

Analyst Meeting

3Q2019

22 November 2019



Agenda

01 Highlights

02 RATCH Overview

03 Group Performance

04 Financial Performance

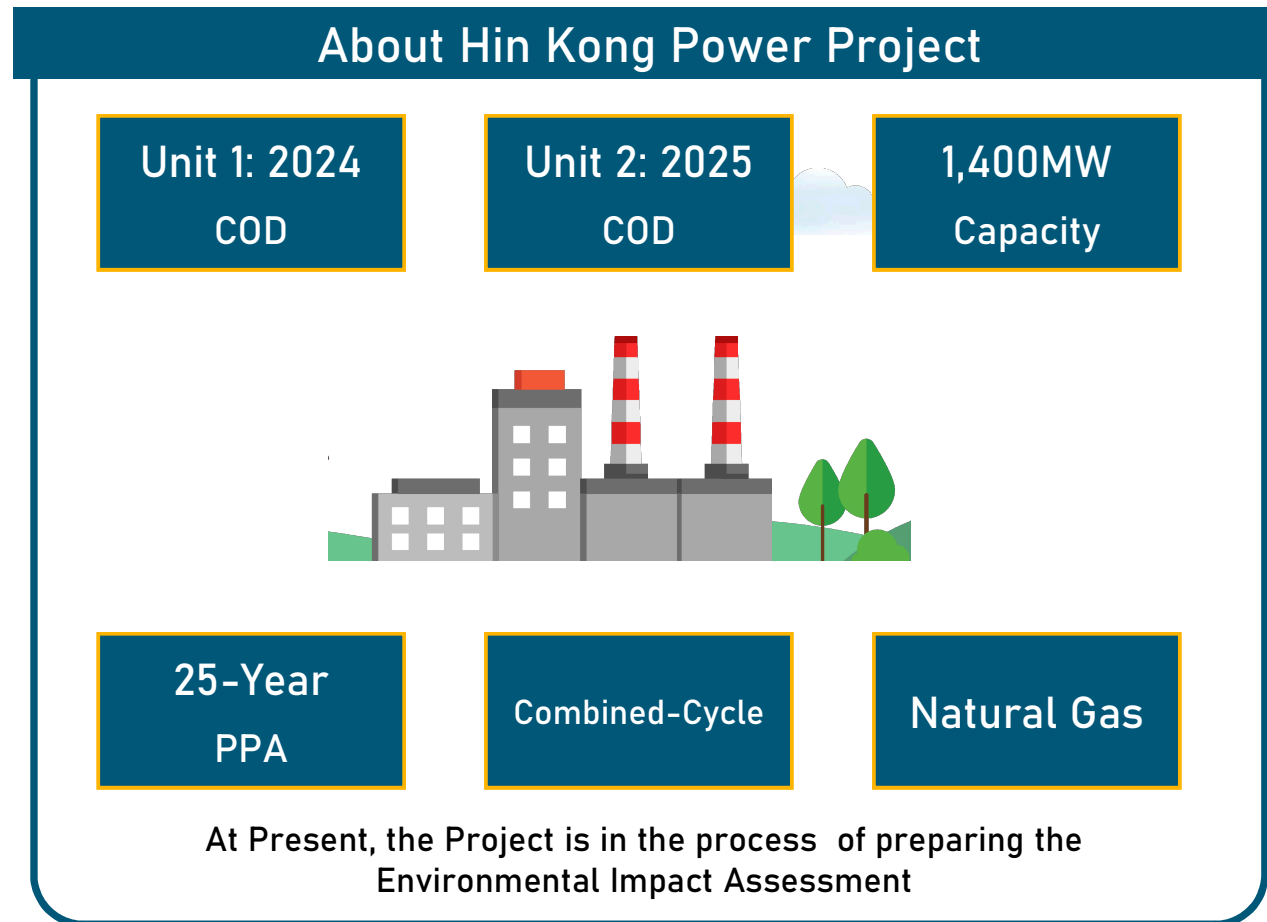
05 Appendix

Highlights

Highlights : Hin Kong Power Company Limited

12 July 2019

Hin Kong Power Company Limited had entered into the PPA for Hin Kong Power Project in Ratchaburi Province with EGAT. The Agreement is effective from the execution date until the 25-year from the COD.



Highlights : Yandin Wind Farm

26 July 2019

RAC had invested in 214.20 MW Yandin Wind Farm

10 October 2019

First loan drawdown under credit facility agreements.

~150 km north of Perth
Location

15-Year
PPA with Alinta Sales Pty Ltd

≈ AUD 364 million
Syndicated facility agreement
executed on 15 July 19

214.20 MW
(51 of 4.2 MW turbines)
Capacity

149.94 MW
Attributable Capacity

September 2020
Expected COD

Financiers

OCBC, BNPP, ABN AMRO, ING, SocGen, SCB

Shareholder Structure

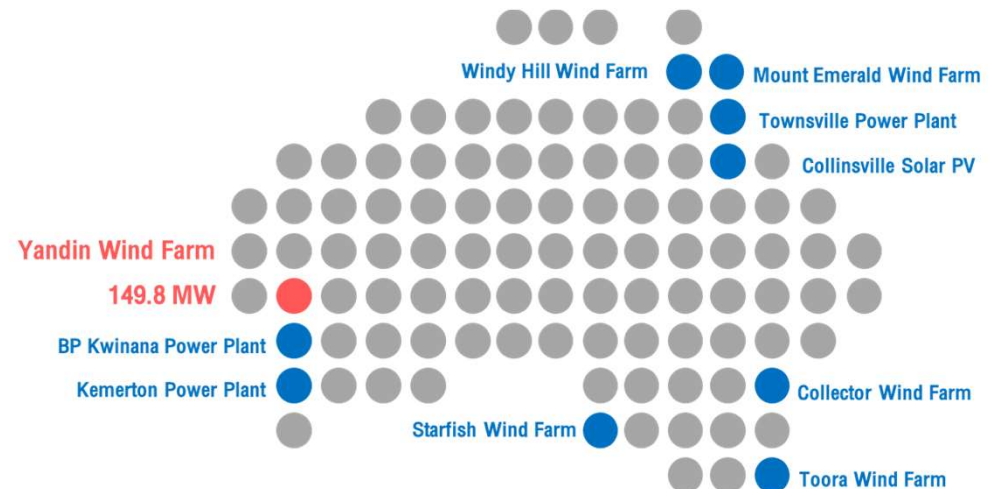


70%

30%

Investor Agreement

Yandin Wind Farm



Highlights : Credit Rating

30 July 2019

Moody's affirmed **RATCH Baa1 rating** and changed the outlook to positive from stable, in line with the rating action on the **Government of Thailand (Baa1 positive)**

TRIS Rating		AAA
International Credit Rating	S&P Global Rating	Moody's Investor Service
RATCH	BBB+ stable outlook	Baa1 positive outlook
Thailand	BBB+	Baa1

Highlights : RATCH Cogeneration Company Limited

20 August 2019

RATCH entered into Share Purchase Agreement to purchase ordinary and preferred share of **Navanakorn Electric Company Limited** at 99.97% from the existing shareholders

20 August 2019

Paid for the shares in the amount of 1,998.40 Million Baht.

4 November 2019

Changed the name to
"RATCH Cogeneration Company Limited"



Location

South of Nava Nakorn Industrial
Promotion Zone,
Pathum Thani Province

Technology

Cogeneration

Fuel

Natural Gas

Installed Capacity

119.15 MW

Steam Generation 10 ton/hour

PPA with EGAT

25-Year

COD

31 October 2013

Enterprise Value

approximately 5,726.68 million baht

Shareholder Structure

RATCH holds 99.97%

Existing shareholders 0.03%

Highlights : Riau Combined-Cycle Power Plant

14 November 2019

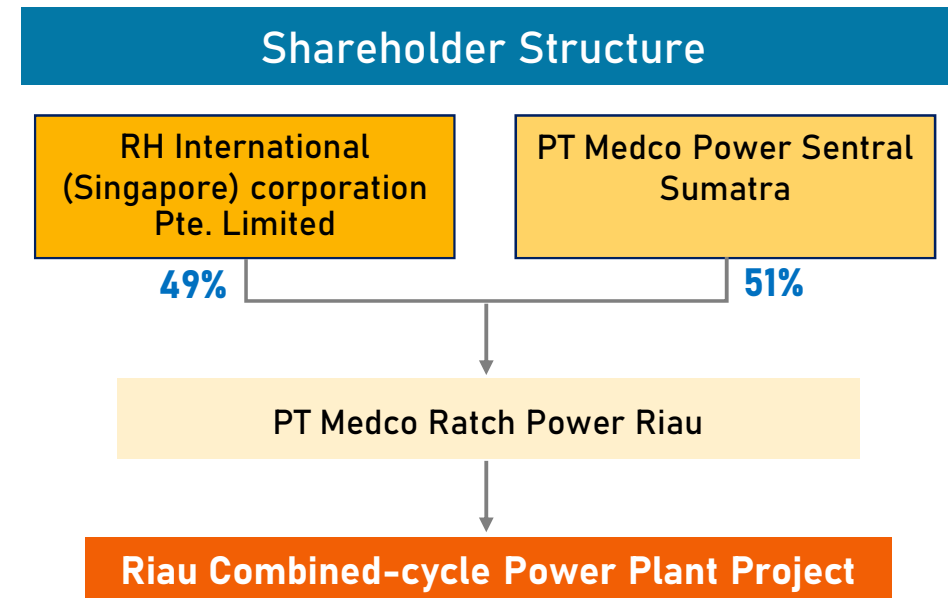
PT Medco Ratch Power Riau was successful in making the first drawdown under its Syndicated Facilities with financial institutions. Construction is underway and the Project is expected to commence COD in 2021 as scheduled.

7 April 2017, PT Medco Ratch Power Riau was established to invest in Riau Combined-Cycle Power Plant Project, located in the Republic of Indonesia.

20 March 2019, PT Medco Ratch Power Riau signed Loan Agreement with 4 Financial Institutes



The total loan amount is USD 222 million for the period of 20 years



Highlights : Things on Net Company Limited (“ToN”)

19 November 2019

RATCH had invested in Things on Net Company Limited at 35% shareholding (≈180 Million Baht) for the development of nationwide telecommunication networks and Ecosystem for IoT market

Things on Net Company Limited

Holds an exclusive license operate Internet of Things network in Thailand with **Sigfox technology**

Goal:

To set up base station for Sigfox network to cover 70% of the area and 85% of the population of Thailand

Expected COD: In 2020

Sigfox technology is LPWAN connection technology with the network covering over 50 countries worldwide.

Things on Net Company Limited (“TON”)

Shareholding Structure



35%

Mr. Prapan Asvaplungprohm

65%



Sigfox was established in 2010 in France and it is the world's leading IoT services provider.

- Sigfox reinvented Low Power Wide Area network (LPWAN) connectivity for the IoT, to drastically bring down cost and energy consumption required for securely connecting IoT sensors/devices.
- Sigfox delivers the network and the protocols required to allow an object to share its data from anywhere in the world.
- Sigfox is already present in over 50 countries.



- **TON** has been selected by SIGFOX to be the network operator in Thailand and **to be—a nationwide IoT Network operator.**
- **TON** will use the IoT network to offer comprehensive **end-to-end IoT solutions to enterprises.**
- **TON** create Ecosystem for IoT Market in Thailand Responsible for Sales, Marketing and Operation in Thailand and Connected to SigFox Global Roaming Network



95%



99%



300+

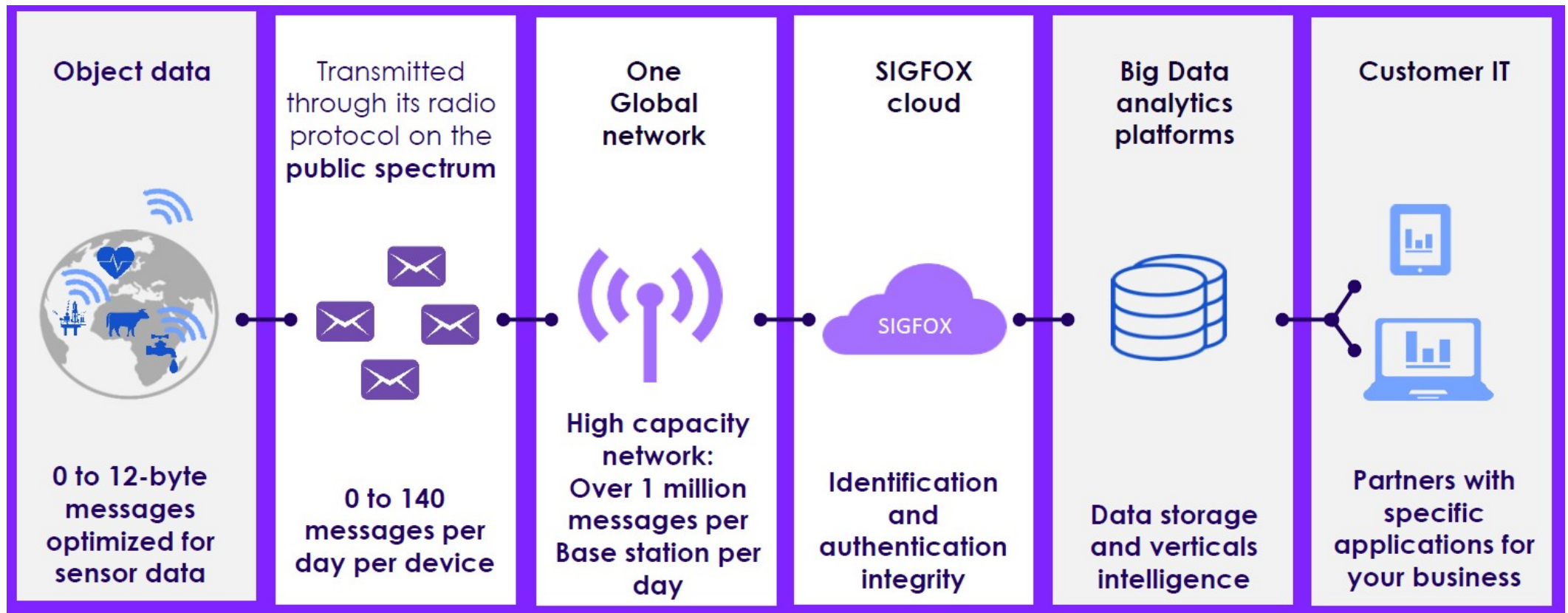


Free stack

Things on Net Company Limited (“TON”)

