 x 2	2022	2024, 25
GSPP11#1	80	-	30 x 1	2023	2025
Total	584	768			

Source: GLOW Analyst Meeting Q1/2019

2. Solid growth platform and Expansion in EEC



Capture Solid Growth in EEC



Source: PEA, MEA, Ministry of energy

Supportive Industrial Customers Landscape

>5 Industrial estates

>5 Industries

- Petrochemical
- Chemical
- Refinery
- Steel
- Industrial gas

~75 companies

~120 plants & facilities

Customer needs

Reliability

Cost competitiveness

Backup support

Flexibility

3. Stronger HR capabilities

Human Resource Key Enablers



- Culture Alignment
- Growth Mindset
- Leadership Development
- Strengthening Core Competencies
- Employee Engagement
- People System Alignment

Group's Objectives

Selected Growth

- Core and project management Expertise
- Technical Expertise
- International BD talents
- M&A, Legal & Financial



S Curves and Digitization

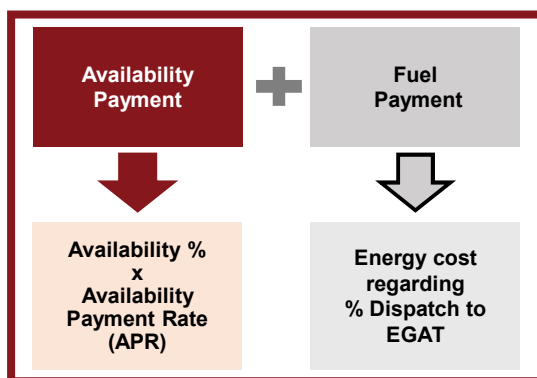
- Dedicated digital energy team
- Technical Expertise
- System integrator / micro-grid
- New Initiatives

Power Plant Definition and 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):

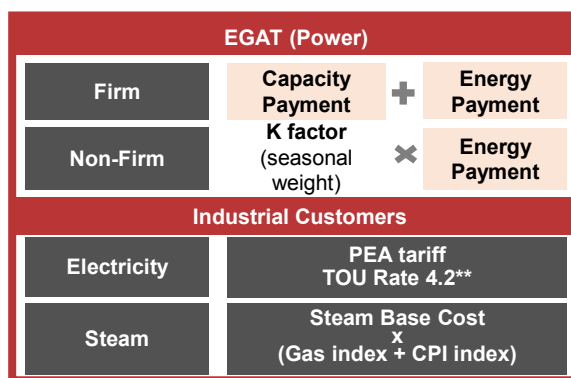
- A small power producer who sell their electricity to EGAT* and sell their electricity and utilities (e.g. steam, industrial water, chilled water) to Industrial customers (IUs)

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.

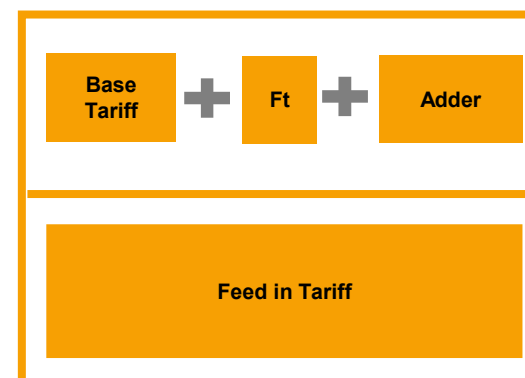


* Under various type of contracts. ** Fuel Saving (FS)
 *** Reference rate with conditions;
<https://www.pea.co.th/Documents/Rate2015.pdf>

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



GPSC Customers' Profile



LONG TERM 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



57% Industrial Users



40% EGAT



3% Others

Q2/2019 Revenue by Customers

GPSC's Awards and Recognitions



**CFO of the year award 2019 in
Treasury, Trade, Supply chain and Risk
Management**

By: The Asset magazine



- **Best Corporate Governance Company Thailand 2019**
- **Best Power Company Thailand 2019**
- **Best Investor Relations Company (Energy Sector) Thailand 2019**

By: International Business Magazine



**Asia Responsible Enterprise Award 2019
in Green Leadership Award**

By : Enterprise Asia



Asian Excellence Award 2019

1. **Asia's Best CEO**
2. **Best Investor Relations Company**

By : Corporate Governance Asia Magazine



- **Fastest Growing Power Company – Thailand 2019**
- **Fastest Growing Investor Relations Power Company – Thailand 2019**

By : International Finance Magazine



**Classified as securities in ESG 100
for the year 2019**
(For 4 consecutive year)

By : Thaipat Institute

GPSC's Awards and Recognitions (Cont'd)



**Corporate Bond Issued in 2017
Power Deal of The Year – Highly Commended**

By: The Asset



**International Finance Awards
(Most Innovative Power Company –
Thailand)**

By: International Finance Magazine



CFO Innovation Awards 2018
1. CFO of the Year Excellence in Technology
2. Excellence in Treasury Management
Transformation

By : CFO Innovation Magazine (Online)



Asian Excellence Award 2018
1. Asia's Best CEO
2. Best Investor Relations Company

By : Corporate Governance Asia Magazine



Best Investor Relation Company Thailand

By : International Business Magazine



**ASEAN Corporate Governance (CG) Awards,
named as one of ASEAN's 50 listed companies
with the best corporate governance practice
(Top 50 ASEAN PLCs) at the 2nd ASEAN
Corporate Governance (CG) Awards**

By : ASEAN Capital Market Forum (ACMF)



**Rated "Excellent" in the Corporate
Governance Report of Thai Listed Companies
(CGR) and ranked in the
Top Quartile of listed companies with market
capitalization over THB 10,000 million**

By : The Thai Institute of Directors (IOD)



**Certified Member of the Collective Action
Coalition of Thailand's Private Sector
Collective Action Coalition Against Corruption:
CAC)**

*By : Thailand's Private Sector Collective Action
Coalition Against Corruption (CAC)*



Company Overview



Financial Highlights



Investment Highlights



Proposed Offering and Timeline

2Q19 Key Financial Highlights

Revenue

▲ 120%

QoQ

Gross Profit

▲ 141%

QoQ

EBITDA

▲ 154%

QoQ

Adjusted Net Income

▲ 53%

QoQ

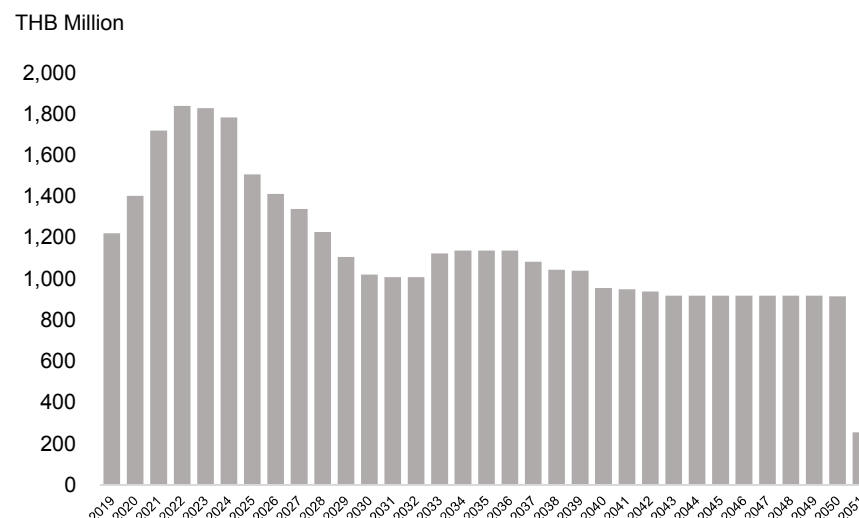
The Improving Financial Performance is mainly due to:

- ✓ The first full quarter recognition of GLOW's Independent Power Producer (IPP) and Small Power Producer (SPP) performance
- ✓ The continuity and consistency of GPSC's and GLOW's sales of both electricity and steam to industrial customers

Fair Value Measurement of Net Assets from the Acquisition of GLOW

Items	Book Value of GLOW (THB Million)	Fair Value of GLOW (THB Million)	Differential Value (THB Million)
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 (USD 1,219 mm)
Non-Controlling interests at 30.89%		(32,092)	
Total Net Asset obtained GLOW at 69.11%		56,911 (USD 1,845 mm)	
Goodwill		36,090 (USD 1,170 mm)	
Proportion of acquisition cost 69.11%		93,001 (USD 3,015 mm)	

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



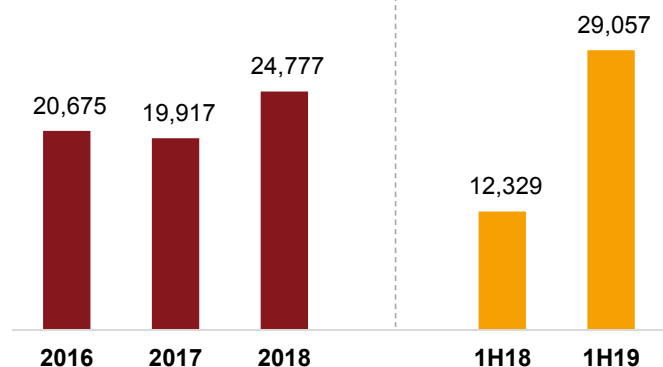
GPSC has completed the acquisition of 69.11% on 14 March 2019 at a total of THB 93,001 million, the company has measured the fair value of GLOW net assets as follow:

- 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.

