

# CIMB Non-Deal Roadshow

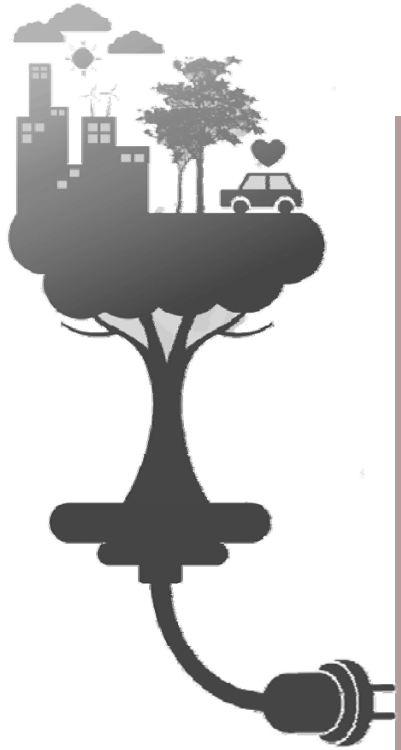
May 2016

## RATCH



RATCHABURI  
ELECTRICITY GENERATING  
HOLDING PCL.

# Agenda



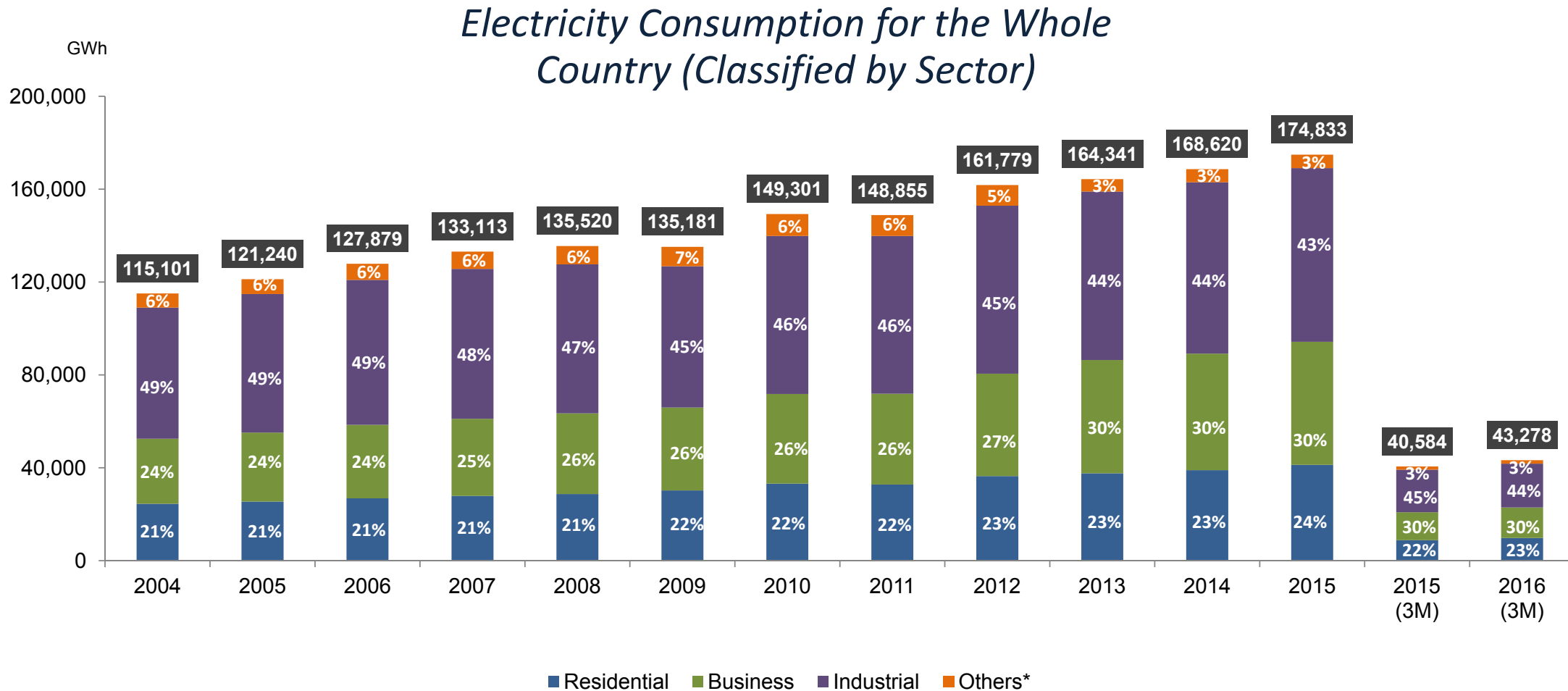
Industry Overview

Company Overview

Financial Performance

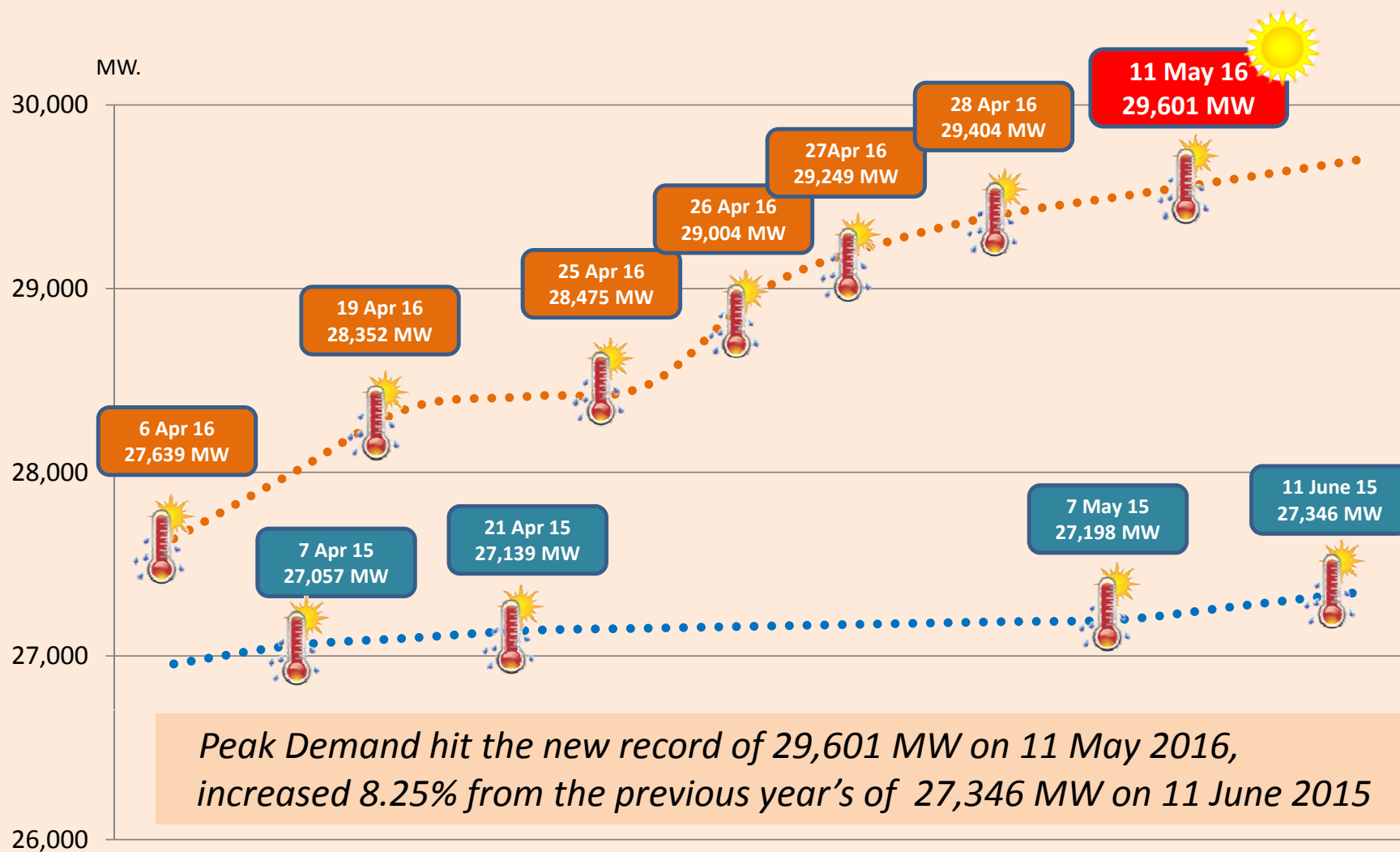
Annexure

# Electricity Consumption



- Total Installed Capacity is 40,555 MW (as of April 2016)
- CAGR 2004-2015  $\approx$  4%

# Peak Demand

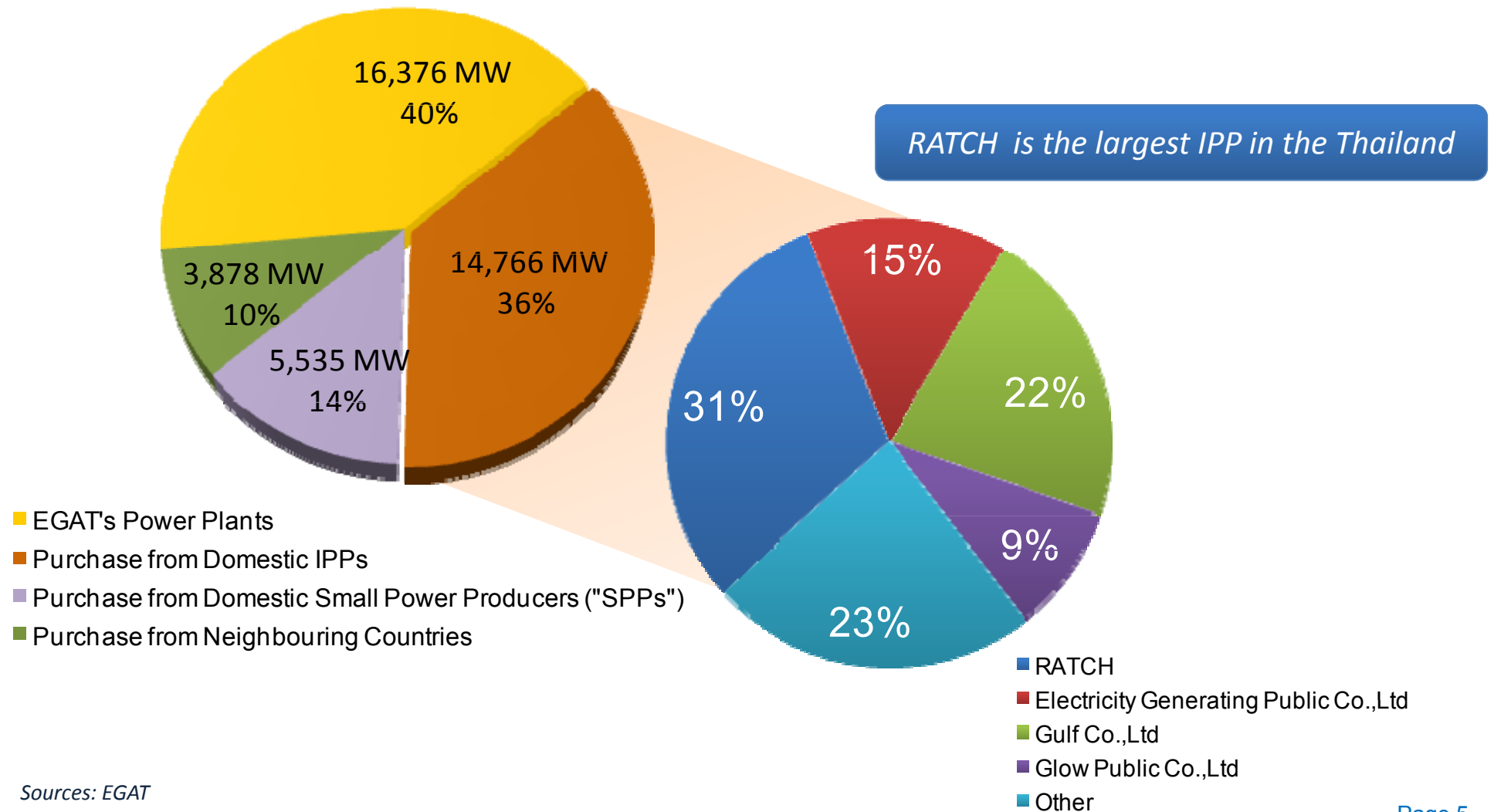


# Total Installed Capacity



As of April 2016

*Thailand : Power Generation*  
*Total Installed Capacity "40,555 MW."*

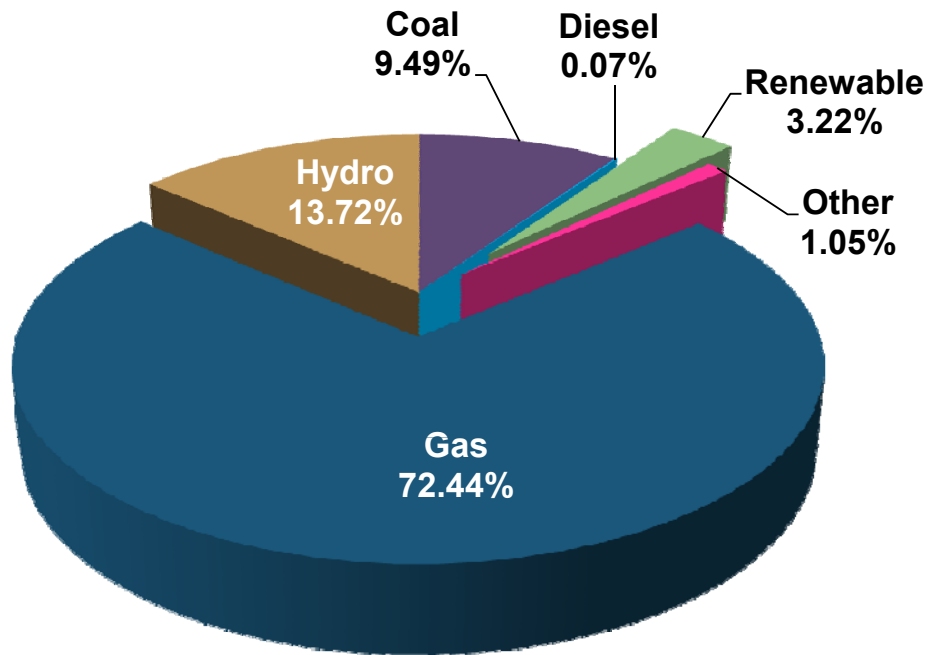


# Total Installed Capacity



## *Breakdown by Fuel*

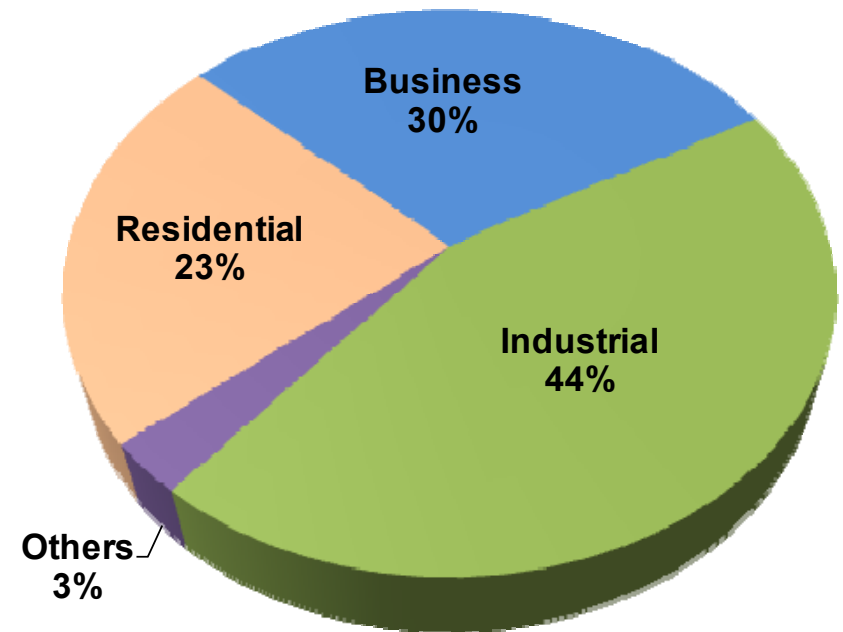
As of April 2016



## *Breakdown by Consumer Type*

As of March 2016

Total: 43,278 GWh



Sources: EGAT

# Thailand's Electricity Structure



## EGAT Overview

- Thailand's state-owned power utility under the Ministry of Energy
- Responsible for electric power generation and transmission for the whole country as well as bulk electric energy sales
- EGAT is the single buyer that purchases bulk electricity from private power producers and neighboring countries
- Sells electricity to Provincial Electricity Authority ("PEA"), Metropolitan Electricity Authority ("MEA"), neighboring countries and others
- Owns and operates a high voltage transmission network which covers all parts of Thailand