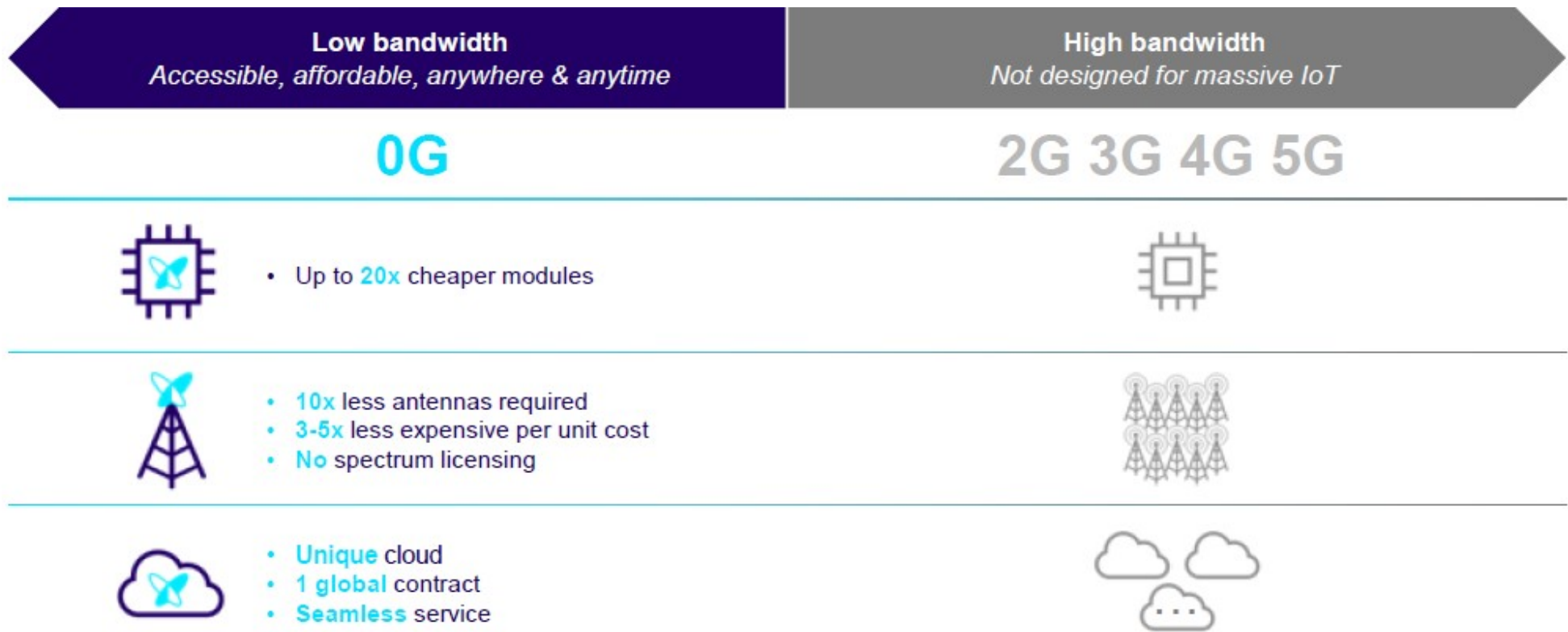
Simplified IoT data collection

- Devices and technology connected over the Internet of Things (IoT) can monitor and measure data in real time, and these data can offer valuable insight to help save time, energy, and money.



Things on Net Company Limited (“TON”)

- Designed for massive IoT, Sigfox acts everyday to lower costs at every step of data acquisition.
- Supporting the best massive volume, small data objects at an unbeatable cost of production to end customers.

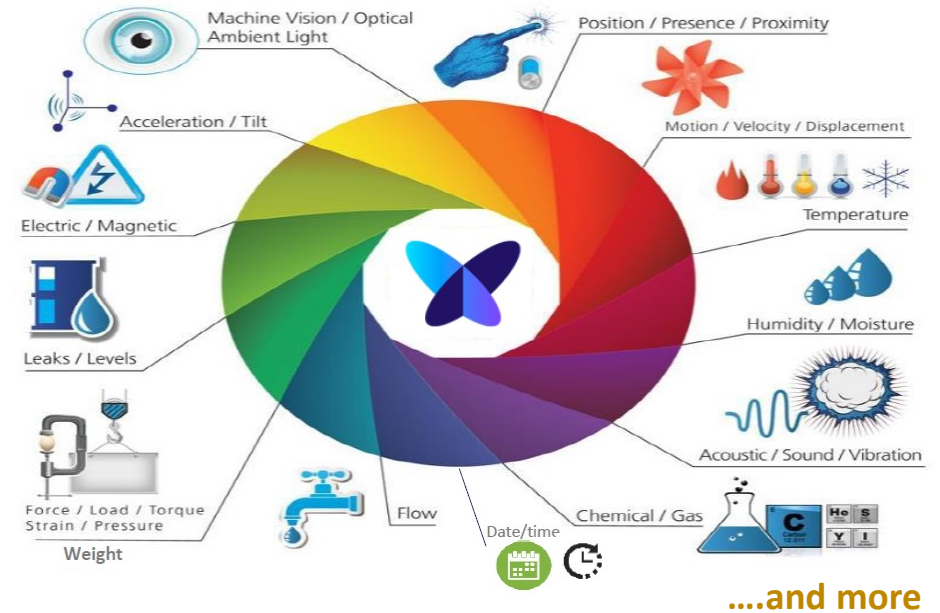


Things on Net Company Limited (“TON”)

Bring value to across all **verticals**



What do we **measure** ?



IoT Usage in the Electric Power Industry

- To monitor electricity generation of different kinds of power plants, gas emissions, energy storage, energy consumption, and predict necessary power to supply consumers.
- To acquire data in relation to electricity consumption and dispatching.
- To monitor and protect transmission lines, substations, and towers.

RATCH Overview

Continued Growth Projects Investment

Current Projects in Operation

7,056.69 MW

2019-2025: Committed Projects in pipeline 2,284.38 MW

Name of Power Plant/Project	Location	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	Expected COD
2019			410.00	102.50	
Xe -Pian Xe-Namnoy Hydroelectric Power Plant	Attapue and Champasak provinces, Laos	25	410	102.50	Dec 2019
2020			274.17	173.93	
Nava Nakorn SPP Power Plant (Extension)	Nava Nakorn Industrial Promotion Zone, Pathumthani Province, Thailand	40	59.97	23.99	Sep 2020
Yandin Wind-Turbine Power Plant	Western Australia, Australia	70	214.20	149.94	Sep 2020
2021			2,883.03	607.95	
Riau Combined-Cycle Power Plant	Republic of Indonesia	49	296.23	145.15	May 2021
Collector Wind-Turbine Power Plant	New South Wales, Australia	100	226.80	226.80	In 2021
Fangchenggang II Nuclear Power Plant	Fangchenggang , China	10	2,360	236	In 2021
2024			700	700	
Hin Kong Power Project Unit 1	Ratchaburi Province, Thailand	100	700	700	In 2024
2025			700	700	
Hin Kong Power Project Unit 2	Ratchaburi Province, Thailand	100	700	700	In 2025

Continued Growth Projects Investment

Infrastructure Projects



MRT Pink Line Project

Technology: Monorail

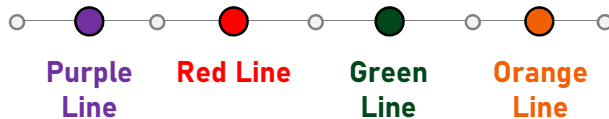
Route: Khae Rai-Min Buri

Contract Type: PPP Net Cost with Subsidy

Contract Term: 30-Year

Expected COD : In 2021

Connecting Networks : 4 Interchanges



MRT Yellow Line Project

Technology: Monorail

Route: Lad Prao-Sam Rong

Contract Type: PPP Net Cost with Subsidy

Contract Term: 30-Year

Expected COD : In 2021

Connecting Networks : 4 Interchanges



Sandin Water Supply Project

Type of Business : Generating water supply

Capacity :

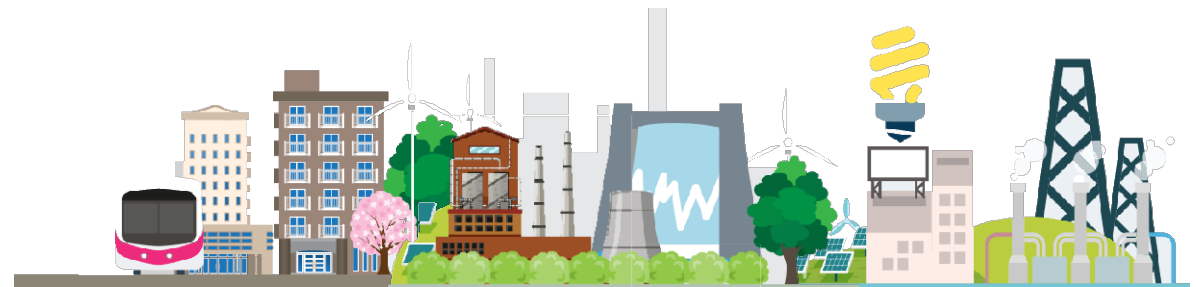
Phase I: 24,000 cubic meters/day (2018)

Phase II: 48,000 cubic meters/day (2031)

Things on Net Company Limited

Type of Business : The development of nationwide telecommunication networks and Ecosystem for IoT market

