



Q3 2016 Results Presentation Opportunity Day

18th November 2016







Q3 2016 Highlights

rowing *P*rofit with *S*ustainability and *C*ontrol

Revenue and margin growth from SPP

GPSC has been recognizing more revenue and stable growth in gross profit in which SPP plants contribute to higher gross profit compare to IPP. Also, GPSC will gain more revenue and profit margin from the under construction power plants, where 4 projects will start COD within 2017.

THB 724 Million in profit

Net profit of Q3/16 increased by THB 38 million from Q2/16 mainly due to a dividend income from RPCL amounting to THB 240 million. Moreover, net profit of Q3/16 also

Profit

increased by THB 158 million from Q3/15 mainly from the increase in revenue from COD of IRPC-CP and NNEG.

FTSE Asia Pacific ex Japan Index

Sustainability

GPSC has been included in FTSE Asia Pacific ex Japan Index after the inclusion in MSCI Index and SET50. The company also received awards & recognitions regarding corporate governance and disclosure of information including ESG100, Best CFO Awards, Investors' Choice Award and currently was ranked "Excellent" for CGR scoring by Thai Institute of Directors (IOD).

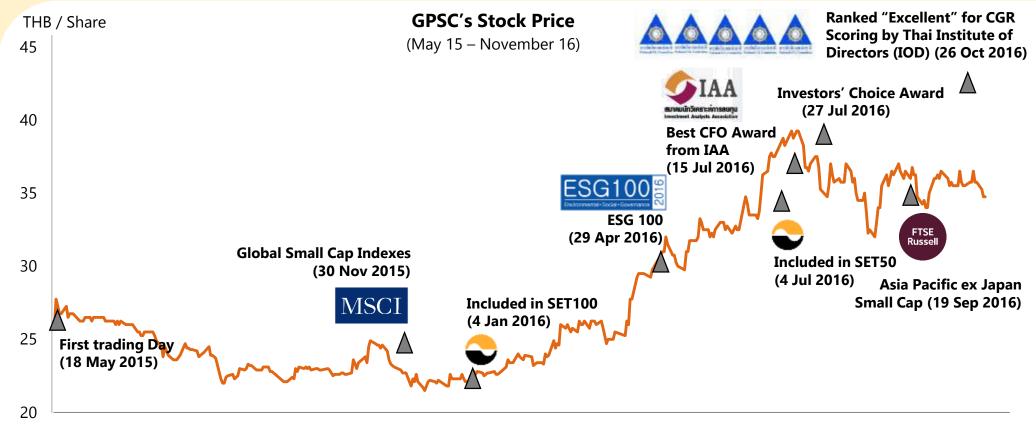
Control

ISP1 NNEG CHPP achieved milestones

ISP1 succeeded the first drawdown of JPY 1,835 million from lender in August 2016. While **NNEG** generated revenue of THB 618 million in first full operating quarter, increased by 247% from Q2/16. **CHPP Solar Cooperatives** had 26% construction progress in this quarter which is expected to COD within 31st December, 2016.



GPSC has been included in FTSE Index in 3Q/16 to reflect stock's performance



May-15 Jun-15 Jul-15 Aug-15 Sep-15 Oct-15 Nov-15 Dec-15 Jan-16 Feb-16 Mar-16 Apr-16 May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16 Nov-16

- IPO in May 2015, GPSC have been growing our business with continuously increased market capitalization.
- Starting from November 2015 where GPSC has been included in the Global standard, namely **MSCI Index** and recently in September 2016 GPSC is just included in **FTSE Index**.
- GPSC was classified to be in SET100 in January 2016 and then in July 2016 qualified as SET50.
- In April 2016, GPSC has been shortlisted **in ESG 100** as one of 100 companies listed in SET with sustainable business by Thaipat Institute and recently in July 2016, GPSC was ranked "Excellent" for CGR Scoring by Thai Institute of Directors (IOD)
- These are the results of confidence on GPSC performance from all stakeholders.







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

PTT-Operated Business





Gas Business Unit



Oil Business Unit



International Trading Business Unit



Infrastructure Business Unit

- The entire chain of natural gas from exploration and production, procurement, transportation to gas separation and marketing of natural gas
- Engaging in marketing and distribution of refined fuels, LPG and lubricating products
- A fully international trading business covering procurement, international trading of crude oil, condensate, petroleum, petrochemical products as well as other specialty substances
- Engaging in maximizing efficiency of infrastructural asset management and promote proficiency in professional project management such as land development businesses, standards and operating systems for sustainability, engineering and maintenance services etc.