## Key Customers



Provincial Electricity Authority "PEA"

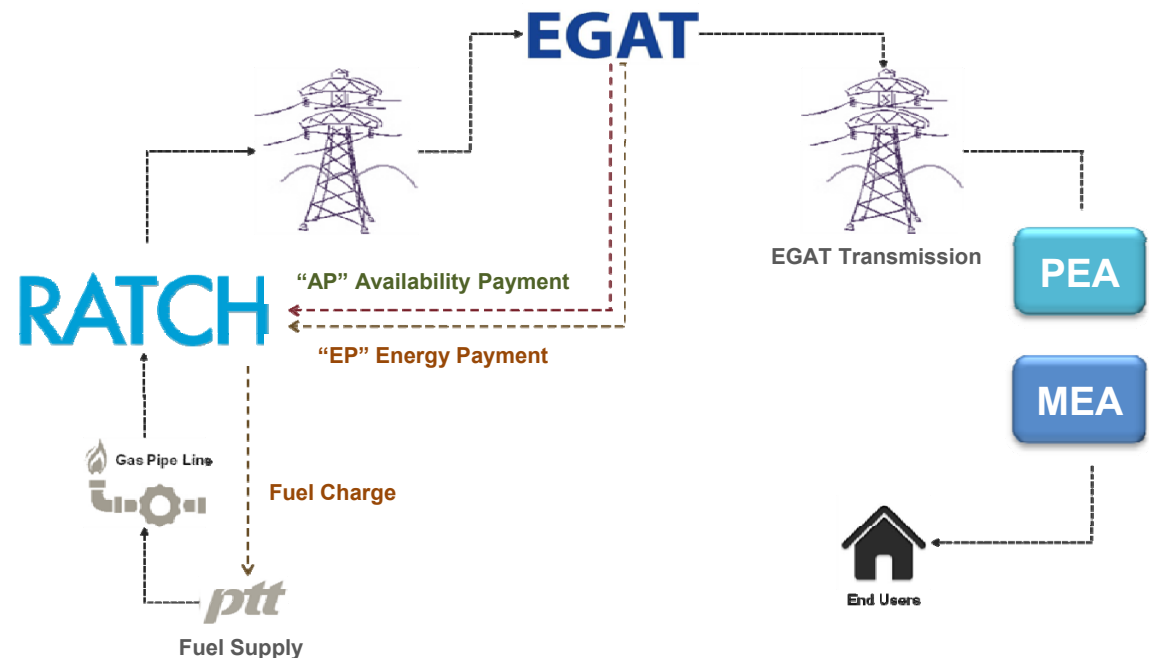
- ✓ Thai government enterprise
- ✓ Generation, procurement, distribution and sale of electricity
- ✓ Covers approximately 99.4% of Thailand, with the exception of Bangkok, Nonthaburi and Samut Prakarn provinces



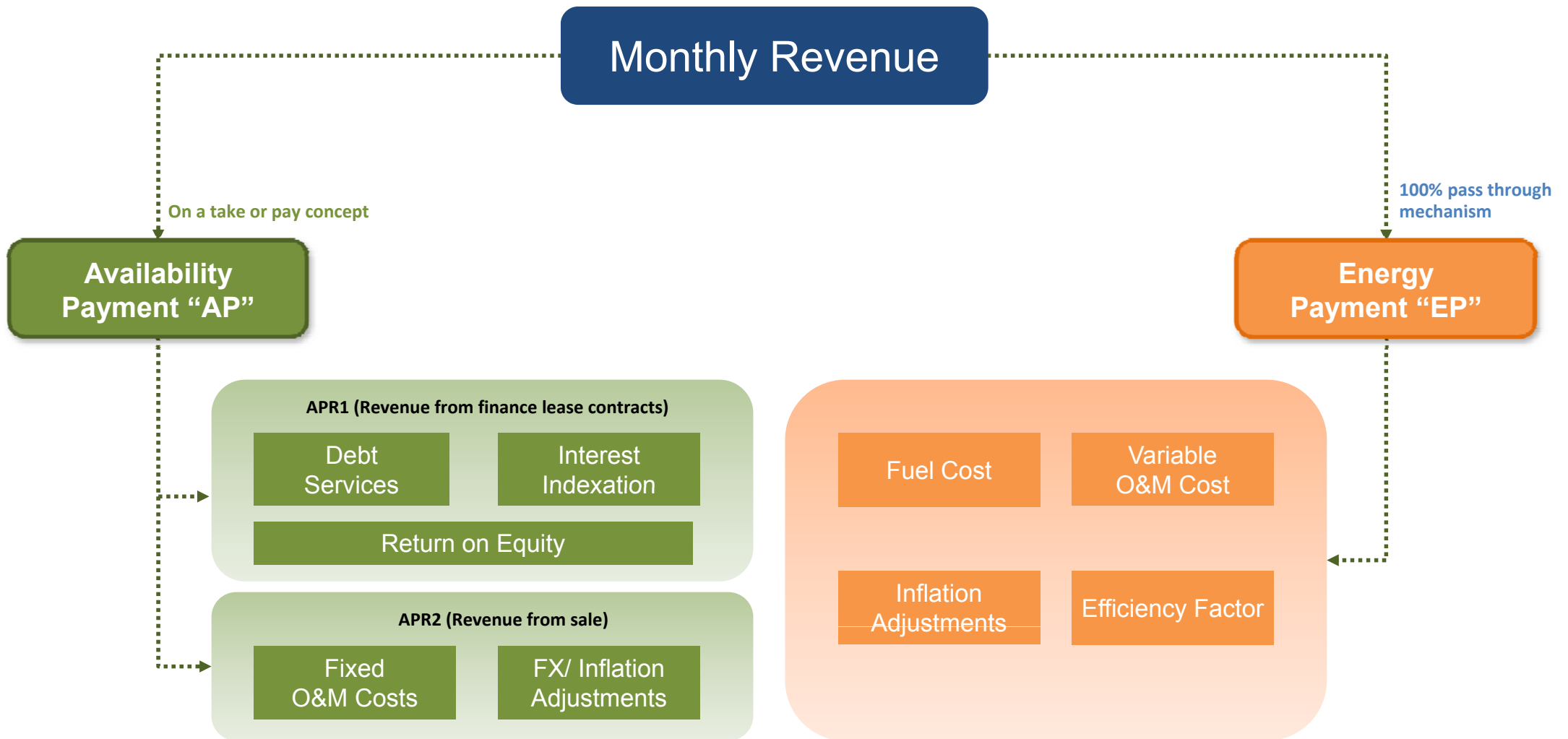
Metropolitan Electricity Authority "MEA"

- ✓ Thai state enterprise under the Ministry of Interior
- ✓ Distribution of electricity in Bangkok, Nonthaburi, and Samut-Prakarn Provinces

## Thailand's Electricity Structure

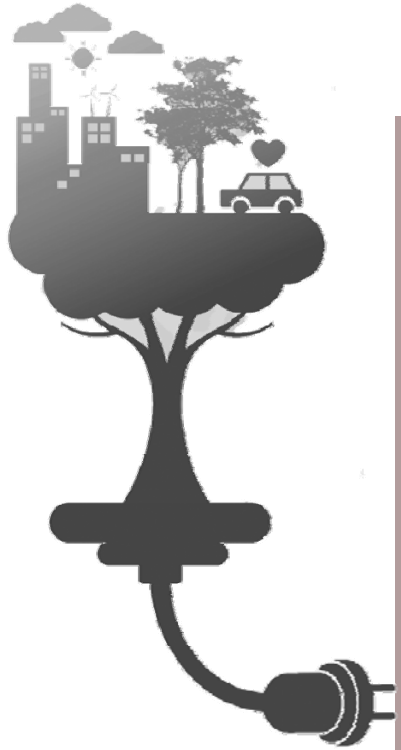


# PPA Tariff Structure





# Agenda



Industry Overview

**Company Overview**

Financial Performance

Annexure

# Company Overview

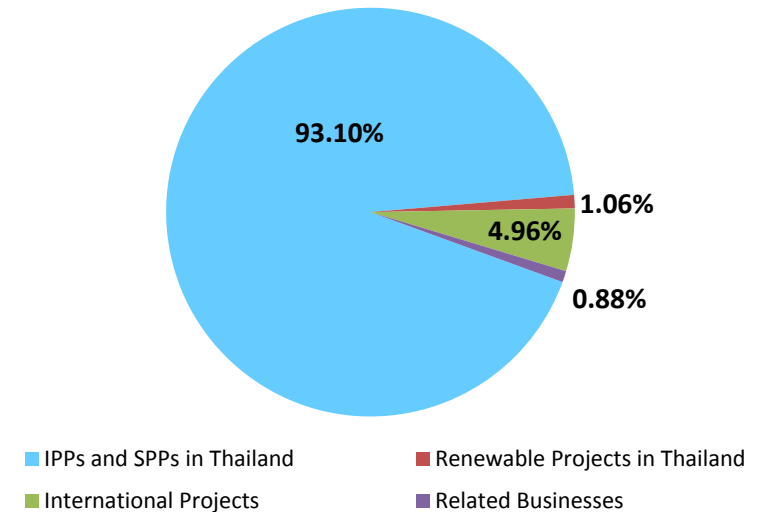


## Overview

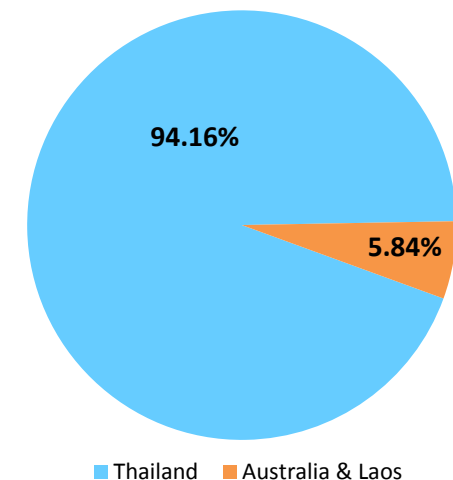
- Investment company in the electricity generation business based in Thailand
- Largest independent power producer (“IPP”) based in Thailand by total capacity
- Primarily involved in the construction, development and operation of power plants in Thailand, Laos and Australia
- 4 core businesses: (1) *IPPs and SPPs in Thailand* (2) *Renewable Projects in Thailand* (3) *International Projects* (4) *Related businesses*
- Listed on the Stock Exchange of Thailand since 2 November 2000
- Market cap of USD 2,077 million<sup>1</sup> (THB 74,313 million) as at 23 May 2016
- Total current capacity (domestic and overseas): 6,363.30 Megawatts (“MW”) from 18 power plants
- Projects under construction (for completion between 2016 – 2019): 426.30 MW from 4 projects

Note: <sup>1</sup> Foreign Exchange Rate as at 23 May 2016= 35.7852 Baht/USD

Revenue breakdown By Business Segments  
as of March 2016



Revenue breakdown By Geography  
as of March 2016



# Company Rating



**STANDARD**  
**&POOR'S**

**MOODY'S**

On par with  
Kingdom of  
Thailand's rating

**RATCH**

**Thailand**

**Philippines**

**Indonesia**

**Vietnam**

**Cambodia**

**S&P:BBB+**

**Moody's:Baa1**

**S&P:BBB+**

**Moody's:Baa1**

**S&P: BBB**

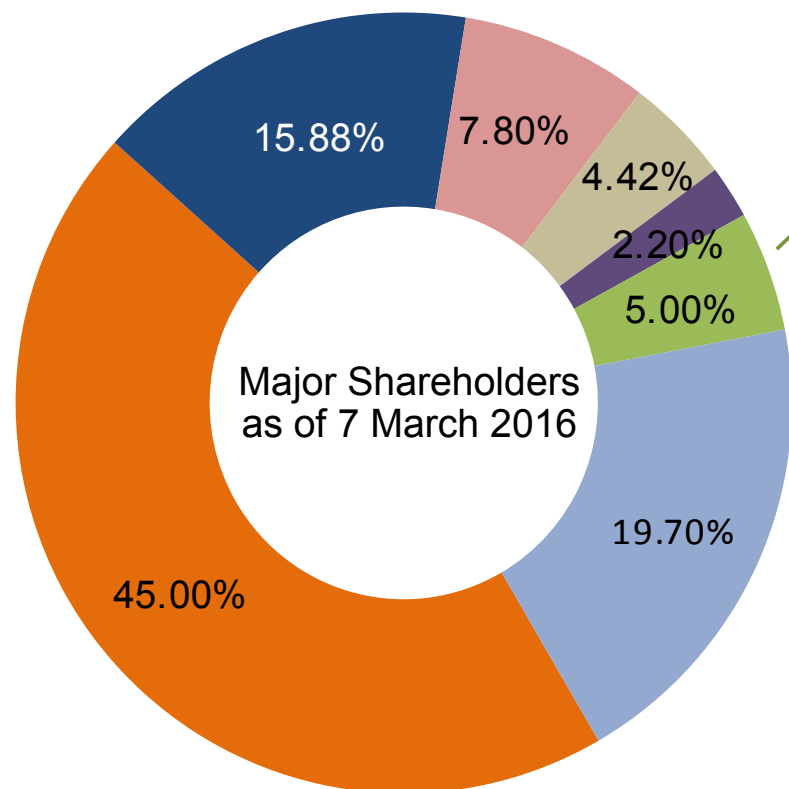
**Moody's: Baa2**

**S&P: BB+**  
**Moody's: Baa3**

**S&P: BB-**  
**Moody's: B1**

**S&P: B**  
**Moody's: B2**

# Shareholder Information



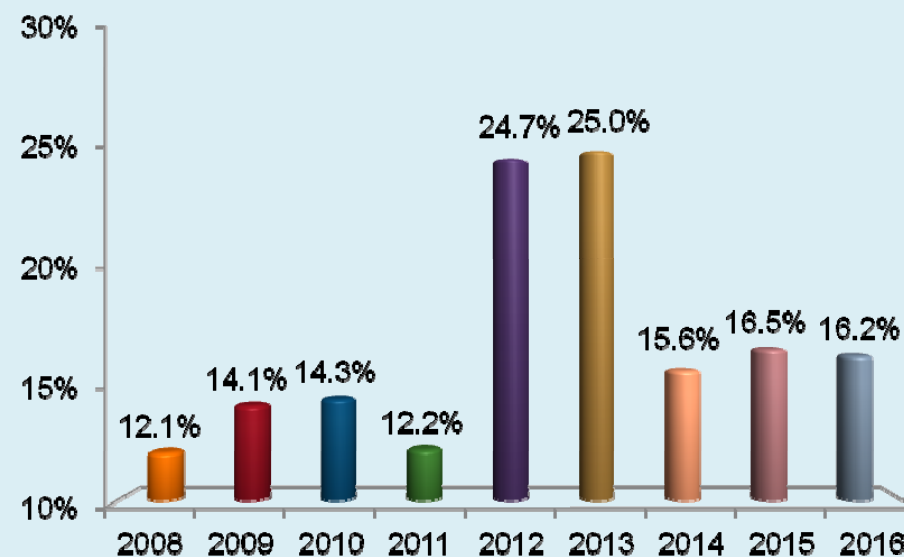
- EGAT
- LITTLEDOWN NOMINEES LIMITED
- AIA Company Limited- AIA D-PLUS
- Minor Shareholders
- Thai NVDR Company Limited
- Social Security Office
- Other Major Shareholders

