



GLOBAL POWER SYNERGY PUBLIC
COMPANY LIMITED

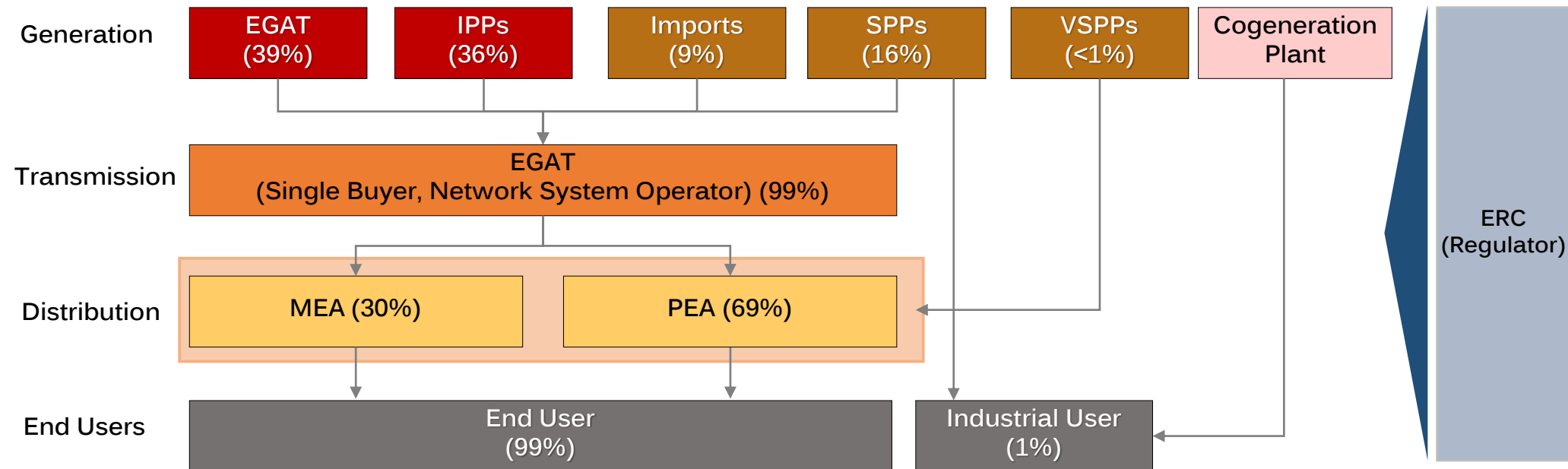
Corporate Presentation

**THE INNOVATIVE POWER
FLAGSHIP OF PTT GROUP**

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

Peak demand 37,312 MW in 2019



Source: EGAT and GPSC

Definition

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

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:

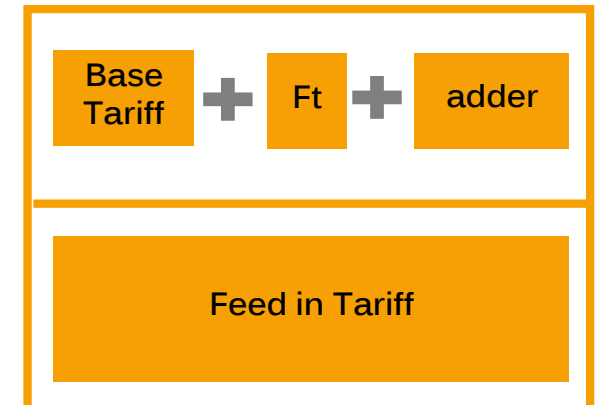
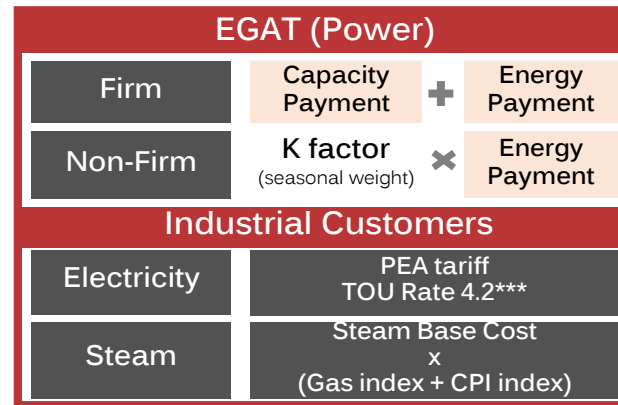
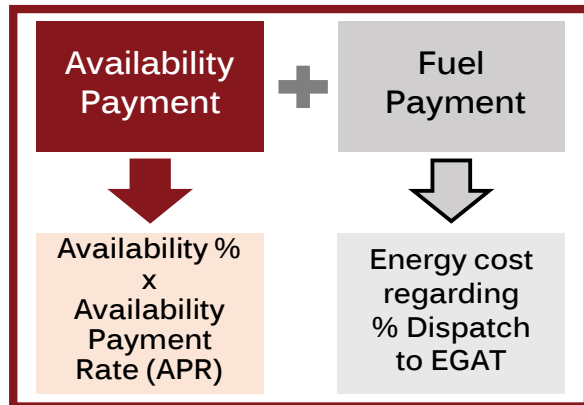
EGAT:

- Firm: Contract term > 5 years ; CP + EP (+ FS)**
 - Non-Firm: Contract term <= 5 Years; Only EP_{NF}
- IUs: Commercial contract as agreed.

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



* Under various type of contracts.

** Fuel Saving (FS)

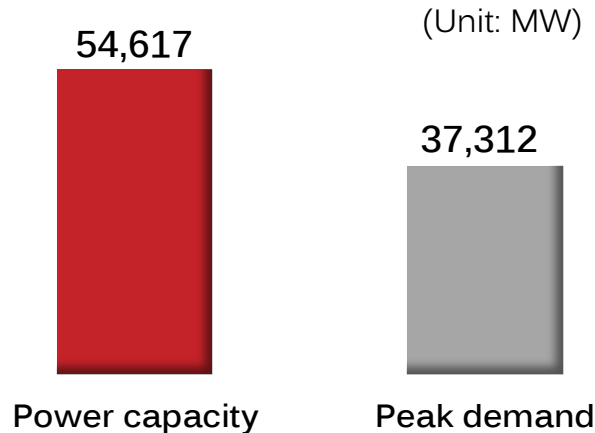
*** Reference rate with conditions;

<https://www.pea.co.th/Documents/Rate2015.pdf>

Summary of PDP 2018

Thailand Power Statistic

as of September 2019



Implication

- Consideration on new demand and reserve capacity by regions will create opportunities for new projects.
- 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.

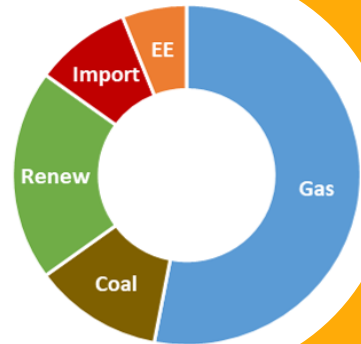
Source: EGAT, EPPO and GPSC



ELECTRIC PLUG

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



Overview and Strategic Direction



Update of projects



Financial Activities and Plans



Financial Performance

Petroleum Authority of Thailand PLC (PTT), GPSC's parent company : the largest energy conglomerate in Thailand



