



GLOBAL POWER SYNERGY PUBLIC  
COMPANY LIMITED

---

# Q2/2019 ANALYST MEETING

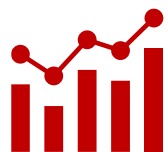
---

August 19<sup>th</sup>, 2019

**THE INNOVATIVE POWER  
FLAGSHIP OF PTT GROUP**

# Q2 2019 KEY HIGHLIGHTS

'GROWING PROFIT WITH SUSTAINABILITY AND CONTROL'



## SIGNIFICANT GROWTH

- GPSC completed the acquisition of GLOW 69.11% on March 14, 2019, and completed Mandatory Tender Offer from Glow which ended on the 22<sup>nd</sup> May 2019 of 26.14% adding up to a total of 95.25%
- Integration with GLOW will consist of 3 phases, the current phase focuses on launching all quick wins and preparing to launch all remaining synergy initiatives
- Coordination with PTT Group on Gas to Power product to diversify portfolio



## PROFIT



**154%** increase in EBITDA QoQ due to the first full quarter contribution of GLOW



**30%** of gross profit margin in Q2/2019 due to the first full quarter recognition of GLOW's power plant with better margins



**Value added from synergy**

**THB 1.6 bn** ramp up with full EBITDA contribution by 2024



## SUSTAINABILITY

- Interim Dividend THB 0.50 per share** dividends for 1H/2019 that will be paid on September 12, 2019
- Awards** from
  - CFO of the year** from 'The Asset Magazine'
  - Asia Responsible Enterprise Award 2019** from 'Enterprise Asia'
  - Asia Best CFO (IR) and Best Investor Relation Company** from Corporate Governance Asia Magazine
  - GPSC was classified as **Securities in ESG100 for the year 2019** from 'Thaipat Institute'



## CONTROL



**Nam Lik 1** was COD since July 2019



**Xayaburi and CUP4** which are under construction with over 95% completion is expected to COD within 2019



**NNEG** expansion phase expected to COD in 2020



**WTE** is expected to COD in 2021



**ERU** which jointly operate with Thaioil is expected to COD in 2023



## GPSC Growth and Strategic Direction



Update of projects



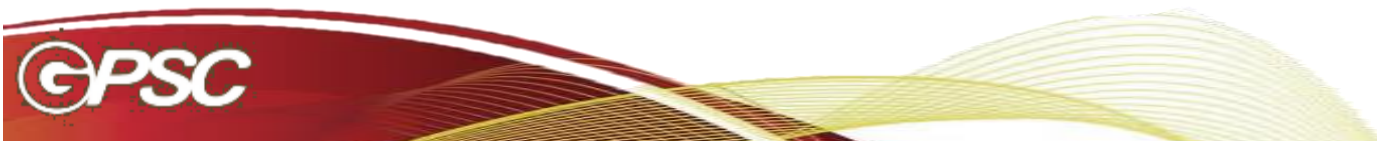
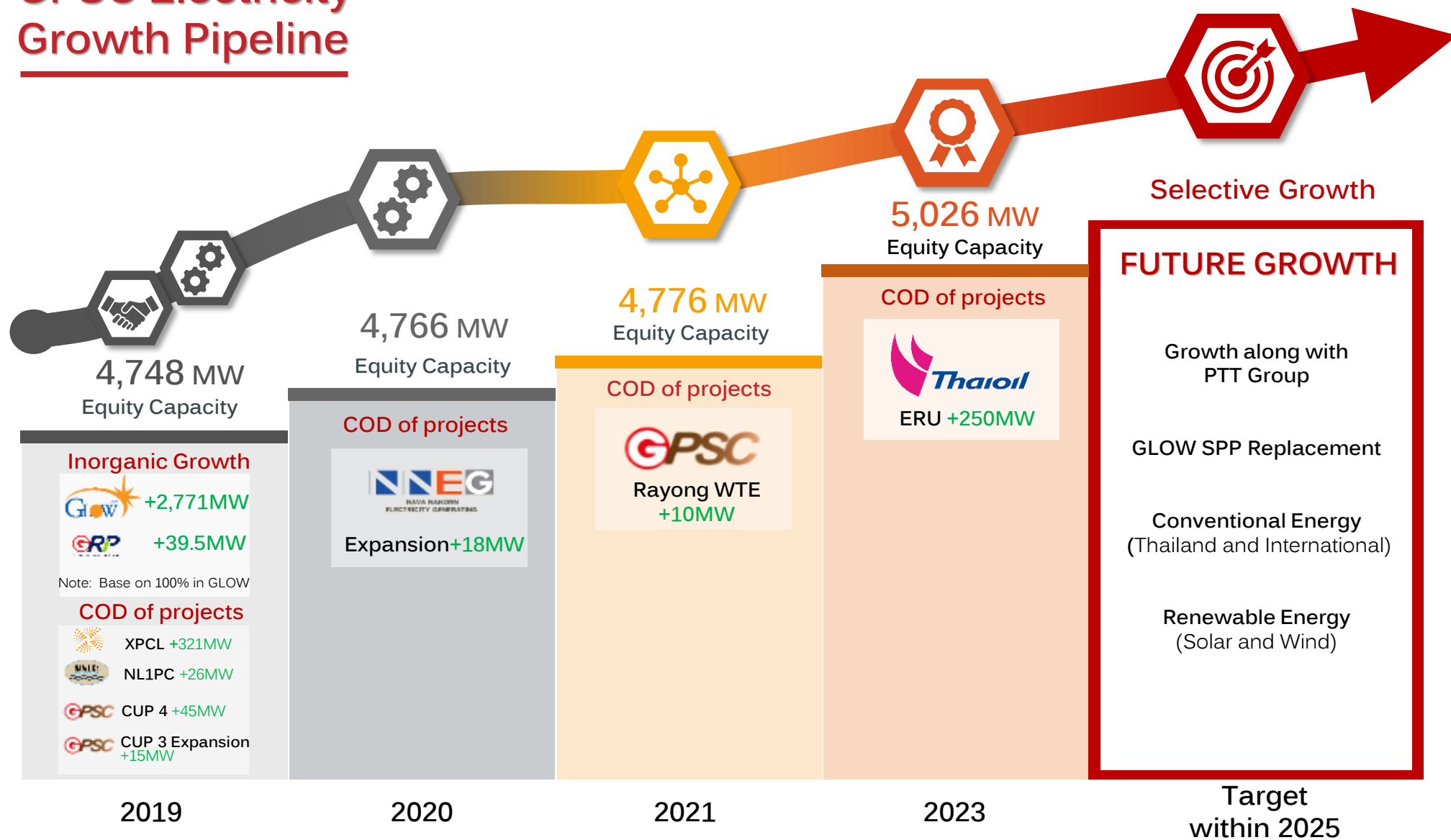
Equity Offering



Financial Performance



# GPSC Electricity Growth Pipeline



# Strategic Direction and Growth Strategy

## 3 Pillars

### SYNERGY & INTEGRATION



Synergy Capture



Operation Excellence  
& Asset Optimization



Corporate & Business  
Infrastructure

### SELECTIVE GROWTH



Growth along with  
PTT Group



Domestic and  
International



Renewable

### S-CURVE



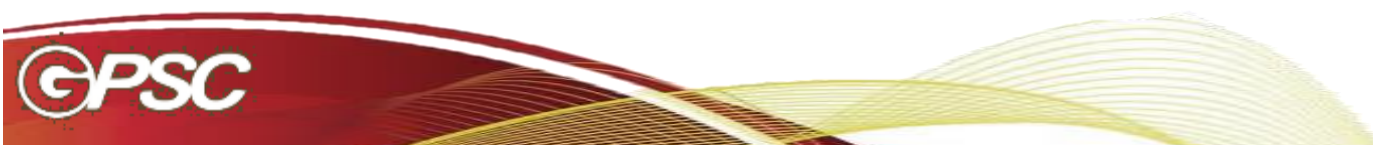
Battery Business



Energy Storage  
System Integrator

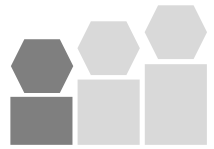


Energy Management  
Solution Provider



# Strategic Direction and Growth Strategy

## Synergy & Integration



### SYNERGY & INTEGRATION

#### Synergy Capture



Operation Excellence  
& Asset Optimization



Corporate & Business  
Infrastructure



#### Synergy Identification (Phase 1)

May – July 2019

- ✓ Baselining performance
- ✓ Enhancing and prioritizing synergy initiatives
- ✓ Developing business cases and action plans
- ✓ Launching selected Quick-win initiatives



#### Initiatives Launch

Aug – Oct 2019

- ✓ Launching all **Quick-wins**
- ✓ Preparing to launch all remaining synergy initiatives



#### Full Implementation

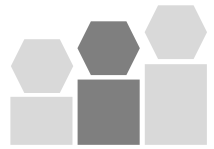
Nov 2019 Onwards

- ✓ Launching **all initiatives**
- ✓ Driving **full integration plan implementation**
- ✓ Monitoring, controlling and reporting progress on financial and other metrics

- ✓ Ongoing synergy identification for additional uplift in Phase 2

# Strategic Direction and Growth Strategy

## Selective Growth



Growth along  
with PTT Group



Domestic and  
International



Renewable

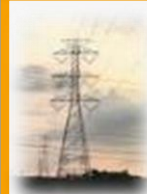
### SHORT-TERM GROWTH

2019-2020



#### GROWTH ALONG WITH PTT GROUP

Domestic and international  
such as Gas to power  
investment also the investment  
in Maptaphut and EEC area



#### PDP 2018

Opportunity capture such as  
SPP replacement as ERC  
announced the electricity  
purchase from SPP with  
contract ending during 2019-  
2025, Solar floating (EPC)  
and Solar PPPA



#### SELECT & DEVELOP STRATEGIC PARTNER

for focus countries

### LONG-TERM GROWTH

2021-2025



#### RENEWABLE IN GREENFIELD AND DEVELOPER SCHEME INVESTMENT



#### USE CO-GENERATION EXPERTISE TO EXPAND IN FOCUS COUNTRIES





# Strategic Direction and Growth Strategy S-curve



S-CURVE

GPSC has strengthen its knowledge and capabilities in providing ESS services



GPSC AS A SYSTEM INTEGRATOR

SEEKING NEW MARKET AND CUSTOMERS THROUGH PILOT PROJECTS

2019

EXPLORE NEW S-CURVE BUSINESS FROM ESS

2019 Onwards



System Integrator/  
Developer in  
Micro-grid/ESS

Manufacturer in  
Battery

Market and  
Technology  
Intelligence in  
Digital Energy



Battery Business



Energy Storage  
System Integrator



Energy  
Management  
Solution Provider

GC



Peak Shift & Gas Turbine Efficiency Improvement (Dec 2019)



- ✓ Increase efficiency of Gas Turbine
- ✓ Improve power stability of GC operation in Rayong province
- ✓ Provide future power optimization for major industries supporting GC Group



GCL



Renewable Integration for Peak Shift & Back-up (Mar 2019)



- ✓ Increasing effectiveness of power consumption that benefit environment

GPSC Energy Storage System Projects Information and Status:

Type	Customer	Capacity	Status
Residential	Chiang Mai U	10kW/17kWh	
Industrial	GCL	625kW/625kWh with 2MWp solar	
Industrial	GC	250kW/1.5MWh	
Smart City	VISTEC	1MW/1MWh	

Complete Constructing



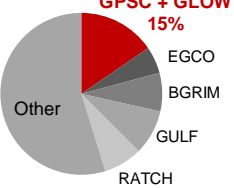


# Growth Platform Strengthened by Synergies

## 'Larger and Stronger Power House'


**1 Leadership Position in SPP**

SPP market share by Installed Equity MW




■ Thailand **largest SPP** Player with **strong resources** and **network reliability**

**2 Solid Growth Platform**




Secured by PTT Growth Pipeline




Facilitated by EEC Industrial Growth

Consistent SPP Replacement

**3 Stronger HR capabilities**




PTT group's local power and utilities expertise




International best practice previously capped by investment policy constraints

## 'Continuous Synergy Realization'

**A Operations and Maintenance**




Network Integration




CAPEX Avoidance

**B Procurement and Corporate Functions**




Optimize Procurement




Optimize Cash & Debt Management

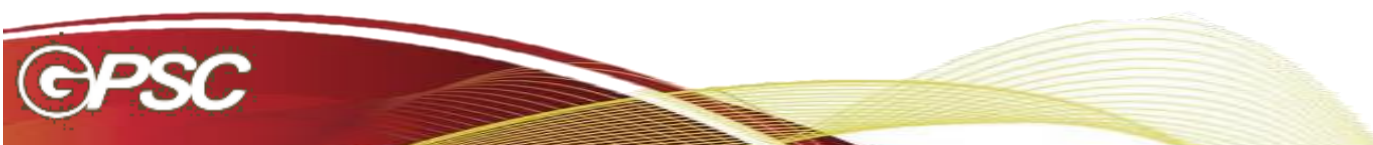
**C Process and Business Initiation**



New tools to improve efficiency



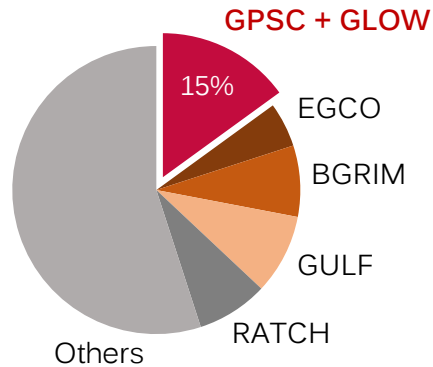
New business ideas and innovation



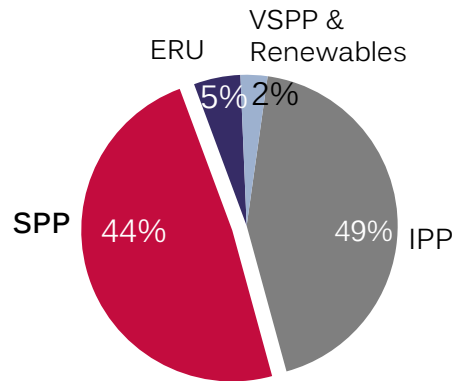
# Leadership Position in SPP

## SPP Market Share by Installed Equity MW/<sup>1</sup>

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



## GPSC's Committed Portfolio/<sup>2</sup>



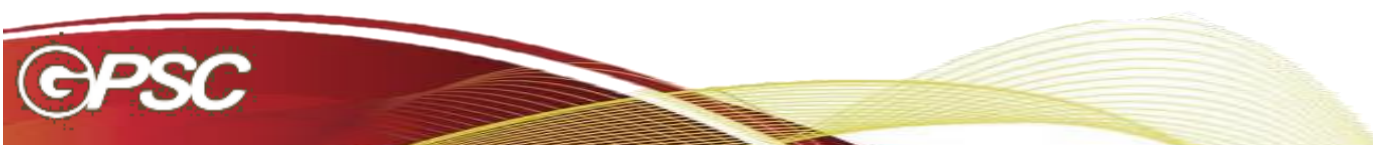
**Committed Equity  
5,026 MW**  
**with SPP  
2,192 MW**