## Other Major Shareholders consisted of

- STATE STREET BANK EUROPE LIMITED 2.01%
- Mr. Min Tieworn 0.97%
- Krungsri Dividend Stock LTF 0.80%
- AIA Company Limited-APEX 0.74
- CIMB-PRINCIPAL ENERGY AND PETROCHEMICAL INDEX FUND 0.48%

## % Foreign Shareholders

Data are as of AGM closing date in each respective year



### Remark:

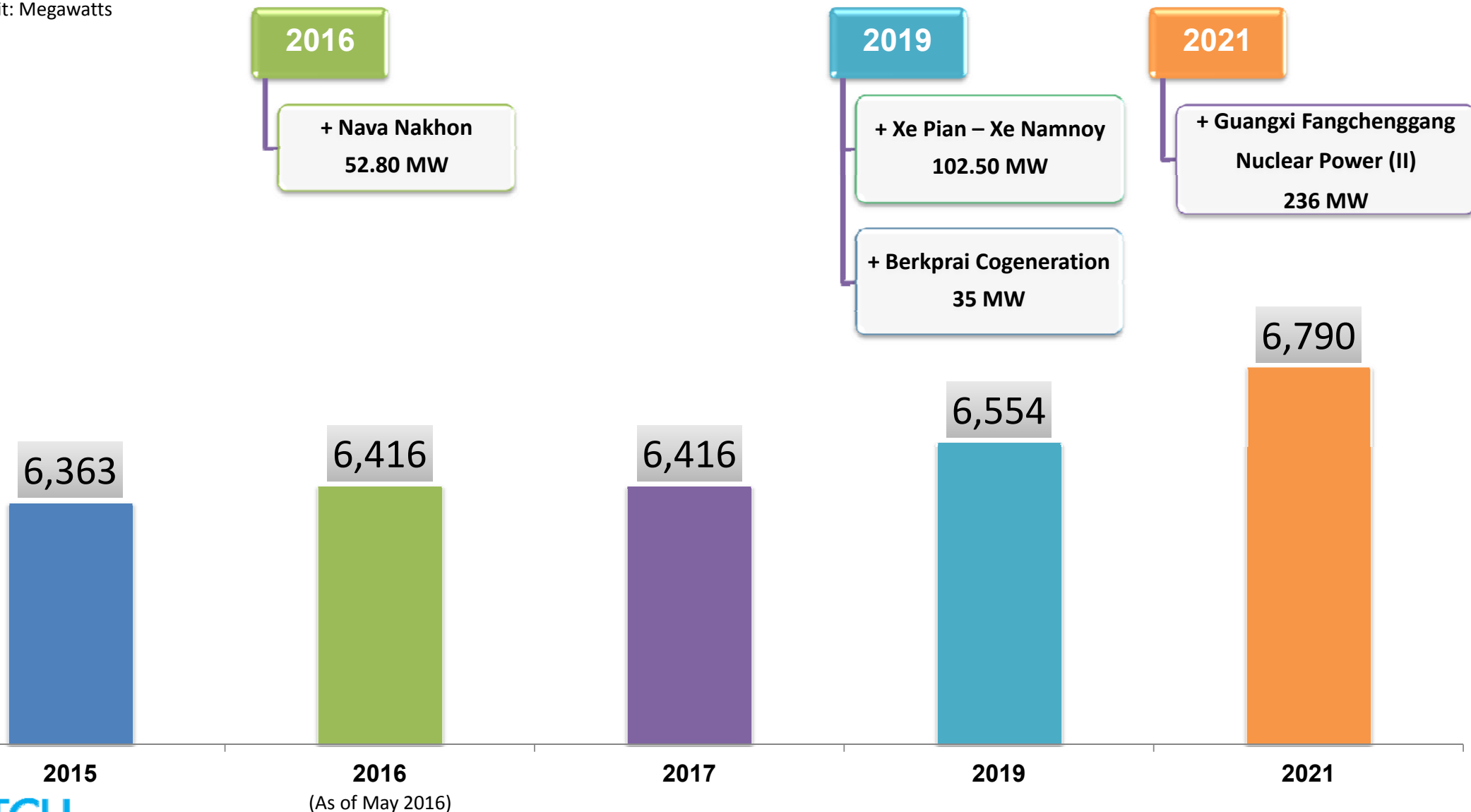
On 17 July 2014, the SILCHESTER INTERNATIONAL INVESTORS LLP transferred its common shares of RATCH by the amount of 157,297,300 shares (equivalent to 10.85% of the Company's common shares) to Thai NVDR Company Limited.

# Overview of RATCH projects



## Capacity until 2019 (Committed Projects)

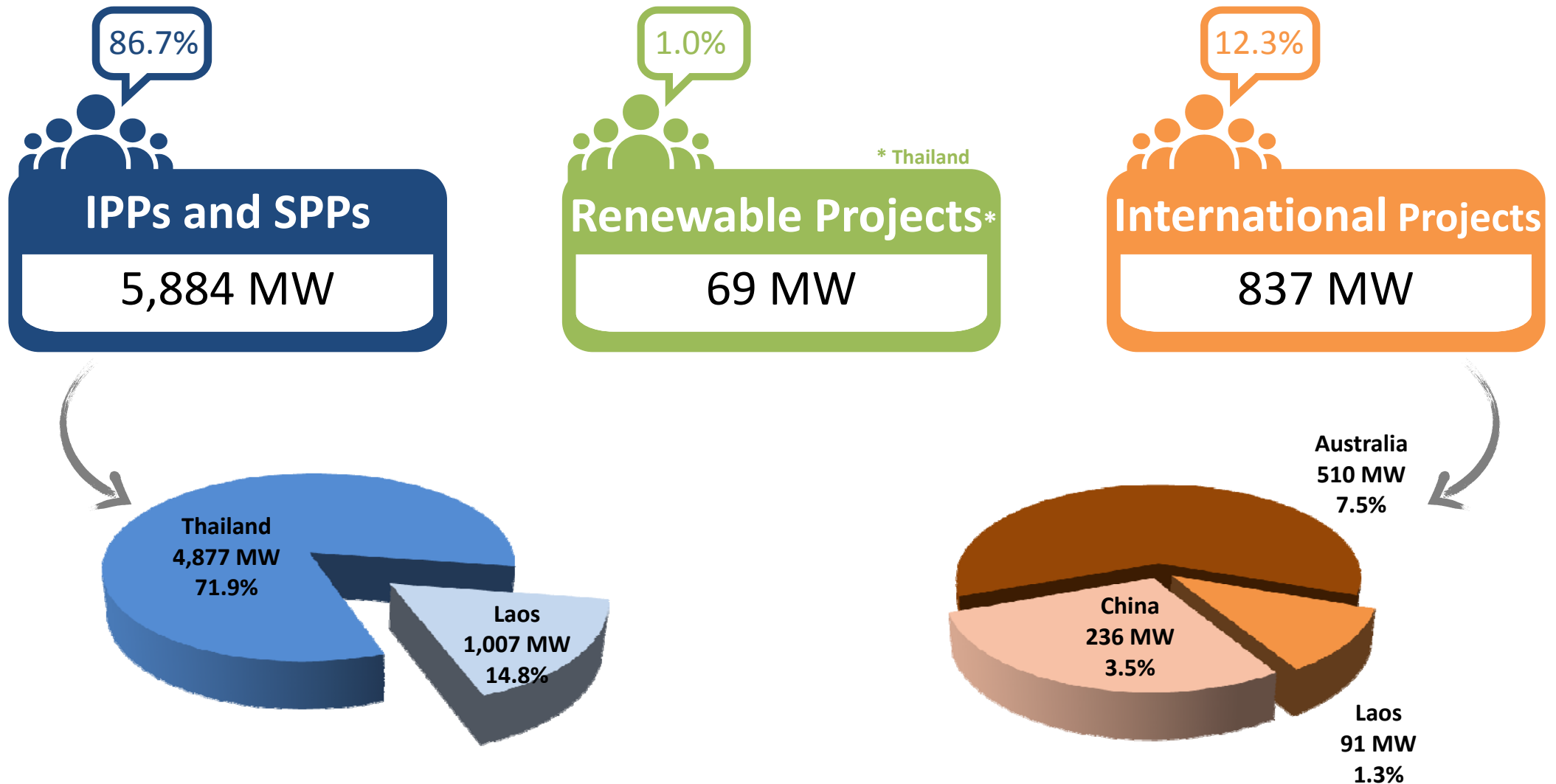
Unit: Megawatts



# Overview of RATCH projects



## Current Breakdown of Capacity till 2021



# Portfolio by Types of Fuels and Locations



**Current Projects ( As of April 2016)**

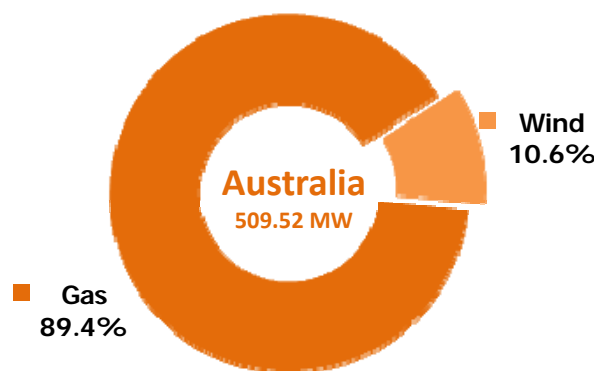
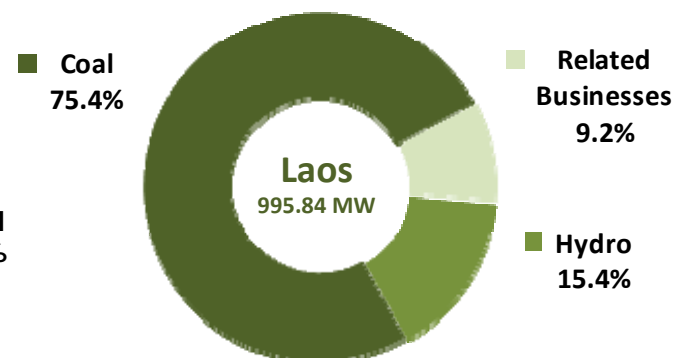
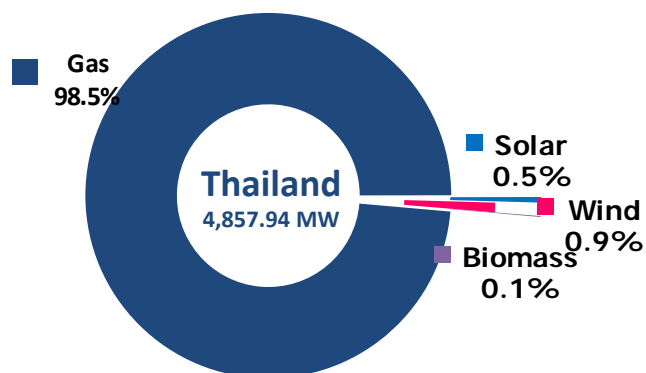
**Grand Total : 6,363.30 MW**

Gas	
Power Plant	Capacity Contributed (MW)
RATCHGEN	3,645.00 (100%)
TECO	700.00 (100%)
RPCL	350.00 (25%)
RW Cogen	93.60 (40%)
<b>Total</b>	<b>4,788.60</b>

Wind	
Power Plant	Capacity Contributed (MW)
Huay Bong 2	20.70 (20%)
Huay Bong 3	20.70 (20%)
<b>Total</b>	<b>41.40</b>

Solar	
Power Plant	Capacity Contributed (MW)
Solar Power	7.20 (40%)
Solarta Power	16.78 (49%)
<b>Total</b>	<b>23.98</b>

Biomass	
Power Plant	Capacity Contributed (MW)
Songkhla Biomass	3.96 (40%)
<b>Total</b>	<b>3.96</b>



Hydro	
Power Plant	Capacity Contributed (MW)
Num Ngum 2	153.75 (25%)
<b>Total</b>	<b>153.75</b>

Coal	
Power Plant	Capacity Contributed (MW)
Hongsa	751.20 (40%)
<b>Total</b>	<b>751.20</b>

Related Businesses	
Power Plant	Capacity Contributed (MW)
Shares Purchase of EDL-Gen	90.89 (10.11%)
<b>Total</b>	<b>90.89</b>

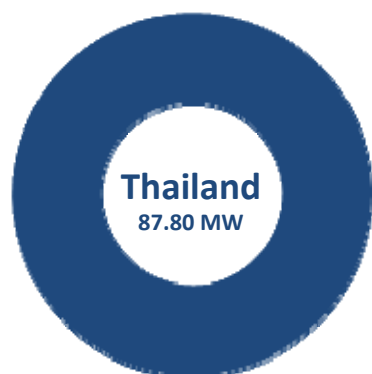
Gas		Wind	
Power Plant	Capacity Contributed (MW)	Power Plant	Capacity Contributed (MW)
Townsville	187.20 (80%)	Starfish Hill	27.60 (80%)
Kemerton	240 (80%)	Toora	16.80 (80%)
BP Kwinana	28.32 (80%)	Windy Hill	9.60 (80%)
<b>Total</b>	<b>455.52</b>	<b>Total</b>	<b>54.00</b>

# Portfolio by Types of Fuels and Locations



*Projects from 2016 to 2021*

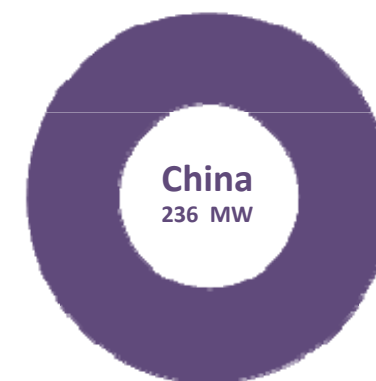
*Grand Total : 426.30 MW*



Gas		
Power Plant	Capacity Contributed (MW)	Status
Nava Nakhon	52.80 (40%)	Under Construction COD: June 2016
Berkprai Cogeneration	35 (35%)	Under Development COD: In 2019
<b>Total</b>	<b>87.80</b>	



Hydro		
Power Plant	Capacity Contributed (MW)	Status
Xe Pian-Xe Namnoy	102.50 (25%)	Under Construction COD: In 2019
<b>Total</b>	<b>102.50</b>	



Gas		
Power Plant	Capacity Contributed (MW)	Status
Guangxi Fangchenggang Nuclear Power (II)	236 (10%)	Under Development COD: In 2021
<b>Total</b>	<b>236</b>	