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



Trading

Trading*

100%

Import/Export/Out-out trading of petroleum and
petrochemical products

Downstream



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



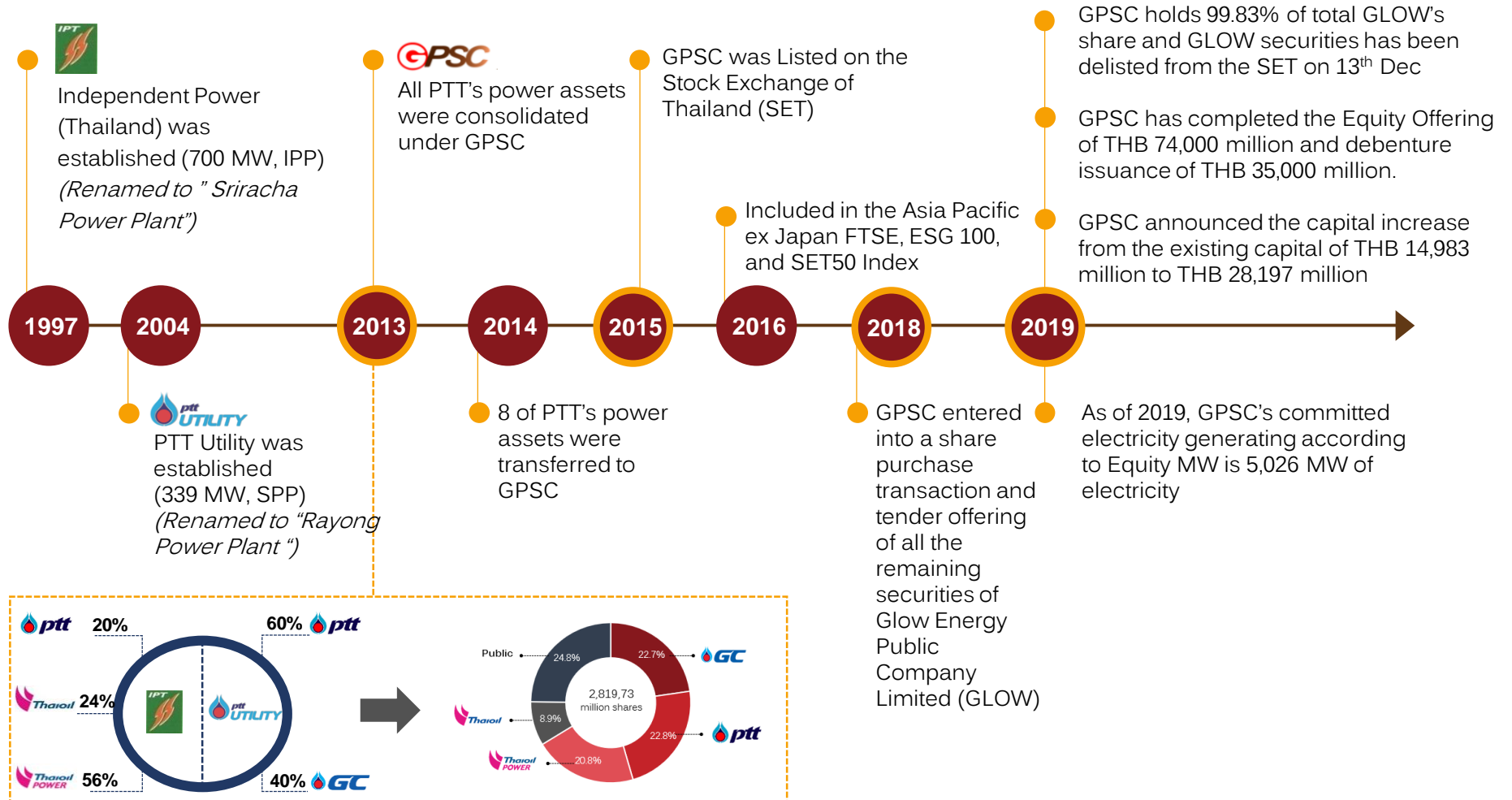
22.81%

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's History & Key Milestones

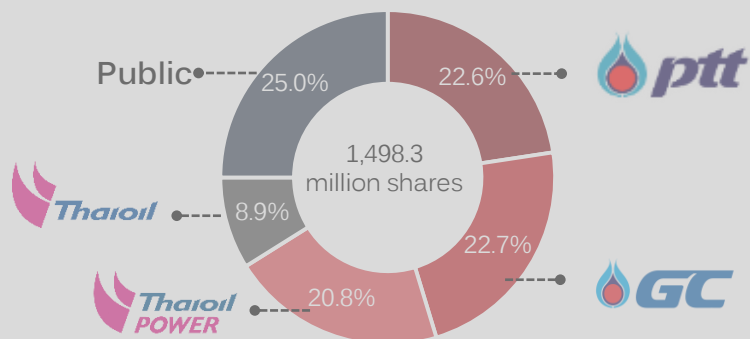
GPSC was founded in 2013 to be "the Power Flagship of PTT Group". Since its inception, GPSC has proved its strong expertise in operating existing power plants, and prudently investing in the new projects.



GPSC Innovative Power Company at a Glance

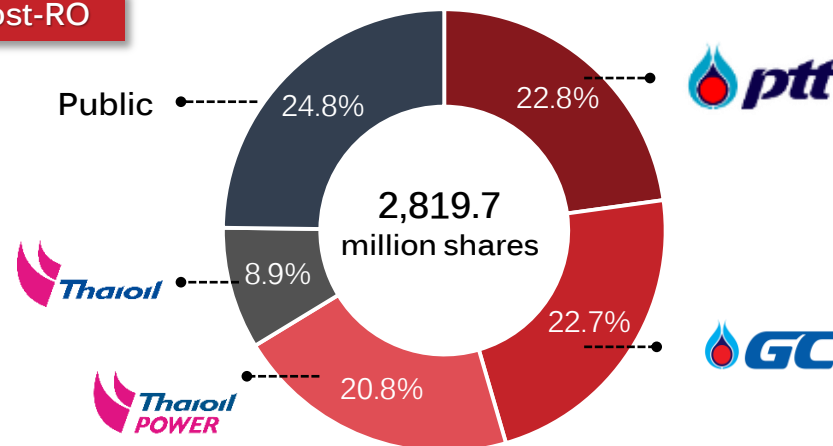
Shareholding Structure

Pre-RO



Thai Oil Power is 74% held by Thai Oil and 26% by PTT

Post-RO



Company Information

| | |
|---------------------------------------|--|
| Head Office | 555/2 Energy Complex Building B, 5th Floor, Vibhvardi-Rangsit Road, Chatuchak, Bangkok, Thailand |
| Business Type | Energy & Utilities |
| Registered Capital (Paid-up) | THB 28,197 million (USD 929.2 million) |
| Market Cap (As of 25 Dec 2019) | THB 238,264.65 million (USD 7,852.6 million) |

TRIS
RATING

AA-

STANDARD
& POOR'S

BBB-

FitchRatings

A+(tha)

Note: Use FX = 30.346 THB/USD ; the w.a. selling rate announced by the BOT on 9 Dec 2019

In 2019, Total Equity Capacity¹

Electricity 5,026 MWe

Steam 2,876 T/H

COMBINED CYCLE / COGENERATION / THERMAL²

4,463 MW
2,876 T/H
15,400 RT
7,372 Cu.m/H

RENEWABLE ENERGY

114 MW

HYDROELECTRIC

449 MW

OTHER BUSINESSES

- 24M
- BSA

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

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



52% Industrial Users



47% EGAT

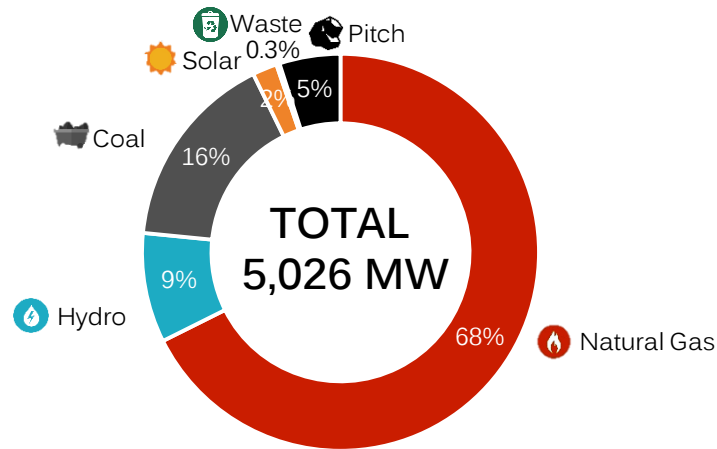


1% Others

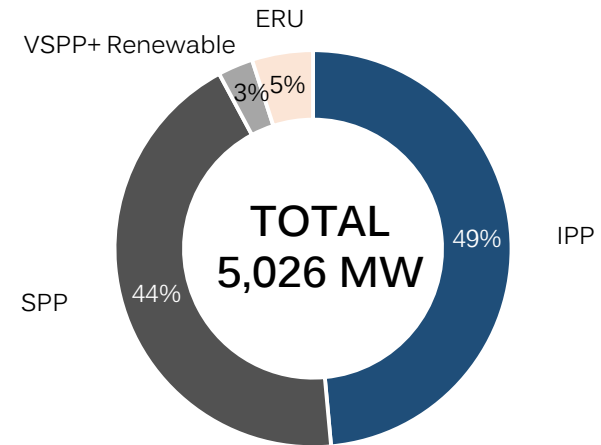
Q3/2019 Revenue by Customers

GPSC's Business Portfolio by Fuel and Plant Type

Equity Capacity by fuel types



Equity Capacity by Plant Type



| Energy Type | Installed MW | | | Equity MW | | |
|--------------|----------------|-------------|--------------|----------------|-------------|--------------|
| | Total capacity | % | In operation | Total capacity | % | In operation |
| Natural gas | 5,047 | 63.00% | 4,987 | 3,399 | 67.64% | 3,381 |
| Hydro | 1,502 | 18.75% | 1,502 | 449 | 8.94% | 449 |
| Coal | 1,045 | 13.04% | 1,045 | 814 | 16.20% | 814 |
| Solar | 149 | 1.86% | 109 | 101 | 2.00% | 61 |
| Waste | 18 | 0.23% | 9 | 13 | 0.25% | 3 |
| Pitch | 250 | 3.12% | - | 250 | 4.97% | - |
| Total | 8,011 | 100% | 7,652 | 5,026 | 100% | 4,708 |

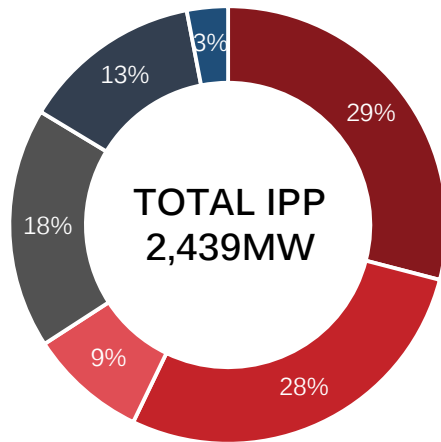
| Energy Type | Installed MW | | | Equity MW | | |
|----------------|----------------|-------------|--------------|----------------|-------------|--------------|
| | Total capacity | % | In operation | Total capacity | % | In operation |
| IPP | 4,910 | 61.29% | 4,910 | 2,440 | 48.54% | 2,440 |
| SPP | 2,614 | 32.63% | 2,554 | 2,192 | 43.61% | 2,174 |
| VSP+ Renewable | 237 | 2.96% | 188 | 144 | 2.87% | 94 |
| ERU | 250 | 3.12% | - | 250 | 4.97% | - |
| Total | 8,011 | 100% | 7,652 | 5,026 | 100% | 4,708 |