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

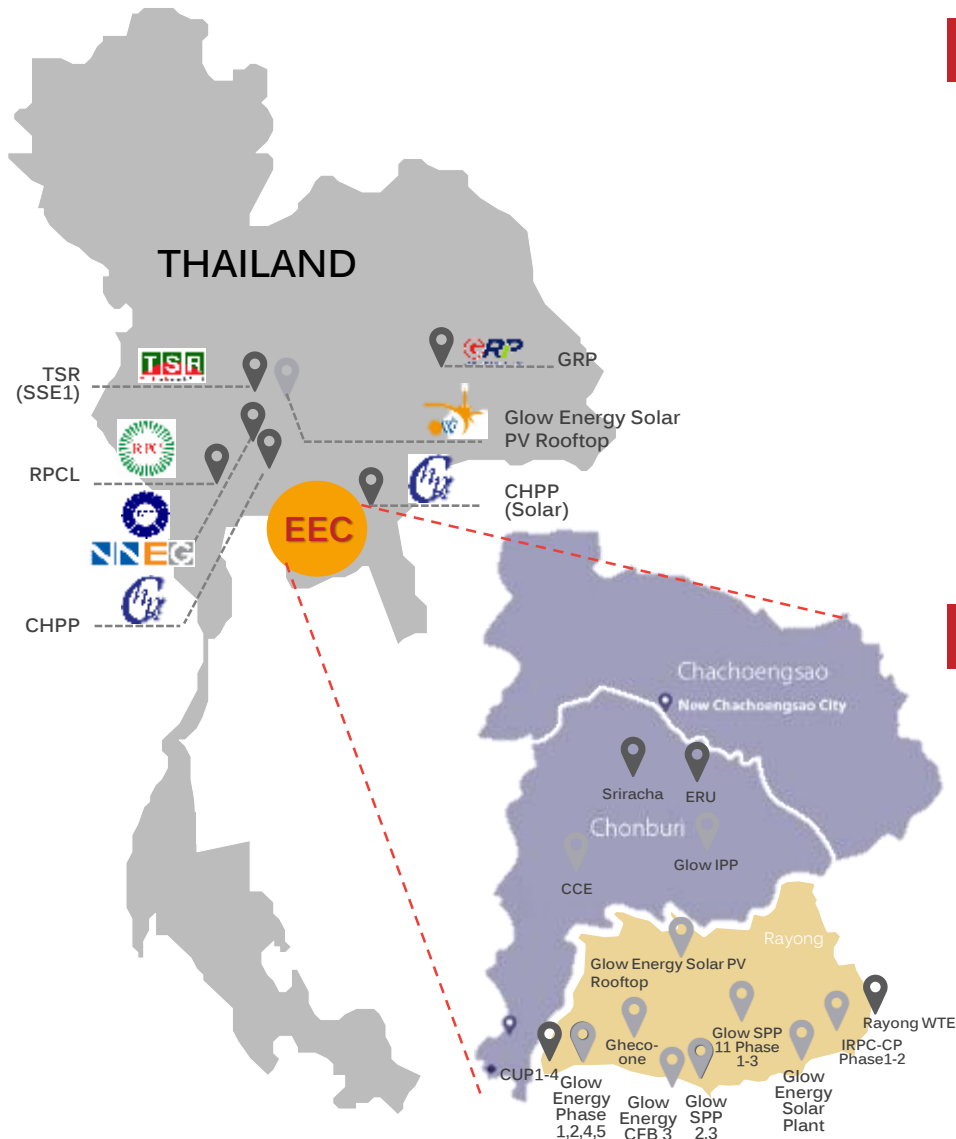
## SPP Replacement Project: Stage 1 and 2 Projects (Tentative only)

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
<b>Total</b>	<b>584</b>	<b>768</b>			

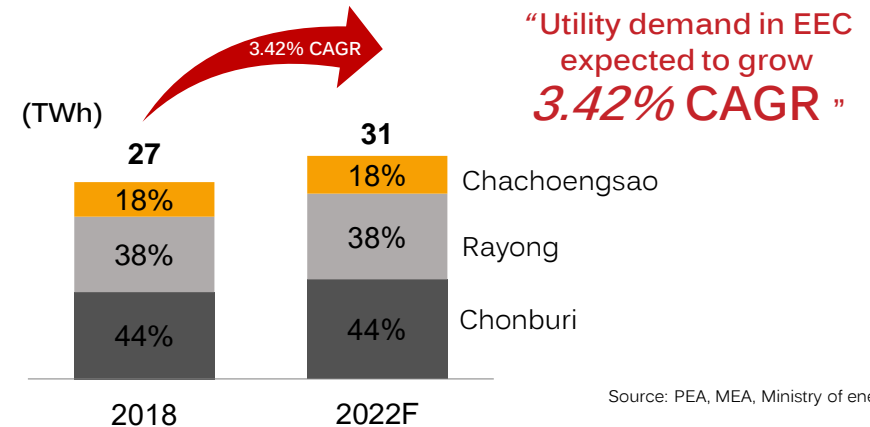
Source: Glow Analyst Meeting Q1/2019



# Solid growth platform and Expansion in EEC



## Capture solid growth in EEC



## Supportive Industrial Customers Landscape

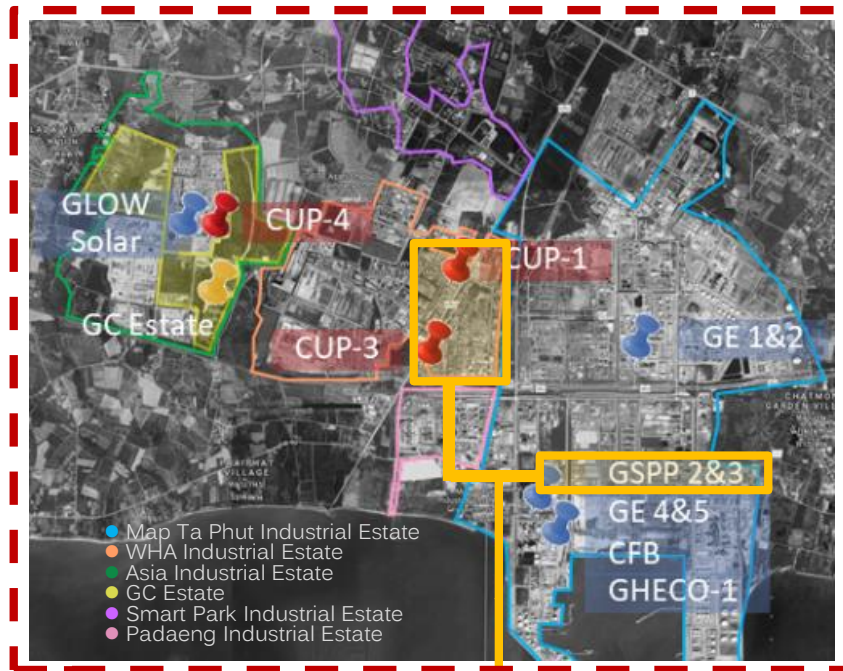
- >5 Industrial estates
- >5 Industries
  - Petrochemical
  - Chemical
  - Refinery
  - Steel
  - Industrial gas
- ~75 companies
- ~120 plants & facilities

### Customer needs

- Reliability
- Cost competitiveness
- Backup support
- Flexibility



# Quick wins & Big wins



**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

## Synergy Initiatives

**A**

### I. Operation Synergy

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



Substitute GPSC supply by GLOW's lower cost of production



Optimize Back-Up Capacity and Cost



Avoid or Delay Power Plant and Distribution Network CAPEX



Increase Supply Opportunities

### II. Maintenance Synergy

- ✓ With tools implemented and knowhow integrated, maintenance cost can be improved



Aligning best practice to increase internal maintenance productivity



Optimize use of external maintenance services across firms



Implement preventive tools to reduce maintenance cost

**B**

### I. Procurement Synergy



Introduce **digital procurement** best practices



Leveraging volume synergies and PTT group's fuel expertise



Reduce inventory costs through **inventory consolidation** and **Inventory digital platform**

### II. Corporate Function & IT Synergy



Optimize cash levels of combined balance sheet



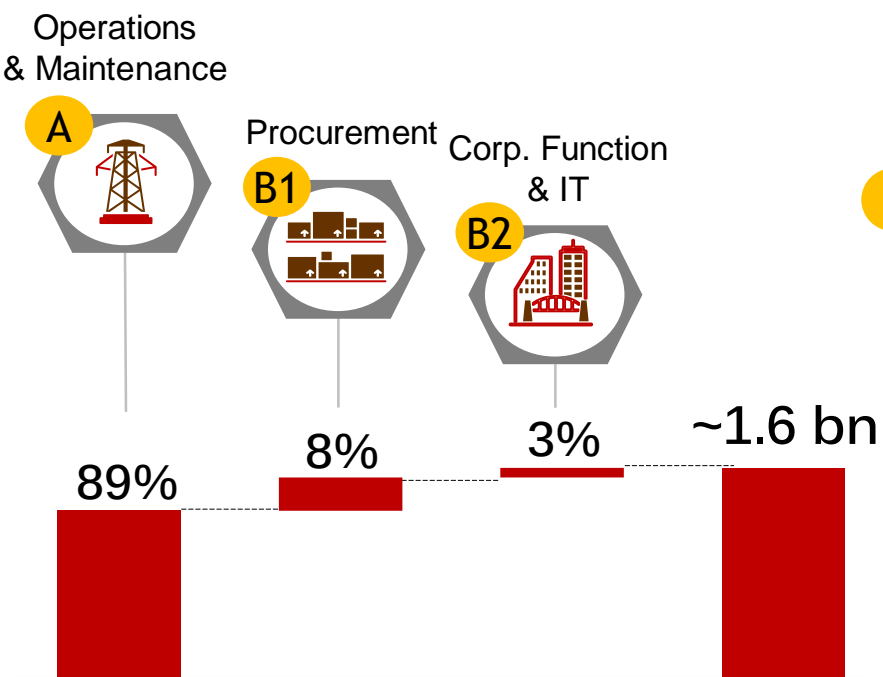
Combine projects & contractors of departments



Align best practices & processes across both organizations

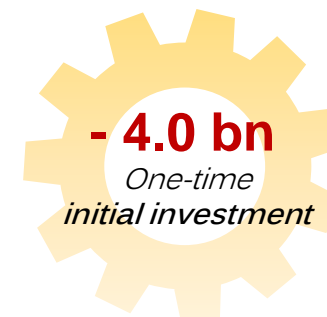
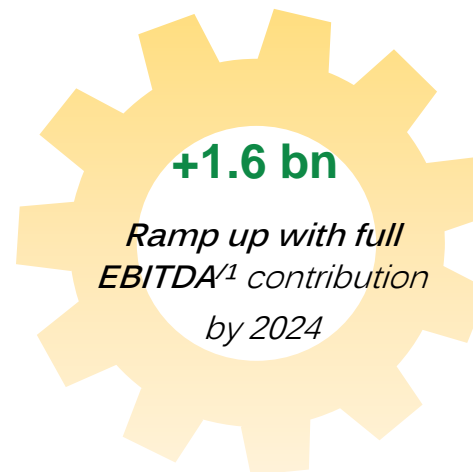
# Expected Synergy Benefit

## EBITDA Contribution Per Annum<sup>/1</sup> Identified in Phase 1



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

### 1. Recurring Benefit in Phase 1



### 2. Additional One-time Benefit



### 3. Further Identification in Phase 2



For 200 MW growth in MTP



GPSC Growth and Strategic Direction



Update of projects



Equity Offering



Financial Performance



# Nam Lik 1 Power Company Limited (NL1PC)



COD: July 2019

% Progress

2Q19

100%

## PROJECT SUMMARY

TYPE



Run-of-River  
Hydropower  
Plant

ELECTRICITY (MW)

64.7

LOCATION

Northern of  
Vientiane, Lao PDR

CUSTOMER



• Electricite Du Laos (EDL)  
(63.8 MW for 30 years from  
signing date)

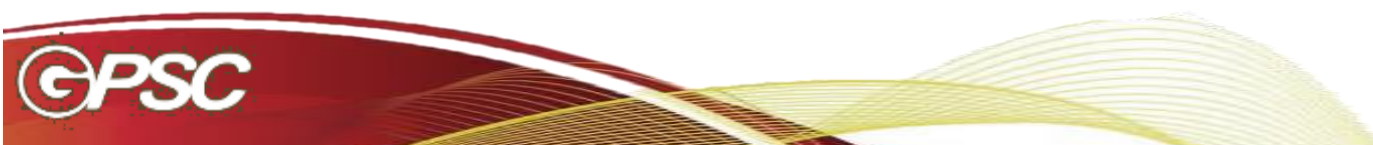
GPSC HOLDING

40%

Of total share

PROJECT UPDATE

- Overall construction and commissioning test was completed.



# Xayaburi Power Company Limited (XPCL)



SCOD: Q4/2019

% Progress

2Q19  
**99.4%**

## PROJECT SUMMARY

### TYPE



Run-of-River  
Hydropower  
Plant

### ELECTRICITY (MW)

**1,285**

### LOCATION

Lao PDR

### CUSTOMER



• EGAT  
(1,220 MW)



• Electricite  
Du Laos  
(EDL)  
(60 MW)

### GPSC HOLDING

**25%**

Of total share

### PROJECT UPDATE

- The main construction tasks, such as power house, intermediate block, fish ladder and 500 kV transmission line were mostly completed.
- The commissioning test of each unit has been in progress in order to sell electricity to EGAT during the Unit Operation Period (UOP).

# CENTRAL UTILITY PLANT 4

## : CUP4 (THAILAND)



SCOD: Q3/2019

% Progress

2Q19

96.8%

### PROJECT SUMMARY

TYPE



Gas-fired  
Cogeneration



ELECTRICITY (MW)

45

STEAM (T/h)

70

LOCATION

Asia Industrial  
Estate, Rayong

CUSTOMER



Industrial users in  
Asia Industrial Estate  
and neighboring  
industrial estate



GPSC HOLDING

100%

Of total share

PROJECT UPDATE

- Main installations and erections have been completed, to prepare for the following unit test and commissioning.
- The progress of the inter-connection of power and steam pipeline has been achieved over 90%.
- Next activity will be integration test and commissioning.