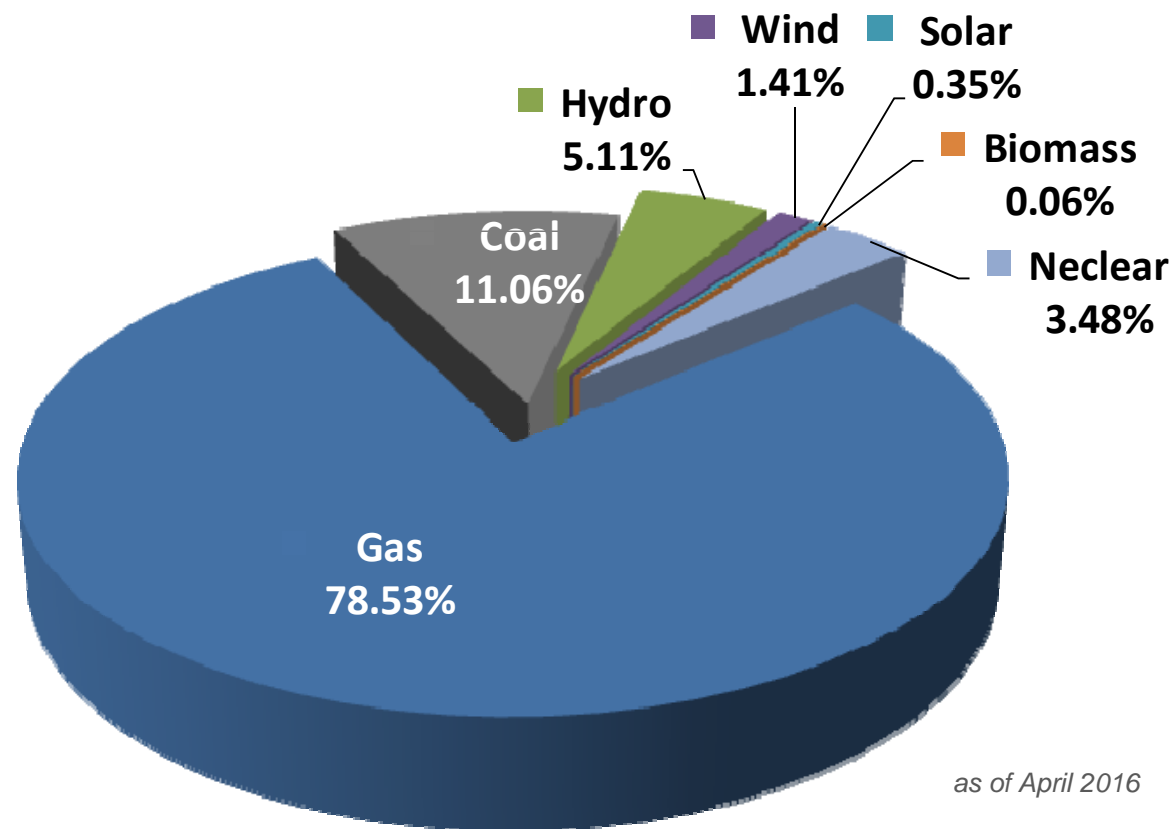


# Power Generation by Fuel



## RATCH: Power Generation

*Capacity unit 2019 (Committed Projects)*  
*"6,789.60 MW."*



# Portfolio by Core Business



## IPPs and SPPs in Thailand

Name of Power Plant/Project	Location	Technology	Total Capacity (MW)	Capacity contributed to the Group (MW)	Terms of the PPA		
					PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
In Operation							
Ratchaburi Power Plant	Ratchaburi Province	Thermal	1,470	1,470 (100%)	EGAT	25 years/ 2025	Not Applicable
		Combined Cycle	2,175	2,175 (100%)	EGAT	25 years/ 2027	Not Applicable
Tri Energy Power Plant	Ratchaburi Province	Combined Cycle	700	700 (100%)	EGAT	20 years/ 2020	Not Applicable
Ratchaburi Power Power Plant	Ratchaburi Province	Combined Cycle	1,400	350 (25%)	EGAT	25 years/ 2033	Not Applicable
Ratchaburi World Cogeneration Project	Ratchaburi Industrial Estate, Ratchaburi Province	Cogeneration	234	93.60 (40%)	EGAT	Block 1: 25 years/ 2039 Block 2: 25 years/ 2040	Not Applicable
Total			5,979.00	4,788.60			

# Portfolio by Core Business



## IPPs and SPPs in Thailand (Cont.)

Name of Power Plant/Project	Location	Technology	Total Capacity (MW)	Capacity contributed to the Group (MW)	Terms of the PPA		
					PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
Under Construction							
Nava Nakorn Electricity Generating Project	Nava Nakorn Industrial Promotion Zone, Pathumthani Province	Cogeneration	132	52.80 (40%)	EGAT	25 years/ 2041 (Expected COD: June 2016)	Not Applicable
		Total	132	52.80			
Under Development							
Berkprai Cogeneration	Ratchaburi Province	Cogeneration	100	35 (35%)	EGAT	25 years/2044 (Expected COD: 2019)	Not Applicable
		Total	100	35			
Grand Total			6,211.00	4,876.40			

# Portfolio by Core Business



## IPPs and SPPs in Laos

Name of Power Plant/Project	Location	Technology	Total Capacity (MW)	Capacity contributed to the Group (MW)	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	615	153.75 (25%)	EGAT	27 years/ 2038	Not Applicable
Hongsa Thermal Project	Sainyaburi Province, Laos	Lignite-Fired Power Plant	1,878	751.20 (40%)	EGAT & EDL	25 years/ 2040	Not Applicable
		Total	2,493	904.95			
Under Construction							
Xe Pian - Xe Namnoy Project	Attapue and Champasak provinces, Laos	Hydro Power Plant	410	102.50 (25%)	EGAT	27 years/ 2046 (Expected COD: 2019)	Not Applicable
		Total	410	102.50			
Grand Total			2,903	1,007.45			

# Portfolio by Core Business



## Renewable Projects in Thailand

Name of Power Plant/Project	Location	Technology	Total Capacity (MW)	Capacity contributed to the Group (MW)	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	103.50	20.70 (20%)	EGAT	5 years/ 2018	Automatic renewal for a further 5 years every 5 years
Huay Bong 3 Wind-Turbine Power Plant	Nakorn Ratchasima Province	Wind-Turbine	103.50	20.70 (20%)	EGAT	5 years/ 2017	Automatic renewal for a further 5 years every 5 years
Solar Power Projects (Korat 3, Korat 4, Korat 7)	Nakorn Ratchasima Province	Solar Power	18	7.20 (40%)	PEA	5 years/ 2017	Automatic renewal for a further 5 years every 5 years
Solarta Power Projects	Ayutthaya, Nakhon Pathom, and Suphanburi Provinces	Solar Power	34.25	16.78 (49%)	PEA	Ayutthaya Province : 5 years / 2016 Suphanburi and Nakhon Pathom Provinces : 5 years / 2017	Automatic renewal for a further 5 years every 5 years
Songkhla Biomass Power Project	Songkhla Province	Thermal	9.90	3.96 (40%)	PEA	20 years/2035	Not Applicable
		Total	269.15	69.34			
Grand Total			269.15	69.34			

# Portfolio by Core Business



## International Projects

Name of Power Plant/Project	Location	Technology	Total Capacity (MW)	Capacity contributed to the Group (MW)	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	234	187.20 (80%)	AGL/Arrow	February 2025	Not Applicable
Kemerton Power Plant	Western Australia, Australia	Open Cycle Gas/Diesel Turbine	300	240 (80%)	Synergy	October 2030	Not Applicable
BP Kwinana Power Plant	Western Australia, Australia	Cogeneration	35.40	28.32 (80%)	Verve Energy/BP	December 2021	Not Applicable
Starfish Hill Wind-Turbine Power Plant	South Australia, Australia	Wind-Turbine	34.50	27.60 (80%)	Diamond Energy	December 2016	Not Applicable
Toora Wind-Turbine Power Plant	Victoria, Australia	Wind-Turbine	21	16.80 (80%)	Merchant	Not Applicable	Not Applicable
Windy Hill Wind-Turbine Power Plant	Queensland, Australia	Wind-Turbine	12	9.60 (80%)	Ergon Energy	December 2018	Not Applicable
		Total	636.90	509.52			

# Portfolio by Core Business



## International Projects (Cont.)

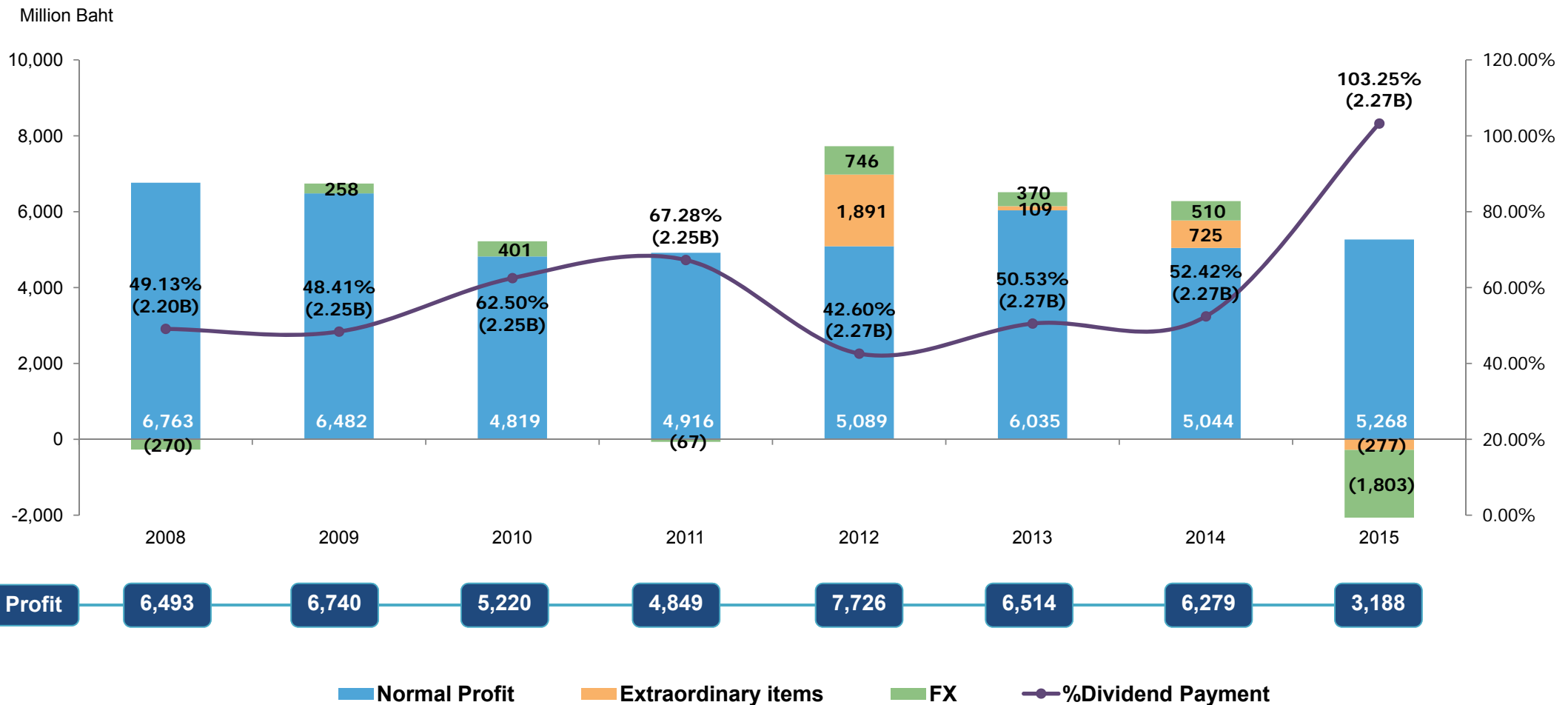
Name of Power Plant/Project	Location	Technology	Total Capacity (MW)	Capacity contributed to the Group (MW)	Terms of the PPA		
					PPA Party	Tenure/ Expiry Year	Renewal/ Option to Extend
Under Development							
Guangxi Fangchenggang Nuclear Power (II)	Fangchenggang , China	Nuclear Power	2,360	236 (10%)		30 year (Expected COD: 2021)	
		Total	2,360	236			
Related Businesses							
EDL-Generation	Laos	Hydro Power Plant	899	90.89 (10.11%)			
		Total	899	90.89			
Grand Total			3,895.90	836.41			

# Dividend Policy



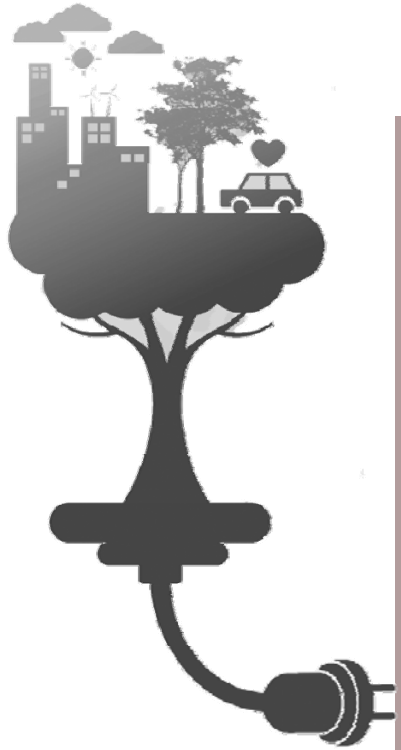
*RATCH has a dividend payout policy of no less than 40% of the net profit*