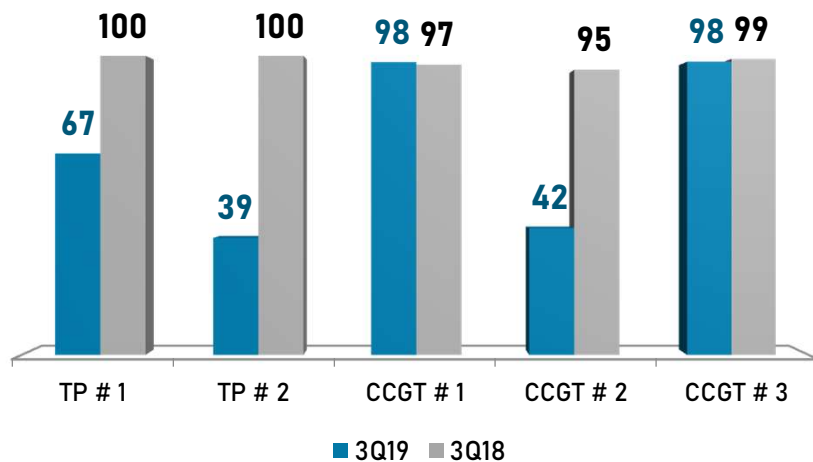
Expected COD : In 2020



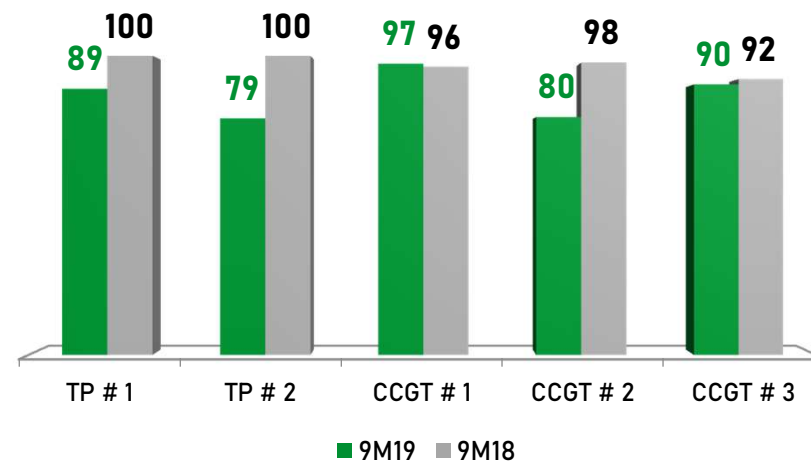
Group Performance

Operation Performance : RATCHGEN

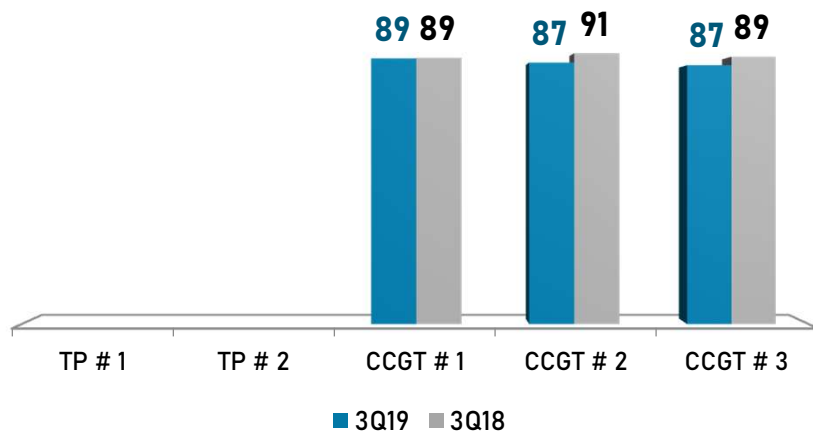
%Equivalent Availability Factor



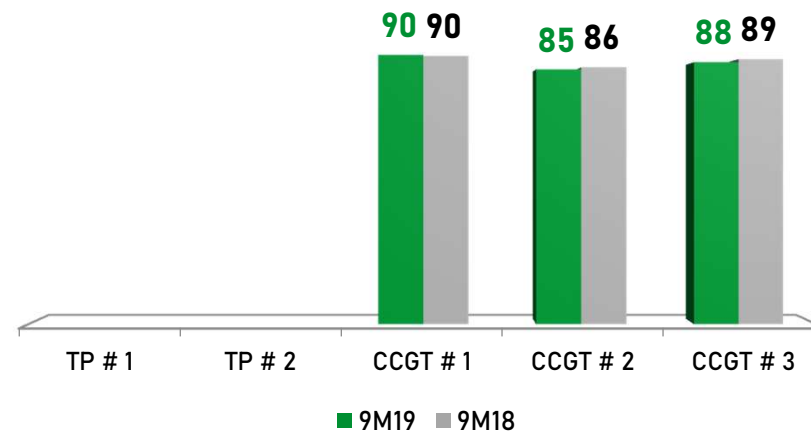
%Equivalent Availability Factor



%Dispatch Factor



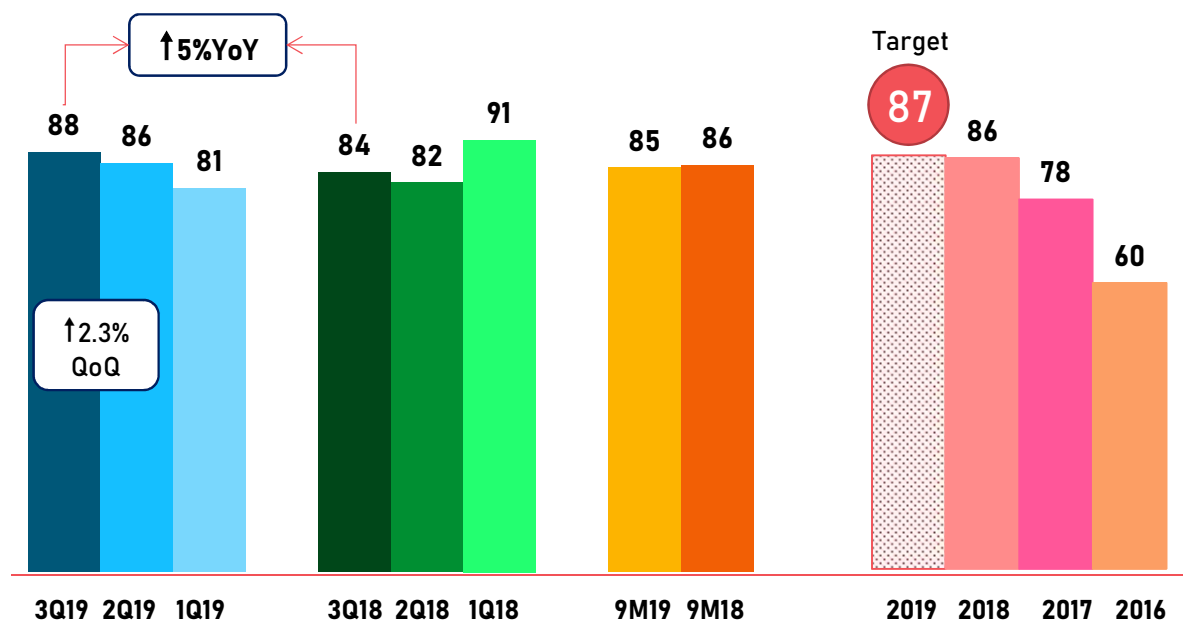
%Dispatch Factor



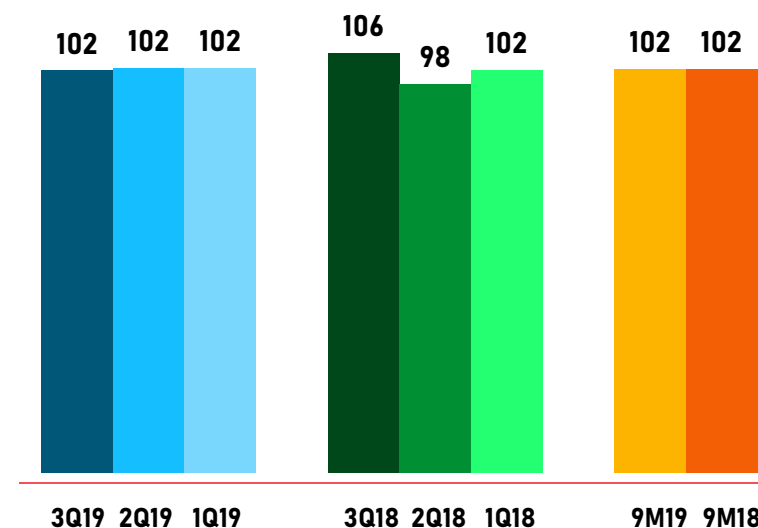
Operation Performance : Hongsa



% Commercial Equivalent Availability Factor (3 Units)



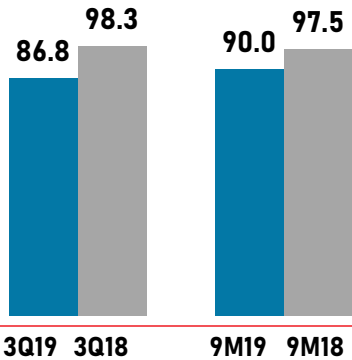
% Dispatch Factor (3 Units)



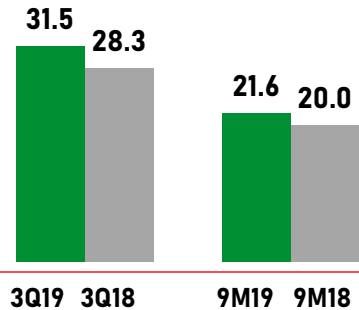
Operation Performance : Wind Projects

Huay Bong 2-3

%Avg. Commercial Availability

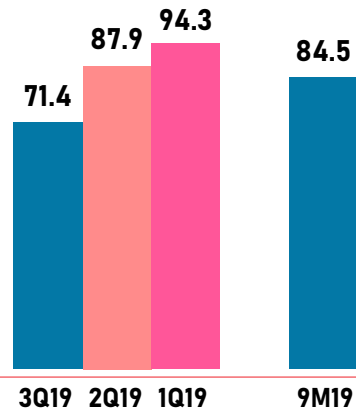


%Capacity Factor

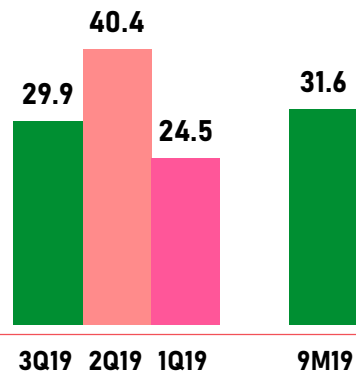


Mount Emerald

%Avg. Commercial Availability

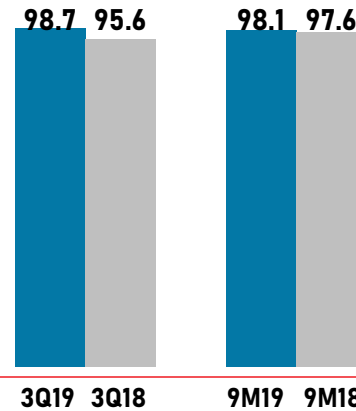


%Capacity Factor

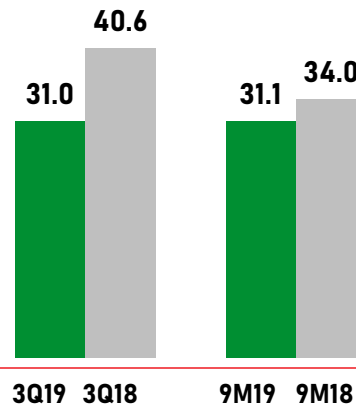


Starfish Hill

%Avg. Commercial Availability

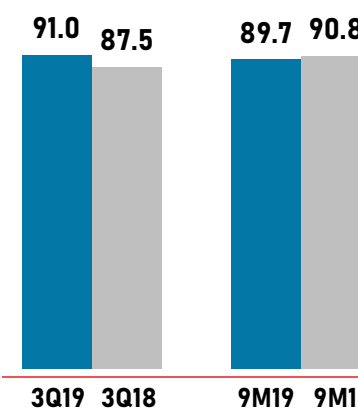


%Capacity Factor

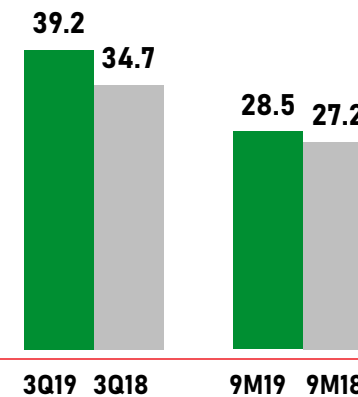


Toora

%Avg. Commercial Availability

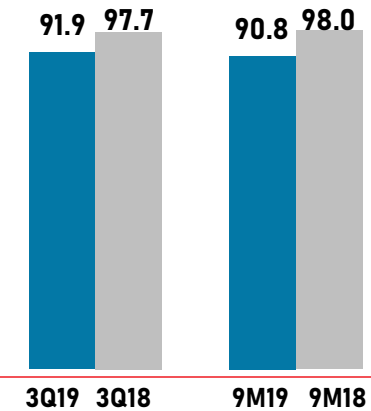


%Capacity Factor

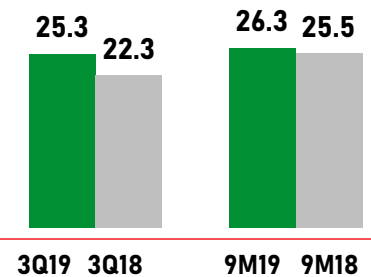


Windy Hill

%Avg. Commercial Availability



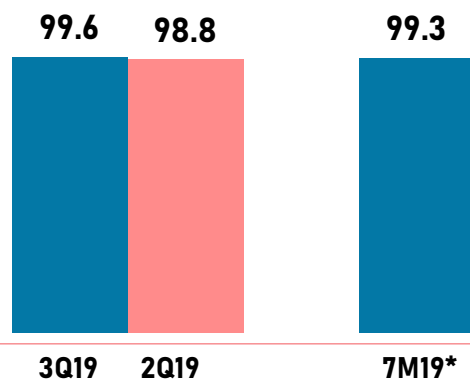
%Capacity Factor



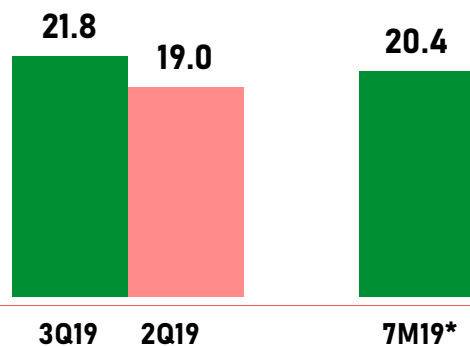
Operation Performance : Solar Projects

Collinsville Solar Farm

%Avg. Commercial Availability

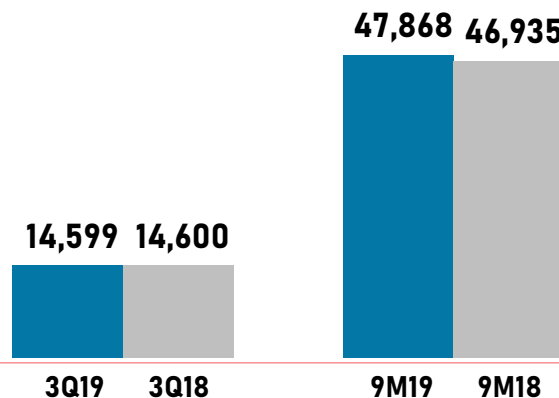


%Capacity Factor

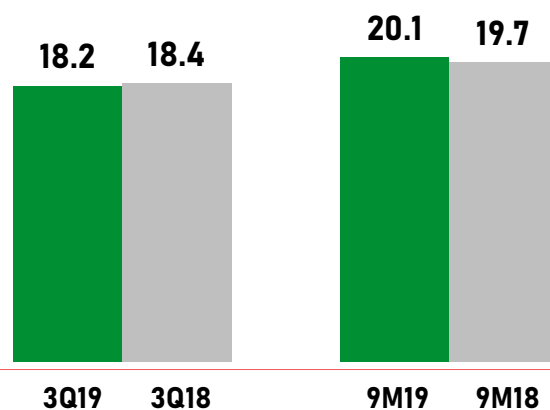


Solarta

Total Net Energy (MWh /Quarter)