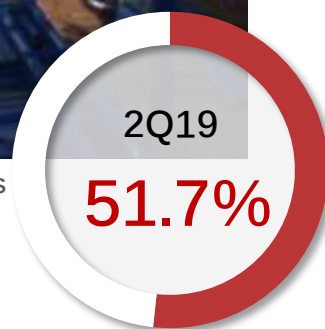


# Nava Nakorn Electricity Generation (NNEG) Expansion Project



SCOD: Q3/2020

% Progress



## PROJECT SUMMARY

TYPE	ELECTRICITY (MW)	STEAM (T/h)
Gas-fired Cogeneration	Expansion 60	10
	Total <b>185</b>	<b>40</b>
LOCATION	CUSTOMER	
Nava Nakorn Industrial Promotion Zone, Pathumthani	• Industrial User	• EGAT (SPP Firm 90 MW for 25 years)
GPSC HOLDING	PROJECT UPDATE	

30%

Of total share

- Piling work was completed
- Main tasks such as engineering, foundation and procurement work for machines and equipment were executed as planned.

# Rayong Waste to Energy (WTE)







% Progress

2Q19

3.16%

## PROJECT SUMMARY

TYPE	ELECTRICITY (MW)	RDF (T/day)
  Waste	8	300
LOCATION	CUSTOMER	
Rayong	 Provincial Electricity Authority (PEA)	

## GPSC HOLDING





100%  
Of total share

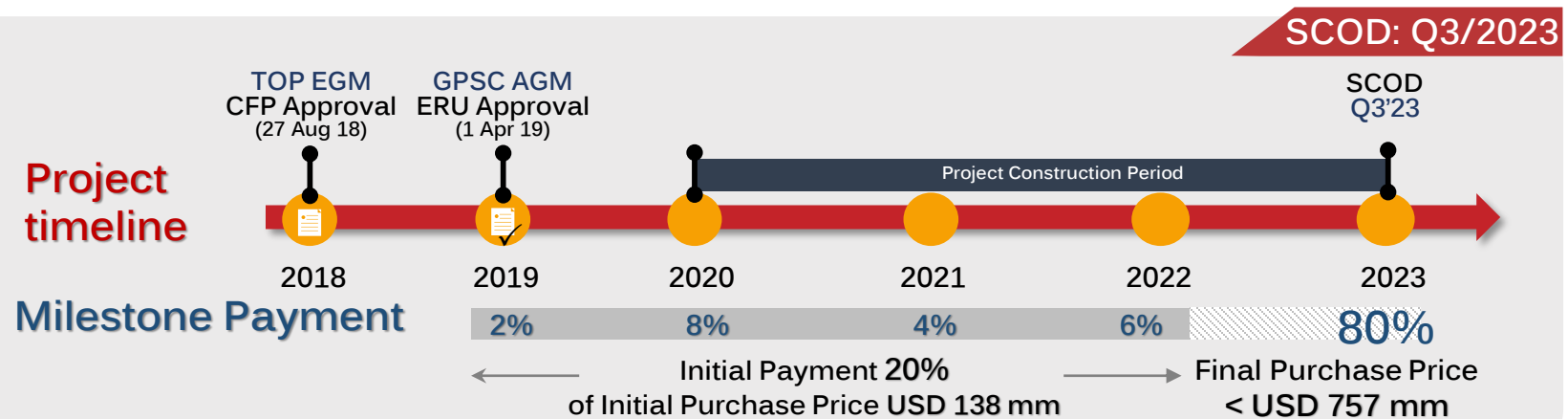
## PROJECT UPDATE

- The RDF Project construction has been completed since 2018 while the RDF Power Plant Project construction began on April 2019.
- The project is expected to COD in Q2/2021.

# ERU as a power and steam supporting unit of CFP Project

## PROJECT SUMMARY

TYPE	ELECTRICITY (MW)	STEAM (T/h)	GPSC HOLDING	PROJECT DESCRIPTION
 Pitch	250	175	100% Of total share	<ul style="list-style-type: none"><li>The Energy Recovery Unit (ERU) : the plant which uses pitch as the main fuel feed to generate power, steam and other Products to the CFP Plant</li></ul>
LOCATION	CUSTOMER			
Laem Chabang Port	 • Industrial User around Laem Chabang Port			
	 			





GPSC Growth and Strategic Direction



Update of projects



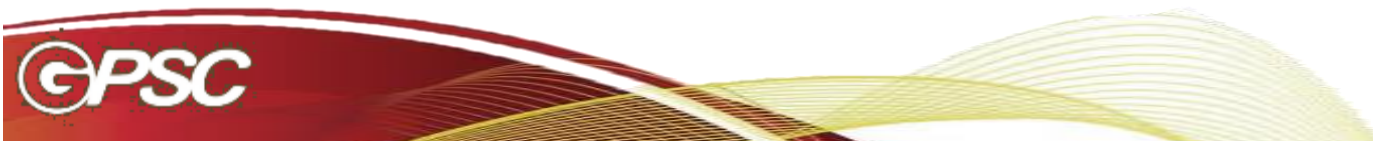
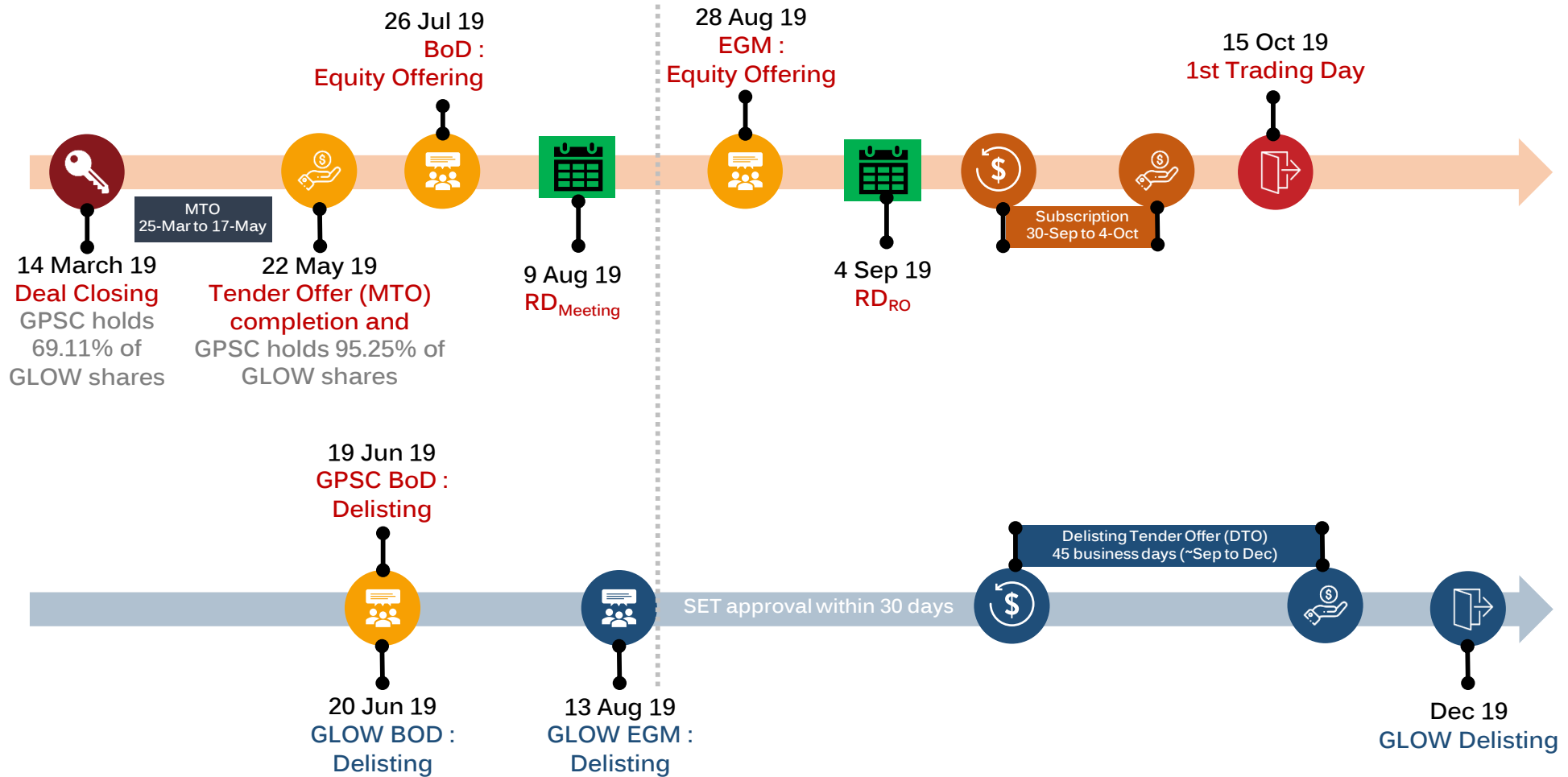
Equity Offering



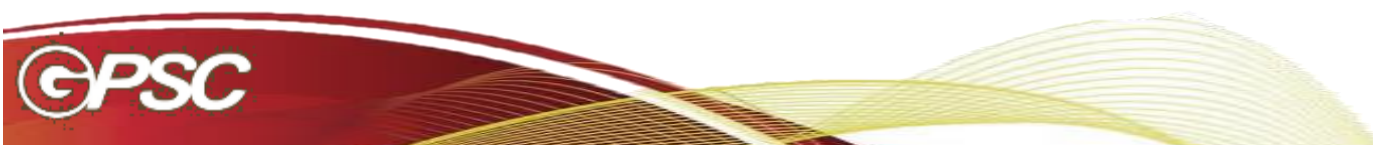
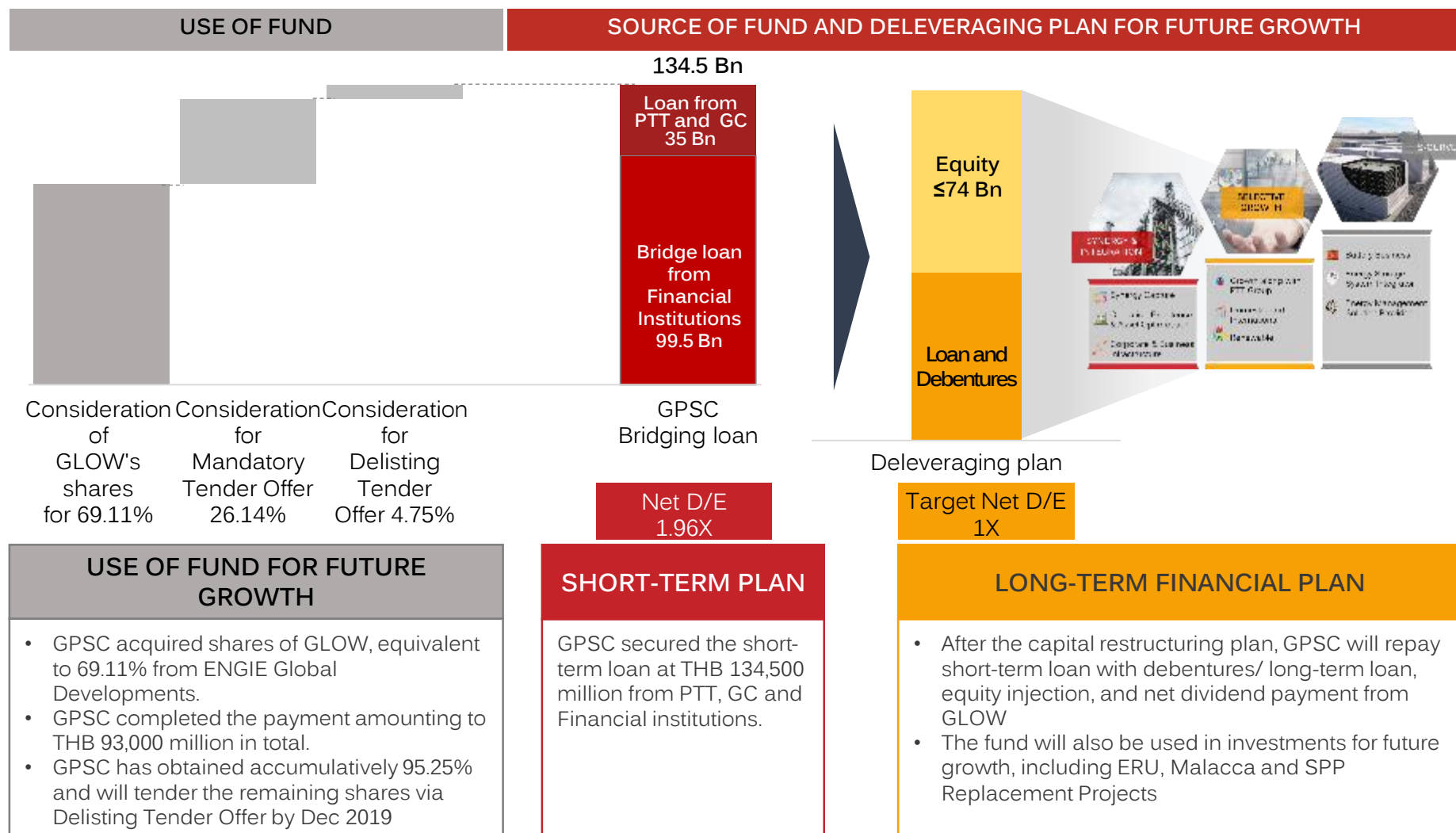
Financial Performance



# Timeline : Equity Offering and GLOW Delisting



# Use and Source of Fund with Deleveraging Plan



# Rights Offerings

## Key Terms

### RO Amount

THB **74,000** million

### RO Subscription Price

THB **56** per share

### Discount from 30D VWAP (THB 70)

**20%**

### Numbers of Allotted Shares

**1,321** million shares

### Allocation Ratio (Old : New)

**1 : 0.8819**

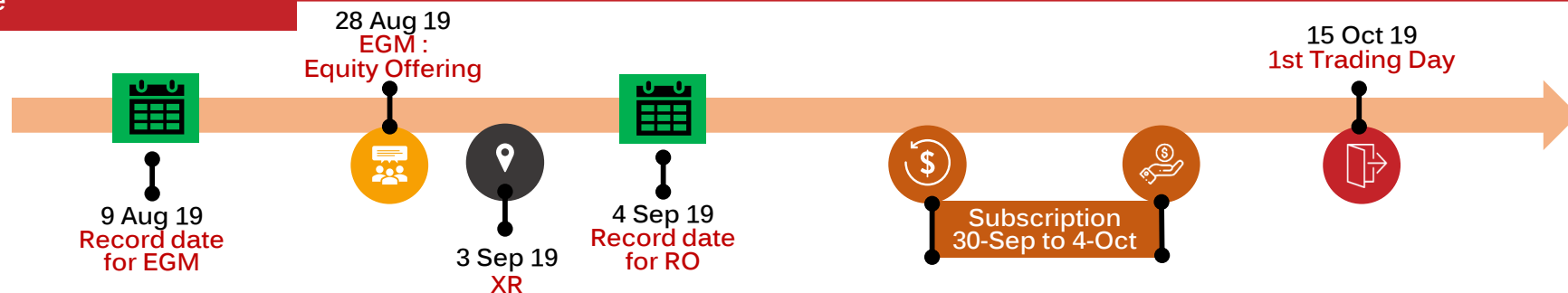
### Allocation Method

- Allocate to existing shareholders proportionate to their respective shareholdings
- Oversubscription is allowed – allocate until there are no remaining or no shareholder subscribes for the remaining shares