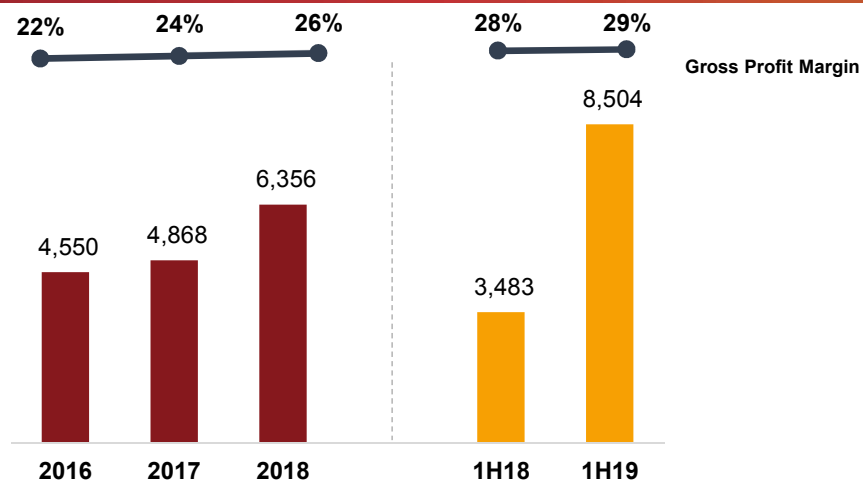
Note: Use FX = 30.846 THB/USD ; the w.a. selling rate announced by the BOT on 15 Aug 2019

Stable Cash Flow and Improving Margin

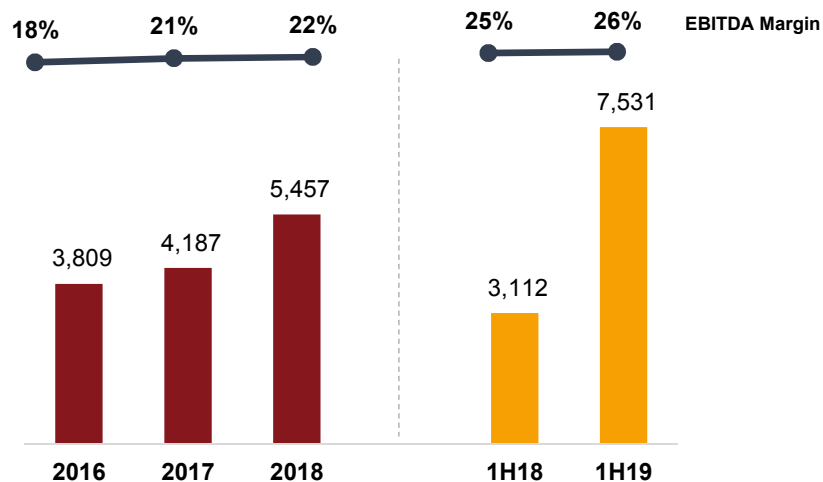
Revenue (THB million)



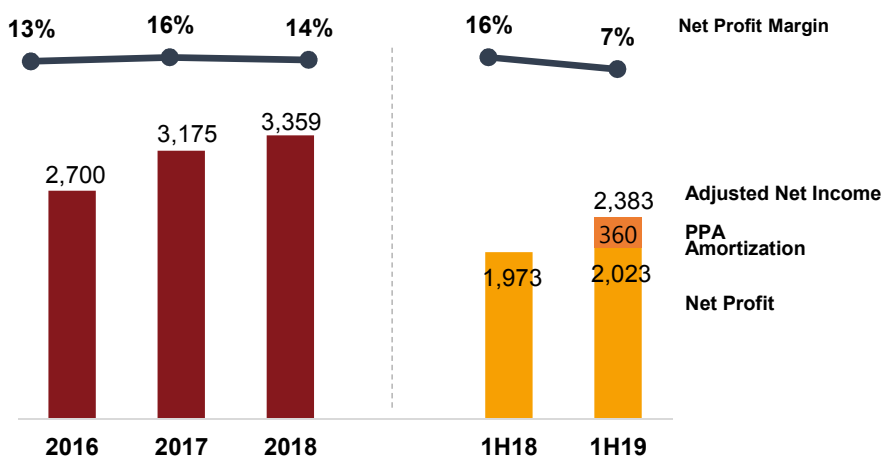
Gross Profit and Gross Profit Margin (%)



EBITDA and EBITDA Margin (THB million,%)



Net Profit and Net Profit Margin (THB million,%)



Note:

1) Gross Profit Margin = Gross Profit / Revenue 2) EBITDA Margin = EBITDA / Revenue 3) Net Profit Margin = Net Profit / Revenue

Solid Financial Position Post GLOW's Acquisition

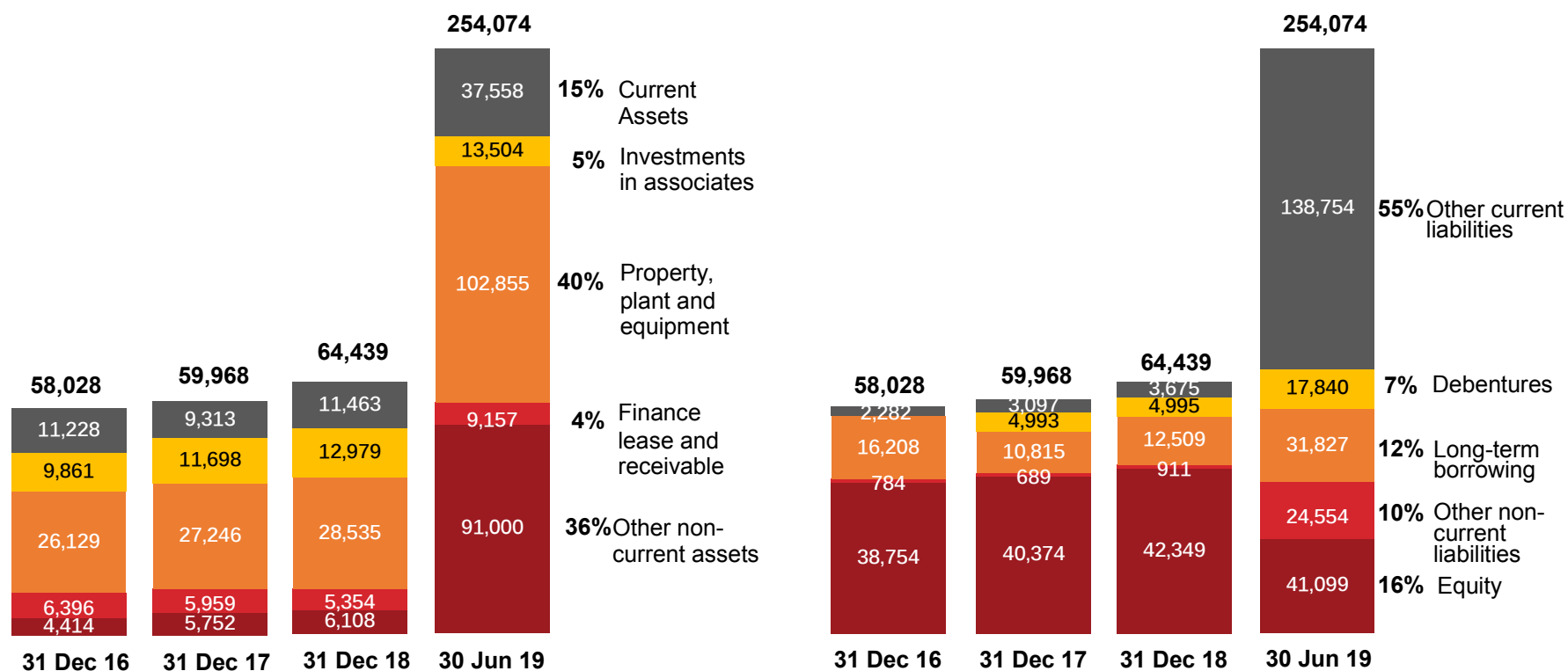
Larger and Stronger Power House

Total Assets

(THB million)

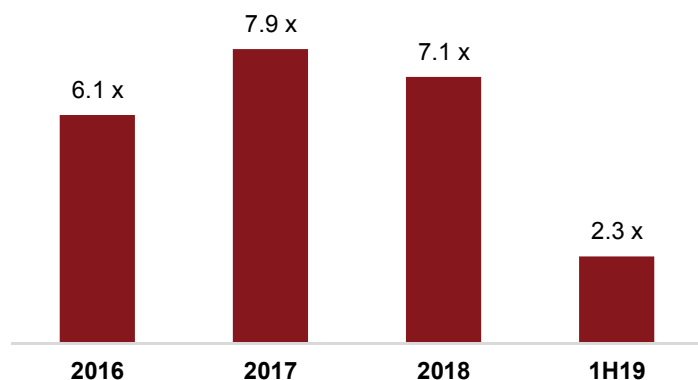
Total Liabilities & Shareholders Equity

(THB million)

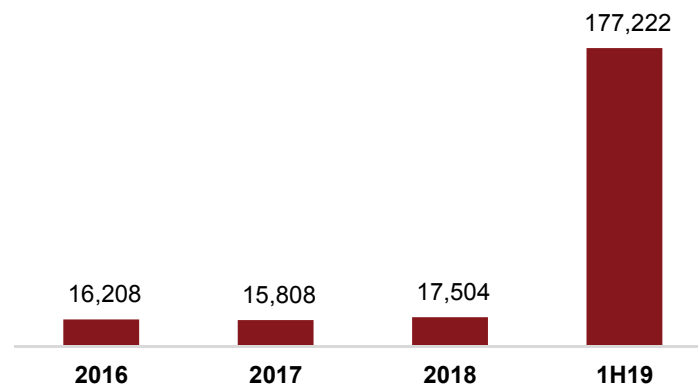


Debt Profile and Deleveraging Plan

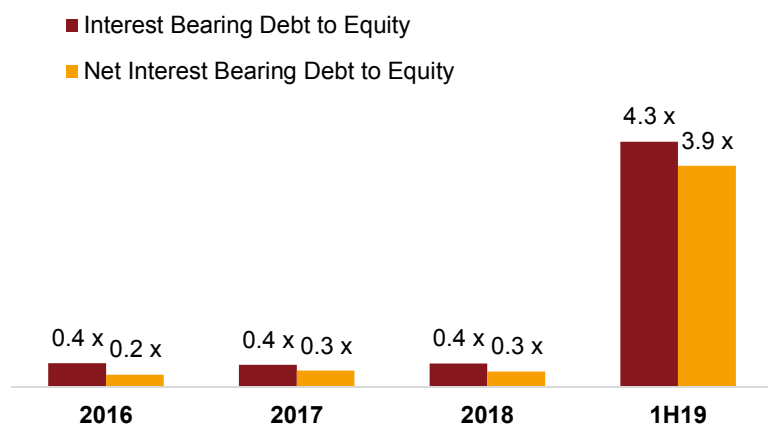
Interest Coverage Ratio (Times)



Interest Bearing Debt (THB million)



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



Deleveraging Plan

1H19 Net Interest Bearing Debt to Equity = 3.9x

Target Net Interest Bearing Debt to Equity = 1x

THB 134.5 billion

Loan from PTT and GC
THB 35 billion

Bridge loan from Financial Institutions
THB 99.5 billion

THB 134.5 billion

Equity
THB 74 billion

Loan and debentures
THB 60.5 billion

GPSC secured the short-term loan at THB 134,500 million from PTT, GC and Financial Institutions.

Deleveraging Plan

Note:

1) Interest bearing debt / Equity = Interest bearing debt / Total equity 3) Net interest bearing debt / Equity = Total interest bearing debt minus cash and cash equivalents, restricted accounts and temporary investments / Equity 4) Interest coverage = EBITDA / Interest expenses

GPSC's Prudent Financial Policy



Net Debt to Equity $\leq 1.0x$



Net Debt to EBITDA $\leq 4.0x$



Dividend Policy: Minimum dividend at the rate of not less than 30 percent 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)

Strong Credit Ratings

The 3 leading local and international Rating Agencies have affirmed rating post the acquisition of GLOW

LOCAL RATING



AA- (Stable)



Strong Support from PTT Group

PTT Group to continue providing support to GPSC as the flagship company in the power business under the group



Well-diversified Power Portfolio

As of 1H19, GPSC owned 29 power plants in Thailand and abroad.