Note: Equity capacity includes 100% stake in GLOW, GRP and ERU
GPSC Portfolio as of end-2019

GPSC's Business Portfolio by Plant Type

IPP

(49%)



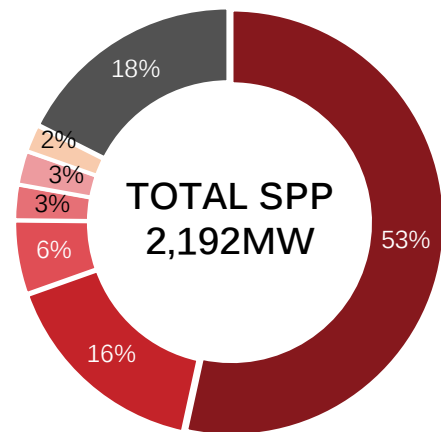
| | | |
|--------------------------|--|-------|
| Natural gas | | |
| Sriracha Power Plant | | 700MW |
| GLOW IPP | | 677MW |
| Ratchaburi Power (RPCL) | | 210MW |

| | | |
|-------------|--|-------|
| Coal | | |
| GHECO-ONE | | 429MW |

| | | |
|-----------------------|--|-------|
| Hydro | | |
| Xayaburi Power (XPCL) | | 321MW |
| Houay Ho | | 102MW |

SPP

(43%)



| | | |
|--|--|---------|
| 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 |

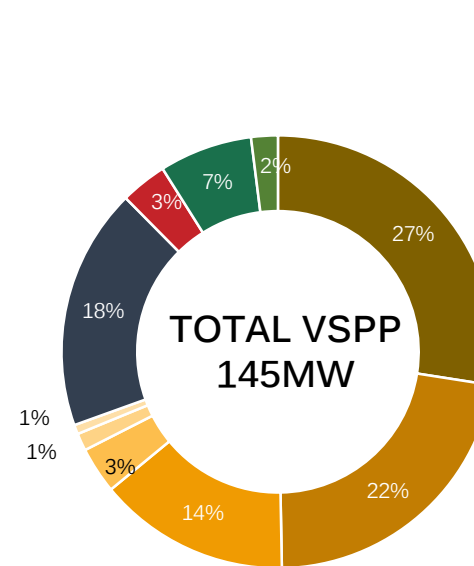
| | | |
|--------------------|--|-------|
| Coal | | |
| Glow Co-Generation | | 385MW |

GPSC Associates and Joint Ventures

Note: Equity capacity includes 100% stake in GLOW, GRP and ERU
GPSC Portfolio as of end-2019

VSPP and Renewable

(3%)



| | | |
|--|--|--------|
| Solar | | |
| Global Renewable Power (GRP) | | 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 |

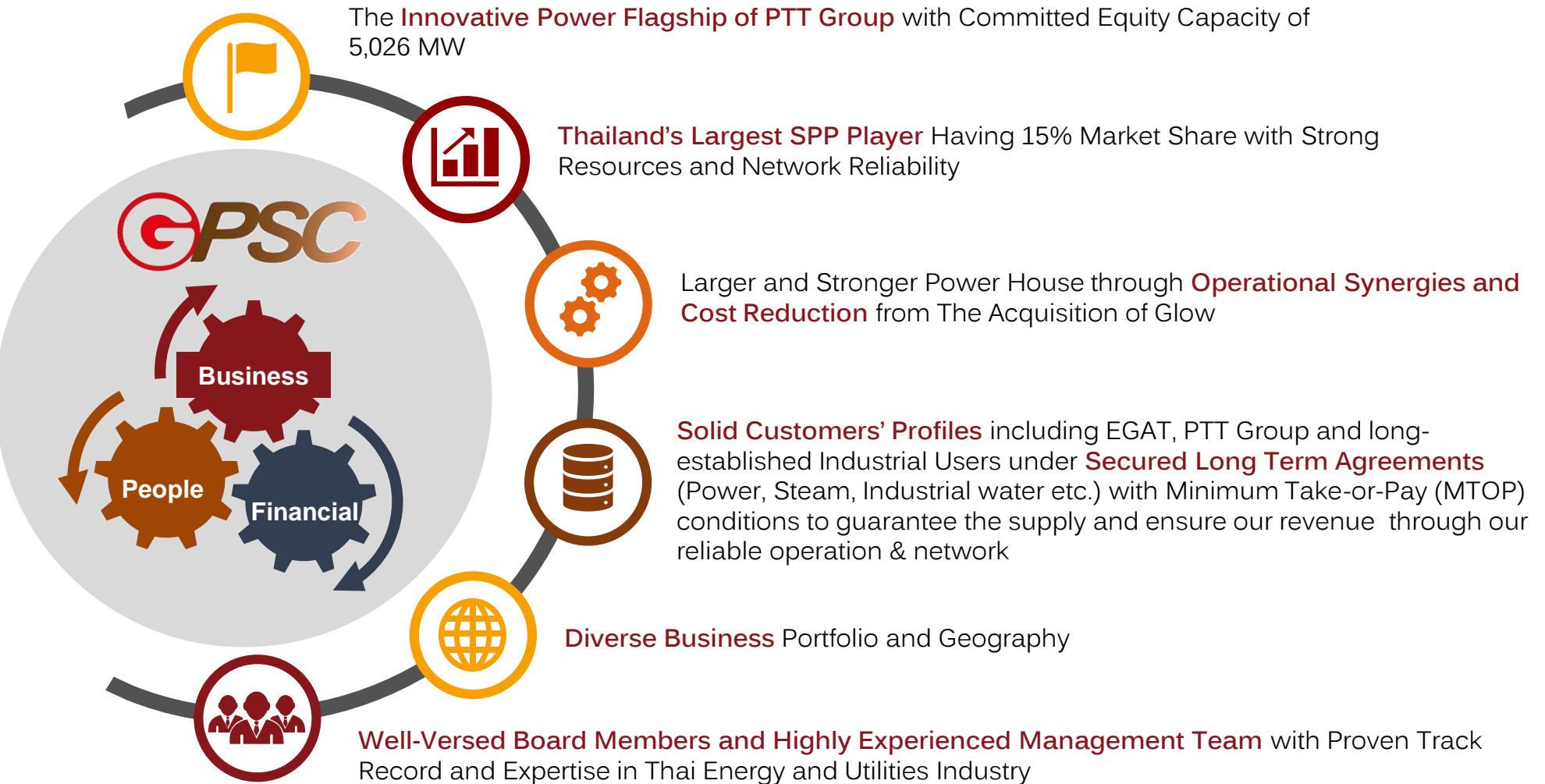
ERU

(5%)