Business invested through PTT Group companies



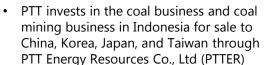


Petroleum exploration and production (E&P)

 PTT conducts the exploration and production business (domestic and international) through PTT Exploration and Production PCL (PTTEP)



Coal Business





Power Business



- PTT engages in the power business through Global Power Synergy PCL (GPSC)
- As PTT's power-business flagship, GPSC produces public utilities (electricity, steam, demineralized water, chilled water) for industrial users and Electricity Generating Authority of Thailand (EGAT)



Petrochemical & Refining Business

- PTT invests through 10 subsidiaries in doing Petrochemical & Refining Business
- The scope is from fuel processing, production and sales of upstream, intermediate, and downstream petrochemicals, together with various polymers, worldwide marketing business, and integrated logistical services

PSC Introduction to GPSC, a "PTT Group's Power Flagship"

GPSC has been founded to be the power flagship of PTT Group. In 2013-2014, PTT Group were restructured and transferred Power Assets to GPSC. The integration results in a total generating capacity of 1,851 MW of electricity; thereafter GPSC has acquired more to have 1,922 MW of committed electricity, 1,582 tons per hour of steam, 2,080 cubic meters per hour of industrial water and 12,000 refrigeration tons of chilled water.

KEY MILESTONES



Established Rayong Power Plant (339 MW, SPP)

Transferred 8 of PTT's power assets to GPSC



Complete COD of total electricity capacity of 1,922

1997

2004

2013

2014

2015

2016

2019



Established Sriracha Power Plant (700 MW, IPP)



Consolidated all PTT's power asset under GPSC





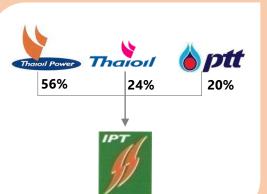
PTT Group's Power Flagship,

Listed on Stock **Exchange of Thailand**

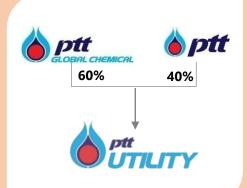


Global Small Cap Indexes

Independent Power (Thailand)



PTT Utility



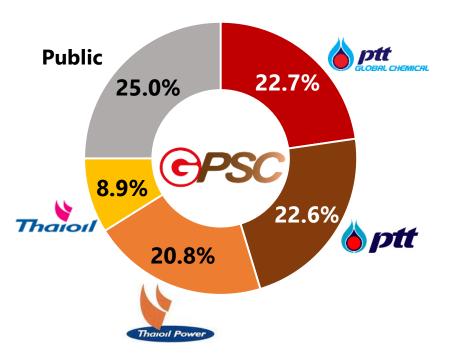
GPSC's Pre-listed Shareholding







GPSC's Shareholding Structure



- Create long term shareholders value with profitable growth.
- <u>Delivery reliable energy</u> through operation excellent to customer.
- Conduct business with <u>social and</u> <u>environmental responsibility</u>
- Seek for innovation in power and utility efficient management through <u>Energy Storage</u> <u>Technology/ Smart Grid/Smart City</u>



GPSC's facilities produce electricity of 1,922 Equity MW

(2,318 Equity MW equivalent; electricity 1,922 Equity MW, steam 1,582 T/H)

BUSINESS PORTFOLIO



Combined Cycle / Cogeneration

- Electricity 1,517 MW
- Steam 1,582 T/H

Capacity

- · Industrial Water 2,080 Cu.m./H
- Chilled Water 12,000 RT



Renewable Energy

• Electricity 58 MW



Hydroelectric

• Electricity 347 MW



Other Businesses

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

ELECTRICITY

1,922 MW (operate 1,376 MW, under constriction 546 MW)

INDUSTRIAL WATER

2,080 Cu.m./H

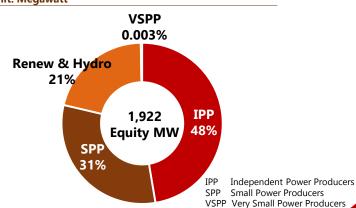
STEAM

1,582 T/H (operate 1,441 T/H)

CHILLED WATER

12,000 RT

ELECTRICITY CAPACITY BREAKDOWN Unit: Megawatt



PSC

Business Service

Alliance

SC GPSC's Business Portfolio: 12 Affiliates in 4 Countries

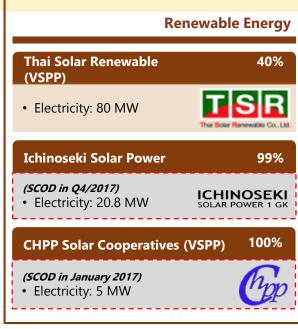


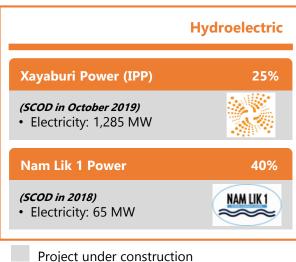
25%

BSA

Combined Cycle / Cogeneration			
Combined Heat and Power Producing (VSPP)	100%		
• Electricity: 5 MW • Chilled water: 12,000 RT	(Ppp		
Nava Nakorn Electricity Generation (SPP Firm)	30%		
• Electricity : 125 MW • Steam: 30 T/h	NAVA NAVORN ELECTRICITY GENERATING		
Bangpa-in Cogeneration (SPP Firm)	25%		
Phase 1Electricity: 117 MWSteam: 20 T/h	BIC		
Phase 2 (SCOD in June 2017)Electricity: 117 MWSteam: 20 T/h			
Ratchaburi Power (IPP)	15%		
• Electricity: 1,400 MW	RPC		