Second Largest Private Producer in Thailand

GPSC's power portfolio, in proportion to its ownership or equity capacity, stood at 5,026 MW.



Predictable Cash Flow Backed by Long-Term PPAs

Solid cash flow supported by long-term contract with EGAT and reputable industrial users under the PTT Group.



A+(tha) / (Stable)



Strengthened Linkage with PTT

GPSC is a major supplier of electricity and steam to PTT's key petrochemical and refinery (P&R) subsidiaries, including PTTGC and IRPC.



Asset Diversity Enhances Business Profile

The acquisition of GLOW and the investment in ERU will improve GPSC's business profile, with its increased size driving better asset and geographical diversification.



Long-Term Contracted Revenues

GPSC's revenue visibility to remain strong post-acquisition, as most of GLOW's generating assets are part of Thailand's regulated electricity business.



Improving Margin; Stable Cash Flow:

GPSC will benefit from the cheaper fuel cost of GLOW's power plants, particularly the coal-fired power plants. Fitch expects GPSC to generate cash flow from operations of around THB14 billion-15 billion a year over the next 3 years.

INTERNATIONAL RATING



BBB- (Stable)



Strong Support from PTT Group GPSC is expected to receive extraordinary support from PTT group if needed.

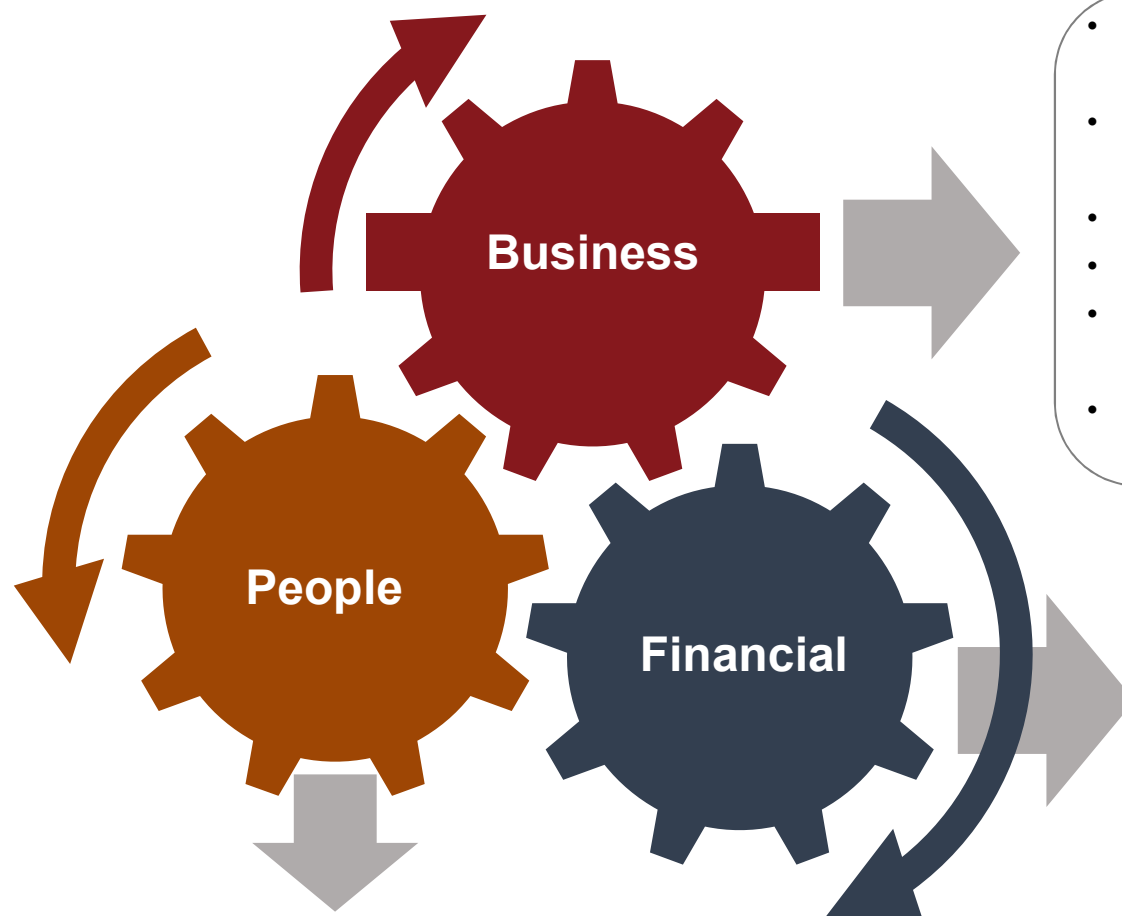


Steady Operating Performance with Improved Margin

The combined entity's margin profile will improve with greater coal exposure and Glow's higher-margin contracts for small power producers (SPP).



Key Strengths



- High and strong potential growth along with PTT Group
- Diversity of products, customers, fuel types and location
- Strong customer profile
- Opportunities in related businesses
- Secured & long term supply and feedstock agreement
- Growth platform strengthened by synergies

- Strong financial position and financial flexibility
- Stable & predictable cash flow
- Low business risk profile

- High expertise with long experience of management and staff team in cogeneration power plant and PTT Group
- Can access to vast resources of PTT Group
- Good corporate governance