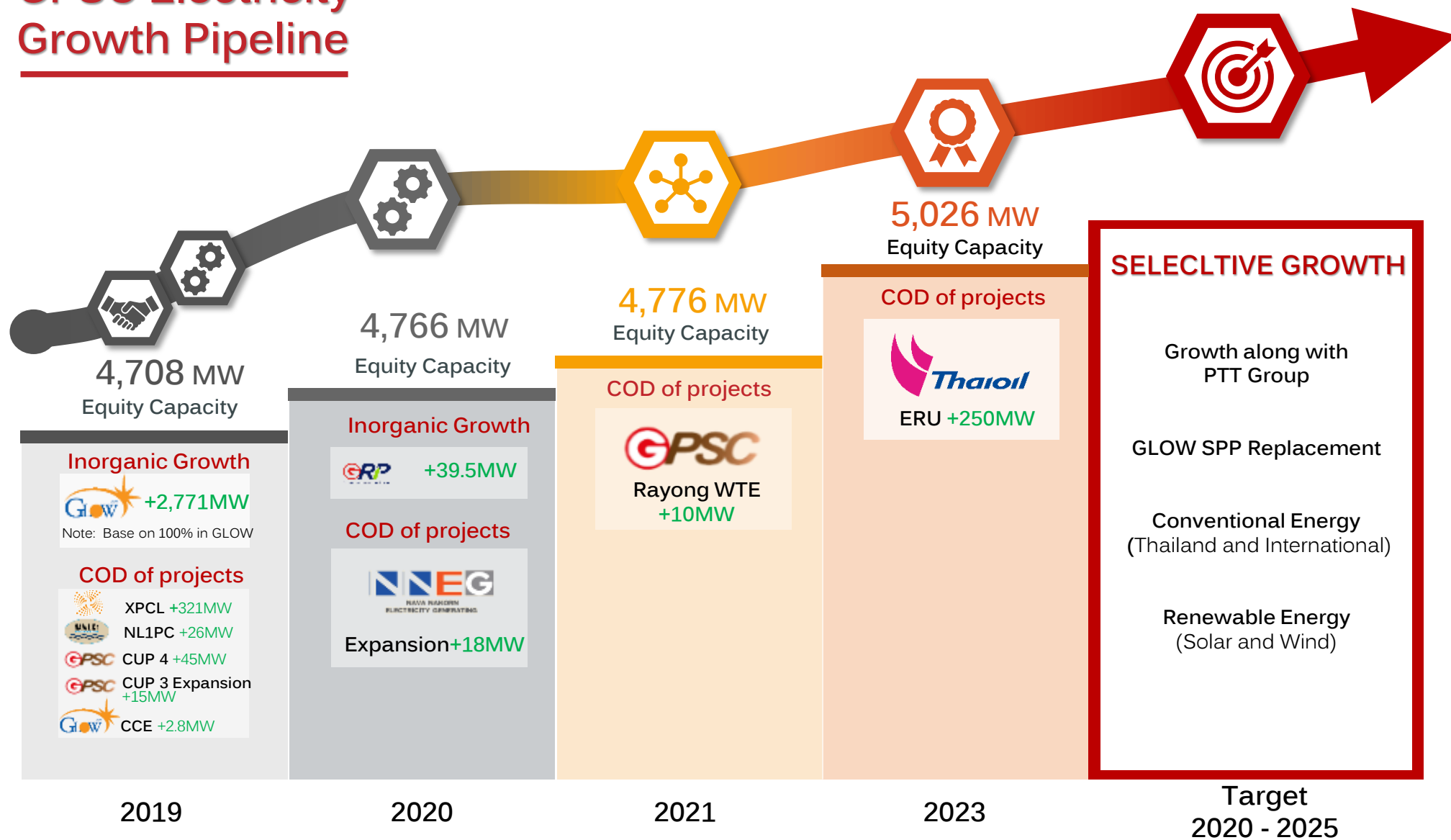


| | | |
|--------------|--|-------|
| Pitch | | |
| Thaioil | | 250MW |

Investment Highlights



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**

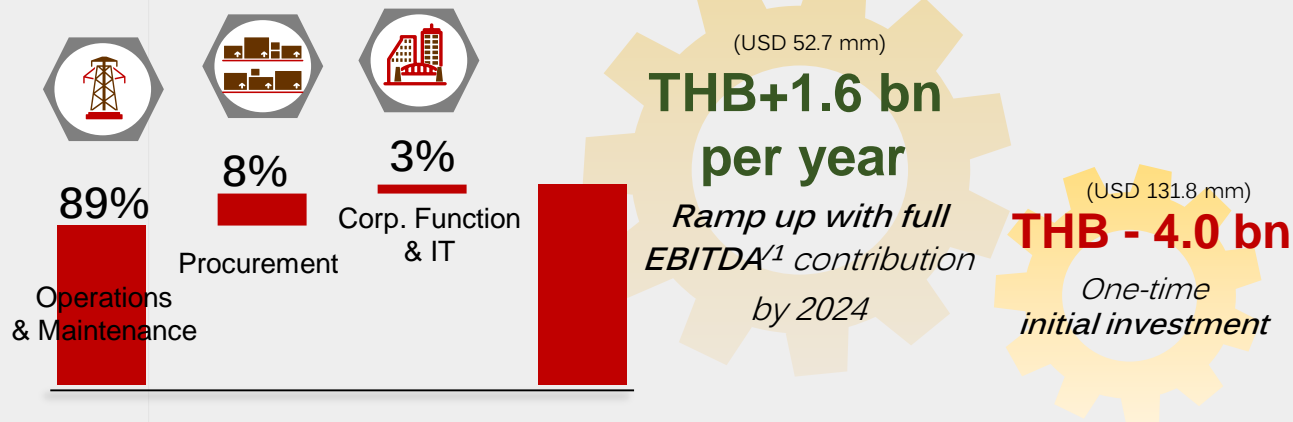
Synergy and Integration Implementation



Working as
one team to
deliver synergy



Recurring EBITDA synergy value based on current portfolio



Synergy Capture



Operation Excellence
& Asset Optimization



Corporate & Business
Infrastructure

2019 endorse selected initiatives to lock-in value



Immediate benefits from Power
and Steam Integration

First e-auction conducted to
secure cheaper coal prices

Many contracts renegotiated
and signed on spend baseline

Etc.

Note: Use FX = 30.346 THB/USD ; the w.a. selling
rate announced by the BOT on 9 Dec 2019

Strategic Direction and Growth Strategy

Selective Growth



Growth along
with PTT Group



Domestic and
International

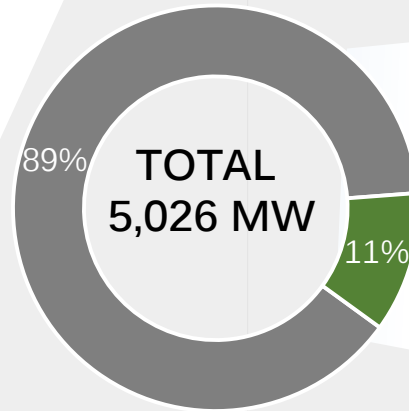


Renewable

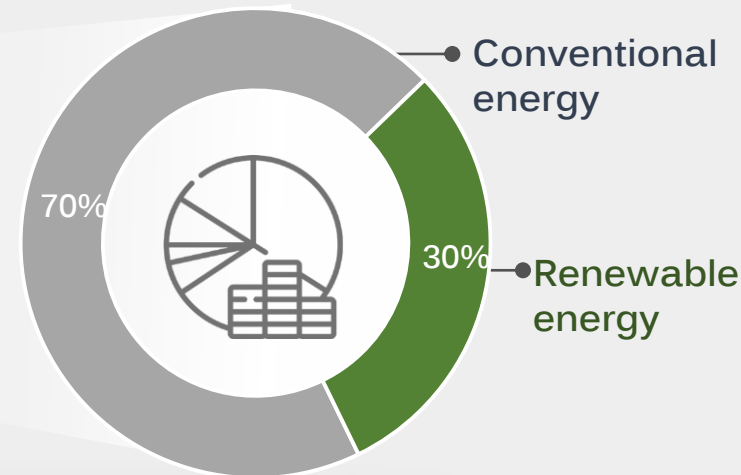
Sustainability Strategy & Commitment



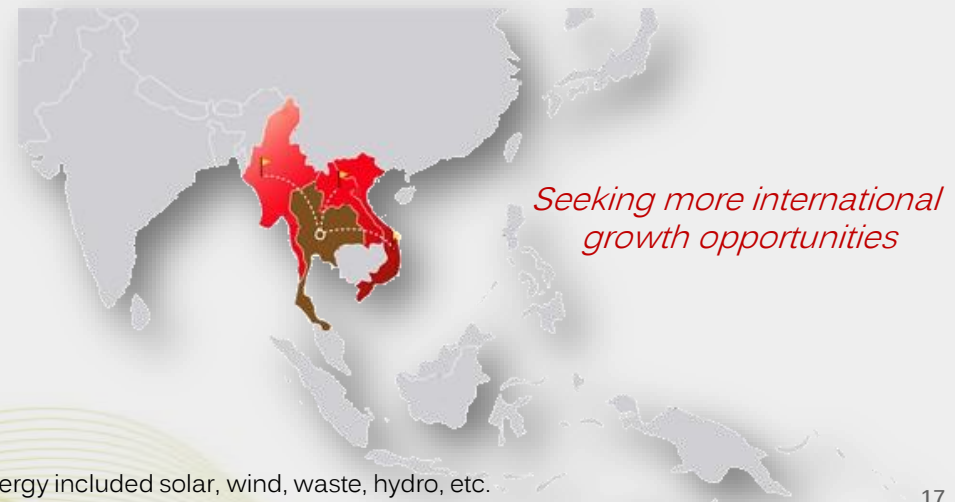
- To be listed in **DJSI by 2022**
- Increasing renewable energy up to **30% of GPSC's installed capacity**



Way forward
to
Sustainable
growth



Committed Equity Capacity
2019-2023



Note: Renewable energy included solar, wind, waste, hydro, etc.

Strategic Direction and Growth Strategy S-curve



GPSC has strengthen its knowledge and capabilities in providing ESS services



GPSC AS A SYSTEM INTEGRATOR



GPSC

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

VISTEC

**Smart Energy Management
(Phase II: Q2/2020)**

- ✓ 1.2 MW Renewable Energy (Solar Roof + Floating)
- ✓ 1.2 MWh ESS for backup & renewable optimization, and zero-Import Building
- ✓ P2P Trading using Block-chain



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

Battery Business

Energy Storage System Integrator

Energy Management Solution Provider



Overview and Strategic Direction



Update of projects



Financial Activities and Plans



Financial Performance

Nam Lik 1 Power Company Limited (NL1PC)



COD: 1-Jul-2019

PROJECT SUMMARY

TYPE



Run-of-River
Hydropower
Plant

ELECTRICITY (MW)

64.7

LOCATION

Northern of
Vientiane, Lao PDR



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

CUSTOMER

GPSC holds

40%

Of total share



Xayaburi Power Company Limited (XPCL)



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 holds

25%






Of total share

CENTRAL UTILITY PLANT 4

: CUP4 (THAILAND)




PROJECT SUMMARY



| TYPE | ELECTRICITY (MW) | STEAM (T/h) |
|---|---|-------------|
|  Gas-fired Cogeneration  | 45 | 70 |
| LOCATION | CUSTOMER | |
| Asia Industrial Estate, Rayong |  Industrial users in Asia Industrial Estate and neighboring industrial estate   | |
| GPSC's Operating Asset | | |
| 100% | | |

Chonburi Clean Energy (CCE)



PROJECT SUMMARY

| TYPE | ELECTRICITY (MW) | Industrial Waste (T/day) |
|--|------------------|--------------------------|
|  Waste | 8.6 | 270 |

| LOCATION | CUSTOMER |
|----------|--|
| WHA CIE |   • Provincial Electricity Authority (PEA)  |

GLOW holds

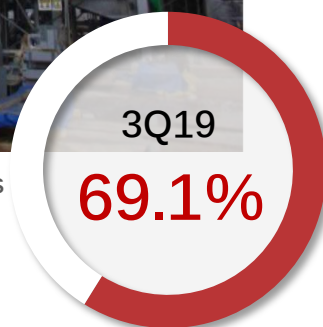
33%

Of total share

Nava Nakorn Electricity Generation (NNEG) Expansion Project



% Progress



PROJECT SUMMARY

| TYPE | ELECTRICITY (MW) | STEAM (T/h) |
|--|---|--------------------------------------|
| Gas-fired Cogeneration | Expansion 60 | 10 |
| | Total 185 | 40 |
| LOCATION | CUSTOMER | |
| Nava Nakorn Industrial Promotion Zone, Pathumthani | • Industrial User | • EGAT (SPP Firm 90 MW for 25 years) |
| GPSC holds | PROJECT UPDATE | |
| 30% Of total share | <ul style="list-style-type: none"> 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

3Q19

4.85%

PROJECT SUMMARY

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

GPSC holds

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.