Upcoming COD by 2017



Power Plant Definition and Revenue Structure

IPP

Independent Power Producer (IPP):

- A larger power producer who has electricity capacity more than 90 MW
- IPPs are obliged to sell their entire output to EGAT

SPP

Small Power Producer (SPP):

 A small power producer who sell their electricity no more than or equal to 90 MW to EGAT

SPP Type

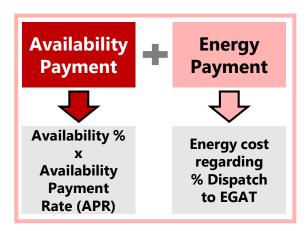
Firm : Contract Term > 5 Years Non-Firm : Contract Term <= 5 Years

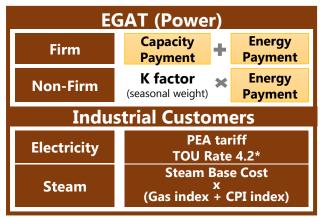
 SPPs can sell their electricity and steam to industrial customers located next to the SPP plant

VSPP

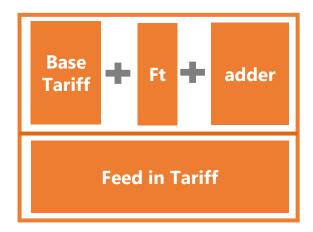
Very Small Power Producer (VSPP):

- A very small generator whose power generating process is generated from renewable energy, specific fuels, and energy with no more than 10 MW of electricity capacity
- VSPPs are able to sell power to the Distribution Utility





*https://www.pea.co.th/Documents/Rate2015.pdf Reference rate with conditions





Pricing structure for each type of GPSC's power plant



Japan : ISP1 20.8 MW ICHINOSEKI SOLAR POWER 1 GK

Lao PDR: NL1PC 65 MW



Pricing Structure

Availability Payment + IPP/Import = **Energy Payment** Investment • Equity Return Fuel Cost

cost Financing Cost Fix O&M

Variable O&M

Vary by type of

SPP (firm) = **Capacity Payment Energy Payment**

- Vary by type of fuel & Contract Period FX adjustment
 - fuel Fuel adjustment
- Cogen (SPP non-firm) = K factor(seasonal weight) x EP

Cogen (Sell to IU) = Electricity

Steam

• Base Tariff (PEA: TOU 4.2) + Ft

Cost Plus Basis

VSPP Renewable = Base tariff + Ft +Adder

VSPP Renewable = FiT

Renewable = FiT

Renewable = Fixed Rate with escalation

EPSC Strategic Framework: 3M

- ✓ GPSC is PTT Group's Power Flagship
- Currently GPSC's portfolio is in Thailand (one of the current largest consumers) and Laos PDR. However, there are also potential projects in Myanmar (the emerging and potential consumers of the region)

- Reliability
- Efficiency
- Cost Conscious

Maximize

Manage

- Project Management
- Portfolio Management

 Balance **Growth** and Return to Investors

Move

Operating Assets

- √ 100% Owner full control
- ✓ NG Conventional power plant
- ✓ Generate revenue & profit

Portfolio Management

- ✓ Active or Passive Control
- ✓ Various types of business
- Operating asset and under construction
- ✓ More important impact in the future

Business Development

- New Project Initiatives
- Battery technology business platform
- ✓ Various types of business
- ✓ Key driver of business growth
- ✓ Expectation from stakeholders

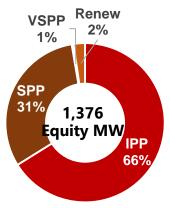


Majority of GPSC's revenue is from electricity, PTT Group is GPSC's major customer

In Operation: 1,736 Equity MW equivalent (Electricity 1,376 Equity MW, Steam 1,441 T/H)

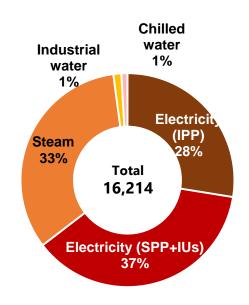
ELECTRICITY CAPACITY BREAKDOWN

Unit:Equity Megawatt

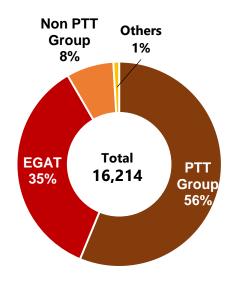


Name	Туре	GPSC's	Total capacity (MW)	Equity capacity (MW)	Steam (T/H)	MW equivalent
IN OPERATION	IN OPERATION					
Sriracha	IPP	100%	700	700	-	700
CUP-1	SPP	100%	226	226	890	448.5
CUP-2	SPP	100%	113	113	170	155.5
CUP-3	SPP	100%	-	0	280	70
CHPP	VSPP	100%	5	5	-	5
IRPC-CP Phase 1	SPP	51%	45	23	87	44.7
Consolidate to Financial Statement				1067	1426.7	1423.7
TSR	Renew	40%	80	32	-	32
NNEG	SPP	30%	125	38	9	40.3
BIC-1	SPP	25%	117	29.25	5	30.5
RPCL	IPP	15%	1,400	210	-	210
Share of Profit / Dividend Income				309	14	312.8
	Total operating			1,376	1,441	1,736.5