### Objective of Capital Increase

- Repayment of the short-term loan (Bridge Financing) to financial institutions and the major shareholders (i.e. PTT and GC)
- Maintaining financial ratio to be comparable with peers and financial structure which is suitable for the investment in the current and future projects

### Timeline



# Equity Offering Summary

## Objectives



Achieve THB 74 bn as required



Completion by 2019



Optimize Free-float



## Right Offering



Giving rights to existing shareholders (no control dilution if rights are exercised)



Allow oversubscription for fund raising completion objective



Offered at discounted market price to attract existing shareholders to subscribe



Appropriate method for meeting fund raising in timely manner

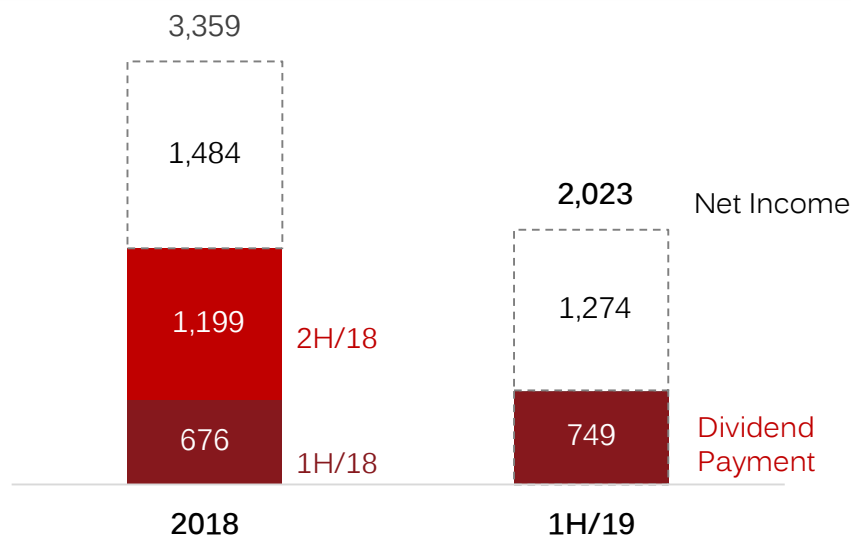


# GPSC Announce Interim Dividend Payment

## *GPSC Announce to pay dividend of THB 0.50 per Share*

### Dividend Payment

(THB Million)



GPSC announced on the 14<sup>th</sup> August 2019 that the company will pay dividend of THB 0.50 per share aggregating to an amount of THB 749 Million or 37% of the total net profit for the company of 1H/2019

The dividend payment is the result of:

- ✓ Successful acquisition of GLOW
- ✓ The better operating performance in 1H/2019
- ✓ The continuous growth of GPSC with 4 projects that is expected to COD within 2019 and 2020 including NL1PC, XPCL, CUP4 and NNEG

### Payout (% of NI)

56%\*

37%

14 Aug 19  
Announce Dividend  
Payment Rate

29 Aug 19  
Announce  
XD

30 Aug 19  
Record  
Date

12 Sep 19  
Date of  
Dividend Payment

### 2019 Timeline

Note: \*Payout as a percentage of 2018 Net profit



GPSC Growth and Strategic Direction



Update of projects



Equity Offering

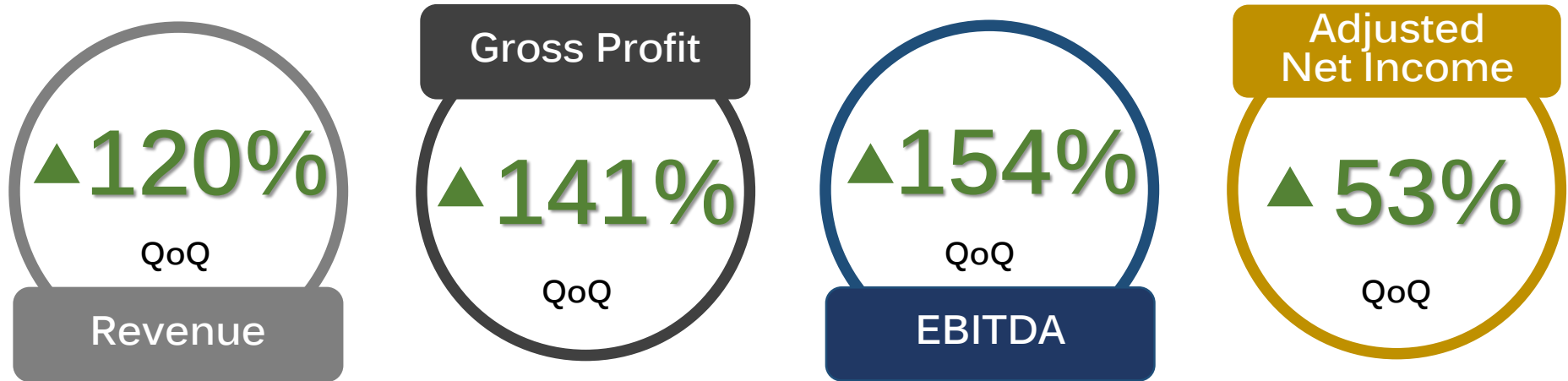


Financial Performance

# Key Financial Highlights

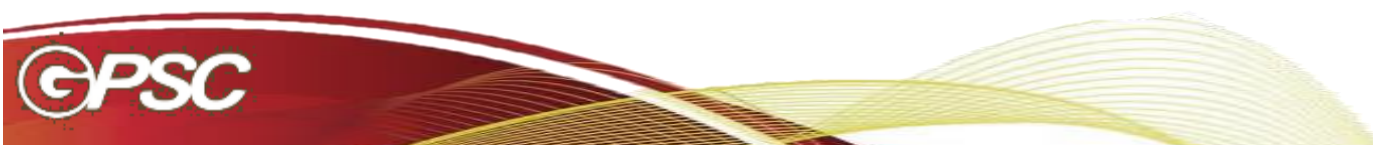
## Q2/2019

### Key financial highlights



### The better performance is mainly due to:

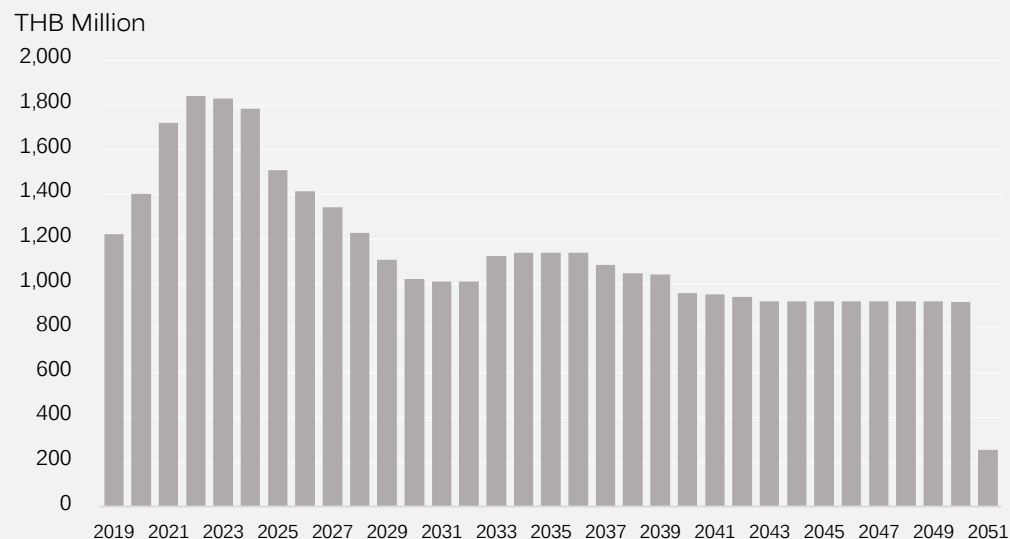
- ✓ The first full quarter recognition of GLOW's Independent Power Producer (IPP) and Small Power Producer (SPP) performance
- ✓ The consistency of GPSC's and GLOW's sales of both electricity and steam to industrial customers



# Fair Value Measurement of Net Assets from the Acquisition of GLOW

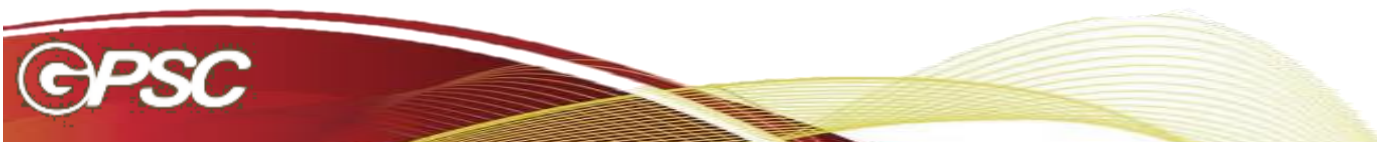
Items	Book Value of GLOW (THB Million)	Fair Value of GLOW (THB Million)	Differential Value (THB Million)
Assets	107,655	155,500	47,845
Liabilities	(56,246)	(66,497)	(10,251)
<b>Net Assets of GLOW at 14 March 2019</b>	<b>51,409</b>	<b>89,003</b>	<b>37,594</b>
Non-Controlling interests at 30.89%		(32,092)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

**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.

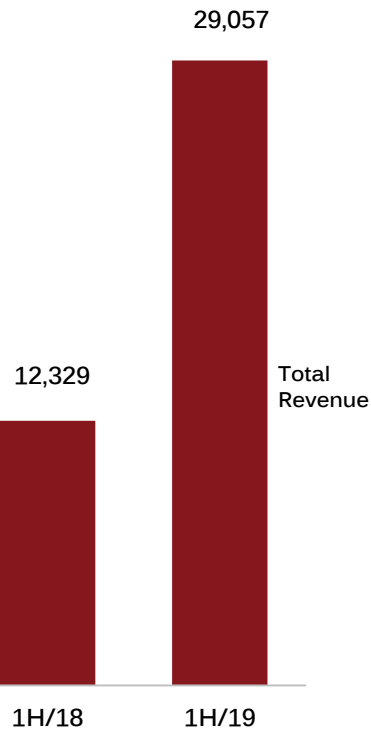
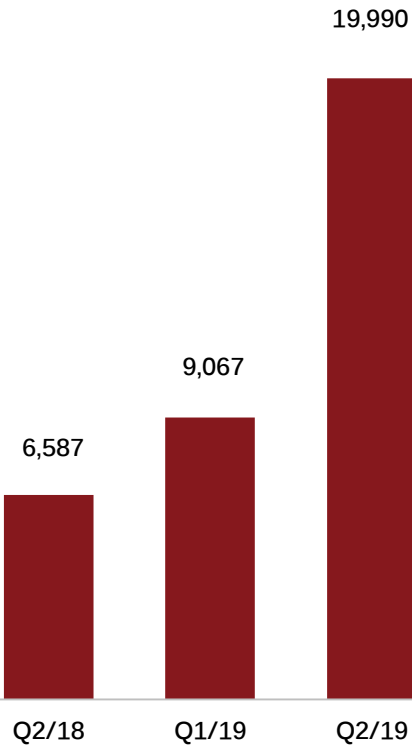




# Q2/2019 Financial Performance Summary (1/2)

## Revenue & Gross Profit Margin

(THB Million,%)



## Gross profit margin

QoQ

▲ 3%

YoY

▲ 2%

1H

▲ 1%

QoQ, YoY and 1H: 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

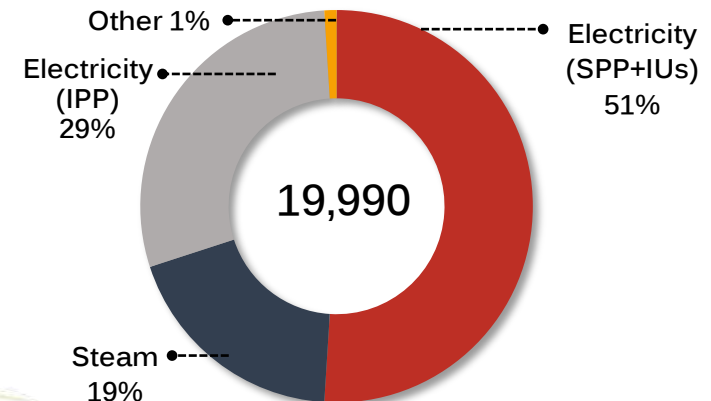
▲ 136%

QoQ, YoY and 1H : 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

(THB Million, %)

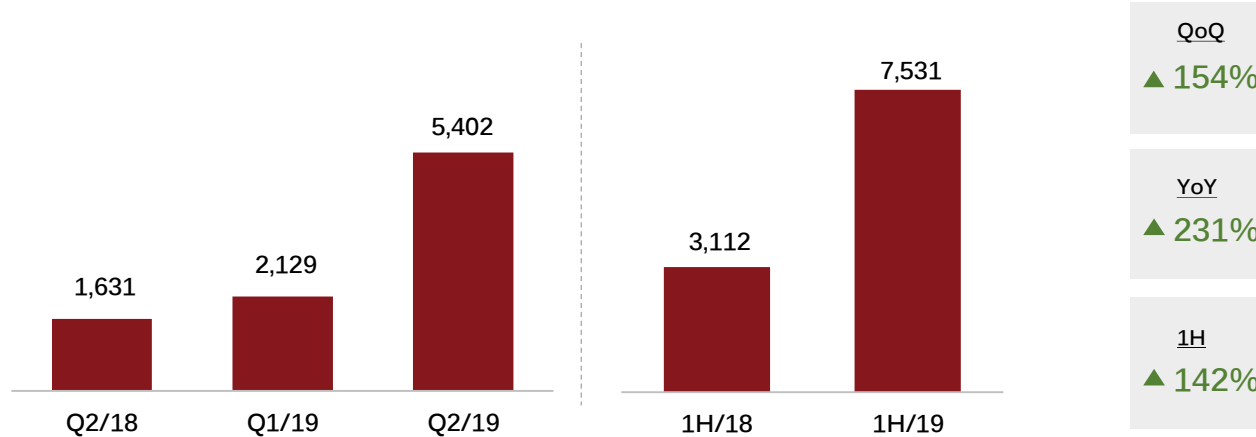


19,990

# Q2/2019 Financial Performance Summary (2/2)

## EBITDA

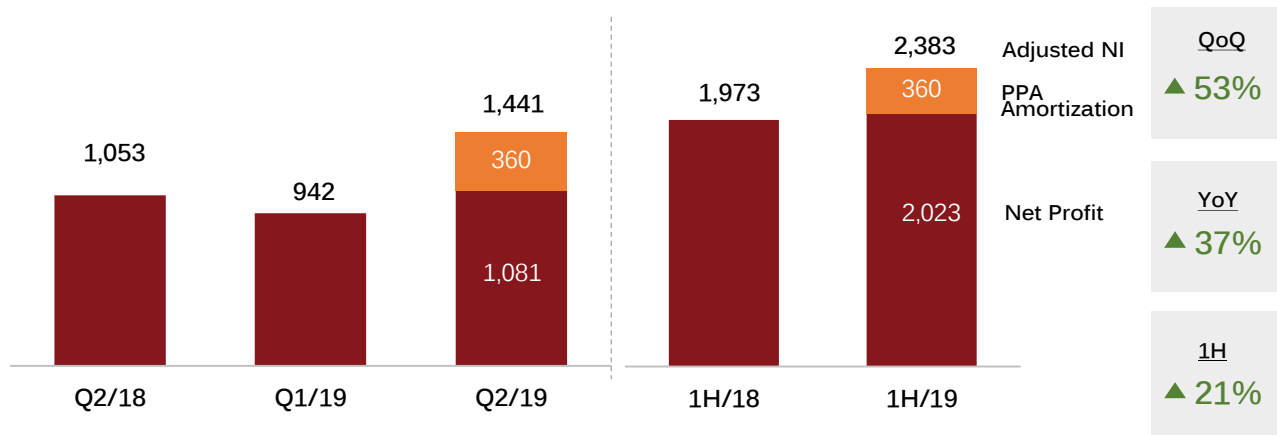
(THB Million)