Energy Recovery Unit Project (ERU)



PROJECT SUMMARY

ERU Project is a thermal power plant project that produces electricity and steam by using Petroleum Pitch obtained from RHCU (CFP Project) to be sent back for use in the CFP project, located in Thai Oil Refinery

TYPE



Pitch

ELECTRICITY (MW)

250

STEAM (T/h)

175

And by products such as Sulfuric acid, Condensate Water

LOCATION

Thai Oil Refinery,
Sri Racha,
Chonburi

CUSTOMER



• Thai Oil Public Company Limited

With 25-year contracts of 200 MW and 175 T/h of Steam from Closing Date

GPSC holds

100%

Of total share in ERU co.

PROJECT UPDATE

- Engineering design work: P&ID Review
- Construction work: Site preparation work, demolishing old equipment and temporary fence
- Purchasing machinery and equipment: Bid Evaluation / PO / P & ID
- Project progress as planned

Project timeline

ERU Approval
(1-Apr-19)

SCOD
Q3'23



Project Construction Period



2019

2020

2021

2022

2023

Milestone Payment

2%

8%

4%

6%

80%

Initial Payment 20%
of Initial Purchase Price USD 138 mm

Final Purchase Price
< USD 757 mm



Overview and Strategic Direction



Update of projects



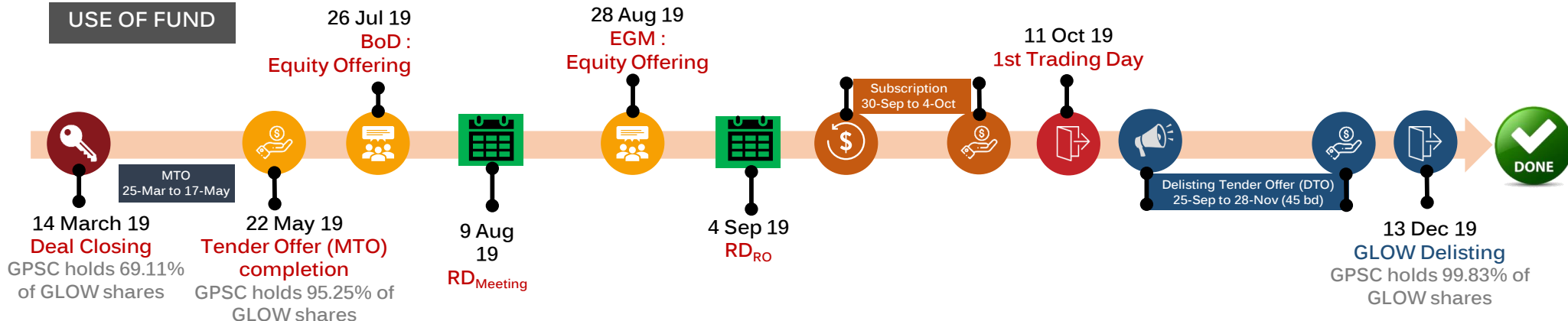
Financial Activities and Plans



Financial Performance

2019 Key activities highlight

USE OF FUND



SOURCE OF FUND AND DELEVERAGING PLAN FOR FUTURE GROWTH

THB 134.5 Bn (USD 4.4 Bn)

Loan from
PTT and GC
35 Bn

Bridge loan
from
Financial
Institutions
99.5 Bn

GPSC bridging loan

Net D/E: 3.76X

THB 134.5 Bn

Equity
74 Bn

Debenture
35 Bn

Additional
debts

Deleveraging plan

Target Net D/E: 1X

📌 Achieve as required

🕒 Completion in Oct-2019

🔄 Optimize Free-float

🕒 Completion in Nov-2019

🕒 Will be completed by Q1/2020

GPSC's Prudent Financial Policy

- 1 Net Debt to Equity $\leq 1.0x$
- 2 Net Debt to EBITDA $\leq 4.0x$
- 3 Dividend Policy:
Minimum dividend
at the rate of not less than
30 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)



Overview and Strategic Direction



Update of projects



Financial Activities and Plans

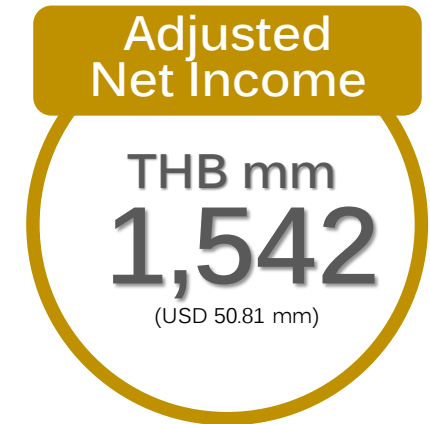


Financial Performance

Key Financial Highlights

Q3/2019

Key financial highlights



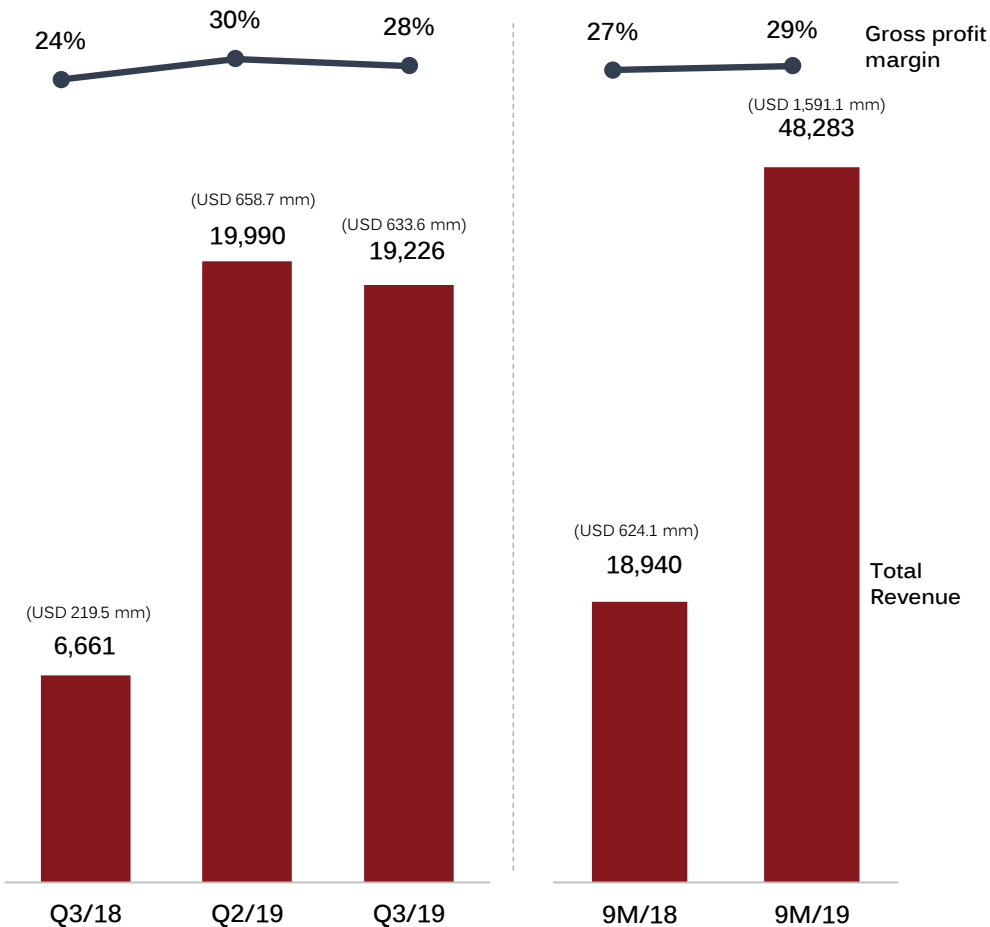
The stable performance is mainly due to:

- ✓ GPSC has completed MTO on May 22, 2019 and can recognize a net profit of 95.25% thereafter.
- ✓ Independent Power Producer's (IPP) performance decreased due to the seasonality trend of the third quarter of every year, resulting in lower selling price and sales volume.
- ✓ The finance expense increased resulting from the burden of interest expense from short-term loans paid for the tender offer process in May 2019.