9M16 Revenue by product (THB million)

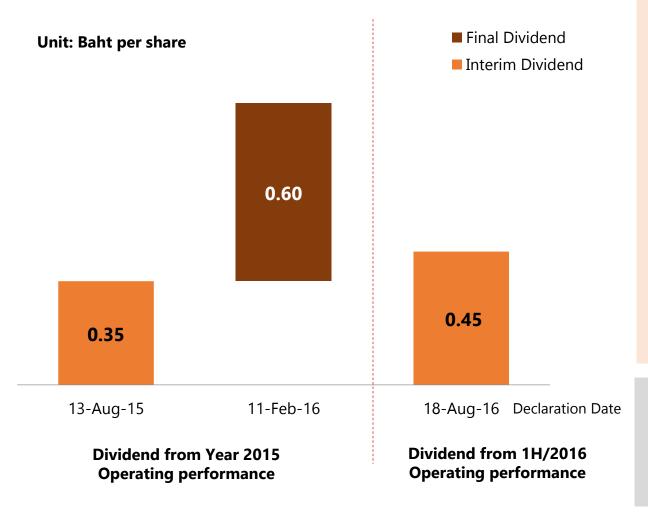


 Electricity and Steam are major source of GPSC's revenue, accounted for 98% of total revenue. 9M16 Revenue by customer (THB million)



 Accounted for more than 50% of total revenue, PTT Group is the largest customer of GPSC in 9M/16.

PSC 2016 Interim dividend payout ratio is 43% of 1H/2016 net income



- On 18 August 2016, BOD approved a resolution for the payment of interim dividend for 1H/2016.
- The dividend per share is 0.45 Baht which is higher than 2015 interim dividend, resulting from the better operating results.
- The Record Date was on 1 September **2016** for the right to receive the dividend.
- The dividend payment date was on 14 September 2016.
- The dividend paid from the tax exemption profit portion wherein individual shareholders shall not include as taxable **income** and not be entitled to a dividend tax credit.
- Dividend Policy : Minimum of 30% of net income according to a financial statement, after deductions of tax, reserve capital requirement (with additional conditions)

CPSC Strategic Framework: 3M

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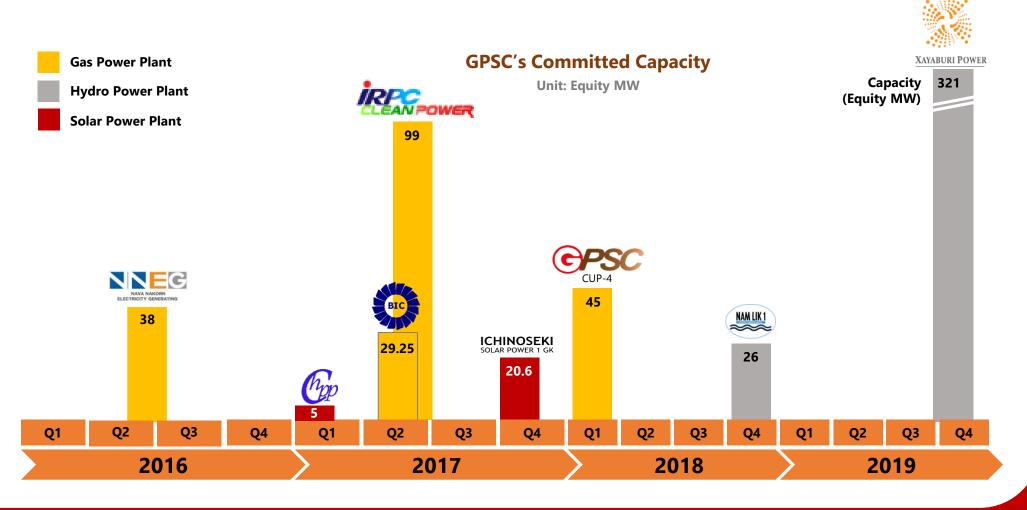
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PSC 7 Committed Projects to operate by 2019

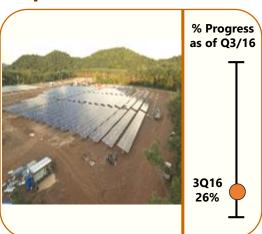
GPSC's Management team ensure efficient project management and high competent staffs, both domestic and international projects in order to meet the construction schedule and COD according to predetermined schedule.