*Avg. %Dividend Payment (2008-2015) = 59.51%*





# Agenda



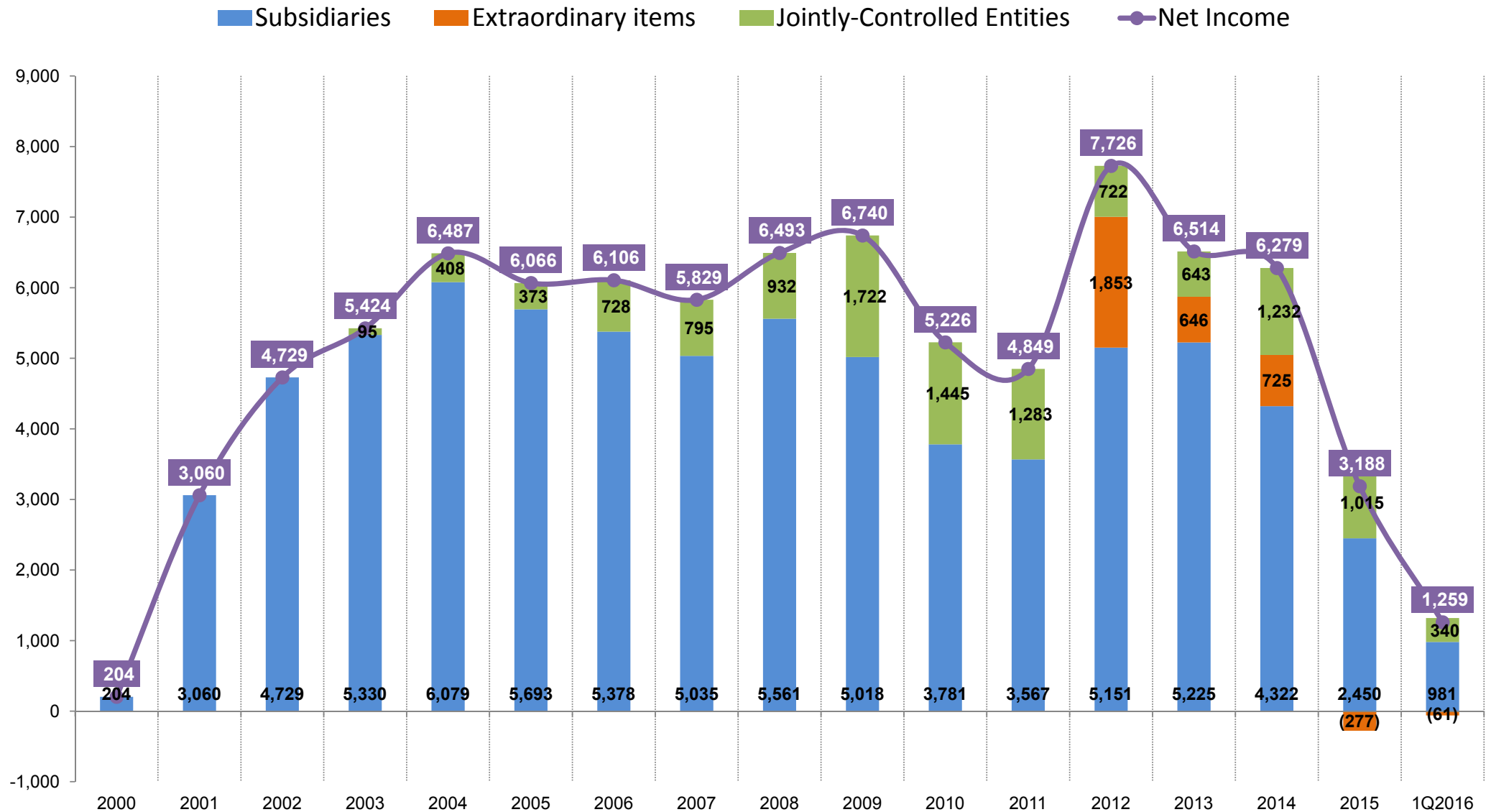
Industry Overview

Company Overview

**Financial Performance**

Annexure

# Net Income Breakdown



# Income Statement



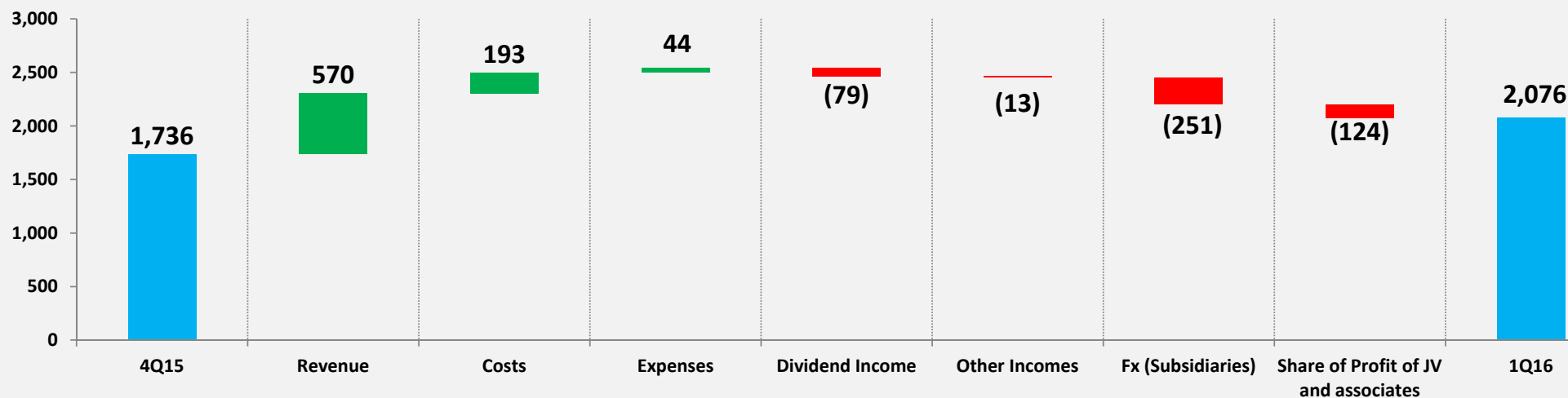
Unit : in Million Baht	1Q16	4Q15	3Q15	2Q15	1Q15
Revenues	13,384.52	12,905.64	14,963.02	14,381.97	15,796.19
Cost & Expenses	(11,665.12)	(11,901.78 )	(12,906.37)	(12,208.25)	(13,665.10)
<b>EBITDA before Share of Profit and FX</b>	<b>1,719.40</b>	<b>1,003.86</b>	<b>2,056.65</b>	<b>2,173.72</b>	<b>2,131.09</b>
Share of profit of jointly-controlled entities and associates excluding gain (loss) on exchange rate	417.68	603.86	417.61	459.42	159.68
<b>EBITDA included share profit of JV before FX</b>	<b>2,137.08</b>	<b>1,607.72</b>	<b>2,474.26</b>	<b>2,633.14</b>	<b>2,290.77</b>
Gain (Loss) on exchange rate of subsidiaries	6.49	257.65	(1,150.97)	(207.44)	(232.99)
Gain (Loss) on exchange rate of JV	(67.70)	(128.98)	(281.27)	(97.06)	38.51
<b>EBITDA included share profit of JV and FX</b>	<b>2,075.87</b>	<b>1,736.39</b>	<b>1,042.02</b>	<b>2,328.64</b>	<b>2,096.29</b>
Gain on selling assets (Pratu Tao-A & Sao Thian-A)	-	126.08	-	-	-
Insurance claim	53.56	-	-	-	37.29
Diesel price movement (RG & RPCL)	90.04	(260.85)	20.02	(13.13)	30.89
Depreciation & Amortization	(347.92)	(294.77)	(346.28)	(345.02)	(348.90)
<b>EBIT</b>	<b>1,871.55</b>	<b>1,306.85</b>	<b>715.76</b>	<b>1,970.49</b>	<b>1,815.57</b>
Finance costs	(326.83)	(348.31)	(340.43)	(331.34)	(342.73)
Income tax expense	(309.06)	(149.62)	(362.47)	(570.03)	(348.82)
<b>Profit for the period</b>	<b>1,235.66</b>	<b>808.92</b>	<b>12.86</b>	<b>1,069.12</b>	<b>1,124.02</b>
Non-controlling interests	23.67	35.97	22.48	75.60	38.90
<b>Equity holders of the Company</b>	<b>1,259.33</b>	<b>844.89</b>	<b>35.34</b>	<b>1,144.72</b>	<b>1,162.92</b>