Company Overview



Financial Highlights

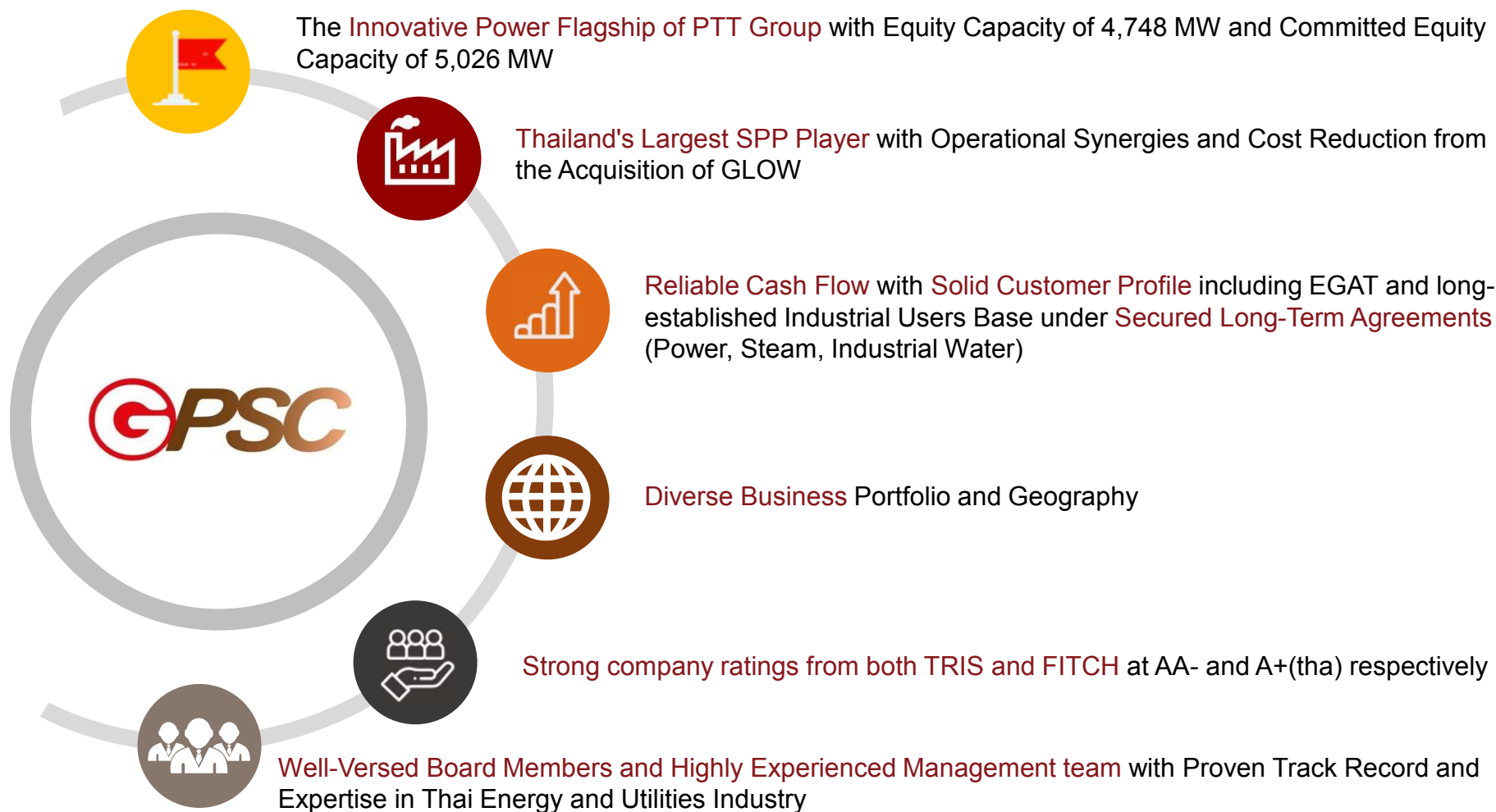


Investment Highlights



Proposed Offering and Timeline

Investment Highlights





Company Overview



Financial Highlights



Investment Highlights

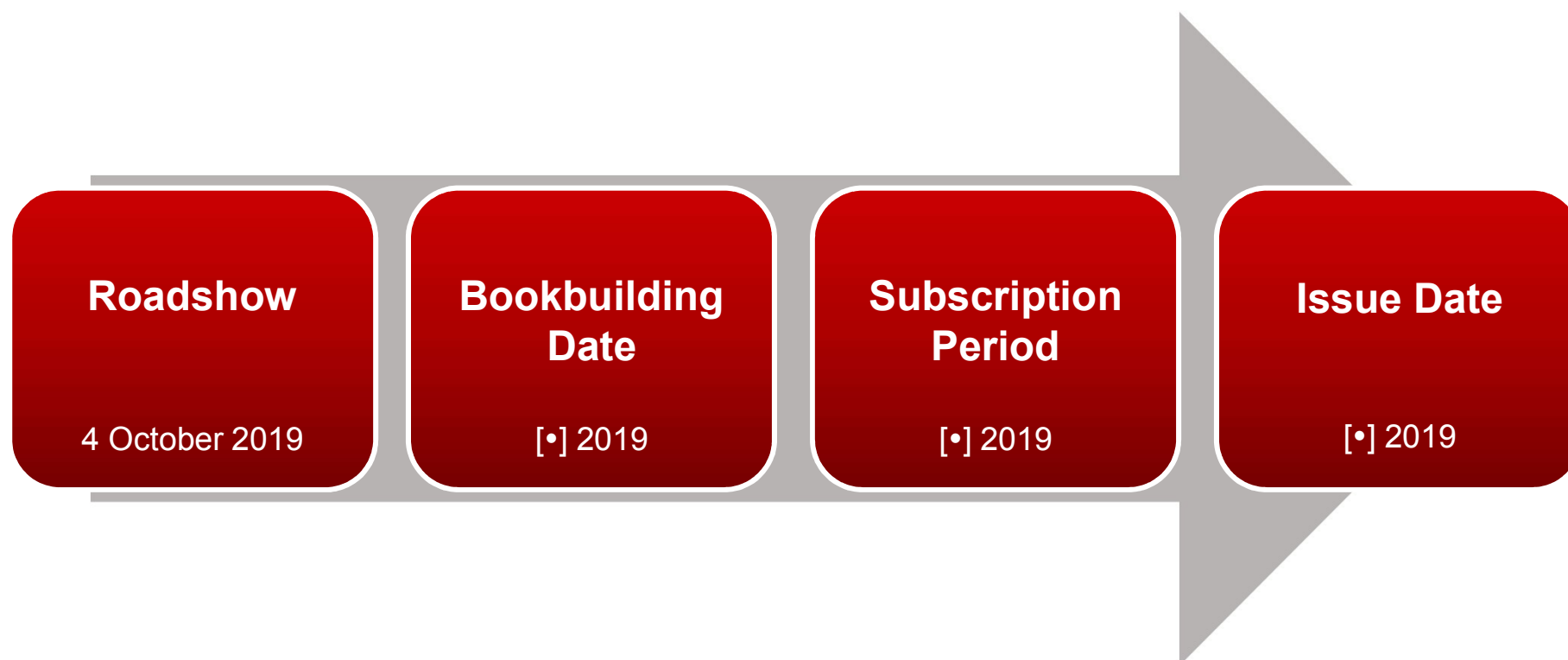


Proposed Offering and Timeline

Indicative Structure

Issuer	Global Power Synergy Public Company Limited (“ GPSC ”)
Joint Lead Underwriters	Bangkok Bank Public Company Limited (“ BBL ”) Krung Thai Bank Public Company Limited (“ KTB ”) Bank of Ayudhya Public Company Limited (“ Krungsri ”) KASIKORNBANK Public Company Limited (“ KBANK ”) Phatra Securities Public Company Limited (“ Phatra ”) Standard Chartered Bank (Thai) Public Company Limited (“ SCBT ”)
Debenture Type	Thai Baht Senior and Unsecured Debentures with Debentureholders’ representative
Offering Type	Private Placement to Institutional and High-Net-Worth Investors (PP-II&HNW)
Company Rating	AA- with Stable outlook by TRIS Ratings Co., Ltd. A+(tha) with Stable outlook by FITCH Ratings (Thailand) Co., Ltd.
Issue Rating	[•]
Total Issue Size	Up to THB 30,000 million and Greenshoe
Tenor	[•] years
Coupon Payment	Payable Semi-Annually
Debentureholders’ Representative	Bank of Ayudhya Public Company Limited
Registrar and Paying Agent	Bank of Ayudhya Public Company Limited
Principal Repayment	At Par Value, Bullet at the Maturity Date
Registration	Thai Bond Market Association (ThaiBMA)

Tentative Timeline



THANK YOU

IR Contact

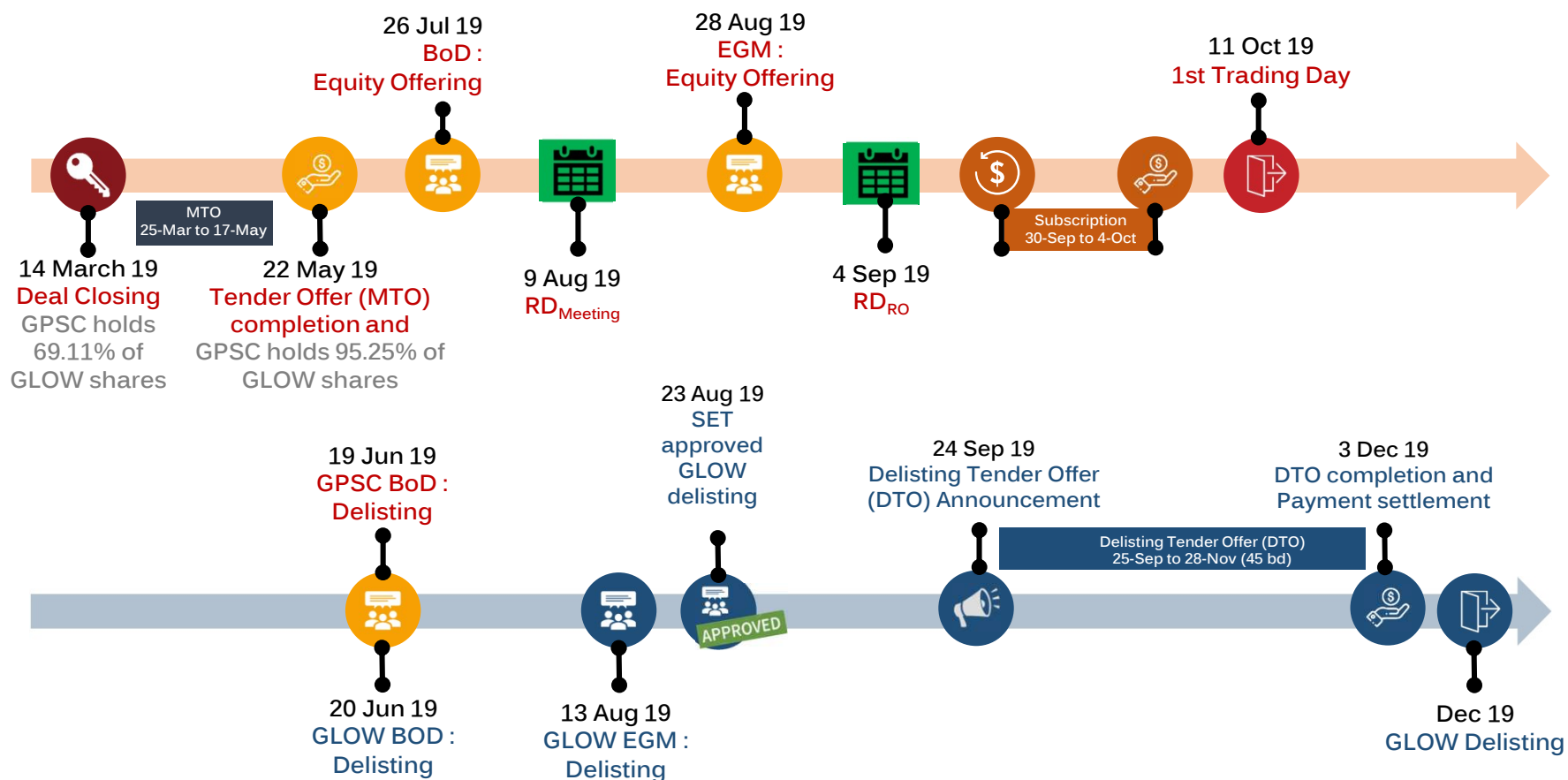
Pongsak Plaingam
Suthathip Charoenkij
Sarayut Srinoradithlert
+662 140 4646
+662 140 5318
+662 140 4631

ir@gpscgroup.com
www.gpscgroup.com



Appendix: Company Overview

Equity Offering and GLOW Delisting



Power Plants Portfolio of GPSC

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
IN OPERATION									
IPP									
Huay Ho	IPP	152	102	102	-	-	GLOW (67%)	1999	30
Sriracha	IPP	700	700	700	-	80	GPSC (100%)	2000	25/2025
Glow IPP	IPP	713	677	677	-	-	GLOW (95%)	2003	25
RPCL	IPP	1,400	210	210	-	-	GPSC (15%)	2008	25/2033
GHECO-One	IPP	660	429	429	-	-	GLOW (65%)	2012	25
XPCL	IPP	1,285	321	-	-	-	GPSC (25%)	2019	29/2048
Total IPP		4,910	2,439	2,118	-	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
CUP-1	SPP	226	226	226	890	720	GPSC (100%)	2006	10-15/2021++
CUP-2	SPP	113	113	113	170	510	GPSC (100%)	2008	15/2022++
CUP-3	SPP	-	-	-	280	770	GPSC (100%)	2009	15/2023++
Glow Energy CFB 3	SPP	85	85	85	79	-	GLOW (100%)	2010	-
BIC-1	SPP	117	29.25	29.25	5	-	GPSC (25%)	2013	25/2038
BIC-2	SPP	117	29.25	29.25	5	-	GPSC (25%)	2017	25/2042