CPSC 4 Projects to COD in 2017

CHPP Solar Cooperatives (100%)

Туре	Solar
Capacity	Electricity: 5 MW
Customer	PEA
SCOD	December, 2016
Total Investment	244 THB million
D/E	3:1





IRPC Clean Power Company Limited POWER (IRPC-CP) Phase 2 (51%)

Туре	SPP
Capacity	• Electricity: 240 MW • Steam: 180-300 T/H
Customer	 Electricity: EGAT 2x90 MW (25 years), IRPC 60 MW (27 years) Steam: IRPC 180- 300 T/H
SCOD	June, 2017
Total Investment	13,600 THB Million
D/E	3:1





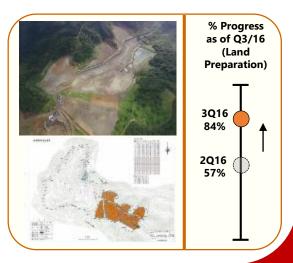
Bangpa-In Cogeneration Company Limited (BIC) Phase 2 (25%)

Туре	SPP
Capacity	• Electricity: 117 MW • Steam: 20 T/h
Customer	Electricity: EGAT 90 MW (25 years), IUs 27 MWSteam: IUs 20 T/h
SCOD	June, 2017
Total Investment	5,340 THB Million
D/E	3:1



ICHINOSEKI SOLAR POWER 1 GK (ISP1) (99%)

Туре	Solar
Capacity	Electricity: 20.8 MW
Customer	Tohoku Electric Power (20 years)
SCOD	Q4 2017
Total Investmen t	~10,000 JPY million
D/E	4:1



CPSC Strategic Framework: 3M

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CPSC Research & Development



24M Technologies, Inc. (24M)

Cambridge, Massachusetts (MA), USA

Business

Lithium-Ion Battery (LFP) technology

Application

Energy Storage System (ESS)

2010	2011	2012	2013	2014	2015	2016

24M was established

Developed 5x thicker electrodes than previously possible Developed end to end cell production Automated line eliminates coating, drying etc.

Invested > \$50 to make 9000th full size cell

Proven key high volume unit operation

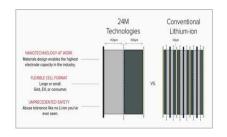
High volume manufacturing production line

Progress update

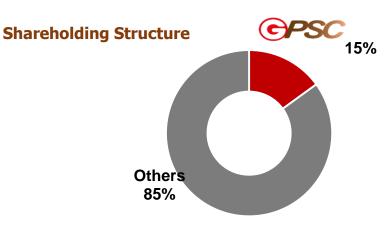
- 24M has signed an MOU with NEC Energy Solutions (NECES) to supply Semisolid Lithium-Ion battery to NECES energy storage system.
- Currently, 24M is working on the **development of High Volume Manufacturing production line.**

Awards & Recognition

- In 2016, 24M has received many awards and recognition from the industry including:
 - 2016 Energy Innovation Pioneers: CERAWEEK, HIS Energy
 - **2016 New Energy Pioneers: Future of Energy Summit**, Bloomberg New Energy
 - Listed in **"50 Smartest Companies 2016**": MIT Technology Review



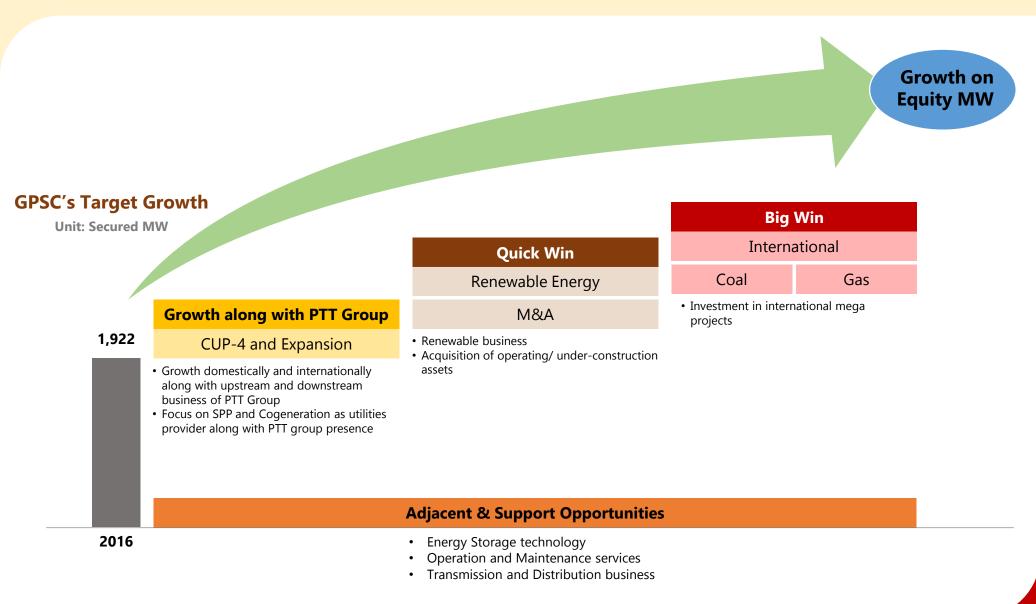




Total Investment of GPSC Portion

~22 USD million

GPSC Growth Strategy



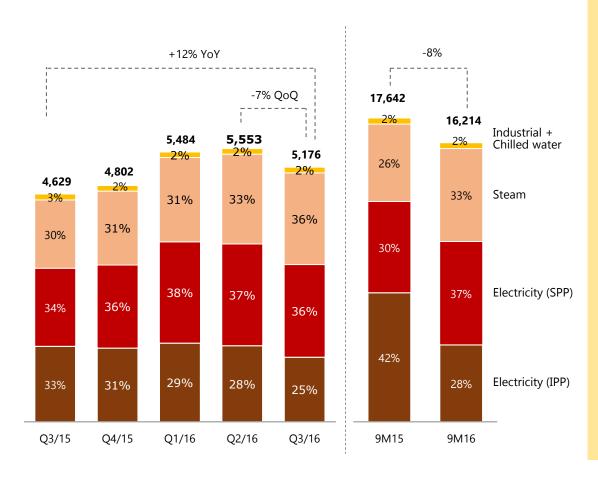






Q3/16 Revenue of THB 5,176 MM, decreased 7% QoQ

Quarterly revenue (THB MM)