# EBITDA Growth QoQ & YoY



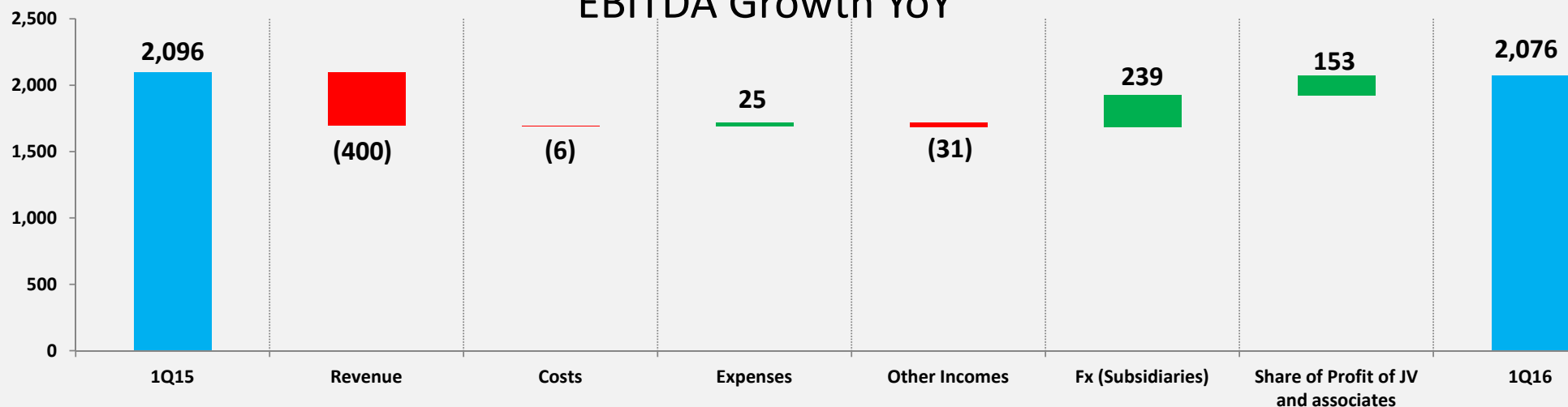
## EBITDA Growth QoQ

Unit: Million Baht



## EBITDA Growth YoY

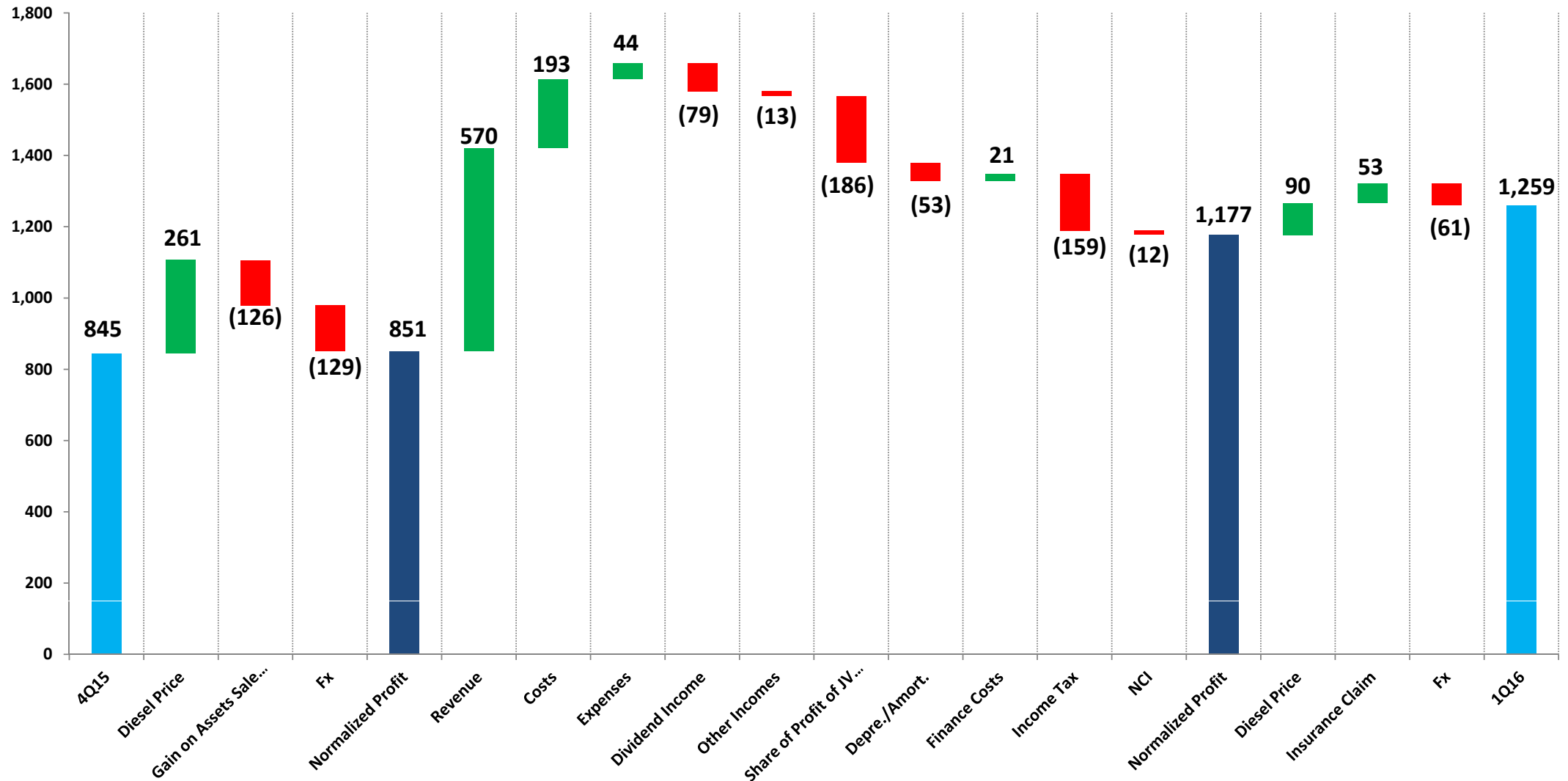
Unit: Million Baht



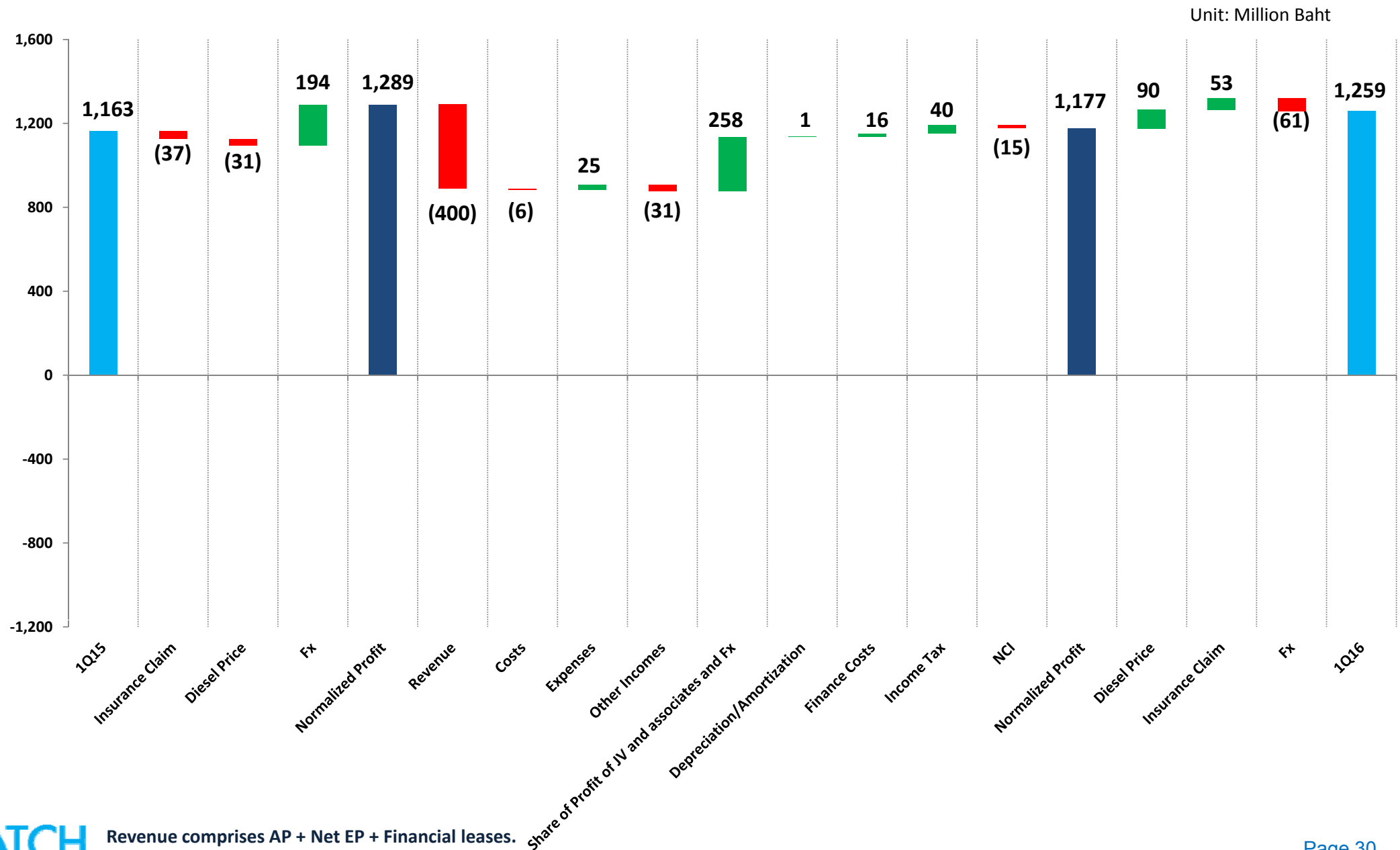
# Net Profit Growth QoQ



Unit: Million Baht



# Net Profit Growth YoY



# Income Statement



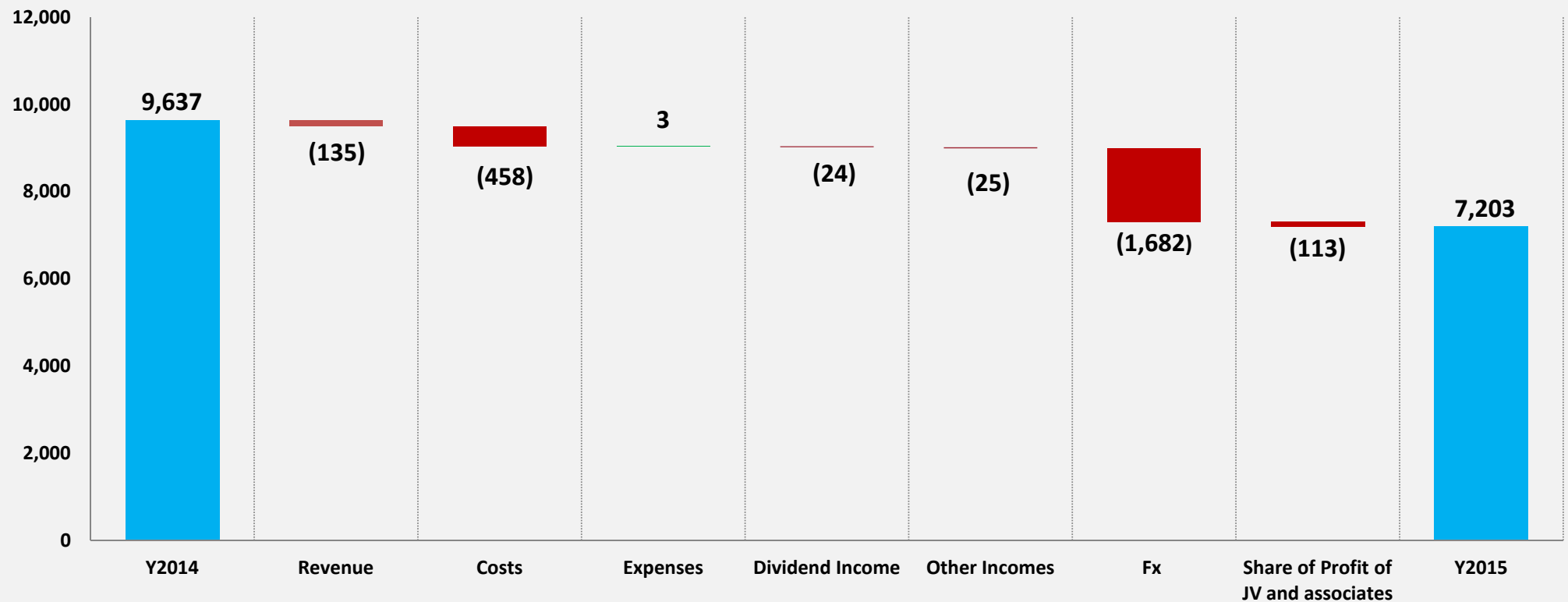
Unit : in Million Baht	2015	2014
Revenues	58,046.82	55,888.29
Cost & Expenses	(50,681.50)	(47,884.58)
<b>EBITDA before Share of Profit and FX</b>	<b>7,365.32</b>	<b>8,003.71</b>
Share of profit of jointly-controlled entities and associates excluding gain (loss) on exchange rate	1,640.57	1,122.77
<b>EBITDA included share profit of JV before FX</b>	<b>9,005.89</b>	<b>9,126.48</b>
Gain (Loss) on exchange rate of subsidiaries	(1,333.75)	347.98
Gain (Loss) on exchange rate of JV	(468.80)	162.05
<b>EBITDA included share profit of JV and FX</b>	<b>7,203.34</b>	<b>9,636.51</b>
Gain on selling assets (Pratu Tao-A & Sao Thian-A)	126.08	-
Accounting gains on a business combination	-	797.29
Reversal of a project development provision	-	440.24
Impairment loss of goodwill and intangible assets	-	(509.54)
Disposal of Investment SE/SEC	-	(131.17)
Insurance claim	37.29	289.69
Depreciation & Amortization	(1,334.97)	(1,433.48)
Diesel price movement (RG & RPCL)	(223.07)	(161.56)
<b>EBIT</b>	<b>5,808.67</b>	<b>8,927.98</b>
Finance costs	(1,362.81)	(1,518.45)
Income tax expense	(1,430.94)	(1,269.38)
<b>Profit for the period</b>	<b>3,014.92</b>	<b>6,140.15</b>
Non-controlling interests	172.95	138.88
<b>Equity holders of the Company</b>	<b>3,187.87</b>	<b>6,279.03</b>

# EBITDA Growth YoY



## EBITDA Growth (YoY 12M)

Unit: Million Baht



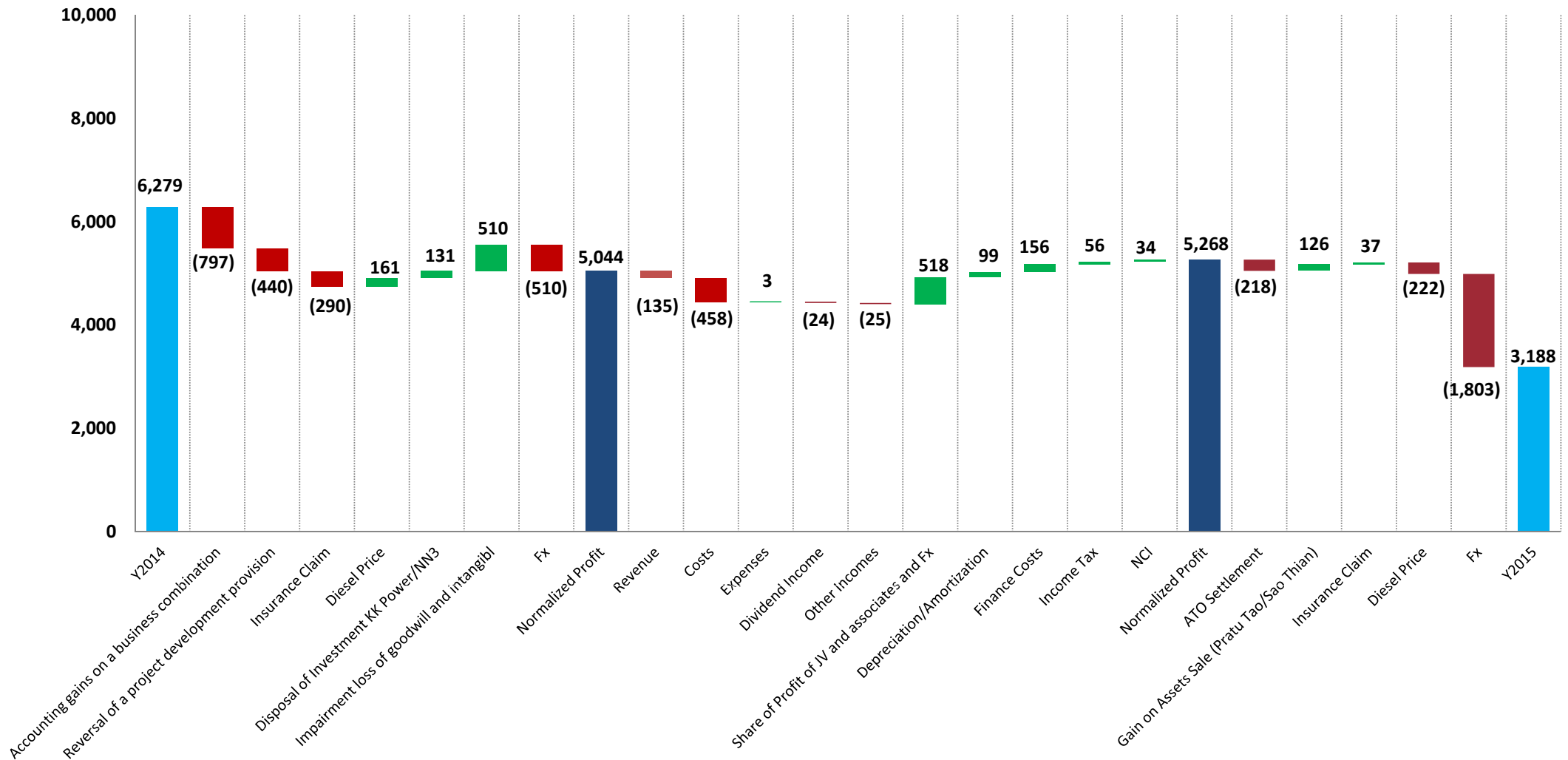


# Net Profit Growth YoY



## Net Profit Change (12m)

Unit: Million Baht



# Statements of Financial Position



As of 31 March 2016

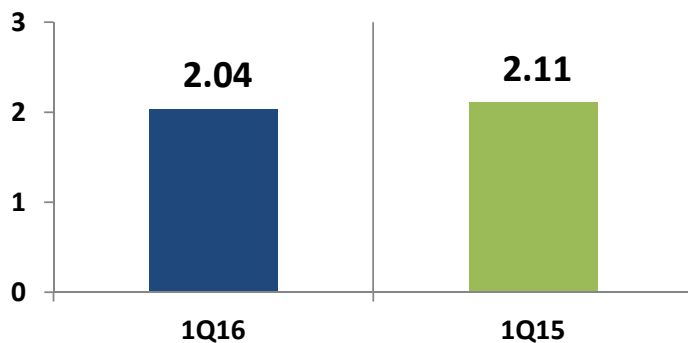
Total Assets	Million Baht	Total Liabilities & Equity	Million Baht
<b><u>Assets</u></b>		<b><u>Liabilities</u></b>	
Cash and cash equivalents	5,376.05	Loans from Related party, Financial Institutions & Debentures	22,643.01
Current investments	2,100.00	Other liabilities	7,440.35
Current Assets	8,504.01	Total Liabilities	30,083.36
Investment in Jointly-controlled entities/Associates/Others	29,271.76	<b><u>Equity</u></b>	
Financial lease receivables	27,423.24	Issued and paid-up share capital	16,031.78
Property, plant & equipments	13,854.68	Other components of equity	(1,406.70)
Other assets	5,585.61	Retained earnings	47,210.26
		<b>Total equity attributable to owners of the Company</b>	<b>61,835.34</b>
		Non-controlling interests	196.65
<b>Total Assets</b>	<b>92,115.35</b>	<b>Total Liabilities &amp; Equity</b>	<b>92,115.35</b>

# Financial Ratios

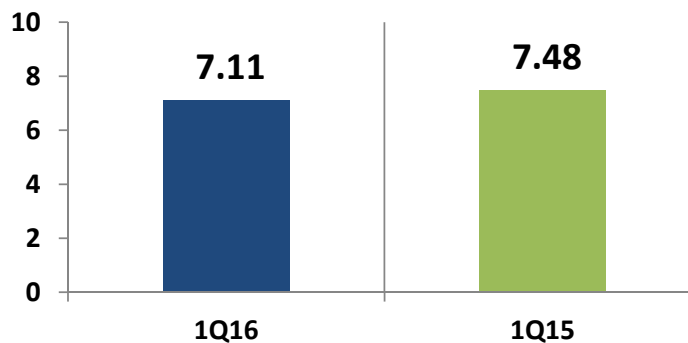
(Excluding the effect of foreign exchange rate)



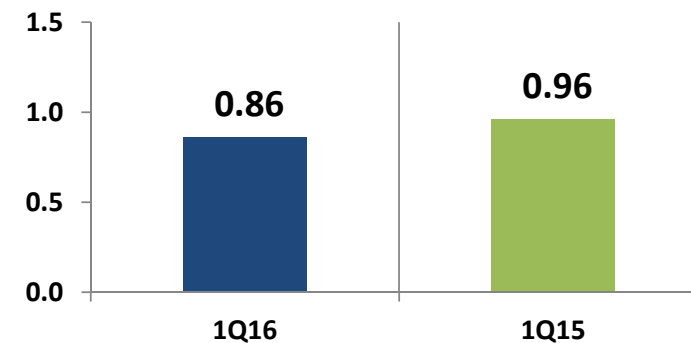
Current ratios (times)



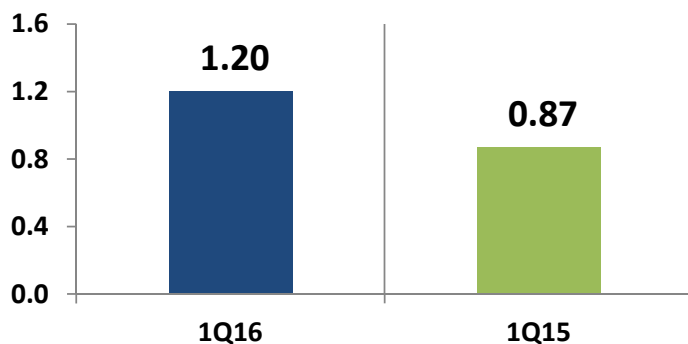
ROE (%)



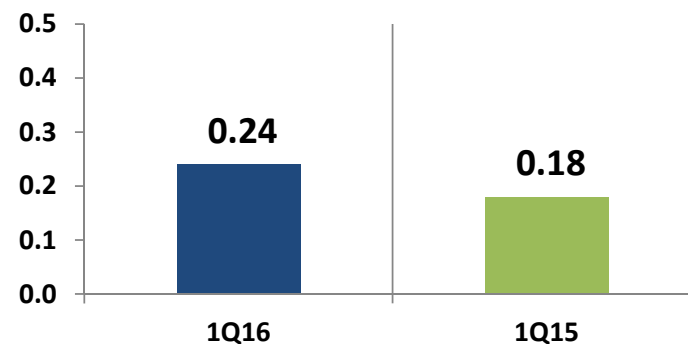
EPS (Baht per share)



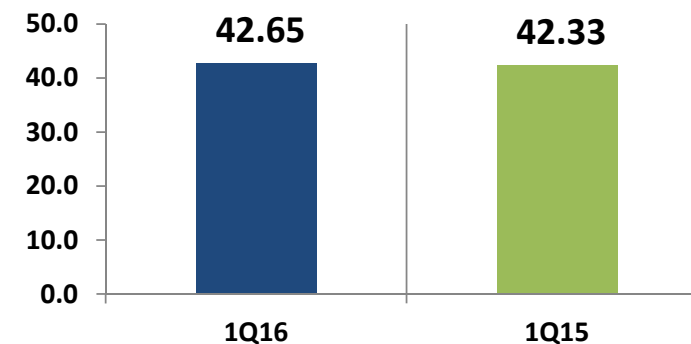
Net debt to EBITDA\* (times)