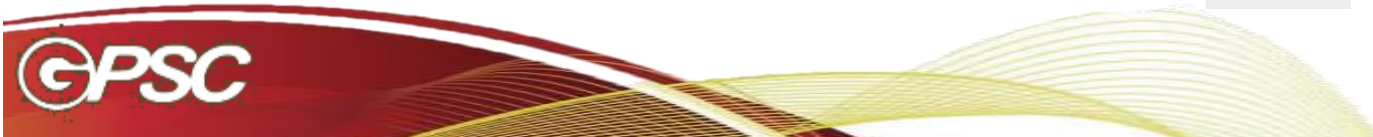
QoQ, YoY and 1H: Increased mainly as a result of the immediate recognition of GLOW's performance after the acquisition of GLOW including Independent Power Producer (IPP), Small Power Producer (SPP) and Very Small Power Producer (VSPP) and Others.

## Net Profit and Adjusted Net Income

(THB Million)



- QoQ, YoY and 1H: Adjusted Net Income increased due to
- 1) The immediate first full quarter recognition of GLOW's performance after the acquisition
  - 2) The increase in net profit by 15% showing that both GPSC and GLOW has shown consistency in the sales of both electricity and steam to industrial users



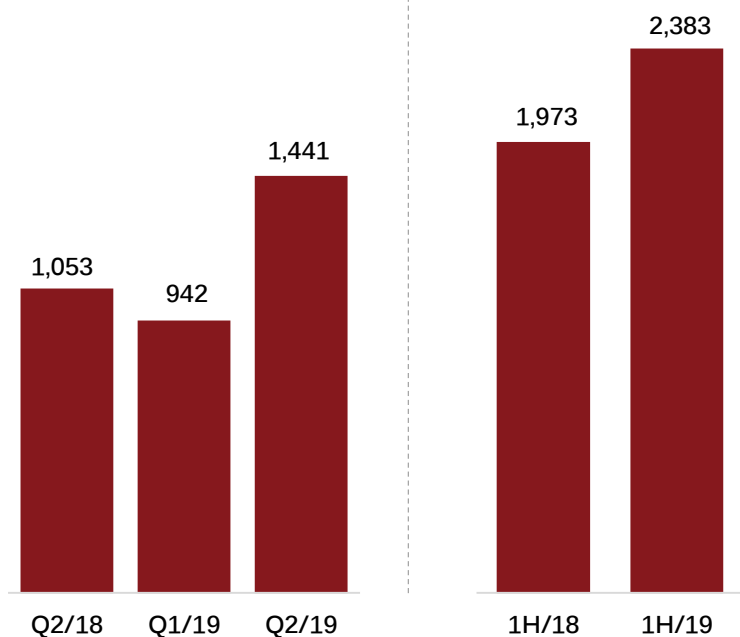
# Adjusted Net Income increased as a result of the first full quarter acquisition of GLOW

Adjusted Net Income

(THB Million)

Adjusted Net Income of Q2/2019

(THB Million)

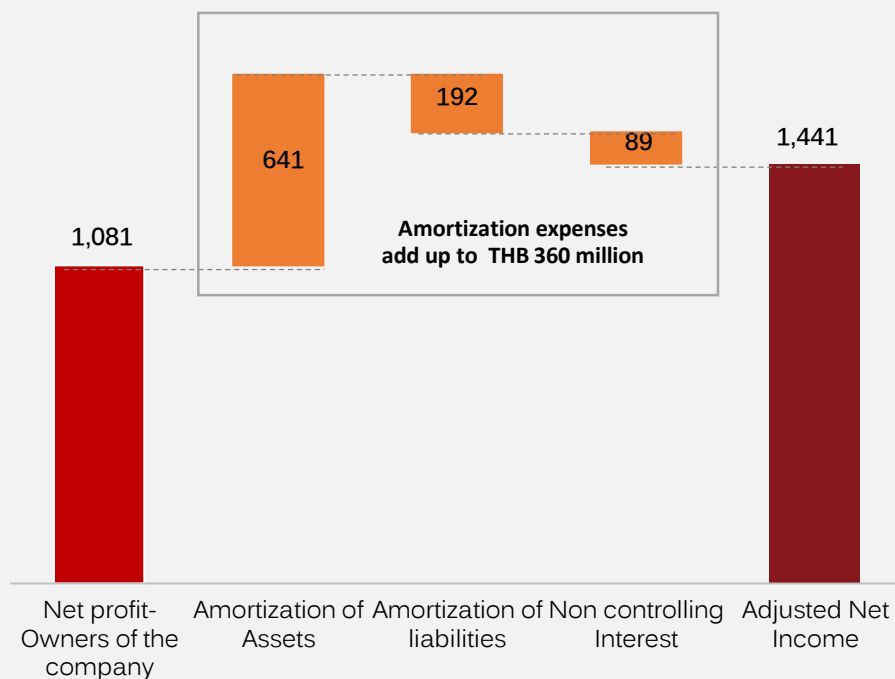


QoQ  
▲ 53%

YoY  
▲ 37%

1H  
▲ 21%

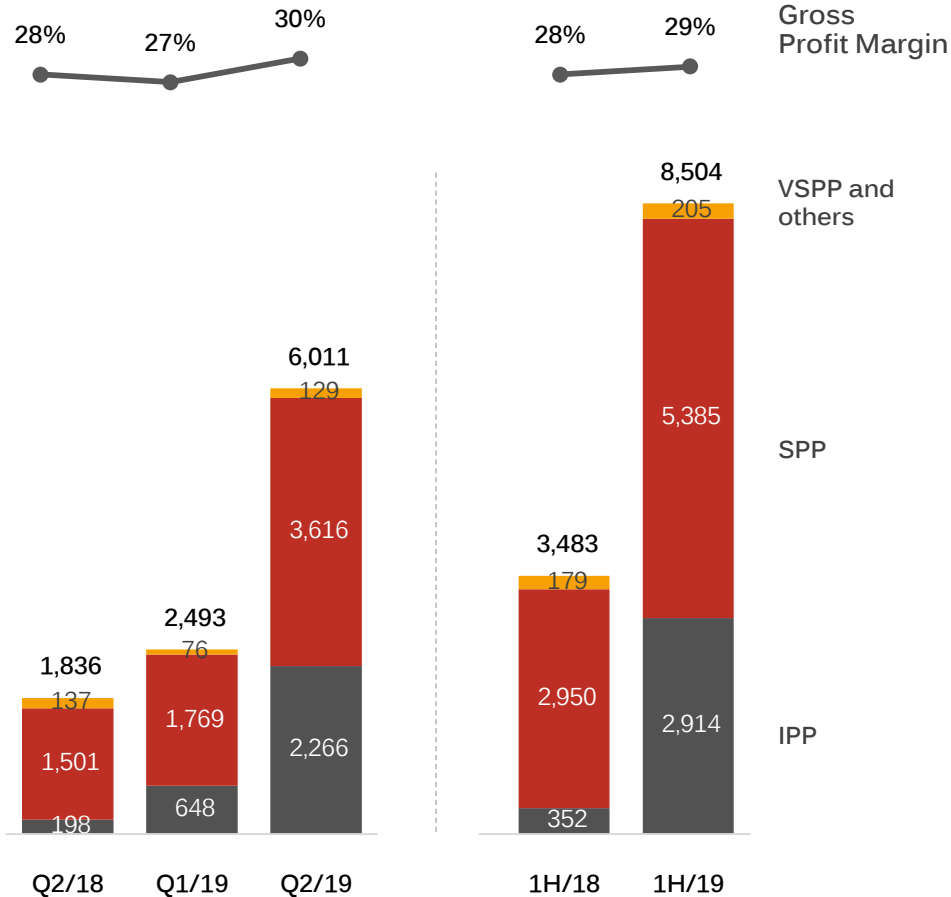
- QoQ, YoY and 1H: Increased from Q1/2019 and 1H/2018 respectively as a result of the first full quarter recognition from acquired GLOW despite the burden of interest expense from short-term loans



- Adjusted Net Income** 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

# 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%

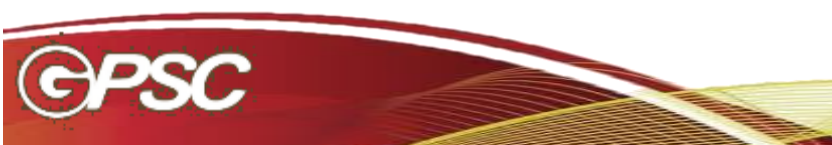
YoY

▼ 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

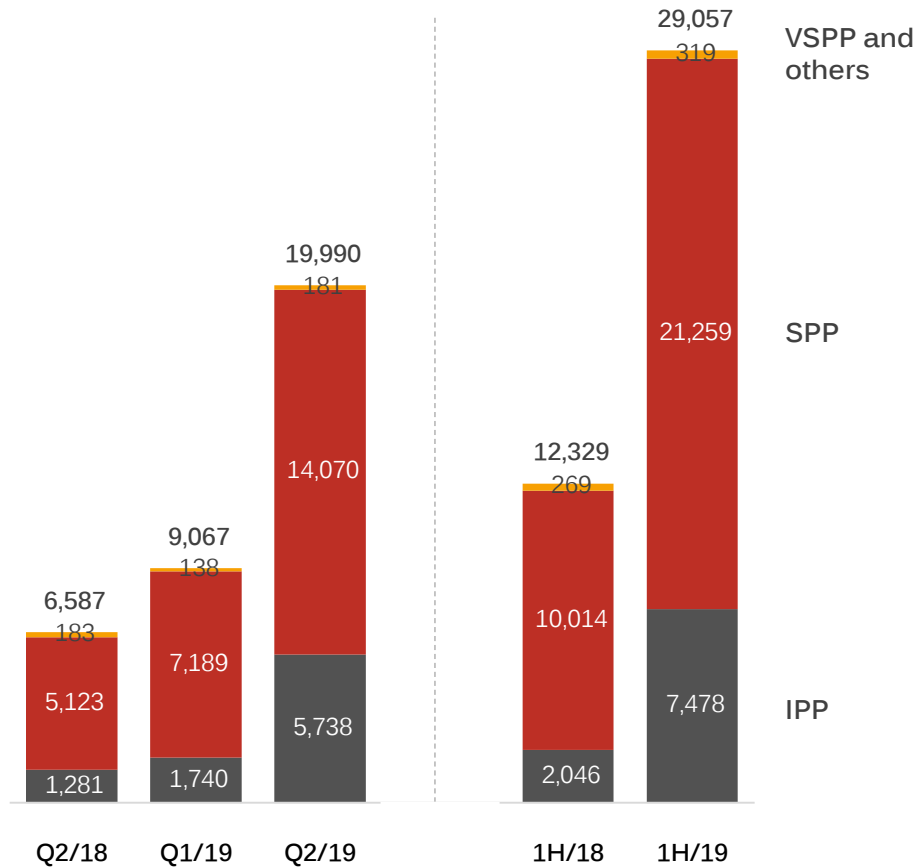




# Total revenue has increased due to the contribution of GLOW and the better performance of IPP and SPP

## 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%

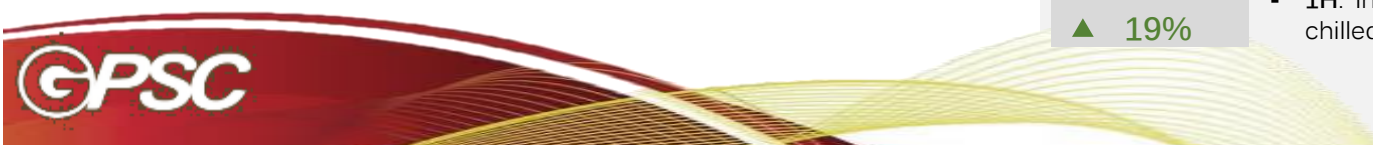
1H

▲ 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

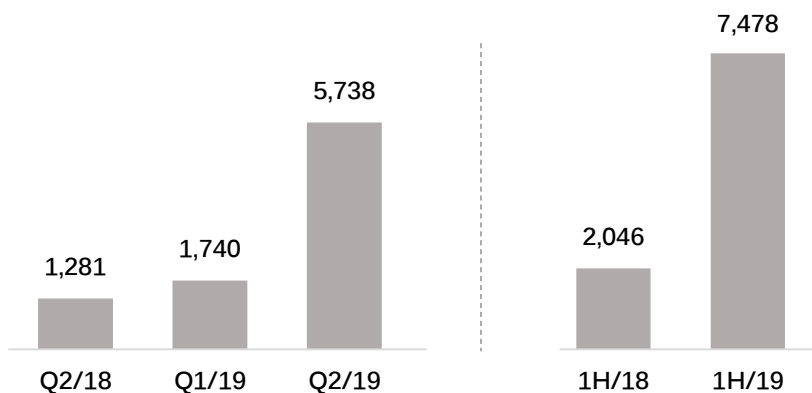




# IPP Revenue: Increased By 230% QoQ and 348% YoY due to Higher dispatch volume from SRC and contribution from GLOW

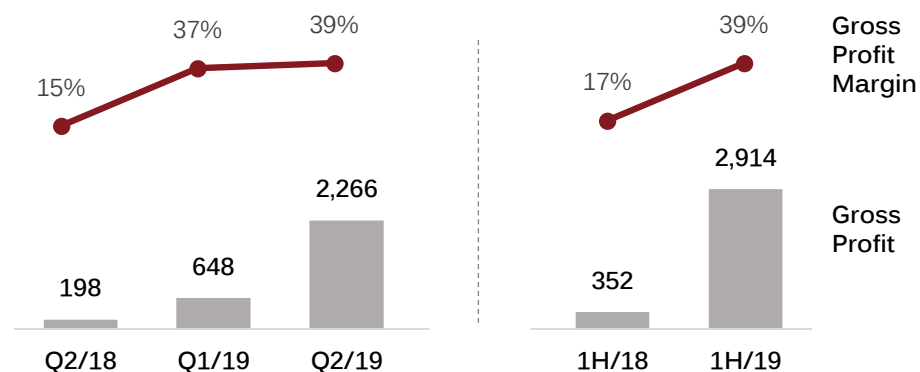
## Revenue

(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



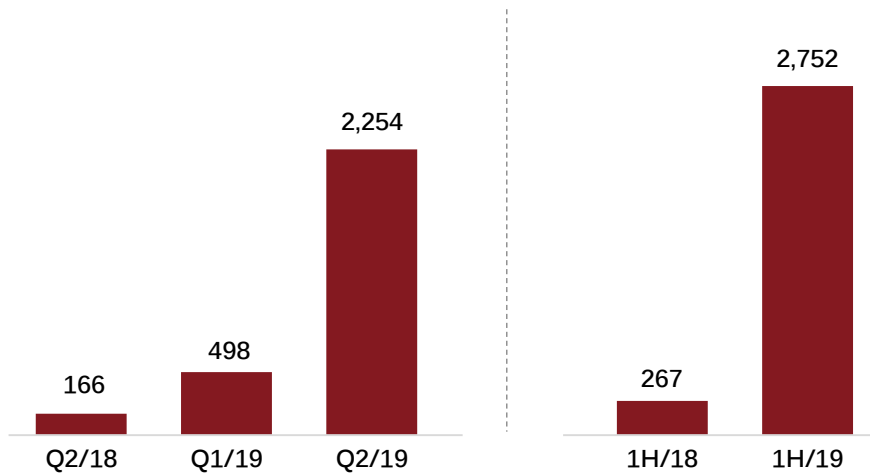
# Availability Payment: Increased by 352% QoQ and 1,258% YoY