Power Plants Portfolio of GPSC

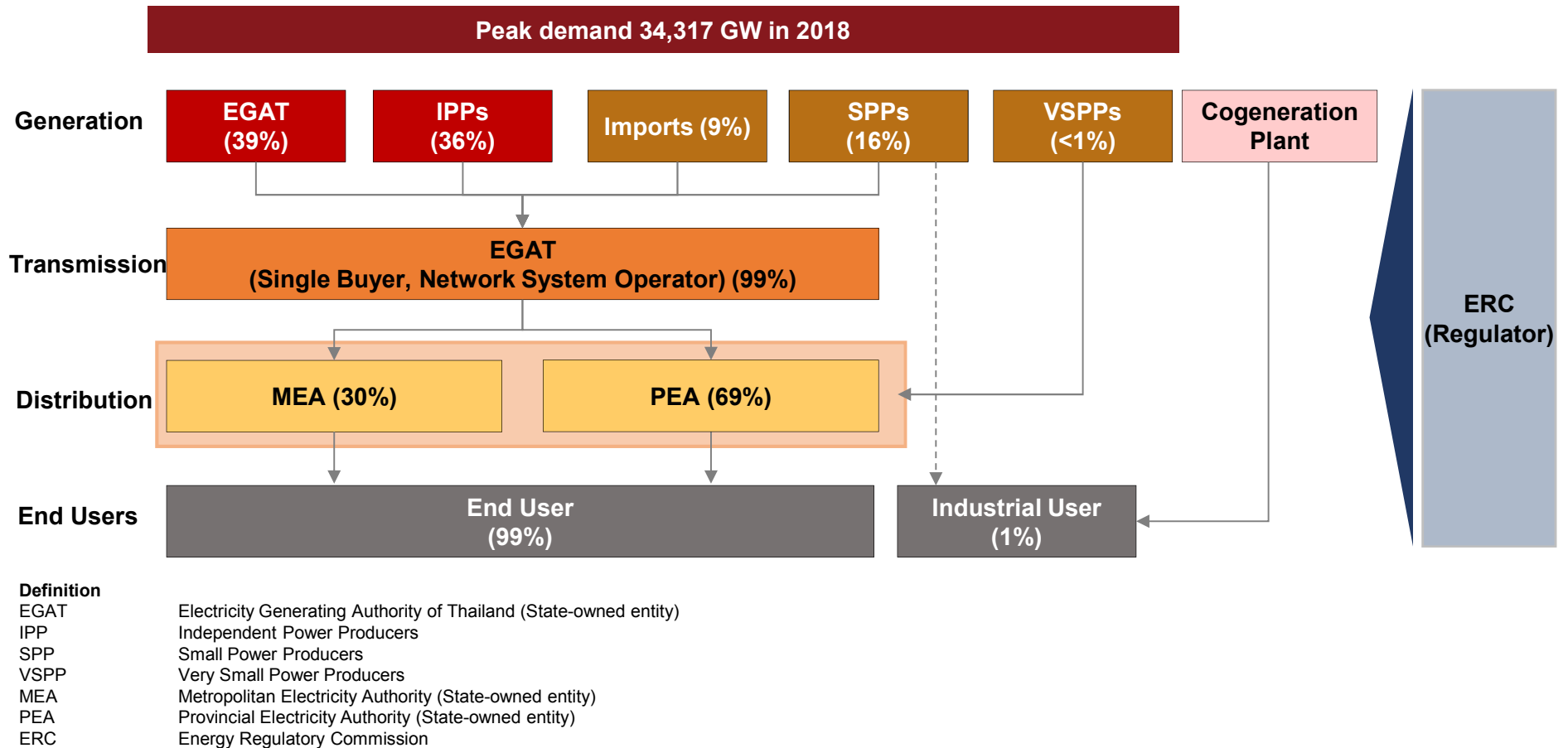
Name	Type	Total capacity (MW)	Equity Power capacity (MW)	Equity Operating Power capacity (MW)	Steam (T/H)	Industrial water (Cu.m/H)	Direct shareholding (%)	COD	Tenor
IN OPERATION									
IRPC-CP Phase 1	SPP	45	23	23	86.7	-	GPSC (51%)	2015	25/2040
IRPC-CP Phase 2	SPP	195	99.4	99.4	66.3	-	GPSC (51%)	2017	25-27/2044
NNEG	SPP	125	38	38	9	-	GPSC (30%)	2016	25/2041
NNEG Expansion	SPP	60	18	-	3	-	GPSC (30%)	2020	25/2041
Rayong Expansion (CUP-3)	SPP	15	15	-	-	-	GPSC (100%)	2019	n/a
Rayong Expansion (CUP-4)	SPP	45	45	-	70	-	GPSC (100%)	2019	-
Total SPP		2,614	2,192	2,114	2,701	7,292			
VSPP and others									
CHPP	VSPP	5	5	5	-	-	GPSC (100%)	2008	30/2038
CHPP (Solar)	VSPP	5	5	5	-	-	GPSC (100%)	2016	2041
Glow Energy Solar Plant	VSPP	1.55	1.55	1.55	-	-	GLOW (100%)	2012	20-25
TSR (SSE1)	VSPP	80	32	32	-	-	GPSC (40%)	2013	25/2038
Glow Energy Solar PV Rooftop	VSPP	0.87	0.87	0.87	-	-	GLOW (100%)	2019	15
Glow Energy Solar PV Rooftop	VSPP	1	1	1	-	-	GLOW (100%)	2019	15
ISP1	Solar	20.8	20.59	20.59	-	-	GPSC (99%)	2017	20/2037
Solar Project	VSPP	39.5	39.5	39.5	-	-	GPSC (100%)	2014-15	2039/2040
NL1PC	Hydro	65	26	-	-	-	GPSC (40%)	2019	27/2044
Chonburi Clean Energy (CCE)	VSPP	8.6	2.87	-	-	-	GLOW (33%)	2019	20
Rayong WTE	VSPP	9.8	9.8	-	-	-	GPSC (100%)	2021	18/2039
Total VSPP and others		237	145	106	-	-			
ERU									
ERU	Cogen	250	250	-	175	-	GPSC (100%)	2023	25/2048
Total ERU		250	250	-	175	-			
Total capacity		8,011	5,026	4,338	2,876	7,372			



Appendix: Industry Overview

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

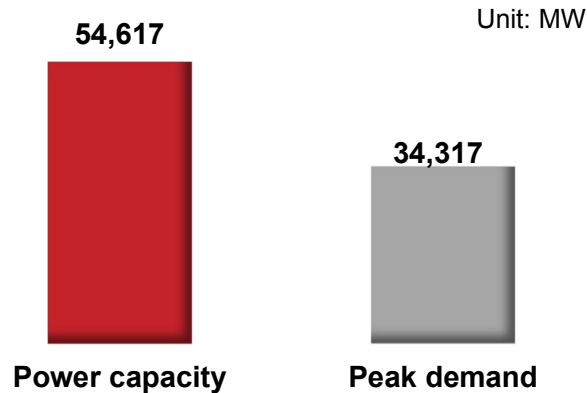


Source: EGAT and GPSC

Summary of PDP 2018

Thailand Power Statistic

as of September 2018



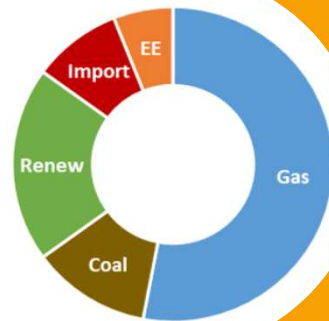
Implication

- Consideration on new demand and reserve capacity by regions will create opportunities for new round IPP bidding. Western region should be the first lot within 2019.
- This PDP revision is possible to adjust due to new AEDP&EEDP, study on smart grid study, energy storage, SPP power pool, private PPA are not finished, therefore the next revision will be launched recent year.



Demand

- System demand is not changed significantly.
- National demand (System demand plus Captive demand (IPS)) will be considered in PDP instead of only System demand as earlier.
- Supply will be considered by Regions.



Fuel mix

- Natural gas returns to be a major roles but Coal is limited.
- Renewable portion is increased especially in Private Solar however, most of all will be moved to mid-end PDP's period.
- Import power is not changed significantly.



Reserve Margin

- Change concept to determine safety margin of power supply, from Dependable capacity to Reliable capacity.
- Criteria of Reliable capacity shall be always higher than System demand

Comparison of Power Generation by Source of Fuel

Unit: %

Source of Fuel	PDP 2015 (in 2036)	New PDP 2018 (in 2037)
Natural Gas	37	53
Coal / Lignite	23	12
Hydro Power	15	9
Renewable	20	20
Nuclear	5	-
Others	0.1	0.06
Energy efficiency	-	6

Source: Ministry of Energy

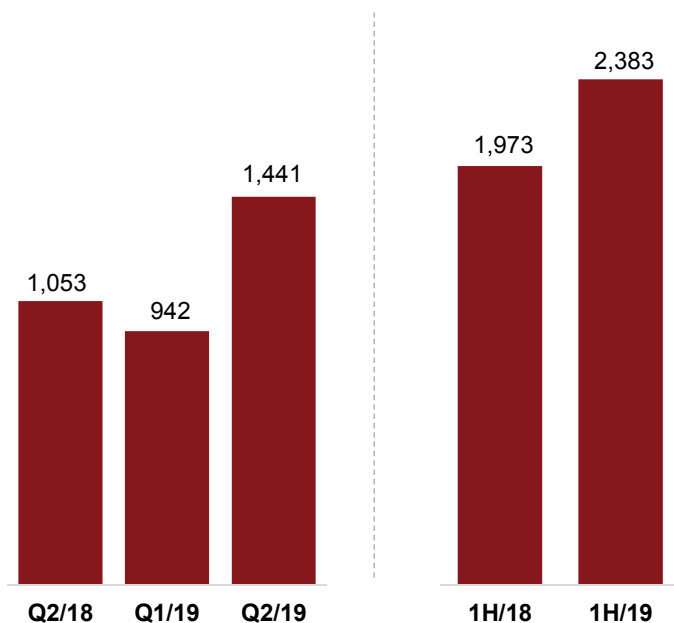


Appendix: Financial Highlights

Adjusted Net Income increased as a result of the first full quarter acquisition of GLOW

Adjusted Net Income

(THB Million)



QoQ
▲ 53%

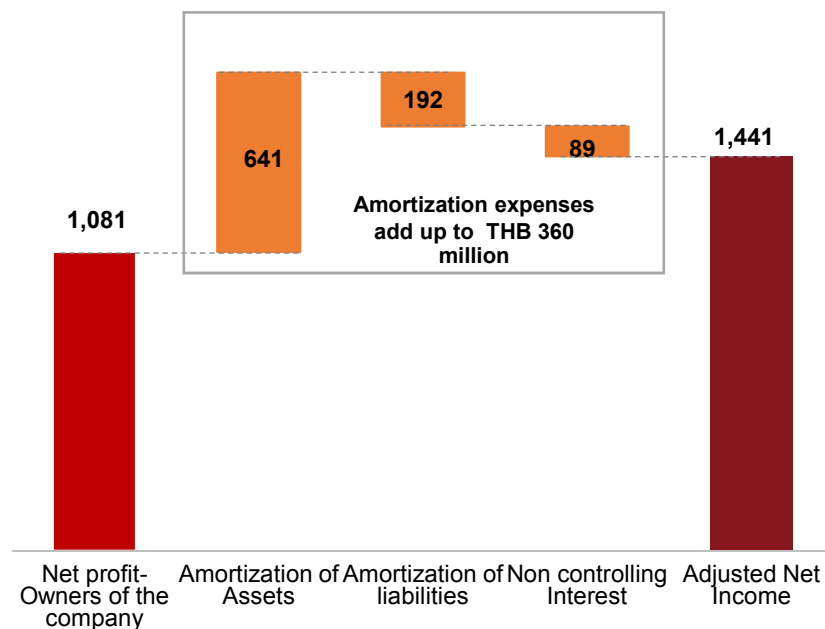
YoY
▲ 37%

1H
▲ 21%

- **QoQ, YoY and 1H:** Increased from Q1/2019 and 1H/2018 respectively as a result of the first full quarter recognition from acquired GLOW despite the burden of interest expense from short-term loans

Adjusted Net Income of Q2/2019

(THB Million)