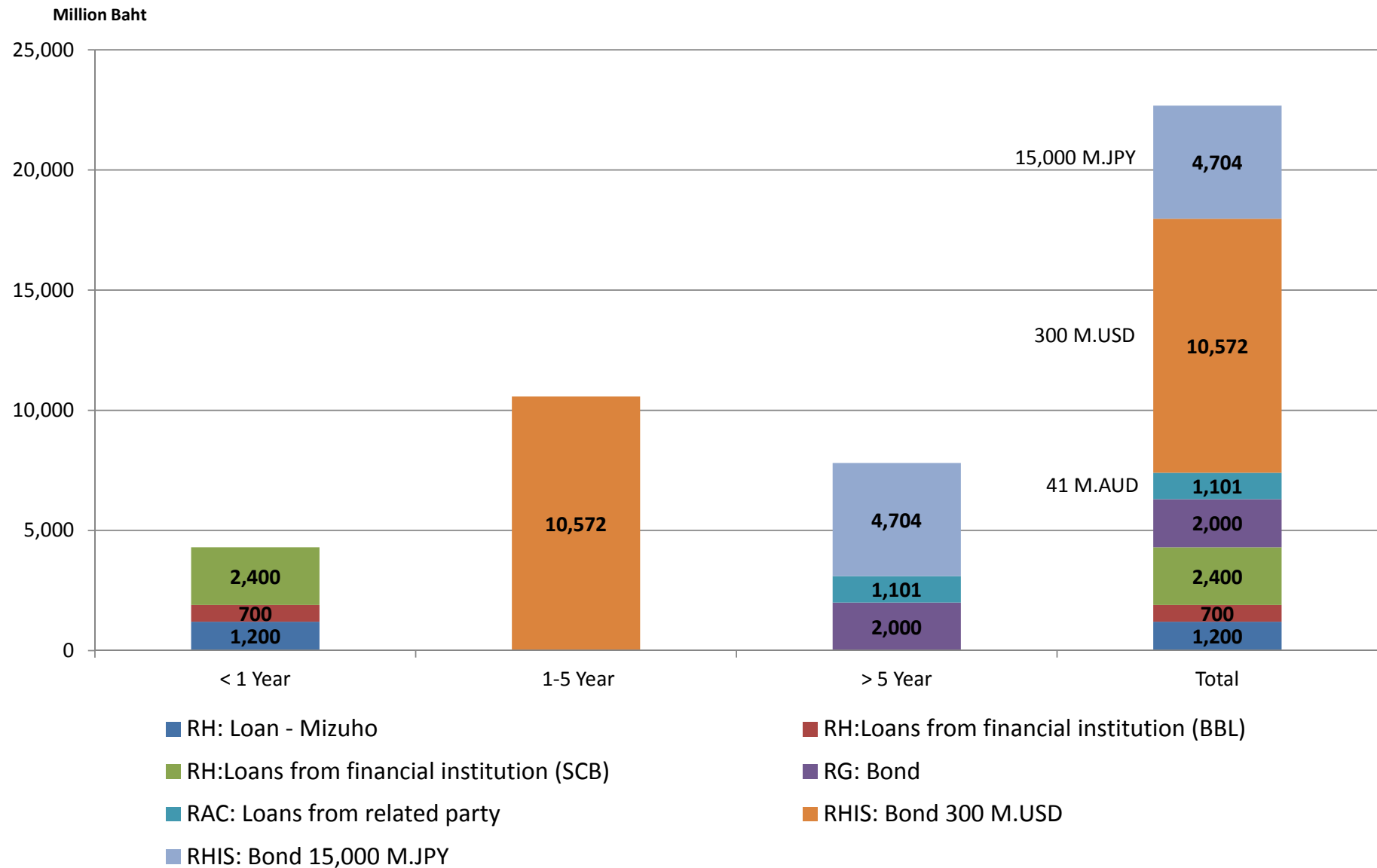
Net debt/Equity (times)



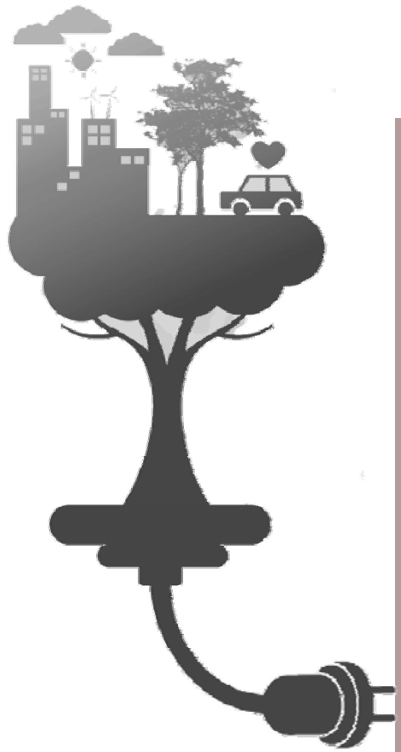
Book Value per share (Baht)



# Debt Profile



# Agenda



Annexure

*Financial Performance*

*RATCH Projects*

# Revenues



Unit : in Million Baht		1Q16	1Q15	Diff	%
<b>Sales</b>		<b>12,010.36</b>	<b>14,261.17</b>	<b>(2,250.81)</b>	<b>(15.78)</b>
AP	- RG/TECO	842.02	1,225.00	(382.98)	(31.26)
	- RAC	423.00	400.47	22.53	5.63
EP (Fuel)	- RG/TECO	10,568.38	12,510.71	(1,942.33)	(15.53)
	- RAC	176.96	109.23	67.73	62.01
	- Flared Gas	-	15.76	(15.76)	(100.00)
<b>Revenue from financial leases - RG/TECO</b>		<b>1,168.23</b>	<b>1,304.46</b>	<b>(136.23)</b>	<b>(10.44)</b>
<b>Revenue from Rendering of services</b>		<b>65.99</b>	<b>59.65</b>	<b>6.34</b>	<b>10.63</b>
<b>Management service income</b>		<b>68.08</b>	<b>61.69</b>	<b>6.39</b>	<b>10.36</b>
<b>Dividend Income</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Interest Income</b>		<b>48.07</b>	<b>92.82</b>	<b>(44.75)</b>	<b>(48.21)</b>
<b>Other Incomes (exc. Extraordinary items)</b>		<b>23.79</b>	<b>16.40</b>	<b>7.39</b>	<b>(45.06)</b>
<b>Total Revenues</b>		<b>13,384.52</b>	<b>15,796.19</b>	<b>(2,411.67)</b>	<b>(15.27)</b>

# Share of profit from jointly-controlled entities



Unit : in Million Baht	1Q16	1Q15	Diff	%
RPCL	133.36	196.93	(63.57)	(32.28)
SEAN	76.77	62.48	14.29	22.87
HPC	(91.42)	(170.56)	79.14	46.40
CRESCO	16.91	4.46	12.45	279.15
SOLARTA	45.14	46.15	(1.01)	(2.19)
KORAT 3,4,7	22.13	20.13	2.00	9.94
FKW	32.45	27.95	4.50	16.10
KR2	27.93	22.57	5.36	23.75
KWINANA	21.52	17.04	4.48	26.29
PNPC	(5.00)	(12.15)	7.15	58.85
RW COGEN	58.97	(1.76)	60.73	N/A
NNEG	(6.48)	(11.88)	5.40	45.45
Others	17.70	(3.17)	20.87	N/A
<b>Total Share of profit from jointly-controlled entities</b>	<b>349.98</b>	<b>198.19</b>	<b>151.79</b>	<b>76.59</b>

# Share of profit from jointly-controlled entities



EXCL.FX	Unit : in Million Baht	1Q16	1Q15	Diff	%
	RPCL	108.01	178.98	(70.97)	(39.65)
	SEAN	41.03	43.51	(2.48)	(5.70)
	HPC	37.23	(176.89)	214.12	121.05
	CRESCO	15.69	2.79	12.90	462.37
	SOLARTA	45.13	46.15	(1.02)	(2.21)
	KORAT 3,4,7	22.13	20.13	2.00	9.94
	FKW	32.45	27.94	4.51	16.14
	KR2	27.93	22.53	5.40	23.97
	KWINANA	21.52	17.04	4.48	26.29
	PNPC	(2.02)	(8.31)	6.29	75.69
	RW COGEN	58.85	(1.77)	60.62	N/A
	NNEG	(8.91)	(9.25)	0.34	3.68
	Others	18.64	(3.17)	21.81	N/A
	<b>Total Share of profit from jointly-controlled entities</b>	<b>417.68</b>	<b>159.68</b>	<b>258.00</b>	<b>161.57</b>



# Cost and Expenses



Unit : in Million Baht	1Q16	1Q15	Diff	%
Cost of Sale and rendering of services	11,328.00	13,303.21	(1,975.21)	(14.85)
– Fuel Cost : RG/ TECO	10,399.78	12,376.11	(1,976.33)	(15.97)
– Fuel Cost : RAC	6.03	7.76	(1.73)	(22.29)
– Fuel Cost : Flared Gas	-	2.51	(2.51)	(100.00)
– Operation & Maintenance	378.85	407.61	(28.76)	(7.06)
– Repairing Expense (CSA)	263.81	242.04	21.77	8.99
– Spare parts	63.55	89.26	(25.71)	(28.80)
– Insurance Premium	119.42	93.20	26.22	28.13
– Standby Charge	55.30	41.60	13.70	32.93
– Others	41.26	43.12	(1.86)	(4.31)
Selling and Admin- Expenses	337.12	361.89	(24.77)	(6.84)
<b>Total Cost and Expenses*</b>	<b>11,665.12</b>	<b>13,665.10</b>	<b>(1,999.98)</b>	<b>(14.64)</b>

\*excluding depreciation & amortization

# Gain (Loss) From Foreign Exchange Rate



Unit : in Million Baht	1Q16	1Q15
Gain (Loss) from Foreign Exchange Rate	(61.21)	(194.48)

<b>The Company and Subsidiaries</b>	<b>6.49</b>	<b>(232.99)</b>
- RH	(67.52)	(16.01)
- RH Inter	19.83	(225.53)
- RG / RE / RL	54.18	8.55

<b>Jointly-controlled entities and Associates</b>	<b>(67.70)</b>	<b>38.51</b>
- SEAN (33.33%)	35.74	18.97
- RPCL (25%)	25.35	17.95
- HPC (40%)	(128.65)	6.33
- PNPC (40%)	(2.98)	(3.84)
- Others (CRESCO, RW Cogen, FKW,KR2,NNEG,Solarta, RICl)	2.84	(0.90)

Foreign Exchange Rate as at 31 March 2016 = 35.230 Baht/USD and as at 31 March 2015 = 32.548 Baht/USD

Foreign Exchange Rate as at 30 December 2015 = 36.077 Baht/USD and as at 30 December 2014 = 32.964 Baht/USD

# Revenues: 2015&2014



Unit : in Million Baht		2015	2014	Diff	%
<b>Sales</b>		<b>51,932.57</b>	<b>49,187.03</b>	<b>2,745.54</b>	<b>5.58</b>
AP	- RG/TECO	4,283.88	3,817.22	466.66	12.23
	- RAC	1,541.28	1,744.06	(202.78)	(11.63)
EP (Fuel)	- RG/TECO	45,328.61	43,022.44	2,306.17	5.36
	- RAC	712.68	539.99	172.69	31.98
	- Flared Gas	66.12	63.32	2.80	4.42
Revenue from financial leases - RG/TECO		5,005.33	5,567.74	(562.41)	(10.10)
Revenue from Rendering of services		238.87	214.98	23.89	11.11
Management service income		258.10	287.79	(29.69)	(10.32)
Dividend Income		212.07	235.95	(23.88)	(10.12)
Interest Income		338.47	267.82	70.65	26.38
Other Incomes (exc. Extraordinary items)		61.41	126.98	(65.57)	(51.64)
<b>Total Revenues</b>		<b>58,046.82</b>	<b>55,888.29</b>	<b>2,158.53</b>	<b>3.86</b>

# Share of profit from jointly-controlled entities



Unit : in Million Baht	2015	2014	Diff	%
RPCL	549.18	699.19	(150.01)	(21.45)
SEAN	142.84	261.47	(118.63)	(45.37)
HPC	(270.97)	(204.16)	(66.81)	(32.72)
CRESCO	9.13	19.88	(10.75)	(54.07)
SOLARTA	172.29	168.74	3.55	2.10
KORAT 3,4,7	72.25	70.96	1.29	1.82
FKW	109.62	127.77	(18.15)	(14.21)
KR2	95.14	109.08	(13.94)	(12.78)
KWINANA	80.37	67.15	13.22	19.69
PNPC	72.04	(17.02)	89.06	523.27
RW COGEN	135.52	3.60	131.92	3,664.44
NNEG	(14.74)	(10.96)	(3.78)	(34.49)
Others	19.10	(10.88)	29.98	275.55
<b>Total Share of profit from jointly-controlled entities</b>	<b>1,171.77</b>	<b>1,284.82</b>	<b>(113.05)</b>	<b>8.80</b>

# Share of profit from jointly-controlled entities



EXCL.FX

Unit : in Million Baht	4Q15	4Q14	Diff	%
RPCL	64.60	54.72	9.88	18.06
SEAN	97.23	122.31	(25.08)	(20.51)
HPC	297.48	(65.32)	362.80	555.42
CRESCO	5.21	6.38	(1.17)	(18.34)
SOLARTA	37.38	43.92	(6.54)	(14.89)
KORAT 3,4,7	12.18	22.45	(10.27)	(45.75)
FKW	14.45	42.45	(28.00)	(65.96)
KR2	17.11	41.24	(24.13)	(58.51)
KWINANA	19.04	9.33	9.71	104.07
PNPC	(4.51)	(6.08)	1.57	25.82
RW COGEN	54.31	15.40	38.91	252.66
NNEG	(19.86)	(8.19)	(11.67)	(142.49)
Others	9.24	(1.74)	10.98	631.03
<b>Total Share of profit from jointly-controlled entities</b>	<b>603.86</b>	<b>276.87</b>	<b>326.99</b>	<b>118.10</b>

# Cost and Expenses



Unit : in Million Baht	2015	2014	Diff	%
Cost of Sale and rendering of services	49,238.93	46,438.58	2,800.35	6.03
– Fuel Cost : RG/ TECO	44,941.60	42,577.65	2,363.95	5.55
– Fuel Cost : RAC	10.74	35.22	(24.48)	(69.51)
– Fuel Cost : Flared Gas	12.73	9.87	2.86	28.98
– Operation & Maintenance	1,673.50	1,714.69	(41.19)	(2.40)
– Repairing Expense (CSA)	1,000.78	842.24	158.54	18.82
– Spare parts	812.00	470.67	341.33	72.52
– Insurance Premium	372.96	291.40	81.56	27.99
– Standby Charge	217.11	221.82	(4.71)	(2.12)
– Others	197.51	275.02	(77.51)	(28.18)
Selling and Admin- Expenses	1,442.57	1,445.99	(3.42)	(0.24)
<b>Total Cost and Expenses*</b>	<b>50,681.50</b>	<b>47,884.58</b>	<b>2,796.92</b>	<b>5.84</b>

\*excluding depreciation & amortization

# Gain (Loss) From Foreign Exchange Rate



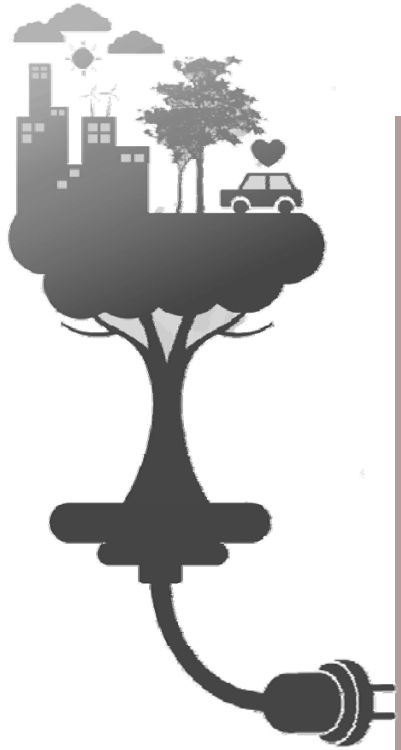
Unit : in Million Baht	2015	2014
Gain (Loss) from Foreign Exchange Rate	(1,802.55)	510.03

<b>The Company and Subsidiaries</b>	<b>(1,333.75)</b>	<b>347.98</b>
- RH	89.95	6.71
- RH Inter	(1,354.64)	342.25
- RG / RE / RL	(69.06)	(5.38)
- TECO (100% from February 2014)	-	4.40