## Availability Payment

(THB Million)

## Availability Rate

(%)

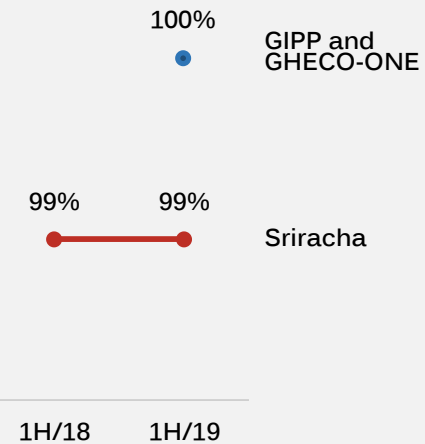
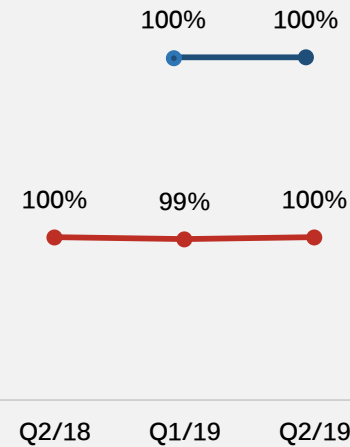


QoQ  
▲ 353%

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.



AR-Sriracha

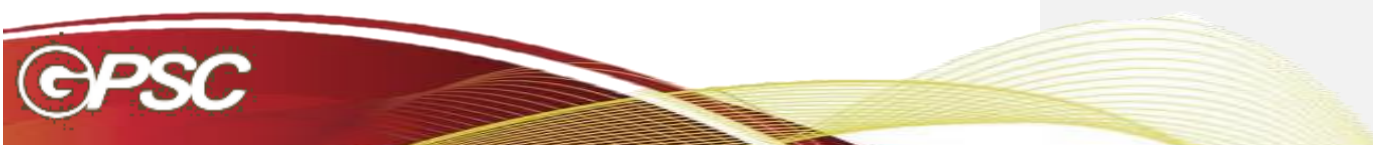
- QoQ: Rebounded as a result of the higher dispatch volume instructed by EGAT

AR-GIPP

- AR of GIPP remained at 100%

AR-GHECO ONE

- AR of GHECO ONE remained at 100%





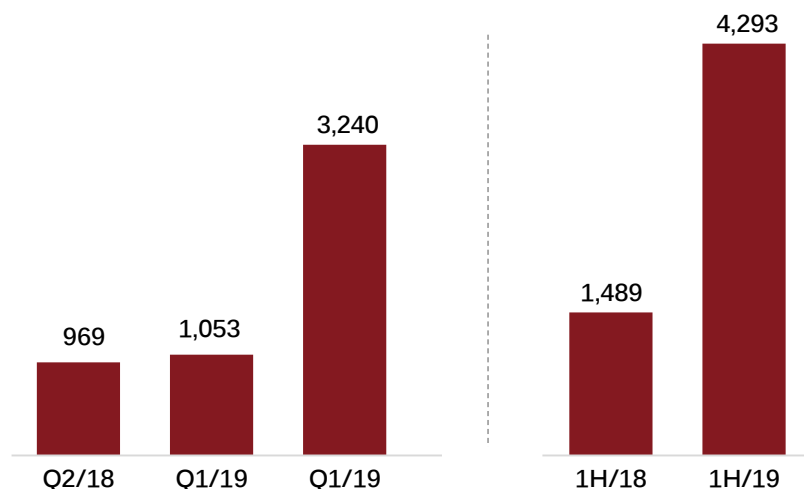
# Energy Payment: Increased 208% QoQ and 234% YoY

## Energy Payment

(THB Million)

## Average Total Selling Price\*

(THB/kWh)

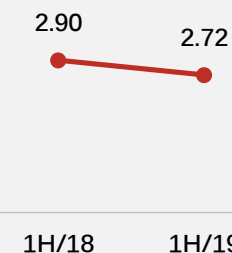
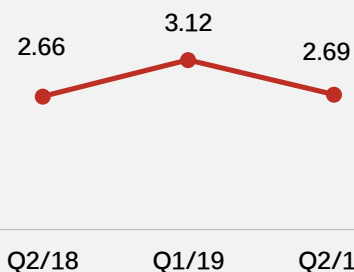


QoQ  
▲ 208%

YoY  
▲ 234%

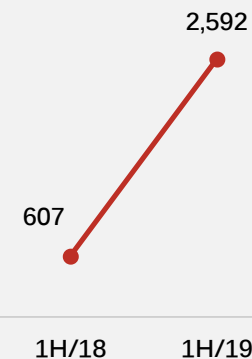
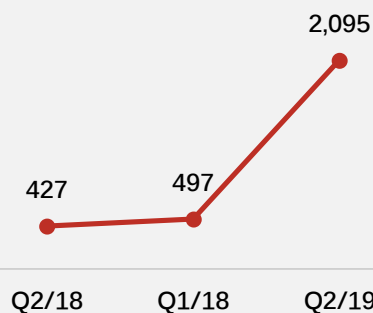
1h  
▲ 188%

- **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:** 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:** 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



## Sales Volume

(GWh)



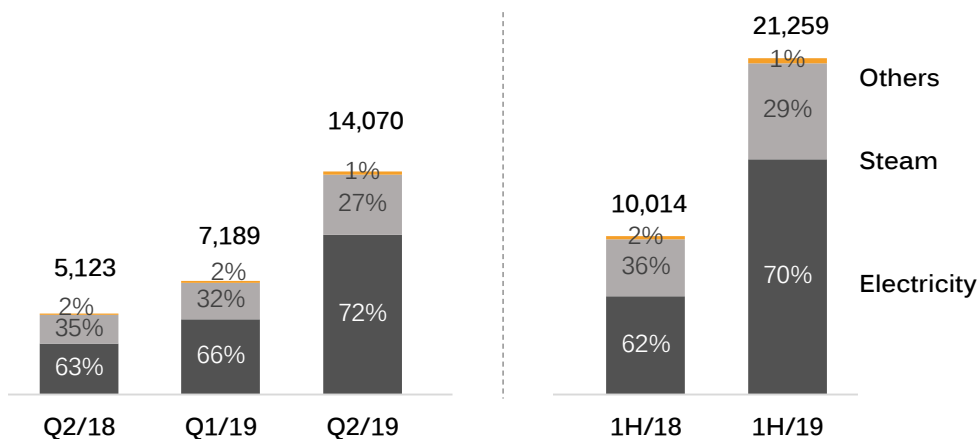
Note: \*Average Total Selling Price is derived from the revenue of Availability Payment (AP) and Energy Payment (EP)



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

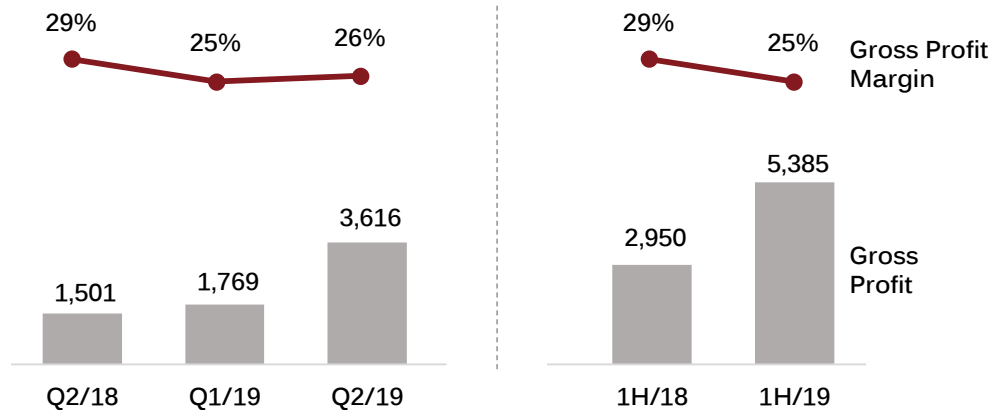
## SPP Revenues

(THB Million, %)



## Gross Profit & Gross Profit Margin

(THB Million, %)



## GPSC SPP Powerplants



CUP-1



CUP-2



CUP-3



IRPC-CP



GLOW Energy  
Phase 1,2,4,5



GLOW SPP 2-3



GLOW SPP 11  
Phase 1-3



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 GCSP'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

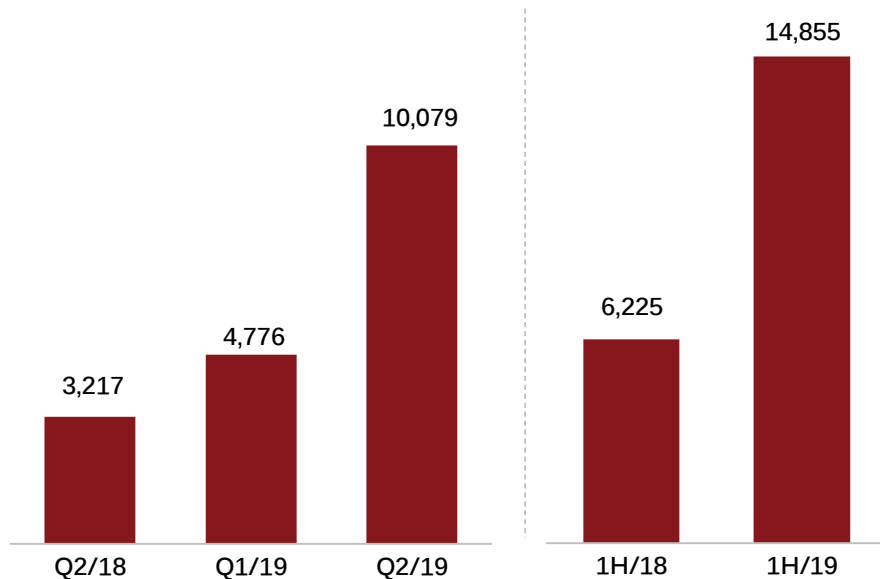




# SPP Power Sales: Increased 111% QoQ and 213% YoY

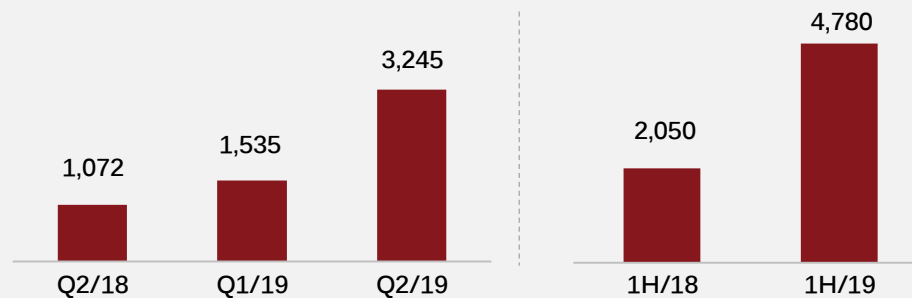
## Power Sales

(THB Million)



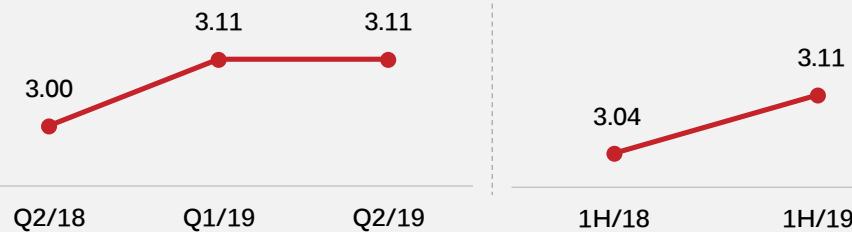
## Power Sales Volume

(GWh)



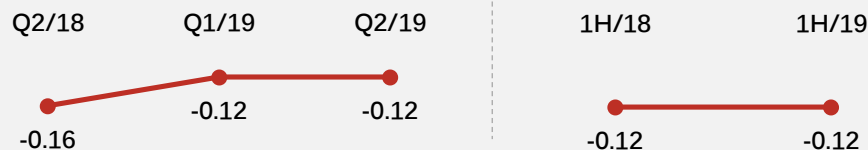
## Average Selling Price

(THB/kWh)



## Ft rate

(THB)