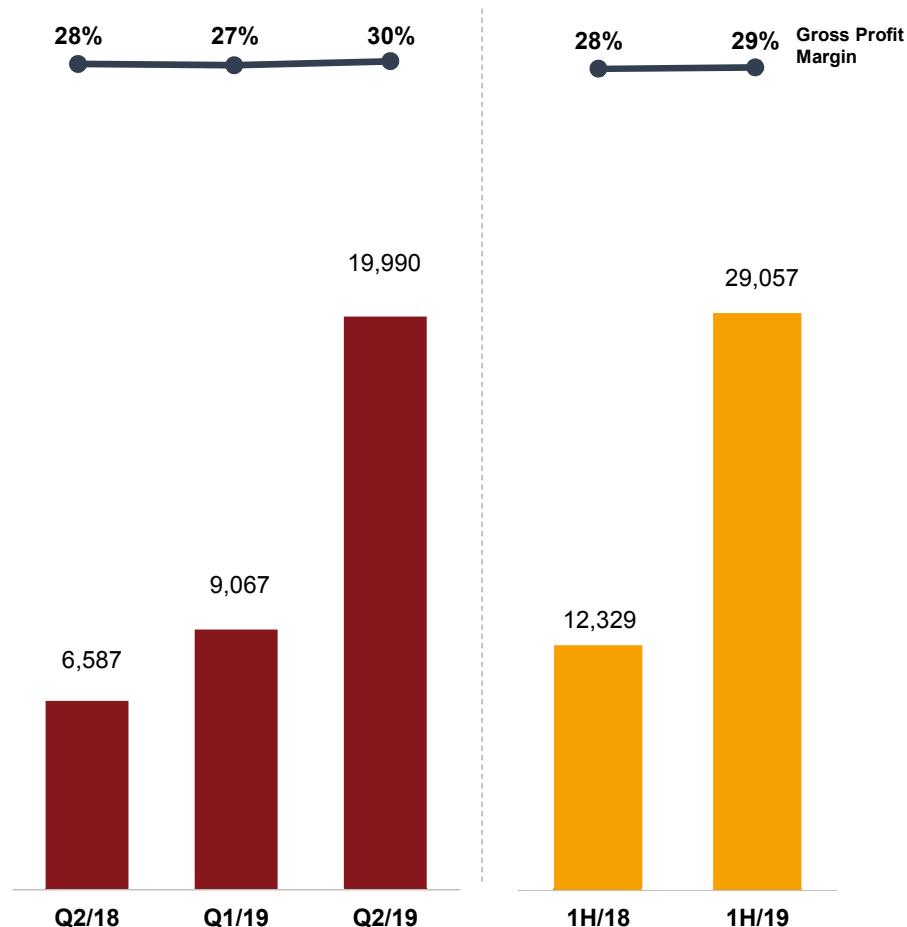


- **Adjusted Net Income** is the net profit attribute to the company that excludes the “fair value of intangible asset from the acquisition of GLOW”, the assessment of the fair value of net assets and allocation of business acquisition cost which has been calculated backwards from 14th March 2019 (the first day that GPSC has recognize GLOW’s performance in the consolidated financial statement) according to the consolidated financial statement of the company

Adjusted Net Income increased as a result of the first full quarter acquisition of GLOW

Revenue & Gross Profit Margin

(THB Million,%)



Note:

1) Gross profit margin = Gross profit / revenue

Gross profit margin

QoQ
▲ 3%
YoY
▲ 2%
1H
▲ 1%

Gross profit margin increased due to :

- 1) The first full quarter contribution of GLOW's performance
- 2) The better performance of both GLOW IPP and SPP Power Plants

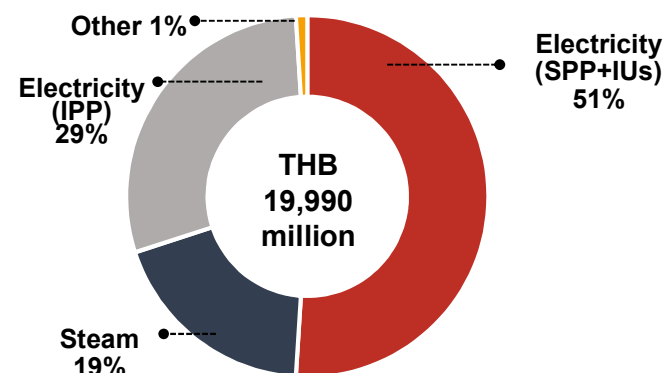
Revenue

QoQ
▲ 120%
YoY
▲ 203%
1H
▲ 136%

Revenue increased due to :

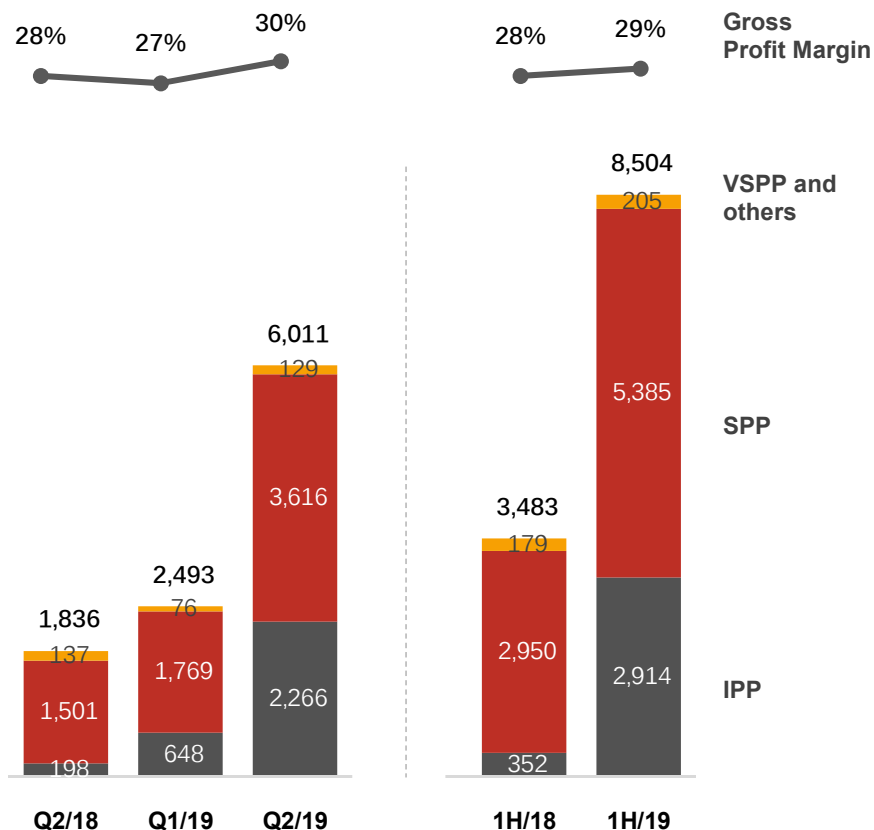
- 1) The first full quarter contribution of GLOW's performance
- 2) The higher Energy Payment (EP) and Financial Lease revenue from Sriracha Power Plant
- 3) The higher Electricity and Steam sales from GLOW's SPP plants

Q2/19 Revenue by product



Gross Profit and Gross Profit Margin has increased significantly from contribution of GLOW and IPP's revenue

Gross profit and Gross profit margin by type of plant (THB Million, %)



Total Gross Profit

QoQ

▲ 141%

YoY

▲ 227%

1H

▲ 144%

QoQ, YoY and 1H: Increased mainly due to

- 1) The first full quarter of gross profit recognition of GLOW IPP and SPP plant
- 2) Consistency in sales of electricity and steam of both GPSC and GLOW

IPP Gross profit

QoQ

▲ 250%

YoY

▲ 1,040%

1H

▲ 728%

- QoQ, YoY and 1H: Increased mainly due to the first full quarter of gross profit recognition from GLOW. In addition, Energy payment revenues from GPSC increased as a result of the higher dispatch volume from Sriracha Power Plant instructed by EGAT

SPP Gross profit

QoQ

▲ 104%

YoY

▲ 141%

1H

▲ 83%

- QoQ, YoY and 1H: Increased mainly due to the first full quarter of gross profit recognition from GLOW despite the slight decrease in electricity sales volume and the downward trend of average steam selling price for GPSC SPP plants

VSPP and Others Gross profit

QoQ

▲ 70%

YoY

▼ 6%

1H

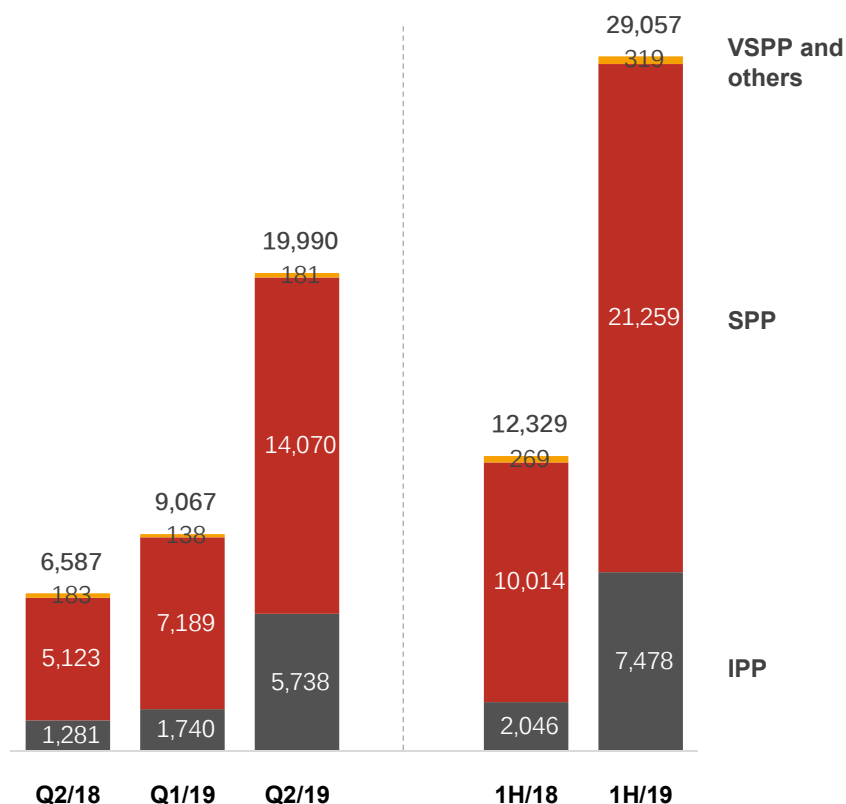
▲ 15%

- QoQ, YoY and 1H: Increased mainly due to the first full quarter of gross profit recognition from GLOW despite the slight decrease in electricity sales volume of and the downward trend of average steam selling price
- Increased mainly from 1) the contribution of GLOW 2) The increase in average price of natural gas of THB 27

Total revenue has increased due to the contribution of GLOW and the better performance of IPP and SPP

Revenue by type of plant

(THB Million, %)



Total Revenue

QoQ

▲ 120%

YoY

▲ 203%

1H

▲ 136%

▪ QoQ, YoY, 1H: Increased due to

- 1) The first full quarter of contribution of GLOW IPP, SPP plants
- 2) The higher revenue of Sriracha Power Plant and VSPP plants

IPP Revenue

QoQ

▲ 230%

YoY

▲ 348%

1H

▲ 266%

▪ QoQ, YoY, 1H: Increased due to

- 1) The contribution of GLOW
- 2) The higher revenue of Sriracha Power Plant in terms of Energy payment revenues as a result of the higher dispatch volume instructed by EGAT
- 3) Increase in revenue from financial lease

SPP Revenue

QoQ

▲ 96%

YoY

▲ 175%

1H

▲ 112%

▪ QoQ: Increased due to the first full quarter of contribution of revenue from GLOW despite the decrease in revenue from GPSC on electricity and steam sales

▪ YoY, 1H: Increased mainly from 1) The first full quarter of contribution of revenue from GLOW 2) Rise in average selling price of natural gas