Q3/16 VS Q2/16 (QoQ)

- Operating revenue in Q3/16 decreased by THB 377 MM or 7%.
- The decrease was due to the decline in revenue from Energy Payment (EP), from the lower sales volume of Sriracha plant and the lower sales price due to the reduction of Ft.

Q3/16 VS Q3/15 (YoY)

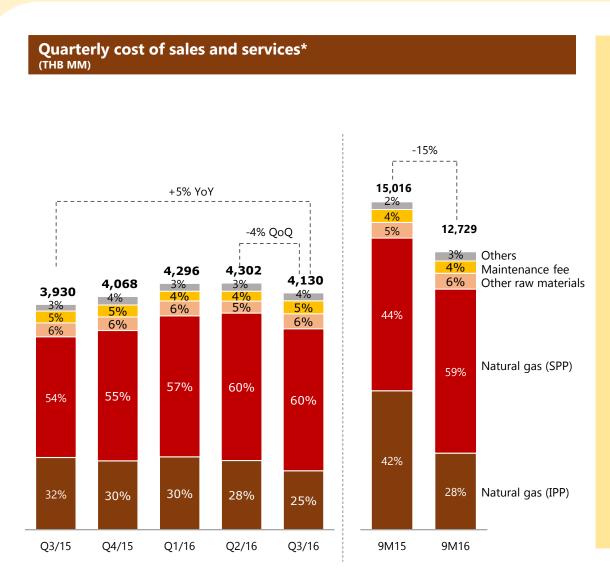
- Operating revenue in Q3/16 increased by THB 547 MM or 12%.
- The increase was due to higher sales volume of Rayong plant both from existing and new customers, COD o IRPC-CP Phase 1.

9M/16 VS 9M/15

Operating revenue in 9M/16 decreased by THB 1,428 MM or 8% from lower sales volume to EGAT of Sriracha plant and the declining in the sales price followed the reduction in gas price.



Decrease in cost of sales and services YoY mainly from lower gas price and plant optimization



Q3/16 VS Q2/16 (QoQ)

- Cost of sales and services in Q3/16 was decreased by THB 172 MM or 4%.
- The decreased was caused by a drop in cost of raw materials from lower dispatch to EGAT.

Q3/16 VS Q3/15 (YoY)

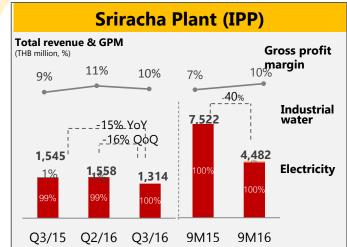
- When compared with Q3/15, cost of sales and services increased by THB 200 MM or 5%.
- The increase was from higher usage of natural gas (SPP) which inline with sales volume

9M/16 VS 9M/15

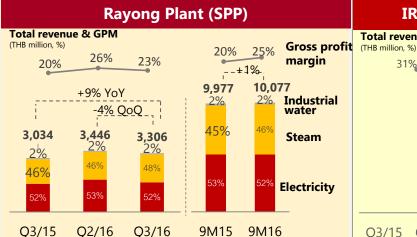
- Cost of sales and services in 9M/16 significantly decreased by THB 2,287 MM or 15%.
- The decrease in natural gas price, following the declining of the oil price, is the main factor in the reduction reinforced with the reduces in the dispatch volume.



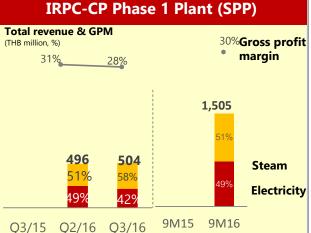
Q3/16 Revenue and GPM by Plant



- QoQ: Total revenue was lower by 16% mainly from the decline in revenue of Energy Payment (EP) of natural gas cost which was resulted from dispatched instruction and lower weight factor from the decrease in demand of electricity consumption during rainy season.
- **YoY**: Total revenue decreased by 15%, mainly from electricity submitted volume to EGAT.
- **9M**: Total revenue dropped by 40% because of the reductions in electricity sales volume submitted to EGAT by 40% and sales price by 5%.