QoQ

▲ 111%

YoY

▲ 213%

1H

▲ 139%

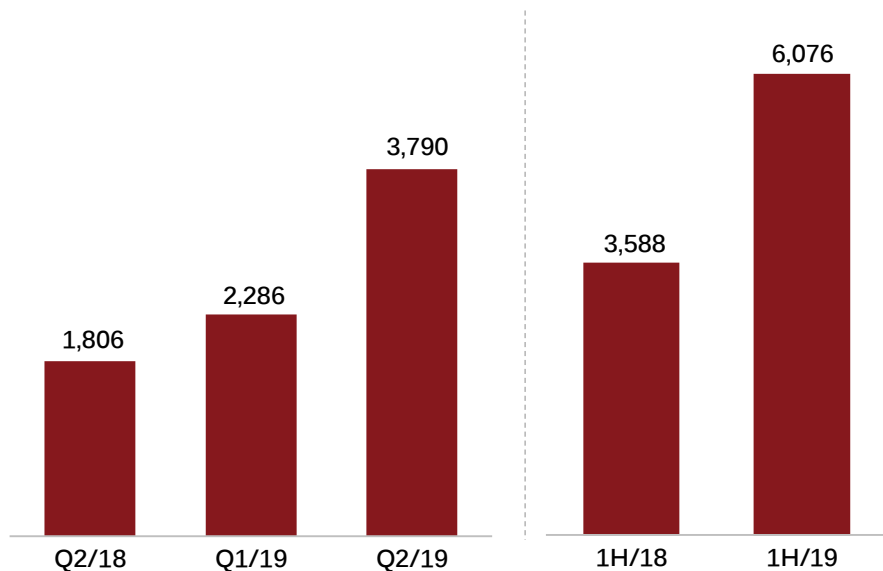
- **QoQ:** Increased due to the first full quarter recognition of GLOW's performance especially when SPP takes account for the majority of GPSC's portfolio.
- **YoY:** Increased mainly due to the first full quarter recognition of GLOW's performance as well as the revenue from electricity and steam of 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%



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

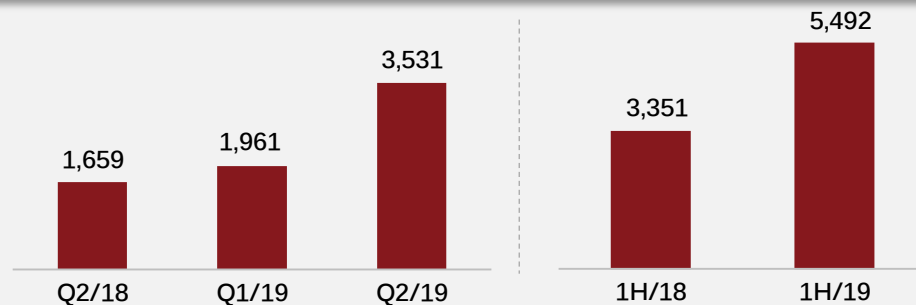
Steam Sales

(THB Million)



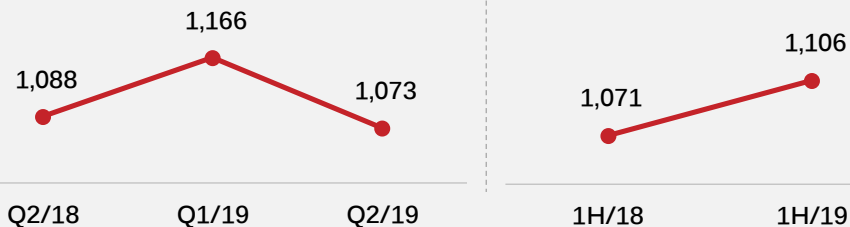
Steam Sales Volume

('000 tons)



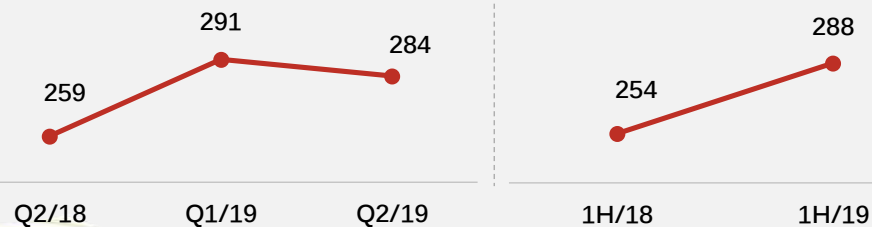
Average Steam Selling Price

(THB/Ton)



Average Natural Gas Price

(THB/MMBTU)



QoQ

▲ 66%

YoY

▲ 110%

1H

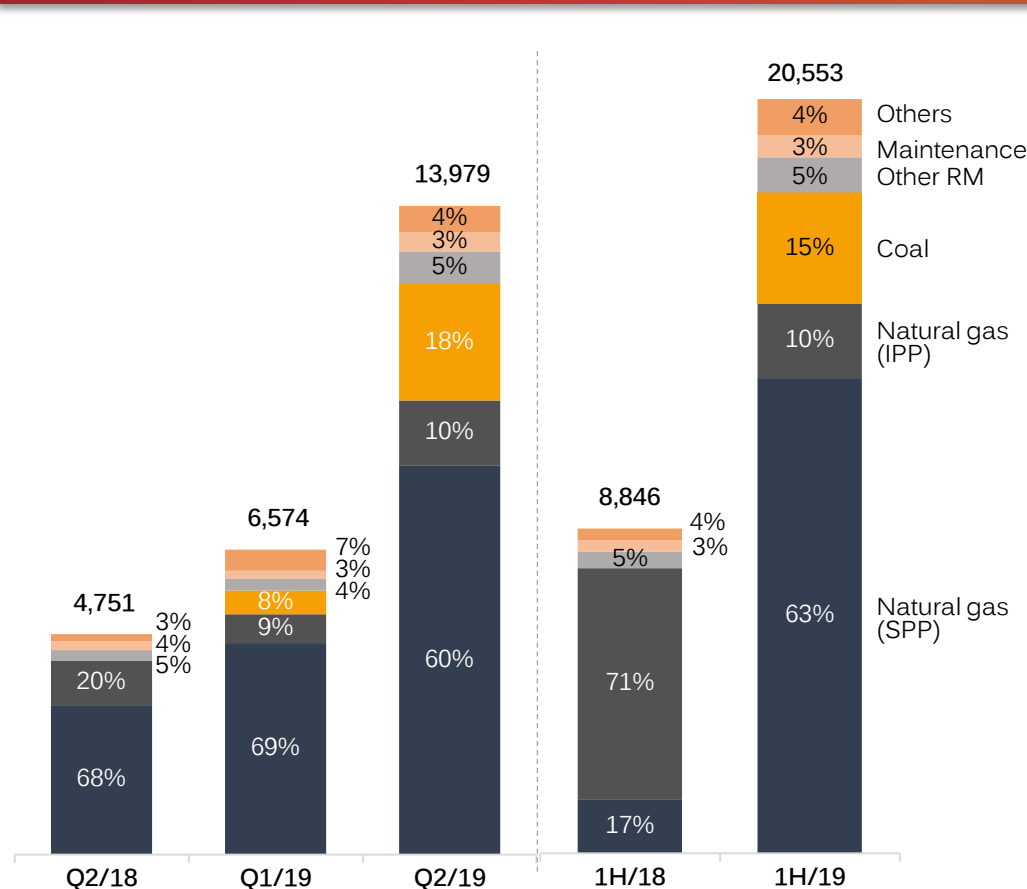
▲ 69%

- 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

# Total Cost Of Sales and Services: Increased in Line with Revenues

## Total Costs of sales and services\*

(THB Million, %)



Note: exclude depreciation and amortization

## Total Costs

QoQ  
▲ 113%  
YoY  
▲ 194%  
1H  
▲ 132%

- QoQ, YoY and 1H: Total costs increased mainly from first full quarter consolidation of GLOW's power plant, the higher dispatch volume of IPP corresponding to EGAT's instruction and the increase in maintenance cost of IRPC-CP

## Natural Gas

QoQ  
▲ 89%  
YoY  
▲ 134%  
1H  
▲ 93%

- QoQ : Natural gas costs increased mainly due to the contribution of GLOW and the higher dispatch volume of Sriracha Power Plant corresponding to EGAT's instruction
- YoY and 1H: Natural gas costs increased mainly due to the contribution of GLOW that has many gas SPPs as well as the increase in the price of natural gas

## Coal and Other Raw Materials

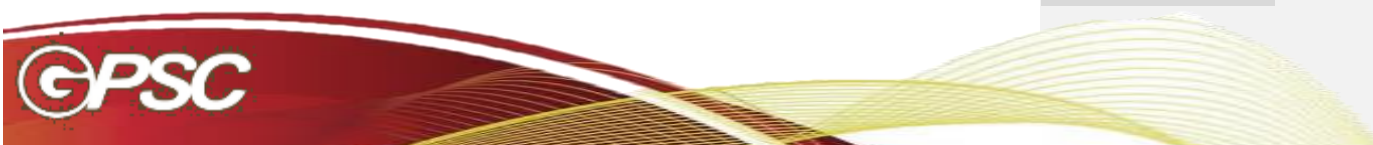
QoQ  
▲ 313%  
YoY  
▲ 1,253%  
1H  
▲ 767%

- QoQ and YoY: Costs of coal increased mainly due to the contribution of GLOW that has coal as a fuel source as well as other raw material costs that increased by THB 438 million

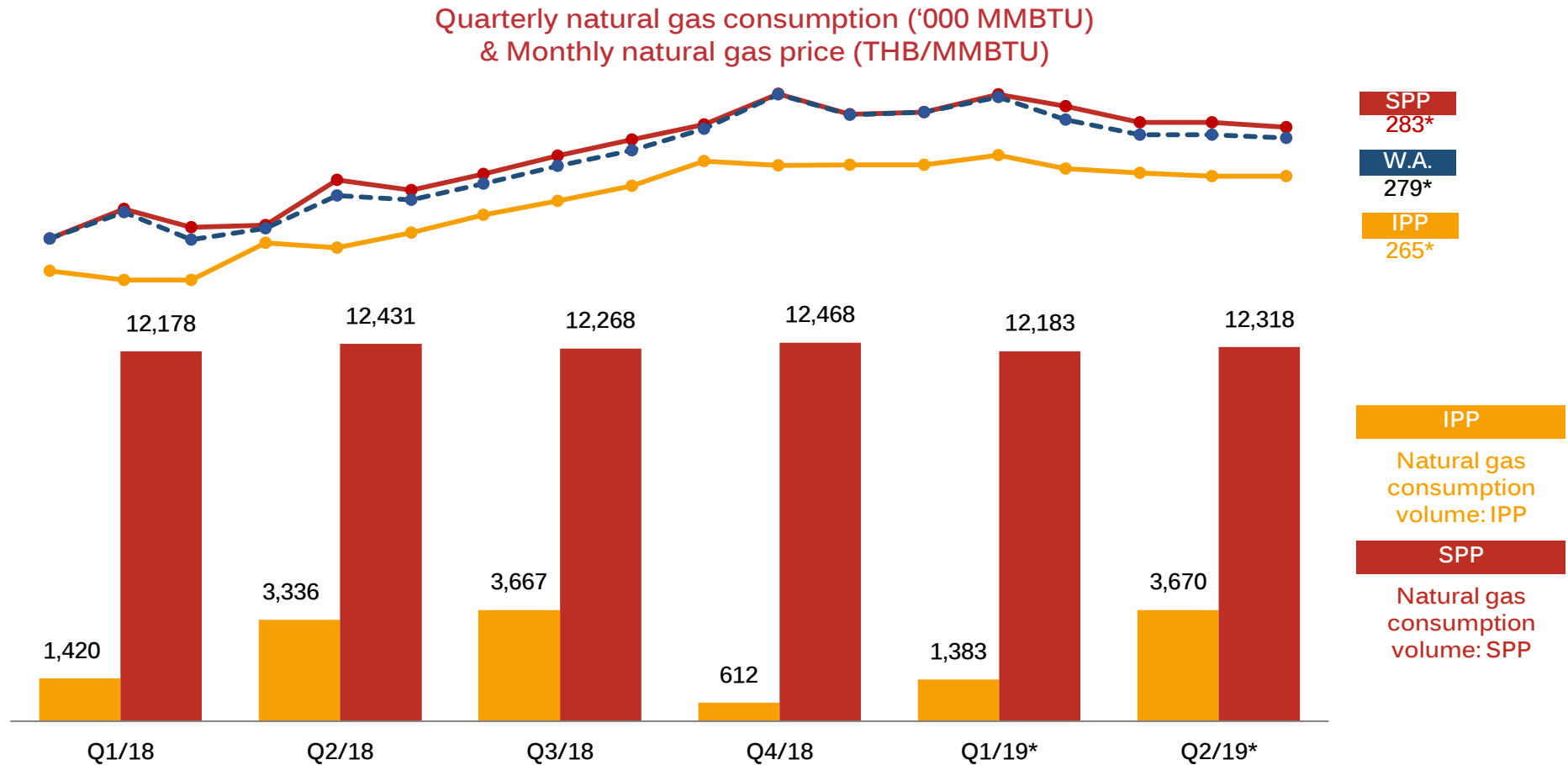
## Maintenance cost and Others

QoQ  
▲ 59%  
YoY  
▲ 194%  
1H  
▲ 156%

- QoQ and YoY: Maintenance costs and other costs increased due to the contribution of GLOW that as well as the increase in maintenance and cleaning cost for IRPC-CP in April 2019 as planned

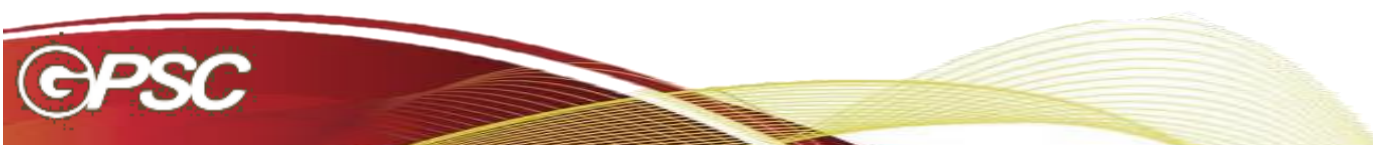


# Natural Gas Consumption vs Price Trend



Remark: Latest price as of 30 June 2019

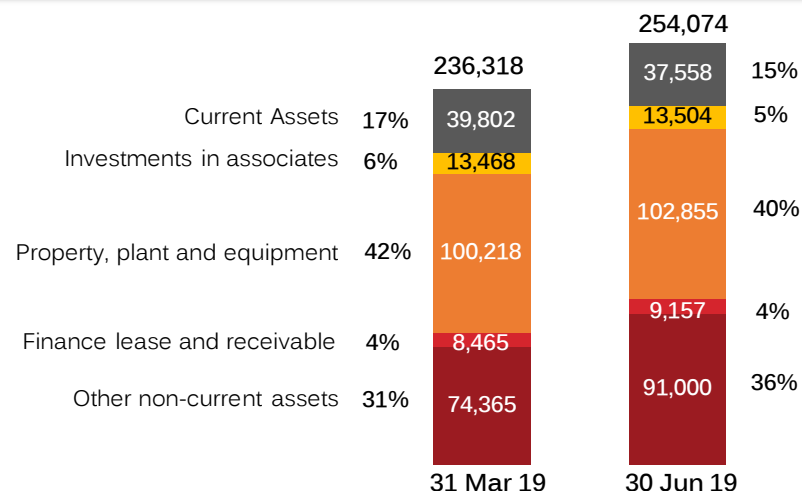
Note: \*Excluded GLOW



# Financial Position of GPSC and Subsidiaries

## Total Assets

(THB Million, %)