VSPP and Others Revenue

QoQ

▲ 31%

YoY

▼ 1%

1H

▲ 19%

▪ QoQ: Increased due to the increase in revenue from selling electricity caused by lesser snowfall during the quarter

▪ YoY: Decreased mainly due to the fall in revenue from solar cell implementation service from CHPP

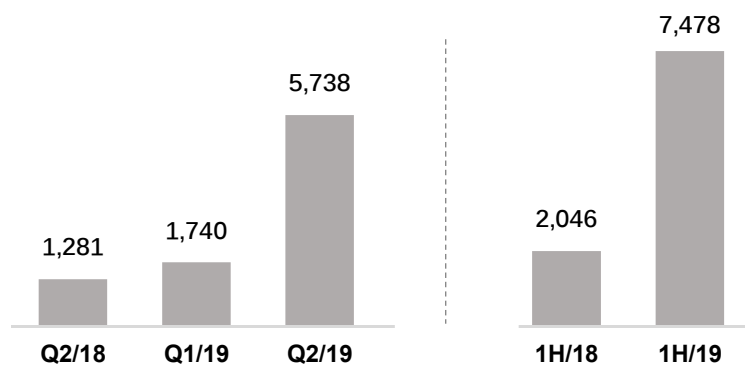
▪ 1H: Increased due to the better performance of electricity and chilled water sales

IPP Revenue: Increased By 230% QoQ and 348% YoY due to Higher dispatch volume from SRC and contribution from GLOW



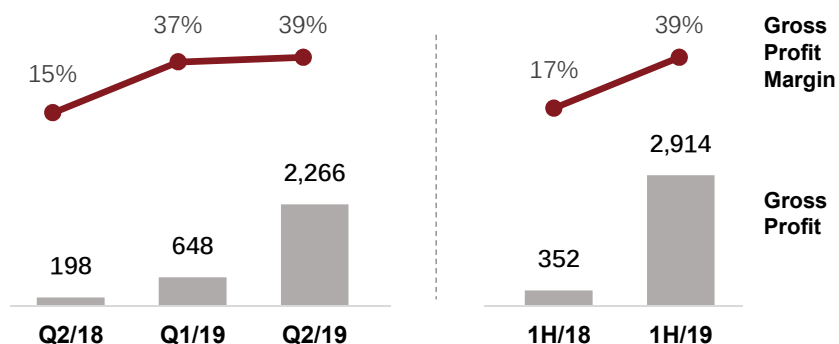
Revenue

(THB Million)



Gross Profit & Gross Profit Margin

(THB Million, %)



IPP Power Plants



Sriracha



GIPP



GHECO-ONE



HHPC

*GLOW IPPs consists of GIPP, GHECO-ONE and HHPC

Total Revenue

QoQ
▲ 230%

YoY
▲ 348%

1H
▲ 266%

QoQ, YoY, 1H: Increased due to

- 1) The higher Energy Payment (EP) as a result of higher dispatch volume of Sriracha Power Plant
- 2) First full quarter of revenue recognition from GLOW
- 3) Increase in revenue from financial lease

Gross profit

QoQ
▲ 250%

YoY
▲ 1,040%

1H
▲ 728%

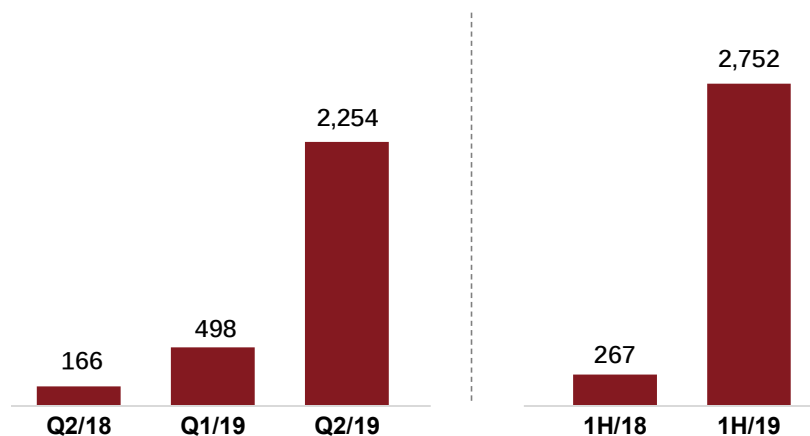
- QoQ, YoY, 1H: Increased due to the first full quarter of gross profit recognition from GLOW despite the decrease of gross profit from Sriracha Power Plant due to an increase in producing cost corresponding to EGAT's dispatch instruction

Availability Payment: Increased by 352% QoQ and 1,258% YoY



Availability Payment

(THB Million)



QoQ
▲ 353%

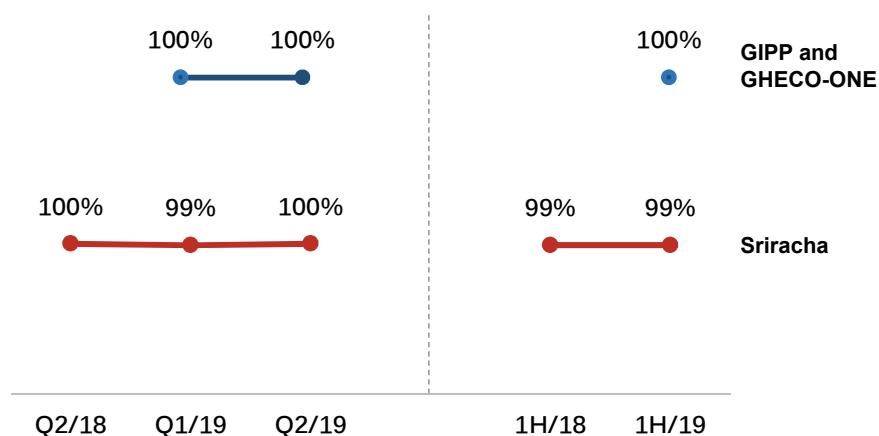
YoY
▲ 1,258%

1H
▲ 931%

- **QoQ, YoY, 1H increase due to**
 - 1) The first full quarter recognition of GLOW
 - 2) The increase was mainly from the lower power dispatch in Q1/19 as a result of planned maintenance of GHECO-ONE.

Availability Rate

(%)



AR-Sriracha

- **QoQ:** Rebounded as a result of the higher dispatch volume instructed by EGAT

AR-GIPP

- AR of GIPP remained at 100%

AR-GHECO ONE

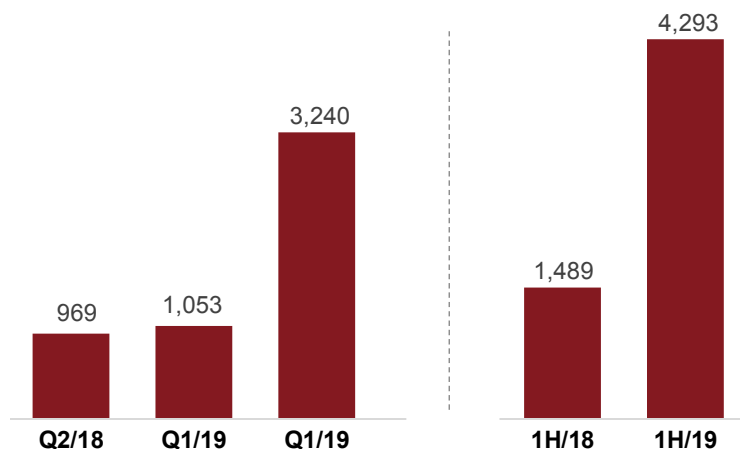
- AR of GHECO ONE remained at 100%

Energy Payment: Increased 208% QoQ and 234% YoY



Energy Payment

(THB Million)



QoQ
▲ 208%

- **QoQ:** Increased due to
 - 1) The contribution of GLOW
 - 2) The increase in EP revenue of Sriracha due to the increase in dispatch volume following EGAT's instruction
 - 3) The higher coal cost reflects the increase in revenue of Gheco-one plant on Q2/2019

YoY
▲ 234%

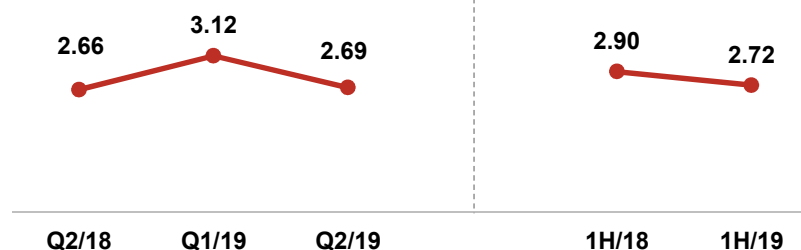
- **YoY:** Increased due to
 - 1) The contribution of GLOW
 - 2) The increase in EP revenue of Sriracha due to the higher average price of natural gas has increased together with the higher dispatch volume to EGAT

1H
▲ 188%

- **1H:** Increased due to
 - 1) The contribution of GLOW
 - 2) The increase in EP revenue of Sriracha due to the higher average price of natural gas

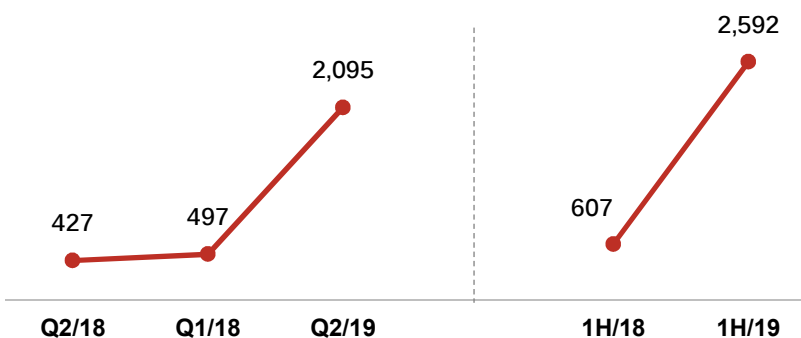
Average Total Selling Price*

(THB/kWh)



Sales Volume

(GWh)



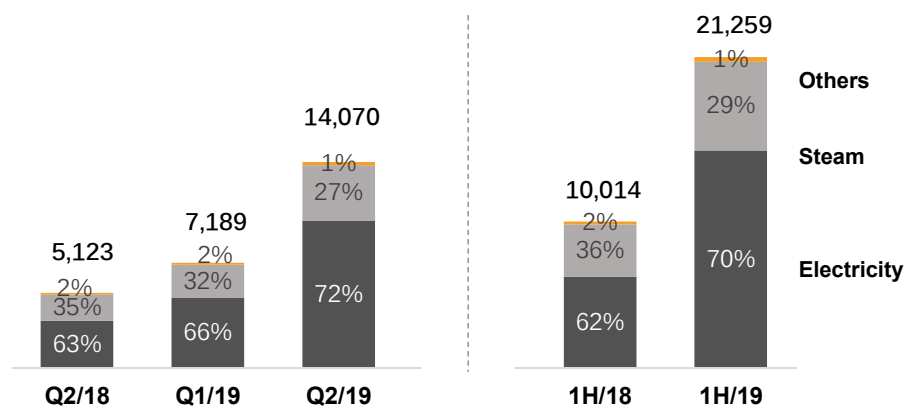
Note: *Average Total Selling Price is derived from the revenue of Availability Payment (AP) and Energy Payment (EP)