<b>Jointly-controlled entities and Associates</b>	<b>(468.80)</b>	<b>162.05</b>
- SEAN (33.33%)	(124.28)	(2.88)
- RPCL (25%)	(96.30)	(1.14)
- HPC (40%)	(365.28)	132.95
- PNPC (40%)	111.73	19.07
- Others (CRESCO, RW Cogen, FKW,KR2,NNEG,Solarta, RICl)	5.33	14.05

Foreign Exchange Rate as at 30 December 2015 = 36.077 Baht/USD and as at 30 December 2014 = 32.964 Baht/USD

# Agenda



Annexure

*Financial Performance*

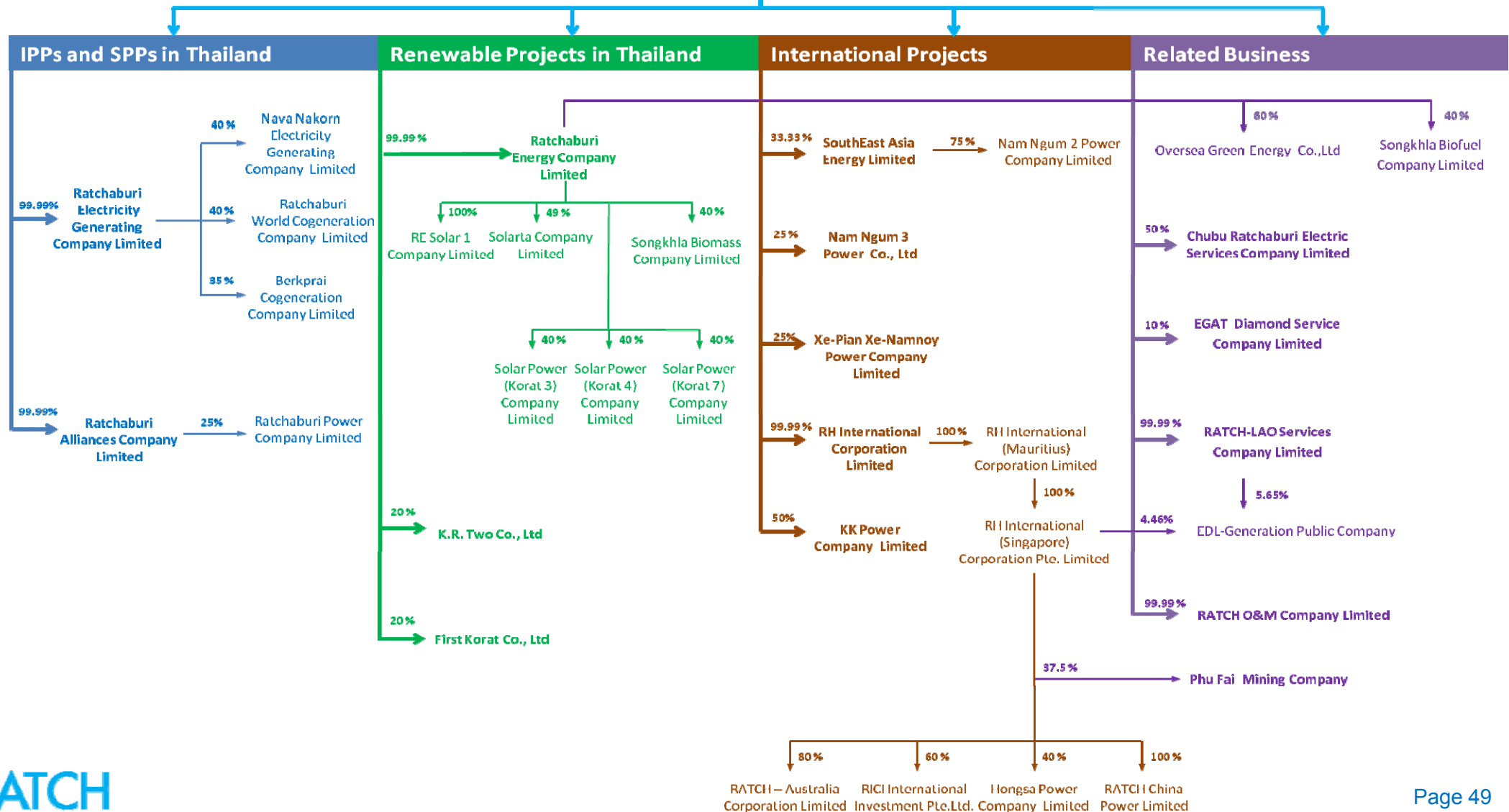
*RATCH Projects*



# New Company Structure



as of February 2016



# IPPs and SPPs in Thailand



**In Operation**

## Ratchaburi Power Plant (RATCHGEN)



### Location

Ratchaburi Province

### Technology

Thermal & Combined Cycle

### Total Capacity

3,645 MW (holds 100%)

### PPA

25-Year

### COD

TH#1-2 : 31 Oct 2000

CCGT #1-2 : 18 Apr 2002

CCGT#3 : 1 Nov 2002

### Partner

Ratchaburi Electricity Generating  
Company Limited holds 100%

## Tri Energy Power Plant (TECO)



### Location

Ratchaburi Province

### Technology

Combined Cycle

### Total Capacity

700 MW (holds 100%)

### PPA

20-Year

### COD

1 July 2000

### Partner

Ratchaburi Electricity Generating  
Company Limited holds 100%

# IPPs and SPPs in Thailand



**In Operation**

## Ratchaburi Power Plant (RPCL)



### Location

Ratchaburi Province

### Technology

Combined Cycle

### Total Capacity

1,400 MW (350 MW holds 25 %)

### PPA

25-Year

### COD

Block 1: 1 March 2008  
Block 2: 1 June 2008

### Partner

- Ratchaburi Alliances Company Limited holds 25%
- Power Assets holds 25%
- Chubu Electric Power Company International B.V. holds 15%
- PTT PCL holds 15%
- Union Energy Company Limited holds 10%
- Toyota Tsusho Corporation holds 10%

## Ratchaburi World Cogeneration (RW Cogen)



### Location

Ratchaburi Province

### Technology

Cogeneration

### Total Capacity

234 MW (93.60 MW holds 40%)

### PPA

25-Year

### COD

Unit 1: November 2014  
Unit 2: March 2015

### Partner

- Ratchaburi Electricity Generating Company Limited holds 40%
- Major Shareholder Group of Thai Agri Food PCL holds 60%

# IPPs and SPPs in Thailand



**Under Construction**

## Nava Nakhon Electricity Generating (NNEG)



### Location

Pathum Thani Province

### Technology

Cogeneration

### Total Capacity

132 MW (52.80 MW holds 40%)

### PPA

25-Year

### Progress

98% as of March 2016  
Expected COD : June 2016

### Project Cost

THB 6,000 Million

### Debt to Equity

75 : 25

### Partner

- Ratchaburi Electricity Generating Company Limited holds 40%
- PTT holds 30%
- Nava Nakhon holds 30%

## Berkprai Cogeneration (Former name: Ratchaburi Cogeneration)

### Location

Ratchaburi Province

### Technology

Cogeneration

### Total Capacity

100 MW (35 MW holds 35%)  
Steam Generation 15 ton/hour

### PPA

25-Year

### Expected COD

In 2019

### Project Cost

THB 4,700 Million

### Partner

- Ratchaburi Electricity Generating Company Limited holds 35%
- Rajaburi Sugar Company Limited holds 65%

**Under Development**

# IPPs and SPPs in Thailand



**In Operation**



## Huay Bong 2 Wind-Turbine Power Project

### Location

Nakorn Ratchasima Province

### Technology

Wind-Turbine

### Total Capacity

103.5 MW (20.7 MW holds 20%)

### PPA

5 years with automatic renewal for a further 5 years every 5 years

### COD

8 February 2013

### Project Cost

THB 6,100 Million

### Debt to Equity

70 : 30

### Partner

- RATCH holds 20%
- Aeolus Power holds 60%
- Chubu Electric Power Korat, BV holds 20%

## Huay Bong 3 Wind-Turbine Power Project

### Location

Nakorn Ratchasima Province

### Technology

Wind-Turbine

### Total Capacity

103.5 MW (20.7 MW holds 20%)

### PPA

5 years with automatic renewal for a further 5 years every 5 years

### COD

14 November 2012

### Project Cost

THB 6,100 Million

### Debt to Equity

70 : 30

### Partner

- RATCH holds 20%
- Aeolus Power holds 60%
- Chubu Electric Power Korat, BV holds 20%

# IPPs and SPPs in Thailand



## SOLAR

### In Operation



#### Solar Power Projects (Korat 3, Korat 4, Korat 7)

##### Location

Nakorn Ratchasima Province

##### Technology

Solar Power

##### Total Capacity

18 MW (7.2 MW holds 40%)

##### PPA

5 years with automatic renewal for a further 5 years every 5 years

##### COD

Korat 3 : 9 March 2012

Korat 4 : 14 May 2012

Korat 7 : 30 May 2012

##### Partner

- Ratchaburi Energy Company Limited holds 40%
- Solar Power holds 60%

#### Solarta Power Projects

##### Location

Ayutthaya Province

Suphan Buri Province

Nakon Pathom Province

##### Technology

Solar Power

##### Total Capacity

34.25 MW (16.78 MW holds 49%)

##### PPA

5 years with automatic renewal for a further 5 years every 5 years

##### COD

Ayutthaya Province : 7 April 2011

Suphan Buri Province : In 2012

Nakon Pathom Province : In 2012

##### Partner

- Ratchaburi Energy Company Limited holds 49%
- Yanhee Power holds 51%

# Renewable Projects in Thailand



## BIOMASS



**In Operation**



**ESP**

### Songkhla Biomass Power Project

#### Location

Songkhla Province

#### Technology

Thermal Power Plant

#### Total Capacity

9.9 MW (3.96 MW holds 40%)

#### VSPP

20 Year

#### COD

9 November 2015

#### Project Cost

THB 846 Million

#### Debt to Equity

75 : 25

#### Partner

- Ratchaburi Energy Company Limited holds 40%
- Precise Power Producer holds 40%
- Assiddeek Saving Cooperative holds 20%

**Boiler & Economizer**



**Fuel Storage Silo**





# International Projects



## Num Ngum 2 Hydroelectric Power Plant



### Location

Lao PDR

### Technology

Hydro Power Plant

### Total Capacity

615 MW (153.75 MW holds 25%)

### PPA

27-Year

### IOD / COD

In 2011 / In 2013

### Partner

- SEAN\* holds 75%
- GOL holds 25%

## EDL-Generation Public Company (EDL-Gen)



### Location

Lao PDR

### Technology

Hydro Power Plant

### Total Capacity

899 MW (90.89 MW holds 10.11%)

### Shareholders

- RATCH-Lao holds 5.65%
- RH International (Singapore) Corporation Pte. Limited holds 4.46%
- EDL holds 75%
- Others holds 14.89%

**\* Remark: SEAN's shareholder consist of**

- RATCH holds 33.33%
- CK Power PCL holds 55.99%
- Other holds 10.68%



# International Projects



**Under Construction**

## Xe-Pian – Xe Namnoy Project

### Location

Lao PDR

### Technology

Hydro Power Plant

### Total Capacity

410 MW (102.5 MW holds 25%)

### PPA

27-Year

### Progress

44.11% as of March 2016

### Project Cost

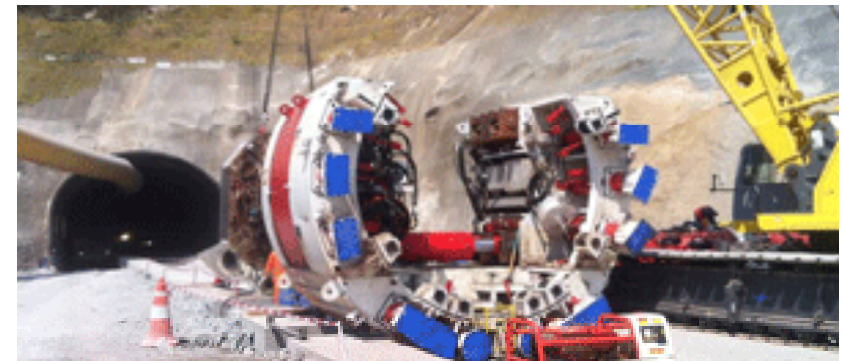
USD 1,020 Million

### Debt to Equity

70 : 30

### Partner

- RATCH holds 25%
- SK Engineering holds 26%
- Korea Western Power holds 25%
- Lao PDR holds 24%



# International Projects



**In Operation**

## Partner (Power Plant)

- RATCH holds 40%
- Banpu Power holds 40%
- Lao PDR holds 20%

## Partner (Phu Fai Mining)

- RATCH holds 37.5%
- Banpu Power holds 37.5%
- Lao PDR holds 25%

## Hongsa Power Plant Unit 1&2

### Location

Lao PDR

### Technology

Lignite-Fired

### Total Capacity

1,878 MW (751.2 MW holds 40%)

### PPA

25-Year

### COD

Unit 1 : 2 June 2015

Unit 2 : 2 November 2015

Unit 3 : 2 March 2016

### Project Cost (3 Units)

USD 3,710 Million

### Debt to Equity

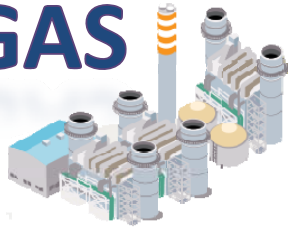
75 : 25



# International Projects



## GAS



**In Operation**

### Townsville Power Plant



#### Location

North Queensland, Australia

#### Technology

Combined Cycle Gas Turbine

#### Total Capacity

234 MW (187.20 MW holds 80%)

#### COD

In 1999

#### Contract end date

February 2025

#### Contract counterparty

AGL / Arrow

### Kemerton Power Plant



#### Location

Western Australia

#### Technology

Open Cycle Gas / Diesel Turbine

#### Total Capacity

300 MW (240 MW holds 80%)

#### COD

In 2005

#### Contract end date

October 2030

#### Contract counterparty

Synergy

### BP Kwinana Power Plant



#### Location

Western Australia

#### Technology

Co-generation

#### Total Capacity

35.4 MW (28.32 MW holds 80%)

#### COD

In 1996

#### Contract end date

December 2021

#### Contract counterparty

Verve Energy / BP

# International Projects



## Toora



### Location

Victoria, Australia

### Technology

Wind Farm

### Total Capacity

21 MW (16.80 MW holds 80%)

### COD

In 2002

### Contract end date

n.a.

### Contract counterparty

Merchant

## Starfish Hill



### Location

South Australia

### Technology

Wind Farm

### Total Capacity

34.5 MW (27.60 MW holds 80%)

### COD

In 2003

### Contract end date

December 2016

### Contract counterparty

Diamond Energy

## Windy Hill



### Location

Queensland, Australia

### Technology

Wind Farm

### Total Capacity

12 MW (9.60 MW holds 80%)

### COD

In 2000

### Contract end date

December 2018

### Contract counterparty

Ergon Energy\*

# International Projects



Under Development

## Guangxi Fangchenggang Nuclear Power (II)

### Location

Fangchenggang, China

### Technology

HPR1000 (Hualong-1)

### Total Capacity

2,360 MW (236 MW holds 10%)  
(2 unit x 1,180 MW)

### PPA

30-Year

### Expected COD

In 2021

### Project Cost (100%)

200,000 Million Baht

### Equity Investment

7,500 Million Baht

### Partner

- China General Nuclear Power Corporation (CGN) holds 51%
- Guangxi investment Group Co./ Ltd (GIG) holds 39%
- RATCH China Power Limited holds 10%



# Thank you!

# Q&A

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ELECTRICITY GENERATING  
HOLDING PCL.