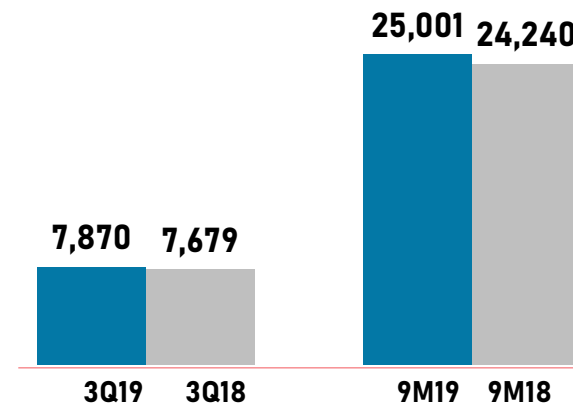


%Capacity Factor

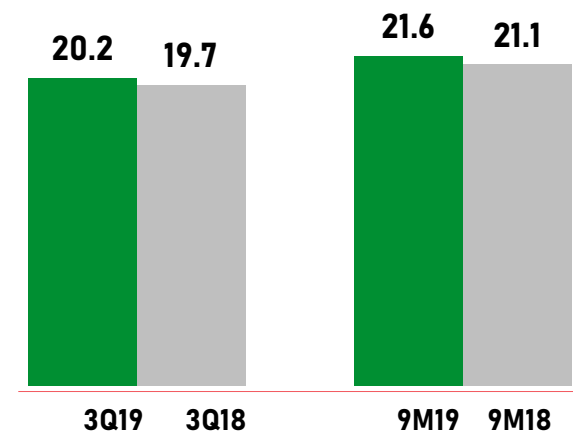


Korat 3,4,7

Total Net Energy (MWh /Quarter)

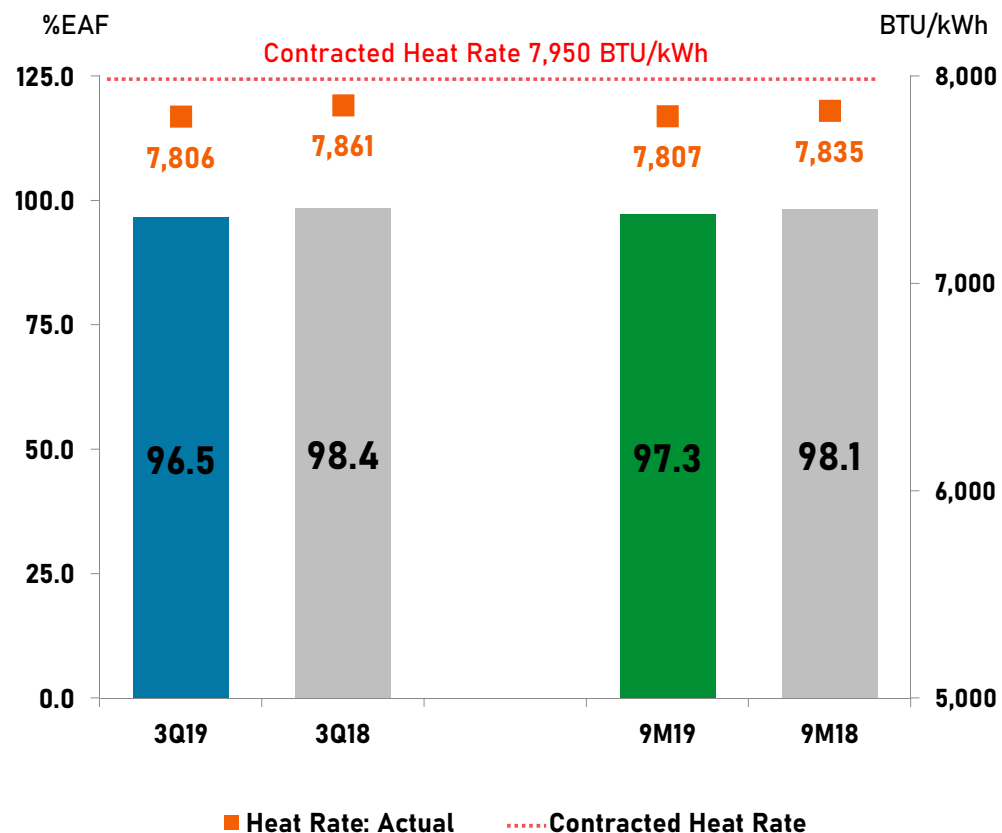


%Capacity Factor

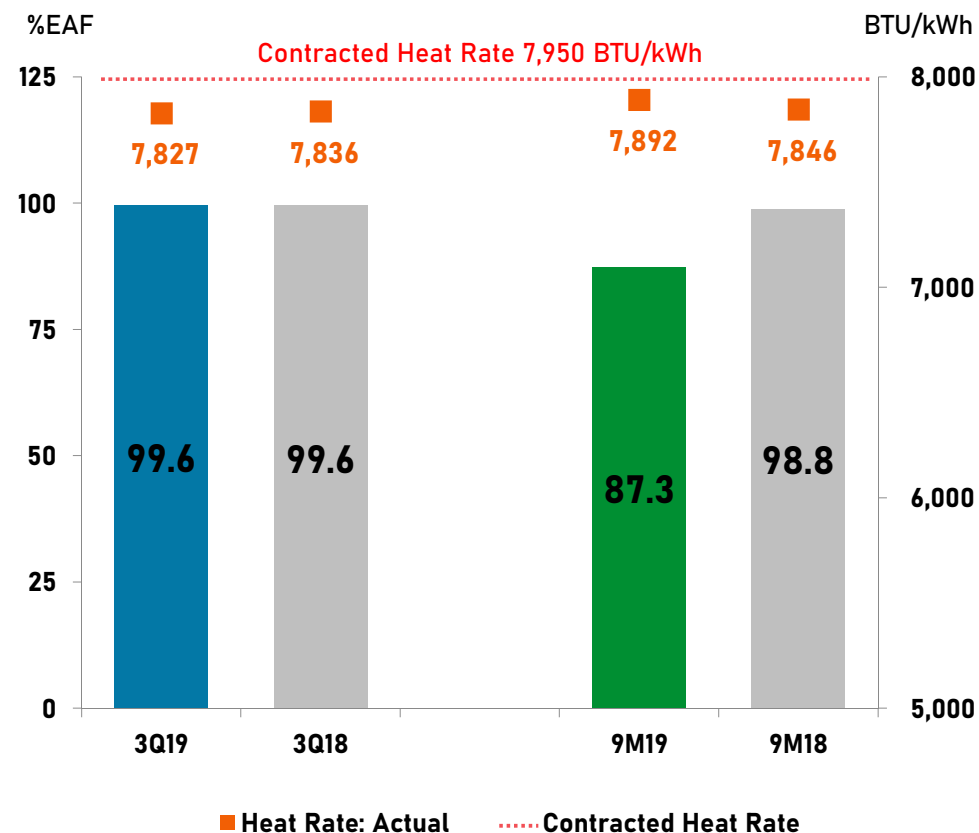


Operation Performance : SPP Projects

RW Cogen Block 1-2

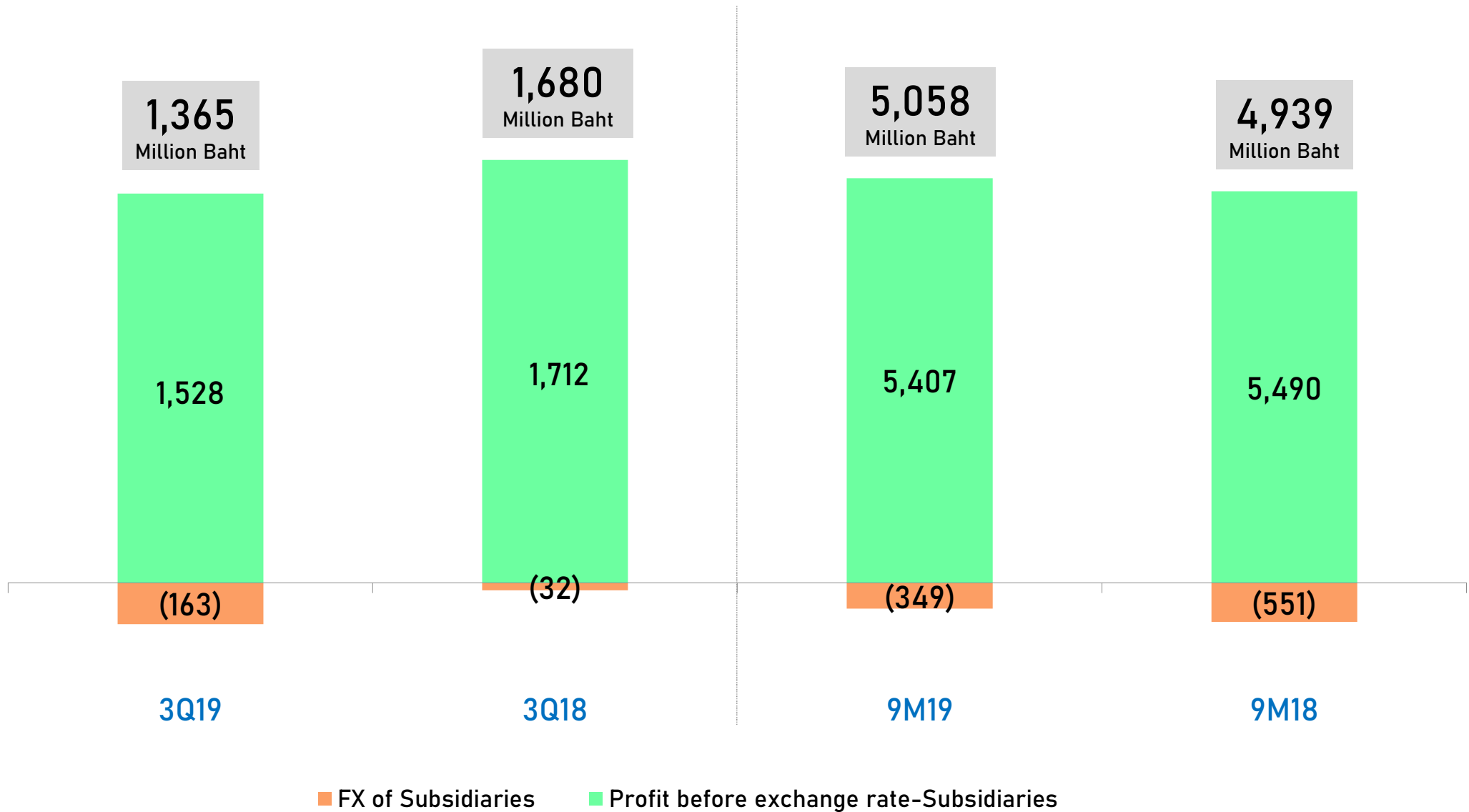


NNEG



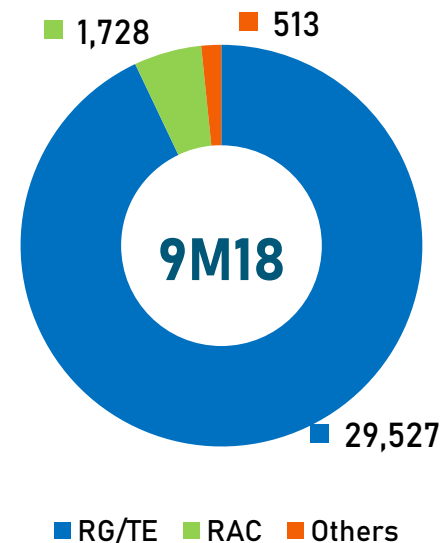
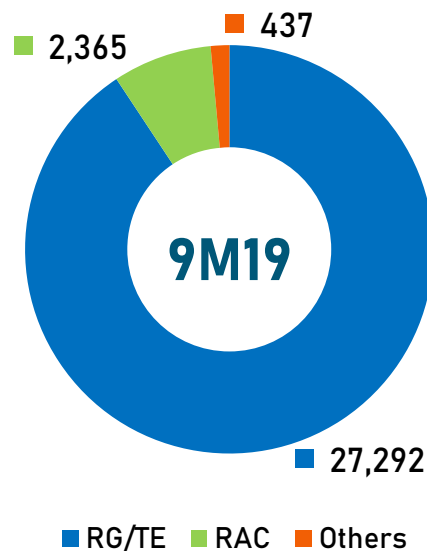
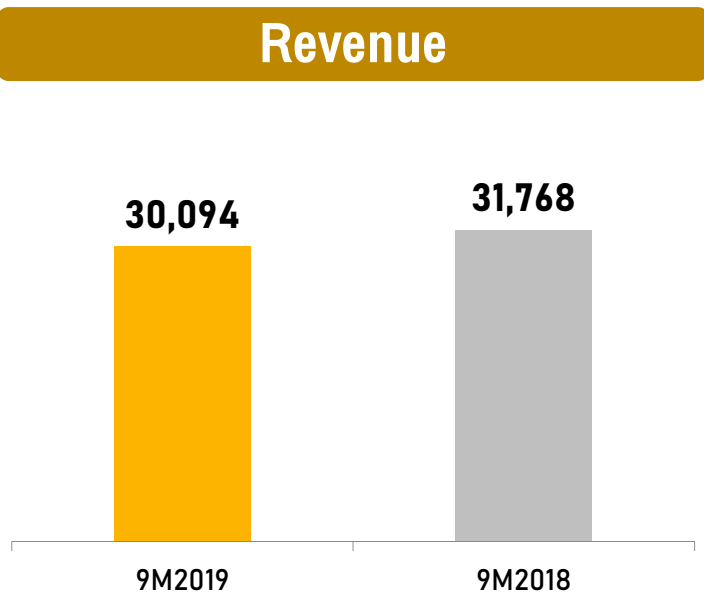
Financial Performance