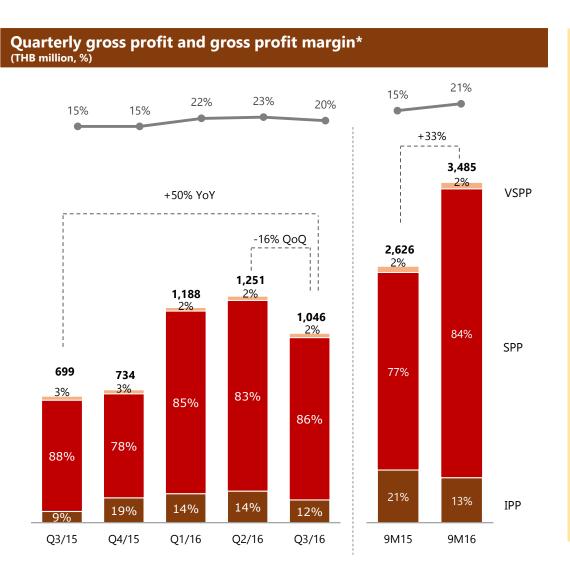
- QoQ: Total revenue was lower by 4% due to the drops in lower sales volume to EGAT under SPP Non-Firm type with the lower kfactor (Seasonal weight)
- YoY: Total revenue slightly increased by 9%, mainly from rises in sales volumes of steam and electricity caused by the increasing of industrial customer demand.
- • 9M: Total revenue slightly increased by 1% mainly from the increase in Industrial Users, with another factor that in August-September 2015 one of our major customer had a maintenance shutdown.



QoQ: Total revenue increased by 2% mainly from the increase in sales volume of steam.



Gross profit improved 50% YoY, GPM improved to 21% from plant optimization and higher SPP's sales volume



Q3/16 VS Q2/16 (QoQ)

- Gross profit in Q3/16 was THB 1,046 million decreased by THB 205 million or 16%.
- This mainly due to lower sales price due to the reduction of Ft, K-factor and Weight Factor.

Q3/16 VS Q3/15 (YoY)

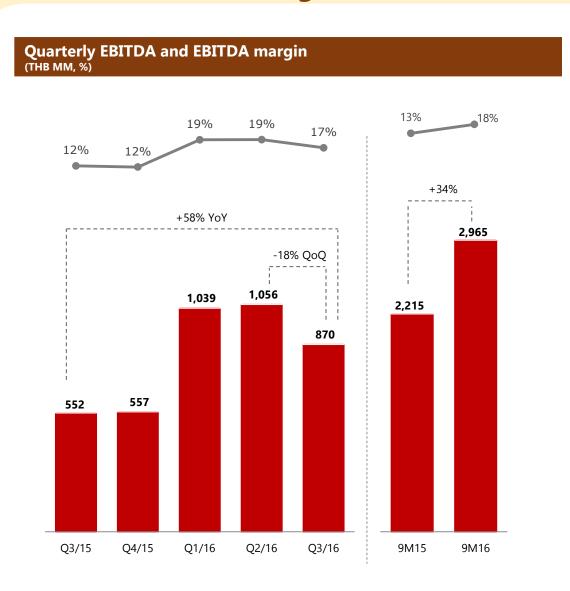
- Compare with Q3/15, gross profit increased by THB 347 million or 50%.
- The increase was from increase in revenue from sales of electricity and steam from the COD of IRPC-CP.

9M16 VS 9M15

- Gross profit in 9M16 significantly increased by THB 859 million or 33%.
- Mainly due to the increase in sales volumes from SPP plants together with lower natural gas price and maintenance cost.



Q3/16 EBITDA strongly increased by 58% YoY with better EBITDA margin of 17%



Q3/16 VS Q2/16 (QoQ)

EBITDA in Q3/16 was THB 870 MM decreased by THB 186 MM or 18% mainly due to the decrease in lower selling price thanks to lower Ft, k-factor and weight factor.

Q3/16 VS Q3/15 (YoY)

- Compare with Q3/15, EBITDA showed a strongly increase by THB 318 MM or 58%.
- The favorable outcome was mainly caused by the increase in sale volume from both existing and new power plants together with the drop in production costs resulting from the plant optimization.

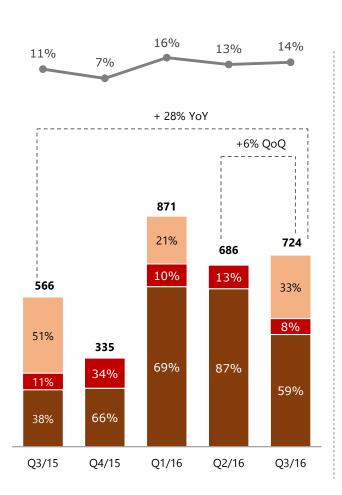
9M/16 VS 9M/15

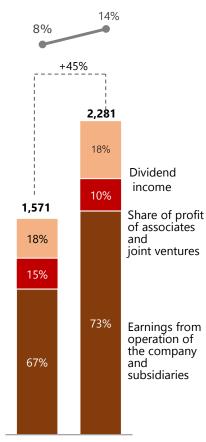
- EBITDA in 9M/16 significantly increased by THB 750 MM or 34%.
- The increase was mainly due to the Commercial Operation Date (COD) of IRPC Clean Power Company Limited (IRPC-CP) in November 2015, increase in sale volume from both existing and new customer together with the decrease in production costs resulting from the plant optimization.