SPP Revenue: Increased 96% QoQ and 175% YoY due to the contribution from GLOW's SPP plants



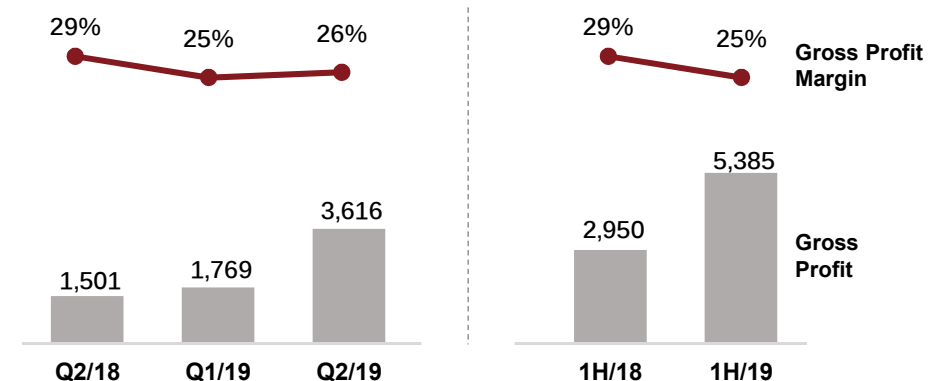
SPP Revenues

(THB Million, %)



Gross Profit & Gross Profit Margin

(THB Million, %)



GPSC SPP Powerplants



CUP-1



GLOW Energy Phase 1,2,4,5



CUP-2



GLOW SPP 2-3



CUP-3



GLOW SPP 11 Phase 1-3



IRPC-CP



GLOW CFB3

Total Revenue

QoQ

▲ 96%

YoY

▲ 175%

1H

▲ 112%

- **QoQ:** Increased due to the first full quarter of revenue recognition from GLOW SPP power plant despite the decrease in electricity sales volume and decrease in steam average selling price of GPSC's SPP
- **YoY and 1H:** Increased due to the first full quarter of revenue recognition from GLOW SPP power plant. In addition, the electricity and steam sales of GPSC's SPP increased as a result of increase in average price of natural gas

Gross Profit

QoQ

▲ 104%

YoY

▲ 141%

1H

▲ 83%

- **QoQ:** Increased due to the first full quarter of recognition of GLOW performance despite the decrease in GPSC's plant as a result of a decrease in average price of steam especially for IRPC-CP
- **YoY:** Increase due to the first full quarter of recognition from GLOW performance despite the decrease in GPSC's plants as a result of the increase in natural gas price
- **1H:** Increased due to the first full quarter of revenue recognition from GLOW

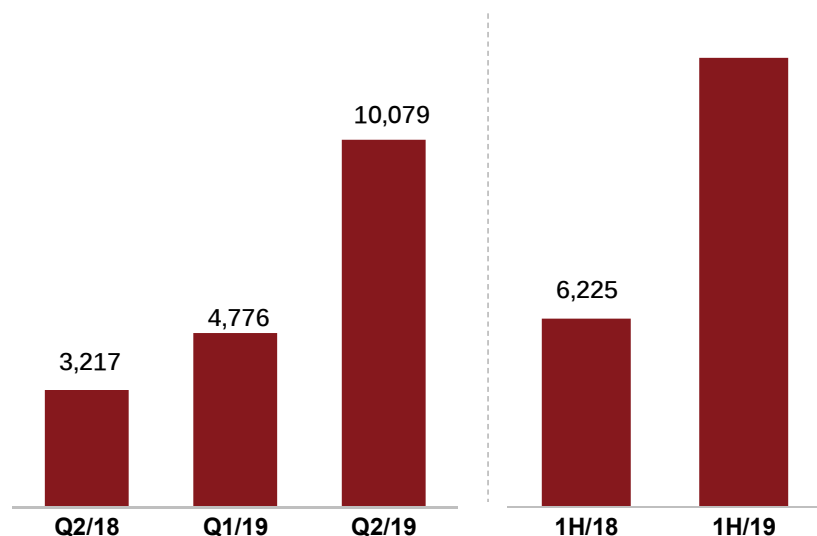


SPP Power Sales: Increased 111% QoQ and 213% YoY



Power Sales

(THB Million)



QoQ

▲ 111%

YoY

▲ 213%

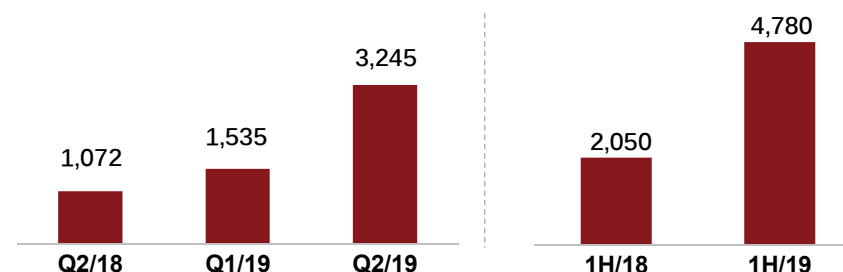
1H

▲ 139%

- QoQ:** Increased due to the first full quarter recognition of GLOW's performance especially when SPP takes account for the majority of GPSC's portfolio.
- YoY:** Increased mainly due to the first full quarter recognition of GLOW's performance as well as the revenue from electricity and steam of GPSC's SPP as the average price of natural gas increased by 10%
- 1H:** Increased due to the revenue from electricity and steam of GPSC's SPP as the average price of natural gas increased by 14%

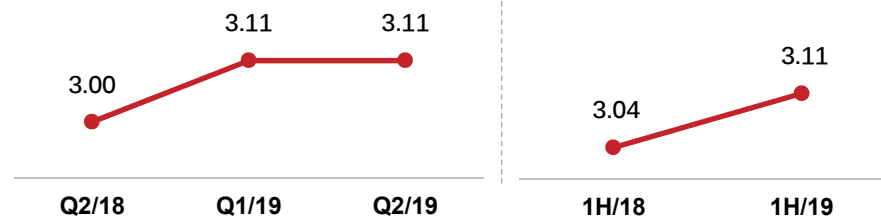
Power Sales Volume

(GWh)



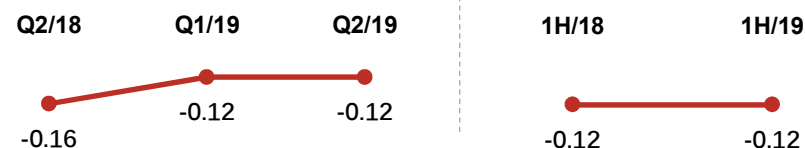
Average Selling Price

(THB/kWh)



Ft rate

(THB)

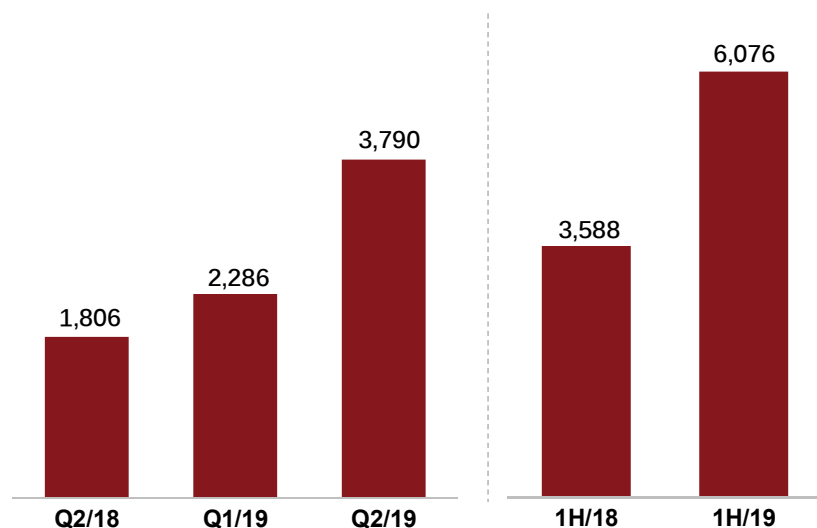


SPP Steam Sales: Increased 66% QoQ and 110% YoY



Steam Sales

(THB Million)



QoQ

▲ 66%

YoY

▲ 110%

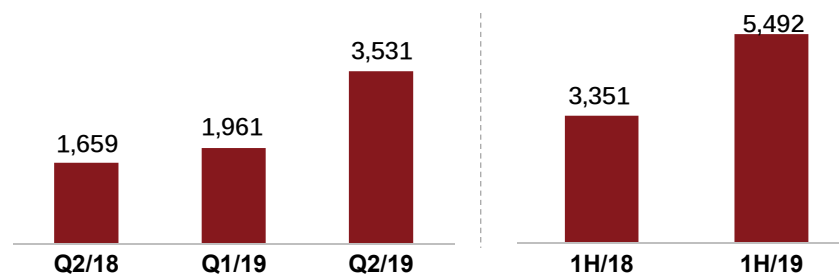
1H

▲ 69%

- **QoQ, YoY and 1H:** Increased due to the first full quarter recognition of GLOW's performance, while the average price of steam for Rayong Central Utility Plant (CUP) and IRPC-CP decreased
- In QoQ, the steam sales volume was mainly increased from IRPC-CP

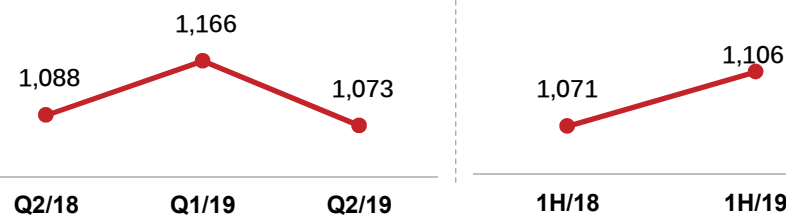
Steam Sales Volume

('000 tons)



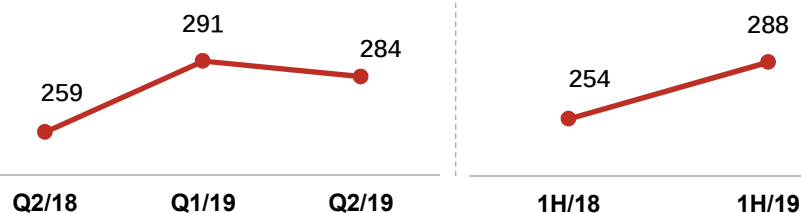
Average Steam Selling Price

(THB/Ton)



Average Natural Gas Price

(THB/MMBTU)



Total Cost of Sales and Services: Increased in Line with Revenues