Profit for the period: Equity holders of the Company



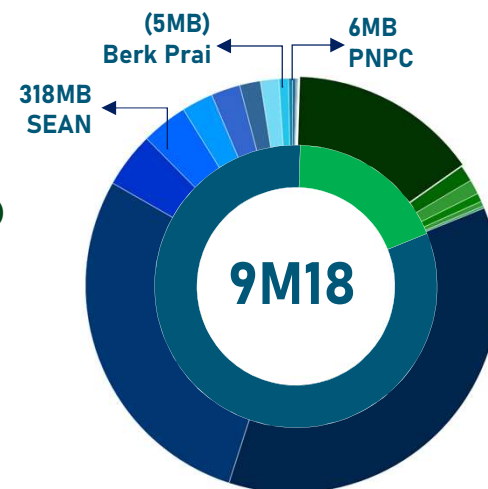
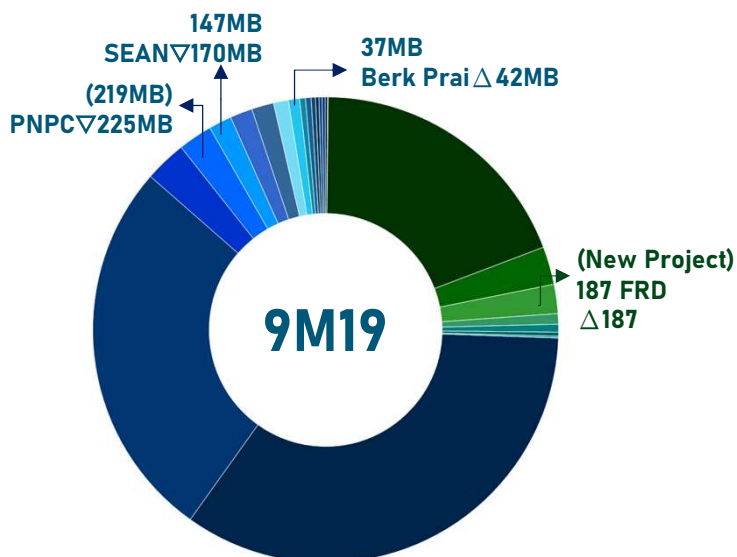
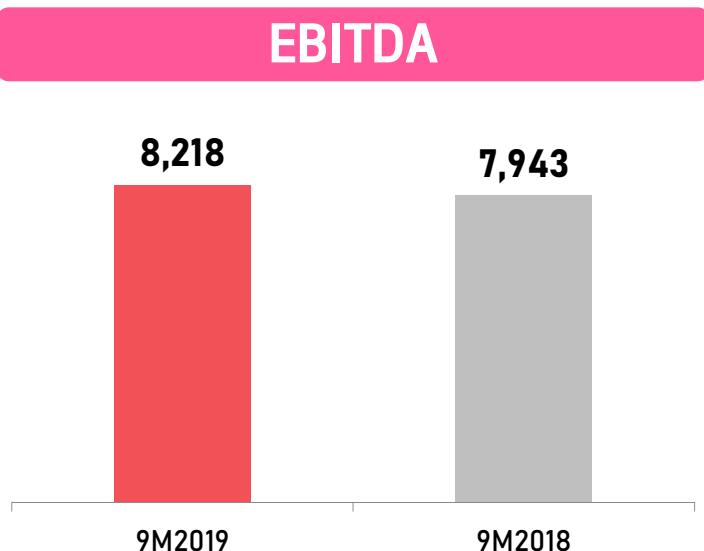
Revenue & EBITDA

Revenue



Unit: MB

EBITDA



Income Statement : 3Q19 & 3Q18

Unit : in Million Baht	3Q19	3Q18
Revenues	8,938.17	11,695.24
Cost & Expenses	(7,752.20)	(10,168.69)
EBITDA before Share of Profit and FX	1,185.97	1,526.55
Share of profit of jointly-controlled entities and associates including gain (loss) on FX	1,154.33	1,084.03
EBITDA	2,340.30	2,610.58
Depreciation & Amortization - Cost	(350.22)	(284.59)
Depreciation & Amortization - Admin	(17.74)	(19.10)
EBIT	1,972.34	2,306.89
Finance costs*	(221.37)	(337.54)
Income tax expense	(222.65)	(257.16)
Profit for the period: Equity holders of the Company - before FX of subsidiaries	1,528.32	1,712.19
Gain (Loss) on FX of subsidiaries	(163.48)	(31.66)
Profit for the Company	1,364.84	1,680.53
The effect of FX:		
Gain (Loss) on FX of subsidiaries	(163.48)	(31.66)
Gain (Loss) on FX of associates and JVs	(10.58)	(223.89)
Profit of the Company before FX	1,538.90	1,936.08

Income Statement : 9M19 & 9M18

Unit : in Million Baht	9M19	9M18
Revenues	30,093.71	31,768.36
Cost & Expenses	(25,393.35)	(27,525.05)
EBITDA before Share of Profit and FX	4,700.36	4,243.31
Share of profit of jointly-controlled entities and associates including gain (loss) on FX	3,517.29	3,700.02
EBITDA	8,217.65	7,943.33
Depreciation & Amortization - Cost	(1,064.70)	(861.47)
Depreciation & Amortization - Admin	(53.79)	(58.29)
EBIT	7,099.16	7,023.57
Finance costs*	(953.31)	(902.39)
Income tax expense	(738.31)	(650.28)
Profit for the period	5,407.54	5,470.90
Non-controlling interests	-	(18.63)
Profit for the period:	5,407.54	5,489.53
Equity holders of the Company - before FX of subsidiaries		
Gain (Loss) on FX of subsidiaries	(349.13)	(550.55)
Profit for the Company	5,058.41	4,938.98
The effect of FX:		
Gain (Loss) on FX of subsidiaries	(349.13)	(550.55)
Gain (Loss) on FX of associates and JVs	(132.68)	(32.17)
Profit of the Company before FX	5,540.22	5,521.70

Share of profit from jointly-controlled entities : 3Q19 & 3Q18

Included FX	Unit : in Million Baht	3Q19	3Q18	Diff	%
	HPC	796.98	581.74	215.24	37.00
	FRD	64.76	-	64.76	n.a.
	PHU FAI	53.73	41.71	12.02	28.82
	NNEG	40.74	17.16	23.58	n.a.
	RPCL	40.10	81.89	(41.79)	(51.03)
	SOLARTA	35.57	43.51	(7.94)	(18.25)
	Berk Prai	27.66	(2.12)	29.78	n.a.
	KORAT 3,4,7	21.38	19.68	1.70	8.64
	RW COGEN	20.10	64.75	(44.65)	n.a.
	RIAU	19.31	0.55	18.76	n.a.
	KWINANA	16.55	13.14	3.41	25.95
	FKW	12.79	12.74	0.05	0.39
	Songkhla Biomass	12.43	8.93	3.50	39.19
	KR2	10.71	10.41	0.30	2.88
	CRESCO	1.57	3.70	(2.13)	n.a.
	SEAN	(0.82)	248.78	(249.60)	n.a.
	PNPC	(19.23)	(62.54)	43.31	69.25
	Total Share of profit from jointly-controlled entities	1,154.33	1,084.03	70.30	6.49

Share of profit from jointly-controlled entities : 9M19 & 9M18

Included FX	Unit : in Million Baht	9M19	9M18	Diff	%
	HPC	2,453.51	2,485.53	(32.02)	(1.29)
	PHU FAI	243.26	111.93	131.33	117.33
	FRD	186.68	-	186.68	n.a.
	SEAN	147.31	317.64	(170.33)	n.a.
	SOLARTA	143.51	142.46	1.05	0.74
	RPCL	141.27	215.91	(74.64)	(34.57)
	RW COGEN	95.45	199.36	(103.91)	n.a.
	KORAT 3,4,7	71.85	65.95	5.90	8.95
	RIAU	67.21	(14.52)	81.73	n.a.
	Berk Prai	37.12	(4.82)	41.94	n.a.
	NNEG	36.00	126.24	(90.24)	n.a.
	Songkhla Biomass	27.96	27.30	0.66	2.42
	KWINANA	26.39	34.55	(8.16)	(23.62)
	CRESCO	21.37	8.28	13.09	n.a.
	FKW	21.13	(20.86)	41.99	n.a.
	KR2	16.33	(0.72)	17.05	n.a.
	Songkhla Biofuel	(0.01)	-	(0.01)	n.a.
	PNPC	(219.05)	5.79	(224.84)	n.a.
	Total Share of profit from jointly-controlled entities	3,517.29	3,700.02	(182.73)	(4.94)

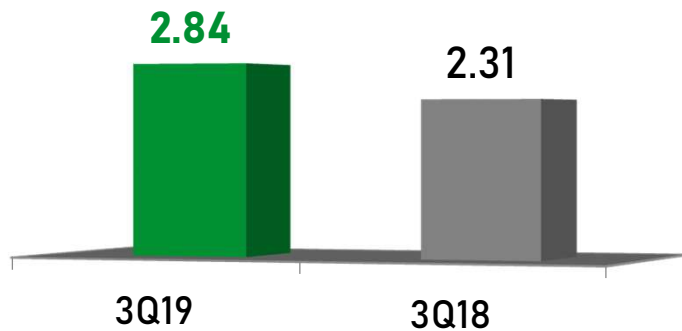
Statements of Financial Position

As of 30 September 2019

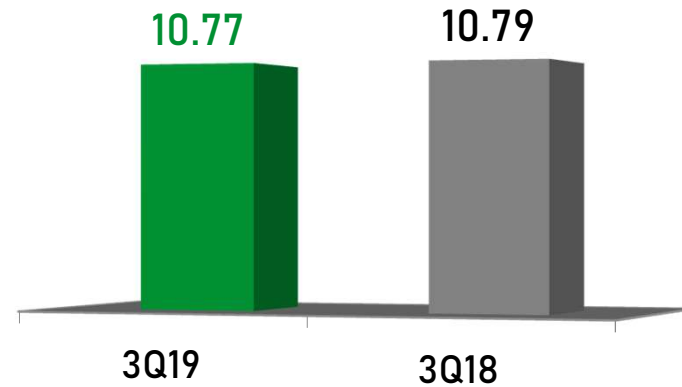
Total Assets	Million Baht	Total Liabilities & Equity	Million Baht
Assets		Liabilities	
Cash and cash equivalents	11,361.08	Loans from Financial Institutions & Debentures	29,413.62
Current investments	1,137.27	Derivative liabilities	909.72
Other Current Assets	8,535.30	Other liabilities	7,656.71
Investment in Jointly-controlled entities/Associates/Others	33,782.17	Total Liabilities	37,980.05
Derivative assets	303.47	Equity	
Financial lease receivables	16,649.09	Issued and paid-up share capital	16,031.78
Property, plant & equipments	18,966.56	Retained earnings	51,346.85
Other assets	5,821.68	Other components of equity	(8,802.06)
		Total equity	58,576.57
Total Assets	96,556.62	Total Liabilities & Equity	96,556.62

Financial Ratios*

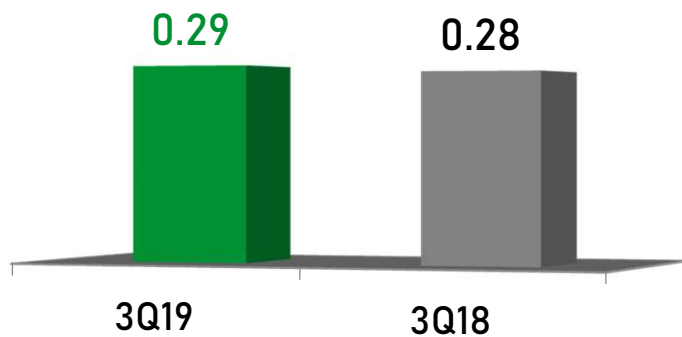
Current Ratio (times)