Net profit for 9M/16 for the company increased 45% from better operating results and dividend income

Quarterly net profit and net profit margin (THB MM, %)





Q3/16 VS Q2/16 (QoQ)

- Net profit in Q3/16 was THB 724 million increased by THB38 million or 6%.
- The increase due to the dividend income of THB 240 MM from affiliate

Q3/16 VS Q3/15 (YoY)

- Net profit increase by 158 million or 28%
- The increase due to higher demand of electricity and steam volume from existing and new customers of SPP (Rayong Power Plant) and lower natural gas cost with better cost management.

9M/16 VS 9M/15

- Net Profit in 9M/16 significant increased by
- Increase in earnings from production capacity expansion and cost optimization of SPP Rayong Plant and IRPC Clean Power Company Limited (IRPC-CP) Phase 1 which had COD in November 2015
- <u>Dividend income</u> increase from affiliate for THB 420 million during 9M/16

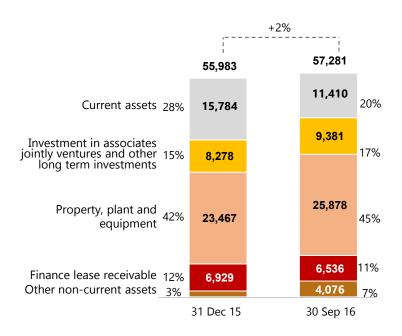
9M16

9M15



Summary of financial position of GPSC and its subsidiaries

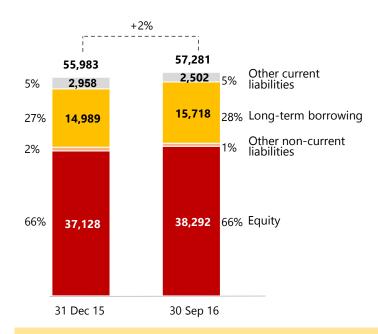
Total Assets (THB MM)



Total assets were THB 57,281 MM, increased by 2% from THB 55,983 MM.

- Increases in investments from the better operating result of the associates and JV
- Increase in assets under constructions of IRPC-CP Phase 2.

Total Liabilities & Shareholders equity (THB MM)

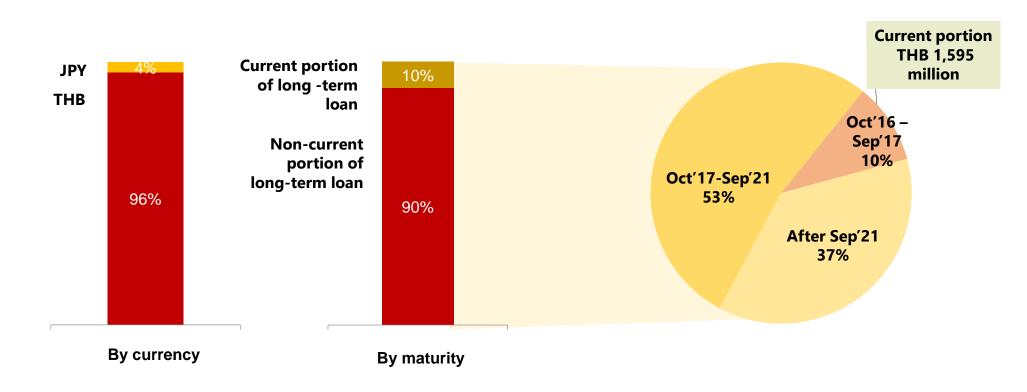


- Total liabilities were THB 18,989 million increased by THB 134 million or 1% mainly from the additional drawdowns of long-term loans for power plant constructions.
- Equity were THB 38,292 million increased by THB 1,164 million or 3% mainly from an increase in the unappropriated retained earnings.



SC Well-managed debt profile and continuous deleveraging

Total interest-bearing debt: THB 15,718 million

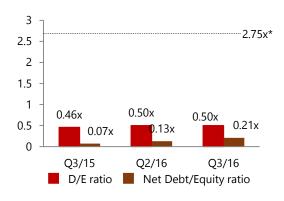


- o The debt balance of the company and its subsidiaries as at 30 September 2016 was in Thai Baht and Japanese Yen currency.
- o All interest-bearing debt is long-term debt, which includes 10% current portion.
- o Non-current portion of long-term debt was THB 14,123 million.
- o 53% of total long-term debt will be repaid between October 2017 to September 2021.



Key financial ratios support GPSC's strong financial position

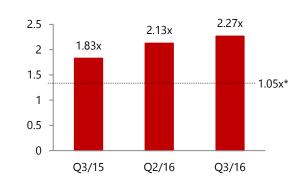
Total D/E and Net Debt/ Equity ratio (Times)



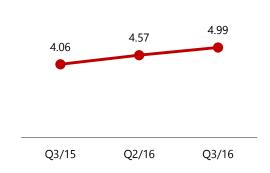




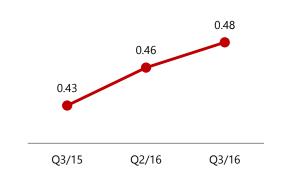




ROA (%)



Earning per share (EPS) (Baht/share)



Book value per share (BVPS) (Baht/share)





THANK YOU

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Disclaimer

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