### Assets

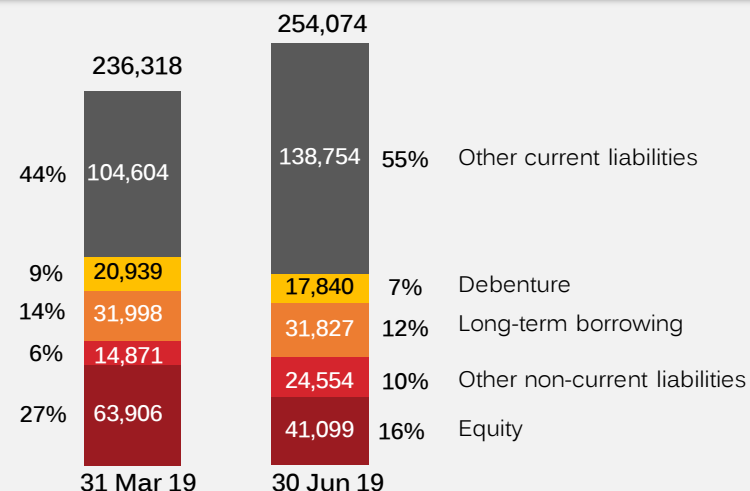
▲ 8%

Total assets increased mainly from:

- **Other non-current assets** increased by THB 16,635 million or 22% due to the recording of the fair value of net asset from the acquisition of GLOW
- **Property, plant and equipment**: increased by THB 2,637 million or 3% after recording the fair value of net asset from the acquisition of GLOW
- **Finance lease and receivable** net: increased by THB 692 million or 8%

## Total Liabilities & Shareholders Equity

(THB Million, %)



### Liabilities

▲ 24%

Total liabilities increased mainly from:

- **Current liabilities** increased mainly from an increase in short-term loan from financial institution for the acquisition of GLOW
- **Other non-current liabilities** increased mainly due to the increase in deferred tax liabilities of THB 8,932 million from recording the fair value of net asset from the acquisition of GLOW
- **Long-term borrowing and debentures** decreased from the repayment of loans to financial institution and debenture

### Equity

▲ 36%

Total Equity decreased mainly from:

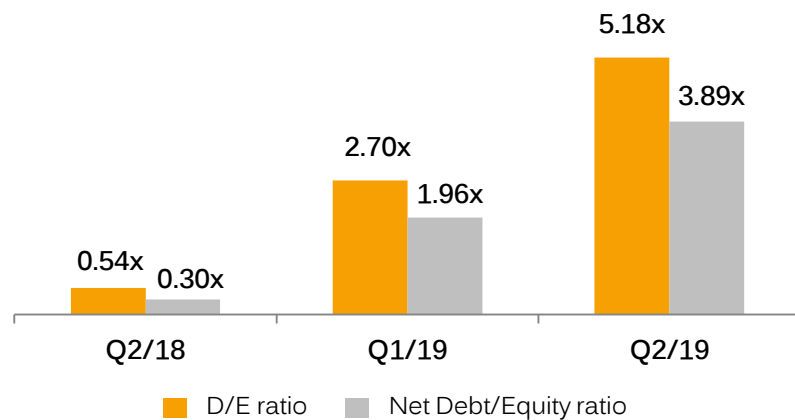
- The change in non-controlling interest and the difference from the change of investment proportion in subsidiaries resulted from the tender offer for acquisition of GLOW



# Key Financial Ratio

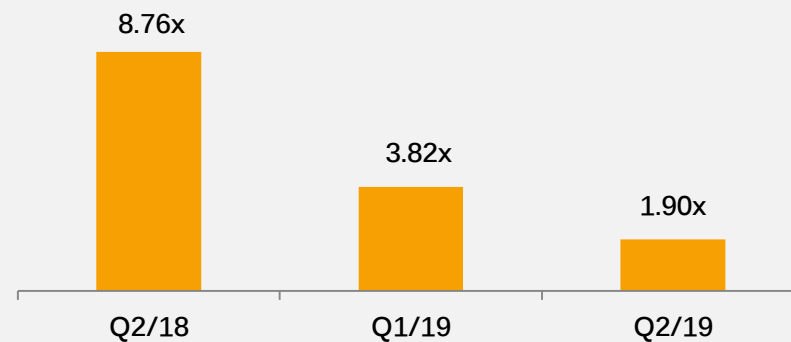
Total D/E and Net Debt/ Equity ratio

(Times)



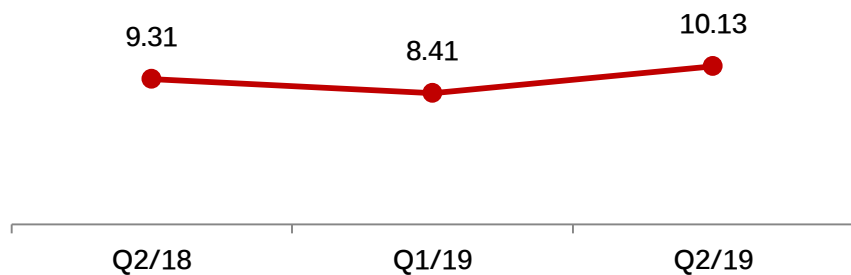
Interest Coverage Ratio

(Times)



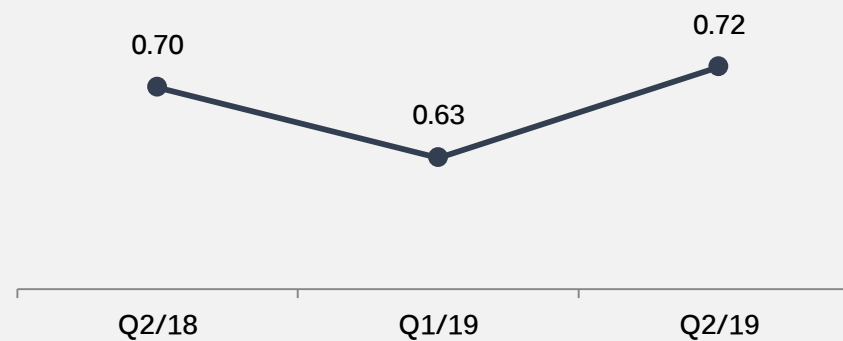
ROE

(%)



Earning per share (EPS)

(THB/share)



# THANK YOU

## IR Contact

Pongsak Plaingam  
Suthathip Charoenkij  
Sarayut Srinoradithlert

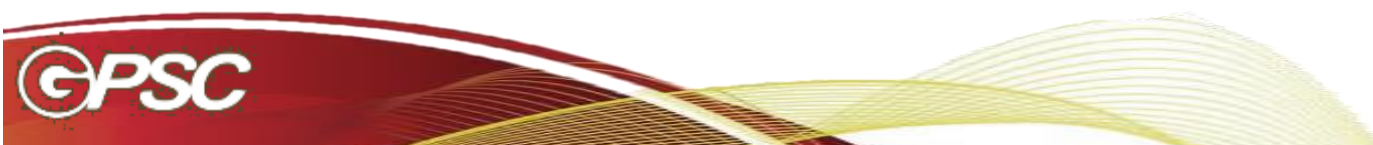
+662 140 4646

+662 140 5318

+662 140 4631

[ir@gpscgroup.com](mailto:ir@gpscgroup.com)

[www.gpscgroup.com](http://www.gpscgroup.com)

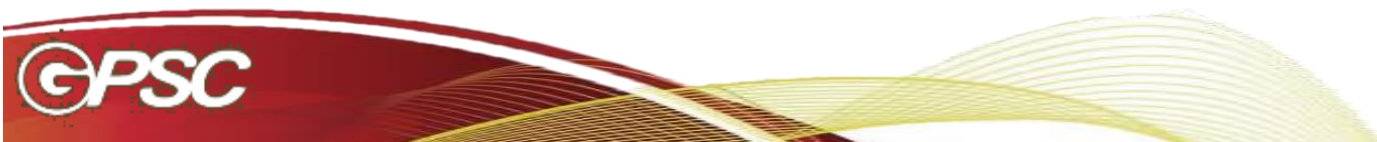


# Power Plants Portfolio of GPSC

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
<b>IN OPERATION</b>									
<b>IPP</b>									
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
<b>Total IPP</b>		<b>4,910</b>	<b>2,439</b>	<b>2,118</b>	<b>-</b>	<b>80</b>			
<b>SPP</b>									
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
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

# 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
<b>IN OPERATION</b>									
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	-
<b>Total SPP</b>		<b>2,614</b>	<b>2,192</b>	<b>2,114</b>	<b>2,701</b>	<b>7,292</b>			
<b>VSPP and others</b>									
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
<b>Total VSPP and others</b>		<b>238</b>	<b>145</b>	<b>106</b>	<b>-</b>	<b>-</b>			
<b>ERU</b>									
ERU	Cogen	250	250	-	175	-	GPSC (100%)	2023	25/2048
<b>Total ERU</b>		<b>250</b>	<b>250</b>	<b>-</b>	<b>175</b>	<b>-</b>			
<b>Total capacity</b>		<b>8,012</b>	<b>5,026</b>	<b>4,338</b>	<b>2,876</b>	<b>7,372</b>			



# 2019 Maintenance schedule: Sriracha and Rayong plants

Site	Description	Duration	2019											
			Q1			Q2			Q3			Q4		
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
CUP-1	GTG11/HRSG-11	8 Days	1 <b>1Y</b> 8											
	GTG16/HRSG16	8 Days	9 <b>1Y</b> 16											
	GTG14/HRSG14	14 Days	17 <b>HGPI</b> 30											
	Aux. Boiler.11	14 Days			15 <b>3Y</b> 28									
	GTG12/HRSG12	11 Days				7 <b>1Y</b> 17								
	GTG11/ HRSG11	24 Days					15/5 <b>MI</b> 7/6							
	GTG13/HRSG13	11 Days							12 <b>1Y</b> 22					
	GTG15/HRSG15	14 Days										16 <b>HGPI</b> 29		
CUP-2	GTG21/HRSG21	11 Days			9 <b>1Y</b> 19									
	GTG22/HRSG22	11 Days						12 <b>1Y</b> 22						
	Aux. Boiler.21	14 Days						1 <b>3Y</b> 14						
	Steam Turbine.21	-												
CUP-3	Aux. Boiler.31	11 Days							4 <b>1Y</b> 14					
	Aux. Boiler.33	11 Days										14 <b>1Y</b> 24		
	Aux. Boiler.32	11 Days									26/9 <b>1Y</b> 6/10			
	Steam Turbine.31	-											17	25
SRC	GT11/HRSG#1													<b>CI</b>
	GT12/HRSG#2	200 hours (8.33 days)												<b>CI</b>
	Steam Turbine.10													<b>Minor</b>

## 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 2<sup>nd</sup> Major Overhaul for Steam Turbine 23 days  
2MO 2<sup>nd</sup> 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  
**Other**  
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



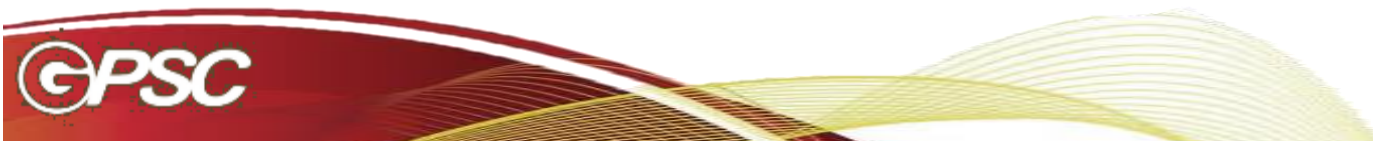
# 2019 Maintenance schedule: IRPC-CP

Plant	Unit	2019			
		Q1 (A)	Q2 (F)	Q3 (F)	Q4 (F)
IRPC-CP	<b><u>Block 1</u></b>				
	CTG 21	4:58 hr.	1	1	1
	HRSG 21	4:58 hr.	1	1	1
	CTG 22	0:59 hr.	1	1	1
	HRSG 22	0:59 hr.	1	1	1
	STG 23	0:59 hr.			
	<b><u>Block 2</u></b>				
	CTG 31	0:44 hr.	1	1	1
	HRSG 31	0:44 hr.	1	1	1
	CTG 32	12:23 hr.	1	6	1
	HRSG 32	12:23 hr.	1	6	1
	STG 33			3	
	Aux. Boiler		7		

## Notes

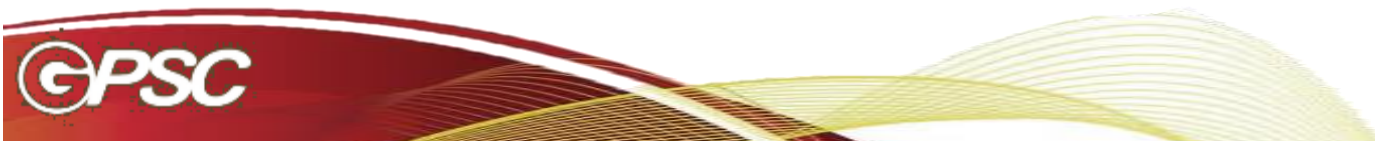
YI Yearly Inspection  
 YI Yearly Inspection Aux Boiler  
 1 = 1 Day (24 hours)  
 3 = 3 Days (72 hours)  
 6 = 6 Days (144 hours)  
 7 = 7 Days (168 hours)

5 days  
 15 days



# 2019 Planned Maintenance Schedule of Main Units from Glow

Main Units	Planned Maintenance Duration (Days)						
	2017	2018	2019	2019 by quarter			
				Q1	Q2	Q3	Q4
GHECO-One	36	-	39	39			
GIPP: Unit 1	-	-	-				
GIPP: Unit 2	-	-	-				
CFB 1	38	27	5		5		
CFB 2	27	5	21		21		
CFB 3	7	26	45	5			40
Phase 5	31	5	23				23



## Disclaimer

The information contained here is being furnish on a confidential basis for discussion purposes only and only for the use of the recipient, and may be subject to completion or amendment through the delivery of additional documentation. Except as otherwise provided herein, this document does not constitute an offer to sell or purchase any security of engage in any transaction. The information contained herein has been obtained from sources that Global Power Synergy Public Company Limited (“GPSC”) considers to be reliable; however, GPSC makes no representation as to, and accepts no responsibility or liability for, the accuracy or completeness of the information contained herein. Any projections, valuations and statistical analyses contained herein have been provided to assist the recipient in the evaluation of the matters described herein; such projections, valuations and analyses may be based on subjective assessments and assumptions and may utilize one among alternative methodologies that produce differing results; accordingly, such projections, valuations and statistical analyses are not to be viewed as facts and should not be relied upon as an accurate representation of future events. The recipient should make an independent evaluation and judgement with respect to the matters contained herein.