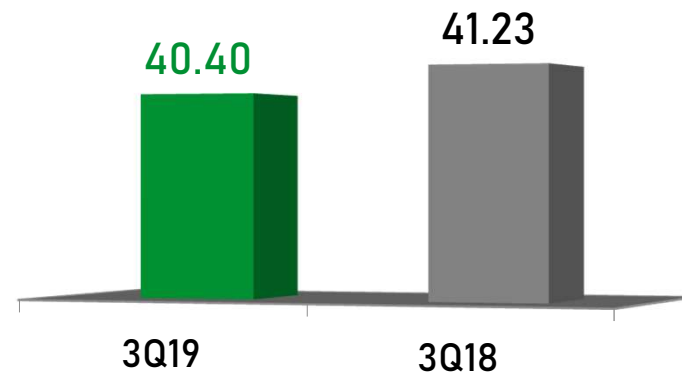
ROE (%)



Net Debt to Equity (times)



Book Value per share (Baht)



*Not included the effect of FX of subsidiaries

Appendix

RATCHGEN Operating Performance

Fuel Consumption		3Q19	3Q18	9M19	9M18
By Type of Power Plant					
Fuel Consumption (TH#1-2)					
- Gas	Million MMBTU	-	-	-	-
- Heavy Oil	Million Liters	-	-	-	-
Fuel Consumption (CCGT#1-3)					
- Gas	Million MMBTU	22.25	27.67	72.71	78.26
- Diesel	Million Liters	0.10	0.09	0.30	0.32
Gas Price (Average) Baht/MMBTU		275.69	264.94	278.31	252.79
Heavy Oil Price (Average) Baht/Liter		n.a.	n.a.	n.a.	n.a.
Diesel Oil Price (Average) Baht/Liter		23.89	23.89	23.89	23.89

RATCHGEN Operating Performance

Net Generation (GWh)	3Q19	3Q18	9M19	9M18
By Type of Power Plant				
Net Generation (TP#1-2) (GWh)	-	-	-	-
- By Gas (GWh)	-	-	-	-
- By Heavy Oil (GWh)	-	-	-	-
Net Generation (CCGT#1-3) (GWh)	3,148.07	3,904.11	10,280.66	11,018.83
- By Gas (GWh)	3,148.07	3,904.11	10,280.66	11,018.83
- By Diesel (GWh)	-	-	-	-
Total Net Generation (GWh)	3,148.07	3,904.11	10,280.66	11,018.83

Actual Outage
Planned Outage

Planned Outage at Ratchaburi Power Plant in 2019

..... In Process

Plant		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
RG	CCST-10											24	MI (26D) 19
	CCGT-11												CI (15D) 19
	CCGT-12												CI (15D) 19
RG	CCST-20							1	MI (26D) 26				
	CCGT-21						6	MO (54D) 28					
	CCGT-22						6	MO (52D) 26					
RG	CCST-30	2	MI (26D) 27										
	CCGT-31	13	CI (15D) 27										
	CCGT-32	13	CI (15D) 27										
RG	Thermal-1								1	MO (57D) 27			
RG	Thermal-2						30	MO (57D) 25					
RG	CCST-10 - CCTE												
	CCGT-11 - CCTE									21	CI (10D) 30		
	CCGT-12 - CCTE										5	CI (10D) 14	
RPCL	CCST-10												
	CCGT-11											20	MO (32D) 21
	CCGT-12											20	MO (32D) 21
RPCL	CCST-20												
	CCGT-21	3	CI (13D) 15										
	CCGT-22	3	CI (13D) 15										

Thermal Plant	Minor Inspection (MI)		40 Days	Major Overhaul (MO)		57 Days		
Gas Turbine	Warranty Inspection (WI)			Combustion Inspection			Minor Inspection	Major Overhaul
	Normal (WI)		Gen.Rotor Removed (WI*)	(CI)			(MI)	(MO)
	26 Days		32 Days	15 Days			30 Days	52 Days
Steam Turbine	Warranty Inspection (WI)			Minor Inspection			Major Overhaul	
	Normal (WI**)		Gen.Rotor Removed (WI*)	(MI)			(MO)	
	26 Days		30 Days	26 Days			49 Days	

Planned Outage at Ratchaburi Power Plant in 2018

Plant		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
RG	CCST-10												
	CCGT-11											MO (52D)	25
	CCGT-12											MO (52D)	25
RG	CCST-20												
	CCGT-21									30	CI (9D)	8	
	CCGT-22									30	CI (9D)	8	
RG	CCST-30												
	CCGT-31		11	CI (15D)	25								
	CCGT-32		11	CI (19D)	1								
RG	Thermal-1												
RG	Thermal-2												
RG	CCST-10 - CCTE												
	CCGT-11 - CCTE												CI (20 D)
	CCGT-12 - CCTE									22	CI (12 D)	3	5
RPCL	CCST-10												
	CCGT-11											CI (14D)	3
	CCGT-12											CI (14D)	3
RPCL	CCST-20	14	MI (35 D)	17									
	CCGT-21	14	MI (35 D)	17									
	CCGT-22	14	MI (35 D)	17									
Thermal Plant		Minor Inspection (MI)			40 Days		Major Overhaul (MO)			57 Days			
Gas Turbine		Warranty Inspection (WI)					Combustion Inspection			Minor Inspection		Major Overhaul	
		Normal (WI)		Gen.Rotor Removed (WI*)			(CI)			(MI)		(MO)	
		26 Days		32 Days			15 Days			30 Days		52 Days	
Steam Turbine		Warranty Inspection (WI)					Minor Inspection			Major Overhaul		Page 36	
		Normal (WI**)		Gen.Rotor Removed (WI*)			(MI)			(MO)			
		26 Days		30 Days			26 Days			49 Days			

Income Statement : 3Q19 & 3Q18

Unit : in Million Baht	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18
Revenues	8,938.17	11,036.08	10,119.46	8,579.71	11,695.24	10,982.05	9,091.07
Cost & Expenses	(7,752.20)	(9,274.16)	(8,366.99)	(7,958.69)	(10,168.69)	(9,528.55)	(7,827.81)
EBITDA before Share of Profit and FX	1,185.97	1,761.92	1,752.47	621.02	1,526.55	1,453.50	1,263.26
Share of profit of jointly-controlled entities and associates including gain (loss) on foreign exchange	1,154.33	1,281.83	1,081.13	1,035.45	1,084.03	1,727.16	888.83
EBITDA	2,340.30	3,043.75	2,833.60	1,656.47	2,610.58	3,180.66	2,152.09
Depreciation & Amortization - Cost	(350.22)	(383.94)	(330.54)	(320.78)	(284.59)	(284.47)	(292.41)
Depreciation & Amortization - Admin	(17.74)	(17.72)	(18.33)	(39.80)	(19.10)	(19.39)	(19.80)
EBIT	1,972.34	2,642.09	2,484.73	1,295.89	2,306.89	2,876.80	1,839.88
Finance costs*	(221.37)	(250.93)	(481.01)	(112.50)	(337.54)	(403.07)	(161.78)
Income tax expense	(222.65)	(215.17)	(300.49)	(220.30)	(257.16)	(164.03)	(229.09)
Profit for the period	1,528.32	2,175.99	1,703.23	963.09	1,712.19	2,309.70	1,449.01
Non-controlling interests	-	-	-	-	-	3.04	(21.67)
Profit for the period: Equity holders of the Company - before FX	1,528.32	2,175.99	1,703.23	963.09	1,712.19	2,306.66	1,470.68
Gain (Loss) on foreign exchange of subsidiaries	(163.48)	(223.68)	38.03	(314.47)	(31.66)	(174.79)	(344.10)
Profit for the Company	1,364.84	1,952.31	1,741.26	648.62	1,680.53	2,131.87	1,126.58

*Included change in fair value of derivatives

Income Statement : 9M19 & 9M18

Unit : in Million Baht	9M19	9M18
Revenues	30,093.71	31,768.36
Cost & Expenses	(25,393.35)	(27,525.05)
EBITDA before Share of Profit and FX	4,700.36	4,243.31
Share of profit of jointly-controlled entities and associates excluding gain (loss) on foreign exchange	3,642.26	3,726.02
EBITDA	8,342.62	7,969.33
Depreciation & Amortization - Cost	(1,090.26)	(861.52)
Depreciation & Amortization - Admin	(53.79)	(58.29)
EBIT	7,198.57	7,049.52
Finance costs*	(953.31)	(902.39)
Income tax expense	(738.31)	(650.28)
Profit before extraordinary items	5,506.95	5,496.85
Non-controlling interests	-	(18.63)
Profit before extraordinary items for the Company	5,506.95	5,515.48
Diesel price movement (RG & RPCL)	33.27	6.22
Gain (Loss) on foreign exchange of subsidiaries	(349.13)	(550.55)
Gain (Loss) on foreign exchange of JV	(132.68)	(32.17)
Profit for the Company	5,058.41	4,938.98
Profit for the Company Excluded Gain (Loss) on foreign exchange of subsidiaries	5,407.54	5,489.53

*Included change in fair value of derivatives; 9M19 gain 117.31 MB, 9M18 gain 184.73 MB

Revenues: 3Q19 & 3Q18

Unit : in Million Baht		3Q19	3Q18	Diff	%
Sales		8,060.48	10,665.67	(2,605.19)	(24.43)
AP	- RG/TECO	814.72	965.09	(150.37)	(15.58)
EP (Fuel)*	- RG/TECO	6,478.44	9,045.04	(2,566.60)	(28.38)
RAC		767.32	655.54	111.78	17.05
Revenue from financial leases - RG/TECO		721.07	814.45	(93.38)	(11.47)
Revenue from Rendering of services		13.24	13.06	0.18	1.38
Management service income		62.52	59.79	2.73	4.57
Dividend Income		-	71.20	(71.20)	n.a.
Interest Income		54.78	63.12	(8.34)	(13.21)
Other Incomes		26.08	7.95	18.13	n.a.
Total Revenues		8,938.17	11,695.24	(2,757.07)	(23.57)

*Fuel Cost ; 3Q19 = 6,422.84 MB, 3Q18 = 8,959.70 MB

Share of profit from jointly-controlled entities : 3Q19 & 3Q18

Excluded FX	Unit : in Million Baht	3Q19	3Q18	Diff	%
	HPC	804.37	759.07	45.30	5.97
	FRD	64.76	-	64.76	n.a.
	PHU FAI	53.36	37.29	16.07	43.09
	NNEG	40.63	17.60	23.03	130.85
	RPCL	38.27	73.08	(34.81)	(47.63)
	SOLARTA	35.55	43.50	(7.95)	(18.28)
	Berk Prai	29.01	1.88	27.13	n.a.
	KORAT 3,4,7	21.38	19.68	1.70	8.64
	RW COGEN	20.12	64.67	(44.55)	(68.89)
	RIAU	19.50	0.55	18.95	n.a.
	KWINANA	16.55	13.14	3.41	25.95
	FKW	12.79	12.74	0.05	0.39
	Songkhla Biomass	12.43	8.93	3.50	39.19
	KR2	10.71	10.41	0.30	2.88
	CRESCO	0.42	2.45	(2.03)	n.a.
	SEAN	(2.04)	249.07	(251.11)	(n.a.
	PNPC	(12.90)	(6.14)	(6.76)	n.a.
	Total Share of profit from jointly-controlled entities	1,164.91	1,307.92	(143.01)	(10.93)

Cost and Expenses : 3Q19 & 3Q18

Unit : in Million Baht	3Q19	3Q18	Diff	%
Cost of Sale and Rendering of Services	7,401.04	9,803.27	(2,402.23)	(24.50)
- Fuel Cost : RG/ TECO	6,422.84	8,958.88	(2,536.04)	(28.31)
- Fuel Cost : RAC	-	0.82	(0.82)	n.a.
- Operation & Maintenance	391.17	349.44	41.73	11.94
- Repairing Expense (CSA)	238.65	261.67	(23.02)	(8.80)
- Spare parts	145.41	43.85	101.56	n.a.
- Insurance Premium	92.88	91.66	1.22	1.33
- Standby Charge	48.06	47.08	0.98	2.08
- Others	62.03	49.87	12.16	24.38
Selling and Admin- Expenses	351.16	365.42	(14.26)	(3.90)
Total Cost and Expenses*	7,752.20	10,168.69	(2,416.49)	(23.76)