Q3/2019 Financial Performance Summary (1/2)

Revenue & Gross Profit Margin

(THB Million,%)



Gross profit margin

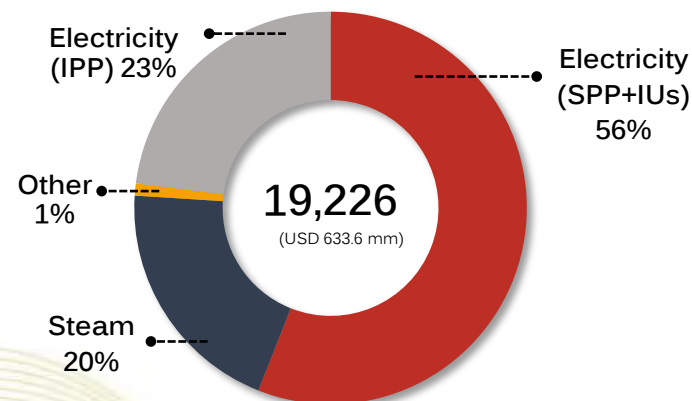
- QoQ**
▼ 9%
YoY
▲ 241%
9M
▲ 175%
- QoQ: Decreased due to:
 - 1) IPP performance decreased due to the seasonality trend of the 3^d quarter
 - 2) Higher electricity and steam sales of GPSC's cogen. plants as well as the lower natural gas cost resulting higher gross profit of these plants
 - YoY and 9M: Increased due to the full quarter contribution of GLOW's performance

Revenue

- QoQ**
▼ 4%
YoY
▲ 189%
9M
▲ 155%
- QoQ: Decreased due to:
 - 1) Lower dispatch of Sriracha and Houay Ho and Lower AP of Gheco-1 effected by weight factor and the appreciation of THB against USD
 - 2) Higher revenue from selling electricity and steam of GLOW's SPP plants
 - YoY and 9M: Increased due to the full quarter contribution of GLOW's performance

Q3/19 Revenue by product

(THB Million, %)

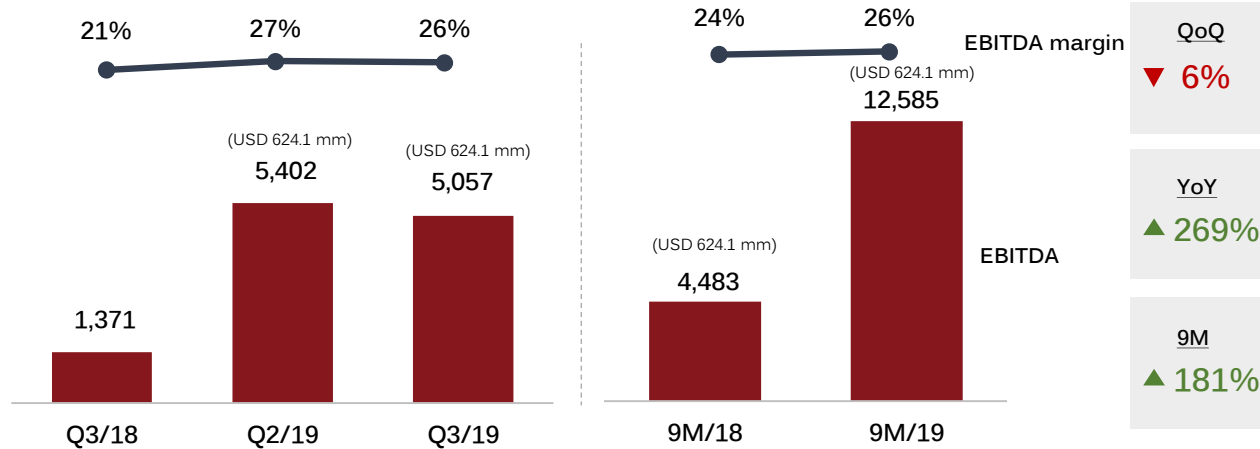


Note: Use FX = 30.346 THB/USD ; the w.a. selling rate announced by the BOT on 9 Dec 2019

Q3/2019 Financial Performance Summary (2/2)

EBITDA and EBITDA Margin

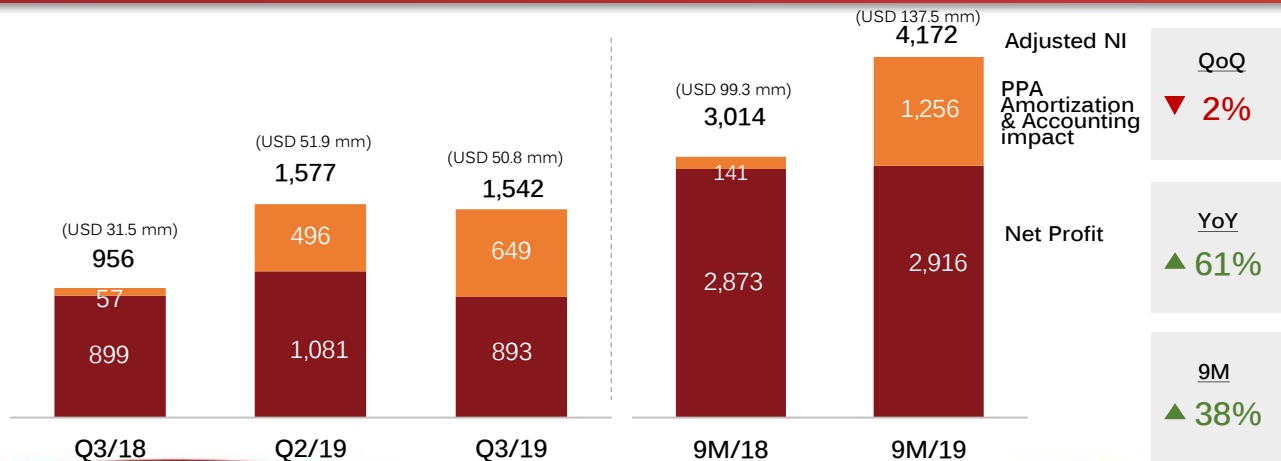
(THB Million, %)



- **QoQ:** Decreased due to:
 - 1) IPP performance decreased due to the seasonality trend of the 3rd quarter
 - 2) Higher electricity and steam sales of GPSC's cogen. plants as well as the lower natural gas cost resulting higher gross profit of these plants
 - 3) VSPP has lower revenue from ISP1 and CHPP seasonally
- **YoY and 9M:** Increased due to the full quarter contribution of GLOW's performance

Net Profit and Adjusted Net Income

(THB Million)



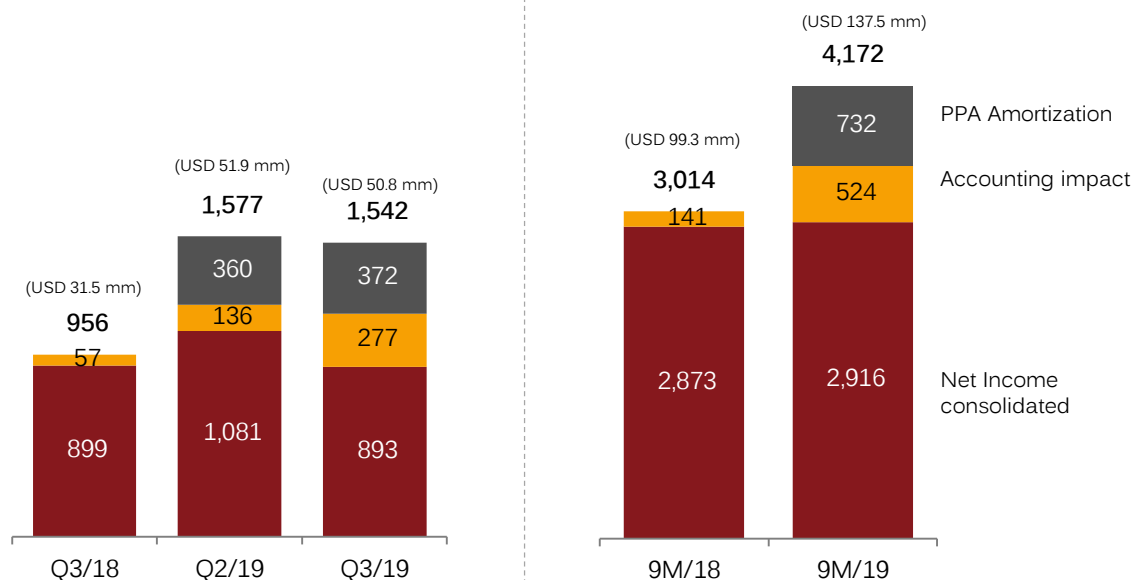
- **QoQ:** Decreased due to:
 - 1) IPP performance decreased due to the seasonality trend of the 3rd quarter. Main reason from reduction of weight factor of Gheco-1, resulting in a decreased in AP and lower dispatch volume of Houay-Ho as EGAT instruction.
 - 2) Higher interest expense from the tender offer of GLOW's shares in May 2019 and increasing in Front End Fee Amortization from the adjustment of ST loan repayment plan from RO proceeds in October 2019
- **YoY and 9M:** Increased due to the full quarter contribution of GLOW's performance

Note: Use FX = 30.346 THB/USD ; the w.a. selling rate announced by the BOT on 9 Dec 2019

Operating results: Adjusted Net Income

Net Profit and Adjusted Net Income

(THB Million)



Adjusted Net Income, the net profit attribute to the company adjusted to *reflect the company's true earnings from its normal operations* which excludes:

- The fair value of intangible asset from the acquisition of GLOW (PPA Amortization)
- The effects of accounting standards including:
 - Revenue from contracts with customers (TFRS 15)
 - Determining whether an arrangement contains a lease (TFRIC 4)
 - Foreign exchange and deferred tax asset effect