* excluding depreciation & amortization

Revenues: 9M19 & 9M18








Unit : in Million Baht		9M19	9M18	Diff	%
Sales		27,344.45	28,619.32	(1,274.87)	(4.45)
AP	- RG/TECO	3,280.07	2,887.67	392.40	13.59
EP (Fuel)*	- RG/TECO	21,724.56	24,024.69	(2,300.13)	(9.57)
RAC		2,339.82	1,706.96	632.86	37.08
Revenue from financial leases - RG/TECO		2,210.62	2,553.30	(342.68)	(13.42)
Revenue from Rendering of services		39.55	38.16	1.39	3.64
Management service income		183.47	178.49	4.98	2.79
Dividend Income		100.88	187.18	(86.30)	(46.11)
Interest Income		163.54	146.99	16.55	11.26
Other Incomes		51.20	44.92	6.28	13.98
Total Revenues		30,093.71	31,768.36	(1,674.65)	(5.27)

*Fuel Cost ; 9M19 = 21,539.14 MB, 9M18 = 23,796.03 MB

Share of profit from jointly-controlled entities : 9M19 & 9M18

Excluded FX	Unit : in Million Baht	9M19	9M18	Diff	%
	HPC	2,459.17	2,529.46	(70.29)	(2.78)
	PHU FAI	234.93	112.34	122.59	109.12
	FRD	186.68	-	186.68	n.a.
	SEAN	146.62	268.07	(121.45)	(45.31)
	SOLARTA	143.49	142.45	1.04	0.73
	RPCL	129.48	207.22	(77.74)	(37.52)
	RW COGEN	95.49	199.35	(103.86)	n.a.
	KORAT 3,4,7	71.85	65.95	5.90	8.95
	RIAU	67.41	(14.52)	81.93	n.a.
	NNEG	44.34	127.14	(82.80)	n.a.
	Berk Prai	38.02	1.25	36.77	n.a.
	Songkhla Biomass	27.96	27.30	0.66	2.42
	KWINANA	26.39	34.55	(8.16)	(23.62)
	FKW	21.13	(20.87)	42.00	n.a.
	CRESCO	16.77	4.15	12.62	n.a.
	KR2	16.33	(0.72)	17.05	n.a.
	Songkhla Biofuel	(0.01)	-	(0.01)	n.a.
	PNPC	(76.08)	49.07	(125.15)	n.a.
	Total Share of profit from jointly-controlled entities	3,649.97	3,732.19	(82.22)	(2.20)

RAC – Sale Revenue By Plant : 9M19 & 9M18

Sale Revenue	Million AUD			Million THB		
	9M18	9M19	Diff	9M18	9M19	Diff
 Kemerton	26.58	29.41	2.83	644.93	713.58	68.65
 Townsville	23.73	25.34	1.55	577.35	615.06	37.71
 Collinsville Solar PV	0.39	3.44	3.05	9.49	83.50	74.01
 Mt. Emerald	2.69	33.01	30.32	65.30	801.02	735.72
 Windy Hill	1.89	2.36	0.47	45.91	57.22	11.31
 Toora	5.51	6.59	1.08	133.59	160.02	26.43
 Starfish	9.60	7.01	(2.59)	233.04	170.19	(62.85)
Total	70.45	107.16	36.72	1,709.62	2,600.59	890.98

Average Fx.of 9M18 = 24.27 THB/AUD

Cost and Expenses : 9M19 & 9M18

Unit : in Million Baht	9M19	9M18	Diff	%
Cost of Sale and Rendering of Services	24,287.20	26,421.07	(2,133.87)	(8.08)
- Fuel Cost : RG/ TECO	21,539.14	23,795.21	(2,256.07)	(9.48)
- Fuel Cost : RAC	-	0.82	(0.82)	n.a.
- Operation & Maintenance	1,131.63	1,085.26	46.37	4.27
- Repairing Expense (CSA)	734.88	777.96	(43.08)	(5.54)
- Spare parts	279.63	179.24	100.39	56.01
- Insurance Premium	277.72	279.31	(1.59)	(0.57)
- Standby Charge	132.18	144.53	(12.35)	(8.54)
- Others	192.02	158.74	33.28	20.97
Selling and Admin- Expenses	1,106.15	1,103.98	2.17	0.20
Total Cost and Expenses*	25,393.35	27,525.05	(2,131.70)	(7.74)

* excluding depreciation & amortization

Gain (Loss) From Foreign Exchange

Unit : in Million Baht	3Q19	3Q18	9M19	9M18
Gain (Loss) from Foreign Exchange Rate	(174.06)	(255.55)	(481.81)	(582.72)
The Company and Subsidiaries	(163.48)	(31.66)	(349.13)	(550.55)
- RH	(6.68)	(32.41)	(76.58)	(14.12)
- RH Inter	(166.31)	(34.68)	(350.74)	(577.08)
- RG / RE / RL	9.51	35.43	78.19	40.65
Jointly-controlled entities and Associates	(10.58)	(223.89)	(132.68)	(32.17)
- SEAN (33.33%)	1.22	(0.29)	0.69	49.57
- RPCL (25%)	1.83	8.81	11.79	8.69
- HPC (40%)	(7.39)	(177.33)	(5.66)	(43.93)
- PNPC (25%)	(6.33)	(56.40)	(142.97)	(43.28)
- Others (CRESCO, PMPC, RW Cogen, FKW, NNEG, RIC)	0.09	1.32	3.47	(3.22)

Foreign Exchange Rate as at 30 September 2019 = 30.575 Baht/USD, 28 September 2019 = 32.382 Baht/USD

Foreign Exchange Rate as at 28 June 2019 = 30.737 Baht/USD, 29 June 2018= 33.166 Baht/USD

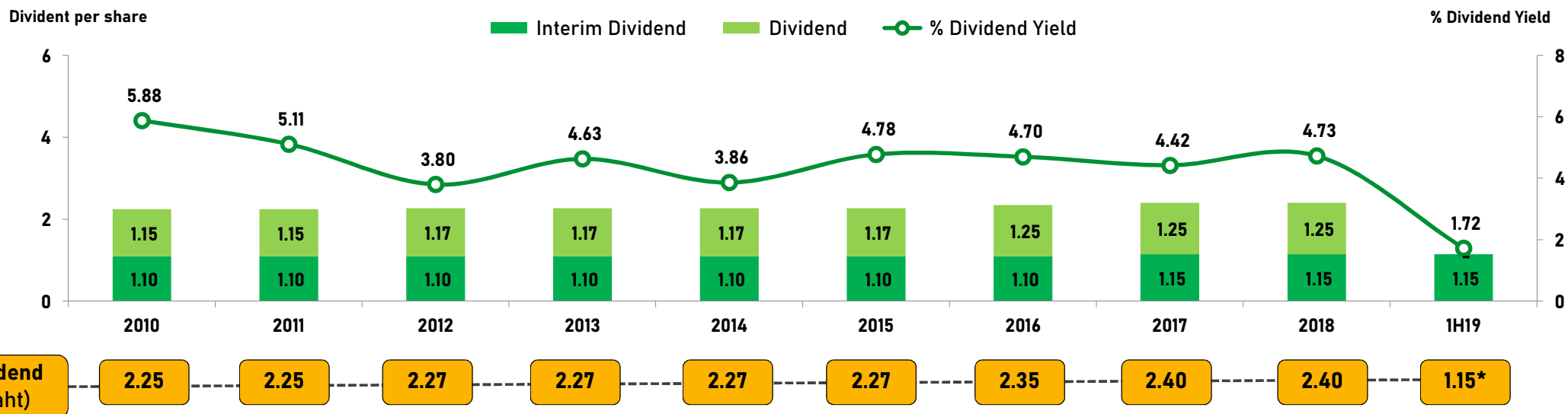
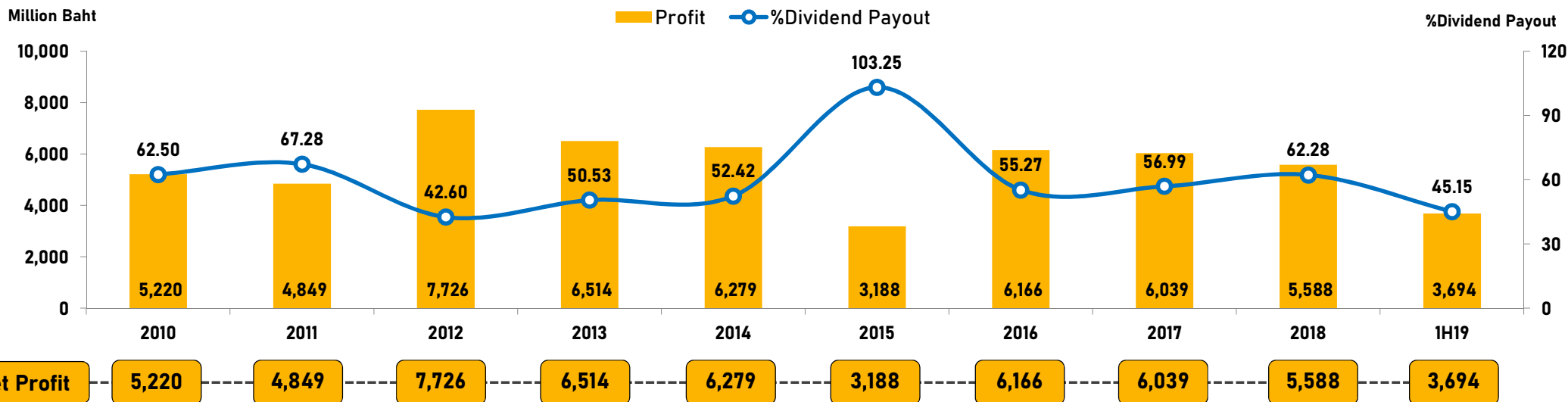
Foreign Exchange Rate as at 28 December 2018 = 32.417 Baht/USD, 29 December 2017 = 32.659 Baht/USD