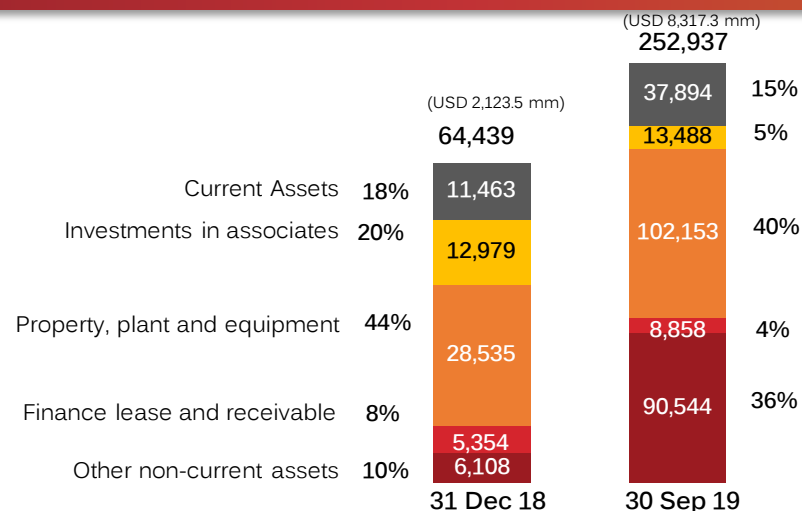
| Adjusted Net Income | Q3/18 | Q2/19 | Q3/19 | Change + / (-) | | 9M/18 | 9M/19 | Change + / (-) |
|--|------------|--------------|--------------|-------------------|------------|--------------|--------------|-------------------|
| (Unit: Million Baht) | | | | QoQ | YoY | | | |
| Net Profit for the Company | 899 | 1,081 | 893 | (17%) | (1%) | 2,873 | 2,916 | 1% |
| Re-Add: Amortization of assets acquired from the acquisition of GLOW | 0 | 360 | 372 | 3% | n/a | 0 | 732 | n/a |
| Re-Add: Accounting impact | 57 | 136 | 277 | 103% | 386% | 141 | 524 | 272% |
| - TFRIC 4 and TFRS 15 effect | 48 | 278 | 327 | 18% | 581% | 128 | 679 | 430% |
| - Foreign exchange and deferred tax asset effect | 9 | (142) | (50) | 65% | (656%) | 13 | (155) | (1,292%) |
| Adjusted Net Income | 956 | 1,577 | 1,542 | (2%) | 61% | 3,014 | 4,172 | 38% |

Note: Use FX = 30,346 THB/USD ; the w.a. selling rate announced by the BOT on 9 Dec 2019

Financial Position of GPSC and Subsidiaries

Total Assets

(THB Million, %)



Assets

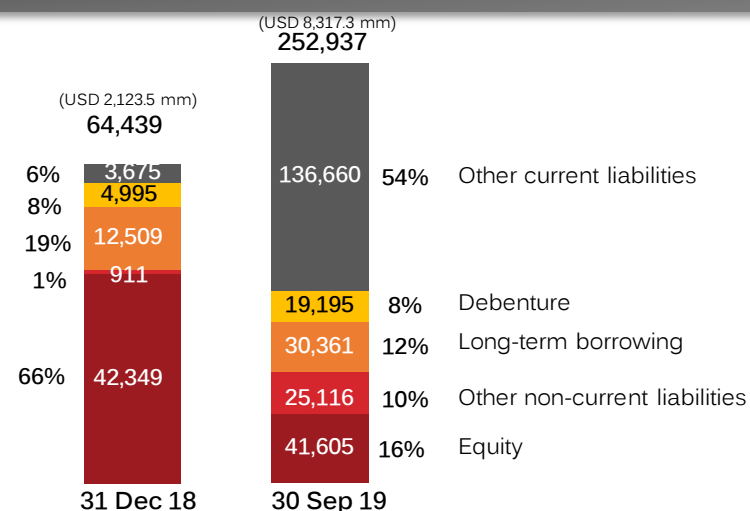
▲ 293%

Total assets increased mainly from:

- **Other non-current assets** increased by Baht 84,436 million mainly due to the increase of goodwill from the acquisition of GLOW and the intangible assets for the right in the Power Purchase Agreement from the acquisition of GLOW.
- **Property, plant and equipment** increased by Baht 73,618 million mainly due to the increase of book value in property, plant and equipment of GLOW and recording the fair value of property, plant and equipment from the purchase of GLOW.
- **Finance lease and receivable net:** increased by Baht 3,504 million in which GLOW IPP financial lease and receivable, and the recording the fair value of financial lease from the acquisition of GLOW.

Total Liabilities & Shareholders Equity

(THB Million, %)



Liabilities

▲ 857%

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 GLOW's other non-current liabilities and deferred tax liabilities from recording the fair value of net asset from the acquisition of GLOW.
- **Long-term borrowing and debentures** increased from GLOW's long-term borrowing and debenture.

Equity

▼ 36%

Total Equity decreased mainly from:

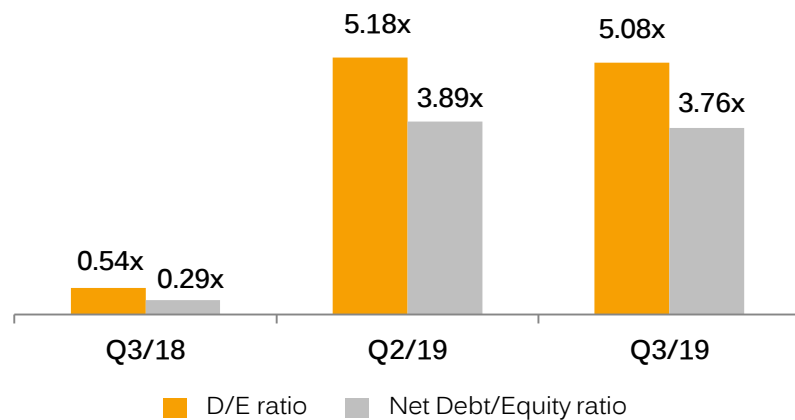
- The change in non-controlling interest and the difference from the change of investment proportion in subsidiaries resulted from the tender offer for acquisition of GLOW.
- The increase in retained earnings during the period.

Note: Use FX = 30.346 THB/USD ; the w.a. selling rate announced by the BOT on 9 Dec 2019

Key Financial Ratio

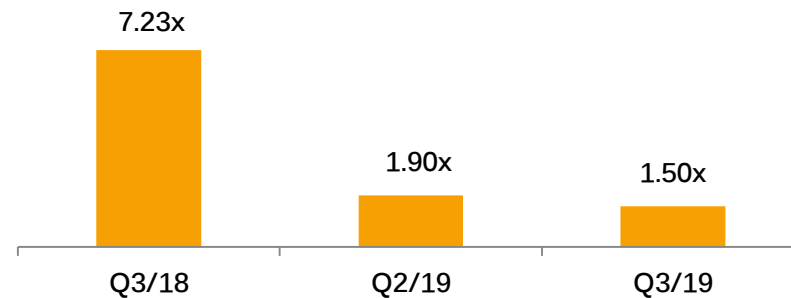
Total D/E and Net Debt/ Equity ratio

(Times)



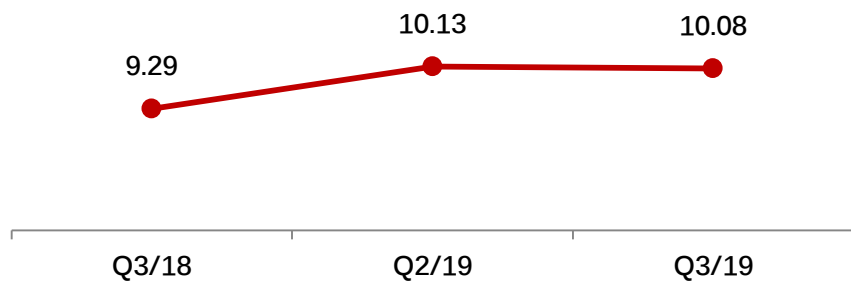
Interest Coverage Ratio

(Times)



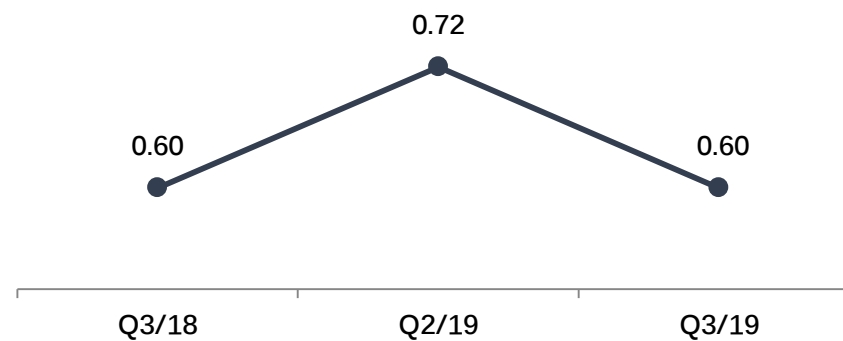
ROE

(%)



Earning per share (EPS)

(THB/share)

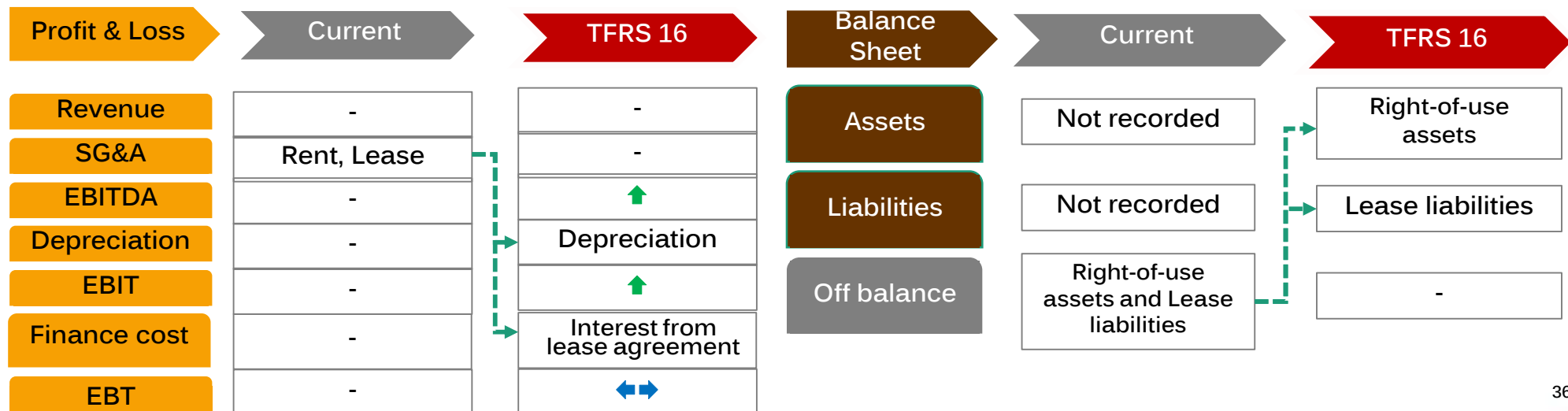


Accounting impacts in 2020

TFRS 9

| Assets | As-Is GPSC Policy | Impacts on TFRS 9 |
|--|---|---|
| 1. Derivatives (e.g. IRS ,CCS , FW) | <ul style="list-style-type: none"> Disclosed in the notes to the financial information | <ul style="list-style-type: none"> Recorded at fair value |
| 2. Other long-term investments (e.g. RPCL, 24M) | <ul style="list-style-type: none"> Recorded at cost Gain or loss on sale of assets are presented in the statement of income | <ul style="list-style-type: none"> Recorded at fair value Gain or loss on sale of assets are not presented in the statement of income |
| 3. Impairment of assets (e.g. receivables, loans) | <ul style="list-style-type: none"> Impairment from historical information | <ul style="list-style-type: none"> Consider the future credit risk of the debtor which may cause impairment faster |

TFRS 16 (Accounting for lessees)



Outlook 2020

Economic Outlook

- Several ongoing global challenges will weigh on global and Thailand's economic slow down.
- To be seen whether the government will launch additional fiscal measures e.g. EEC to boost the economy next year.

Key assumption

▲ **NG & Coal** : Natural gas and coal are forecasted to slightly decreased due to the supply that remains high

■ **Ft rate** : Ft maintains in Jan-Apr 2020 and assumed to be slightly decreased in line with average national fuel prices

Performance

▲ Performance improvements:

- **CUP-4** (COD on Sep'19) will improve contribution margin
- **Xayaburi**: 25% stakeholder (COD on Oct'19)
- **CCE** (COD on Nov'19)
- **GRP** expected to close all conditions precedent soon.

▲ **Interest cost** continue to reduce from:

- The deleveraging plan has been completed of RO and 1st lot of debenture issuance
- Outstanding debt decreases

▼ **Gheco-1**:

- AP significant drops by 35% will impact to cash received
- Full year impact of the first BOI period end
- Unfavorable FX impact (slightly appreciation THB against USD)

▼ The dispatch of **HHPC** assumes to be lower than 2019

▼ **PPA amortized** cost continued to impact P/L as scheduled amortization profile

Accounting impacts

- **TFRS 9 , TFRS 16** : Accounting impact to the statement of financial position and comprehensive income statement

THANK YOU

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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 | 321 | - | - | GPSC (25%) | 2019 | 29/2048 |
| Total IPP | | 4,910 | 2,439 | 2,439 | - | 80 | | | |
| SPP | | | | | | | | | |
| Glow Energy Phase 1 | SPP | - | - | - | 250 | 1,340 | GLOW (100%) | 1994 | - |
| Glow Energy Phase 2 | SPP | 281 | 281 | 281 | 300 | 1,180 | GLOW (100%) | 1996 | 3 |
| Glow Energy Phase 4 | SPP | 77 | 77 | 77 | 137 | 2,050 | GLOW (100%) | 2005 | 25 |
| Glow Energy Phase 5 | SPP | 328 | 328 | 328 | 160 | - | GLOW (100%) | 2011 | - |
| Glow SPP 2/ GLOW SPP 3 | SPP | 513 | 513 | 513 | 190 | 150 | GLOW (100%) | 1999 | 25 |
| Glow SPP 11 Phase 1 | SPP | 120 | 120 | 120 | - | 360 | GLOW (100%) | 2000 | 25 |
| Glow SPP 11 Phase 3 | SPP | 42 | 42 | 42 | - | - | GLOW (100%) | 2006 | - |
| Glow SPP 11 Phase 2 | SPP | 110 | 110 | 110 | - | 212 | GLOW (100%) | 2012 | 25 |
| 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 |

Note: Equity capacity includes 100% stake in GLOW, GRP and ERU
GPSC Portfolio as of end-2019

Power Plants Portfolio of GPSC

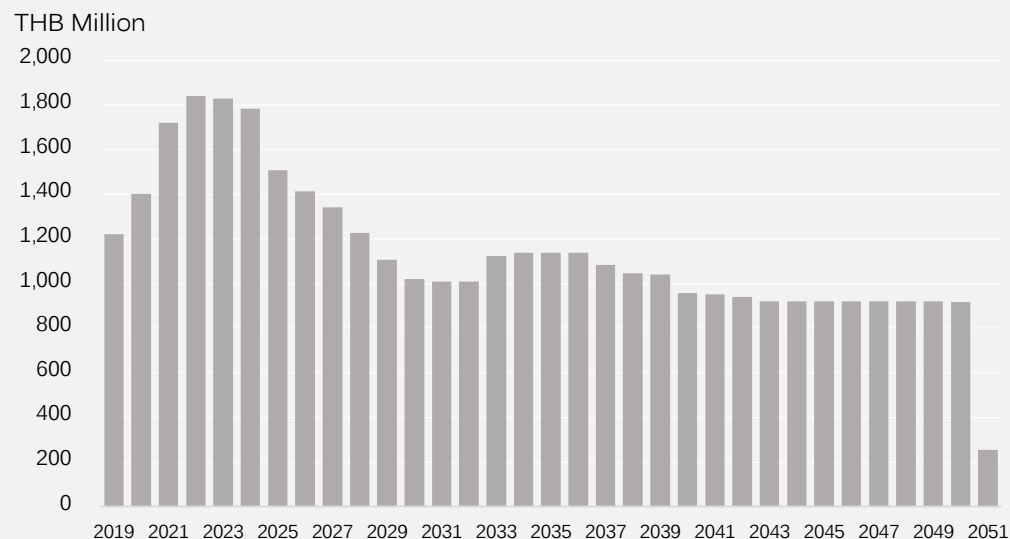
| Name | Type | Total capacity (MW) | Equity Power capacity (MW) | Equity Operating Power capacity (MW) | Steam (T/H) | Industrial water (Cu.m/H) | Direct shareholding (%) | COD | Tenor |
|------------------------------|-------|---------------------|----------------------------|--------------------------------------|--------------|---------------------------|-------------------------|---------|-----------|
| IN OPERATION | | | | | | | | | |
| 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 | 15 | - | - | GPSC (100%) | 2019 | n/a |
| Rayong Expansion (CUP-4) | SPP | 45 | 45 | 45 | 70 | - | GPSC (100%) | 2019 | - |
| Total SPP | | 2,614 | 2,192 | 2,174 | 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 |
| GRP | VSPP | 39.5 | 39.5 | - | - | - | GPSC (100%) | 2014-15 | 2039/2040 |
| NL1PC | Hydro | 65 | 26 | 26 | - | - | GPSC (40%) | 2019 | 27/2044 |
| Chonburi Clean Energy (CCE) | VSPP | 8.6 | 2.87 | 2.87 | - | - | GLOW (33%) | 2019 | 20 |
| Rayong WTE | VSPP | 9.8 | 9.8 | - | - | - | GPSC (100%) | 2021 | 18/2039 |
| Total VSPP and others | | 237 | 145 | 95 | - | - | | | |
| ERU | | | | | | | | | |
| ERU | Cogen | 250 | 250 | - | 175 | - | GPSC (100%) | 2023 | 25/2048 |
| Total ERU | | 250 | 250 | - | 175 | - | | | |
| Total capacity | | 8,011 | 5,026 | 4,708 | 2,876 | 7,372 | | | |

Note: Equity capacity includes 100% stake in GLOW, GRP and ERU
GPSC Portfolio as of end-2019

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 1,238 mm) |
| Non-Controlling interests at 30.89% | | (32,092) | |
| Total Net Asset obtained GLOW at 69.11% | | 56,911 (USD 1,875 mm) | |
| Goodwill | | 36,090 (USD 1,189 mm) | |
| Proportion of acquisition cost 69.11% | | 93,001 (USD 3,064 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 = 30.346 THB/USD ; the w.a. selling rate announced by the BOT on 9 Dec 2019

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