Dividend Policy

RATCH has a dividend payout policy of no less than 40% of the net profit

2010-2018
Avg. %Dividend Payout
61%

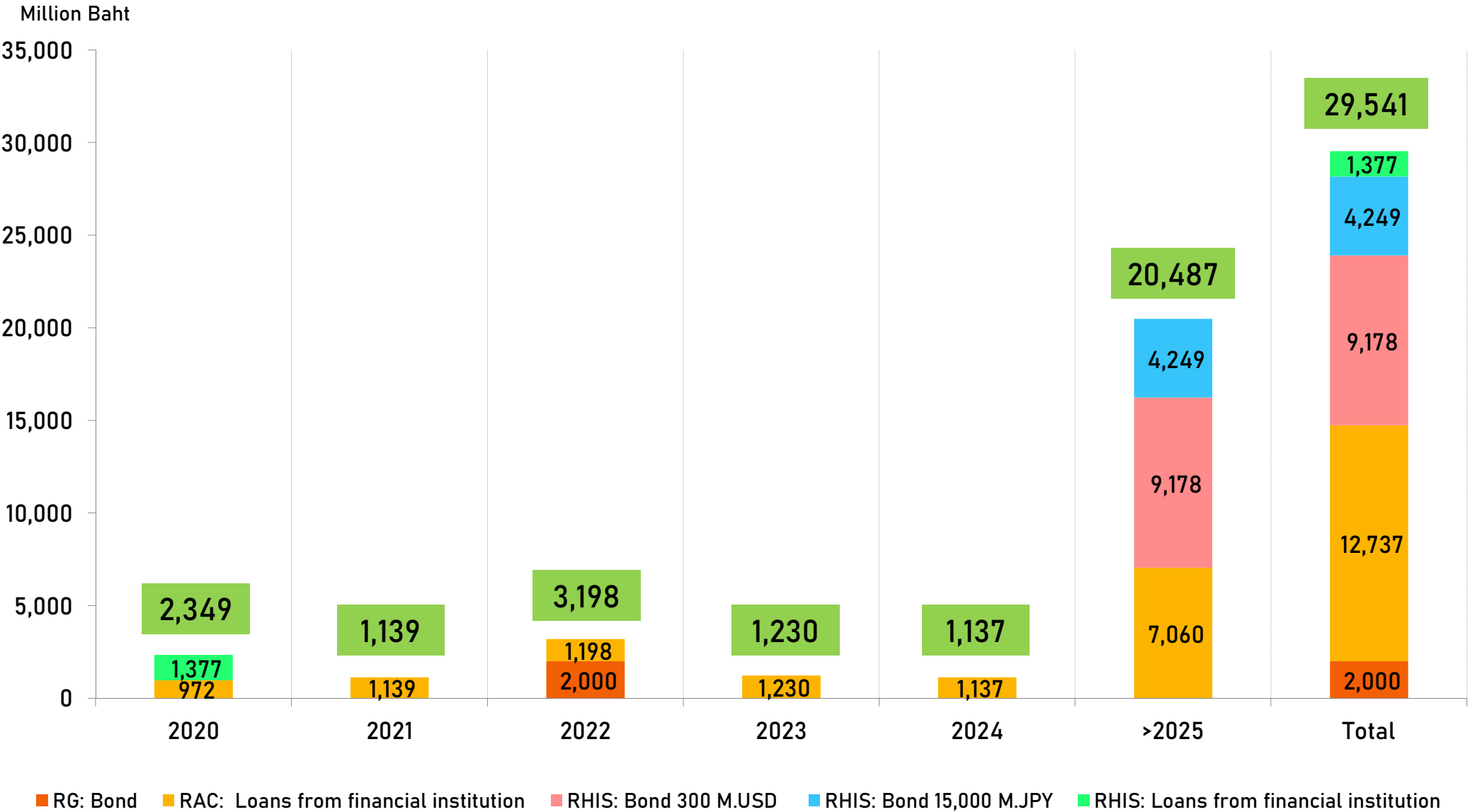
2010-2018
Avg. %Dividend Yield
4.66%



* Interim dividend payment will be on 20th September 2019

Debt Profile

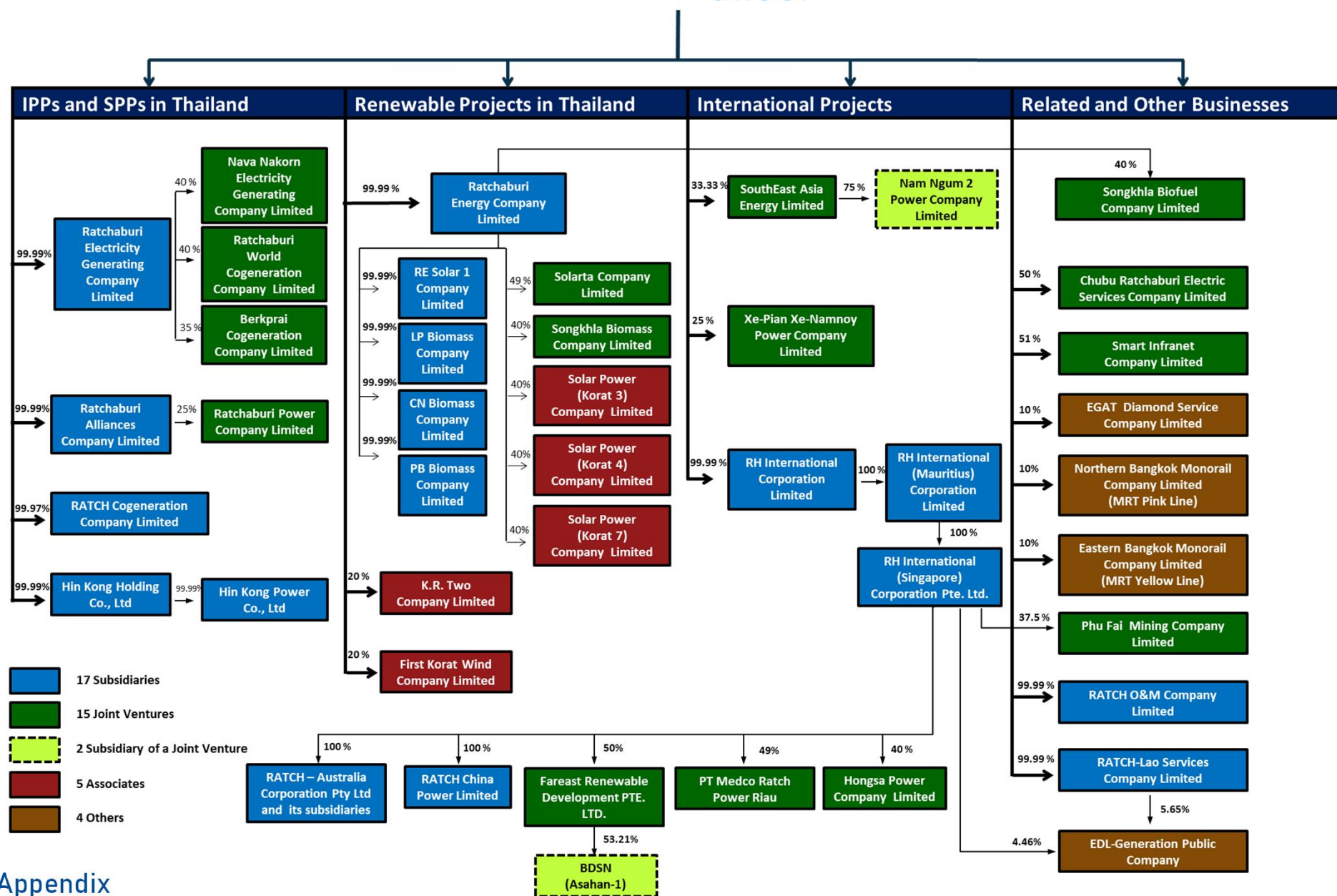
As of September 2019



Company Structure



As of November 2019



IPPs and SPPs in Thailand

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Ratchaburi Power Plant	Ratchaburi Province	Thermal	100	1,470	1,470	2000	EGAT	25 years/ 2025	N.A.
		Combined Cycle	100	2,175	2,175	2002	EGAT	25 years/ 2027	N.A.
Tri Energy Power Plant	Ratchaburi Province	Combined Cycle	100	720	720	2000	EGAT	20 years/ 2020	Possibility to extend on mutually agreed terms
Ratchaburi Power Power Plant	Ratchaburi Province	Combined Cycle	25	1,490	372.50	2008	EGAT	25 years/ 2033	N.A.
Ratchaburi World SPP Power Plant	Ratchaburi Industrial Estate, Ratchaburi Province	Cogeneration	40	234	93.60	1#2014 2#2015	EGAT	Block 1: 25 years/ 2039 Block 2: 25 years/ 2040	N.A.

IPPs and SPPs in Thailand

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation (Cont.)									
Nava Nakorn SPP Power Plant	Nava Nakorn Industrial Promotion Zone, Pathumthani Province	Cogeneration	40	139.13	55.65	2016	EGAT	25 years/ 2041	N.A.
Berkprai Cogeneration SPP Power Plant	Ratchaburi Province	Cogeneration	35	99.23	34.73	Jun 2019	EGAT	25 years/2044	N.A.
RATCH Cogeneration SPP Power Plant	South Nava Nakorn Industrial Promotion Zone, Pathumthani Province	Cogeneration	99.97	119.15	119.11	Oct 2013	EGAT	25 years/ 2038	N.A.
Total				6,446.51	5,040.59				
Under Construction									
Nava Nakorn SPP Power Plant (Extension) Progress : 64.4% (August 2019)	Nava Nakorn Industrial Promotion Zone, Pathumthani Province	Cogeneration	40	59.97	23.99	Expected COD : Sep 2020	EGAT	25 years/2045	N.A.
Total				59.97	23.99				

IPPs and SPPs in Thailand

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
Under Development									
Hin Kong Power Plant Unit #1	Ratchaburi Province	Combined Cycle	100	700	700	Expected COD : In 2024	EGAT	25 years /2049	N.A.
Hin Kong Power Plant Unit #2	Ratchaburi Province	Combined Cycle	100	700	700	Expected COD : In 2025	EGAT	25 years /2050	N.A.
Total				1,400	1,400				
Grand Total				7,897.33	6,455.44				

Renewable Projects in Thailand

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Huay Bong 2 Wind-Turbine Power Plant	Nakorn Ratchasima Province	Wind-Turbine	20	103.50	20.70	2013	EGAT	5 years/ 2023 Adder 3.5 Baht (10-Year)	Automatic renewal for a further 5 years every 5 years
Huay Bong 3 Wind-Turbine Power Plant	Nakorn Ratchasima Province	Wind-Turbine	20	103.50	20.70	2012	EGAT	5 years/ 2022 Adder 3.5 Baht (10-Year)	Automatic renewal for a further 5 years every 5 years
Solar Power Power Plant (Korat 3, Korat 4, Korat 7)	Nakorn Ratchasima Province	Solar Power	40	21.60	8.64	2012	PEA	5 years/ 2022 Adder 8 Baht (10-Year)	Automatic renewal for a further 5 years every 5 years
Solarta Solar Power Plant	Ayutthaya, Nakhon Pathom, and Suphanburi Provinces	Solar Power	49	42.30	20.73	2011-2012	PEA	Ayutthaya : 5 years / 2021 Suphanburi and Nakhon Pathom: 5 years / 2022 Adder 8 Baht (10-Year)	Automatic renewal for a further 5 years every 5 years
Songkhla Biomass Power Plant	Songkhla Province	Thermal	40	9.90	3.96	2015	PEA	20 years/2035	N.A.
Total				280.80	74.73				
Grand Total				280.80	74.73				

International Projects in Australia

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Townsville Power Plant	North Queensland, Australia	Combined Cycle Gas Turbine	100	234	234	1999	AGL Energy /Arrow	February 2025	N.A.
Kemerton Power Plant (Included Black Start)	Western Australia, Australia	Open Cycle Gas/Diesel Turbine	100	315.20	315.20	2005	Synergy	October 2030	N.A.
BP Kwinana Power Plant (30 % owned by RAC)	Western Australia, Australia	Cogeneration	30	118	35.40	1996	Verve Energy/BP	December 2021	N.A.
Starfish Hill Wind-Turbine Power Plant	South Australia, Australia	Wind-Turbine	100	33	33	2003	Alinta Energy	In 2020	N.A.
Toora Wind-Turbine Power Plant	Victoria, Australia	Wind-Turbine	100	21	21	2002	Merchant Market	N.A.	N.A.
Windy Hill Wind-Turbine Power Plant	Queensland, Australia	Wind-Turbine	100	12	12	2000	Merchant Market	N.A.	N.A.

International Projects in Australia

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Mount Emerald Wind-Turbine Power Plant	Queensland, Australia	Wind-Turbine	100	180.45	180.45	Dec 2018	Ergon Energy Queensland	December 2030	N.A.
Collinsville Solar PV Power Plant	Queensland, Australia	Solar Power	100	42.50	42.50	March 2019	Alinta Energy	12.5-year	N.A.
Total				956.15	873.55				
Under Construction									
Collector Wind-Turbine Power Plant	New South Wales, Australia	Wind-Turbine	100	226.80	226.80	Expected COD: 2021	Merchant Market	N.A.	N.A.
Yandin Wind-Turbine Power Plant	Western Australia, Australia	Wind-Turbine	70	214.20	149.94	Expected COD : Sep 2020	Alinta Sales	15-year	N.A.
Total				441.00	376.74				
Grand Total				1,397.15	1,250.29				

International Projects in Laos

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Nam Ngum 2 Hydroelectric Power Plant	Laos	Hydro Power Plant	25	615	153.75	2011	EGAT	27 years/ 2038	N.A.
Hongsa Thermal Power Plant	Sainyaburi Province, Laos	Lignite-Fired Power Plant	40	1,878	751.20	1# 2015 2# 2016	EGAT & EDL	25 years/ 2040	N.A.
EDL-Generation	Laos	Hydro Power Plant	10.11	1,131.15	114.36	N.A.	N.A.	N.A.	N.A.
EDL-Generation	Laos	Solar Power	10.11	6.00	0.61	2017	N.A.	N.A.	N.A.
Total				3,630.15	1,019.92				
Under Construction									
Xe-Pian Xe-Namnoy Hydroelectric Power Plant Progress : 97.36% (August 2019)	Attapue and Champasak provinces, Laos	Hydro Power Plant	25	410	102.50	Expected COD : Dec 2019	EGAT & EDL	27 years/ 2046	N.A.
Total				410	102.50				
Grand Total				4,040.15	1,122.42				

International Projects in China & Republic of Indonesia

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Asahan-1 Hydroelectric Power Plant	Republic of Indonesia	Hydro Power Plant	26.61	180	47.90	2011	PT PLN (PERSERO)	30 year / 2040	N.A.
Total				180	47.90				
Under Construction									
Riau Combined-Cycle Power Plant Progress : 39.04% (August 2019)	Republic of Indonesia	Combined Cycle	49	296.23	145.15	Expected COD: May 2021	PT PLN (PERSERO)	20 year	N.A.
Fangchenggang II Nuclear Power Plant Progress : 37.62% (June 2019)	Fangchenggang , China	Nuclear Power	10	2,360	236	Expected COD: 2021	N.A.	30 year	N.A.
Total				2,656.23	381.15				
Grand Total				2,836.23	429.05				

Infrastructure Projects

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
Under Construction									
MRT Pink Line Project and MRT Yellow Line Project	Nonthaburi and Bangkok Province	Elevated Straddle Monorail	10	N.A.	N.A.	Expected COD: In 2021	Concession Contracts with MRTA	30 years/2051	N.A.

Name of Power Plant/Project	Location	Technology	RATCH's stake (%)	Installed Capacity (MW)	Attributable Capacity (MW)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
Under Development									
Internet of Things Project: Set up base station for Sigfox network	Cover 70% of the area and 85% of the population of Thailand	Sigfox (LPWAN connection technology)	35	N.A.	N.A.	Expected COD: In 2020	N.A	N.A	N.A

Infrastructure Projects

Name of Power Plant/Project	Location	Type of Business	RATCH's stake (%)	Generating Capacity (cubic meters/day)	Attributable Generating Capacity (cubic meters/day)	COD	Terms of the PPA		
							PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation									
Sandin Water Supply Project (Phase 1)	Laos	Generating water supply	40	24,000	9,600	2018	Concession Contracts with Nampapa Nakhone Luang	50 years	N.A.
Total				24,000	9,600				
Under Development									
Sandin Water Supply Project (Phase 2)	Laos	Generating water supply	40	24,000	9,600	Expected COD: In 2031	Concession Contracts with Nampapa Nakhone Luang	50 years	N.A.
Total				24,000	9,600				
Grand Total				48,000	19,200				

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