

# *TRT*

## *Business Overview*



**300 MVA 220 – 69 – 24 kV**  
**Metropolitan Electricity Authority**  
**Chidlom Terminal Station, Bangkok THAILAND**

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*Company Profile, Business & Products*

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*Question & Answers*

# Characteristic of Business & Products



# Company Profile

**Registered Name** : TIRATHAI PUBLIC COMPANY LIMITED

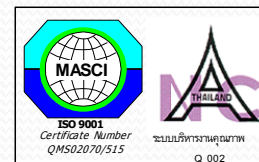
**Established** : August 27, 1987

**Paid-up Capital** : 202,462,500 Baht

**Employees** : 510 persons

**Ground area** : 22,080 m<sup>2</sup>  
(13.8 rai)

**Building area** : 11,141 m<sup>2</sup>



# *TRT & It's Subsidiary*

## **TIRATHAI PUBLIC COMPANY LIMITED (Plant I)**

*Manufacture for Distribution transformer  
Capacity up to 3 MVA System voltage up to 36 kV*



## **TIRATHAI PUBLIC COMPANY LIMITED (Plant II)**

*Manufacture for Power transformer  
Capacity up to 300 MVA System voltage up to 230 kV*



## **THAIFINS COMPANY LIMITED**

*Manufacture for Transformer's fins and Tank  
support to Tirathai public Company Limited*

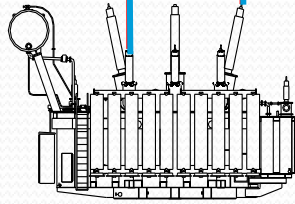
# *Technology License*



# TRANSMISSION LINE



**Power Plant**



**Step-up Transformer**

Transmission line  
500 kV, 230 kV, 115 kV

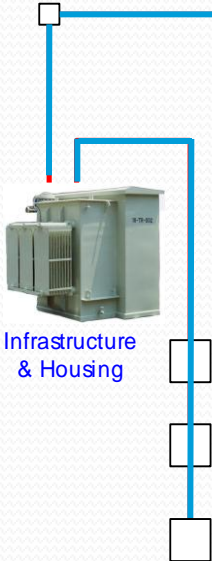


Transmission line  
230 kV, 115 kV, 69 kV



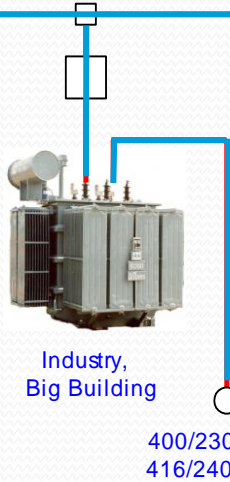
Distribution line  
11 kV, 22 kV, 33 kV (PEA)  
12 kV, 24 kV (MEA)

Transmission line  
230 kV, 115 kV, 69 kV



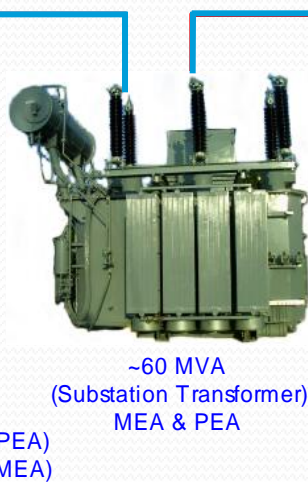
Infrastructure & Housing

Meter

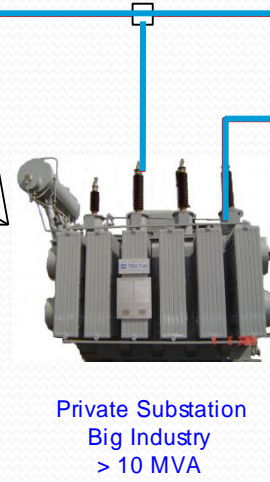


Industry, Big Building

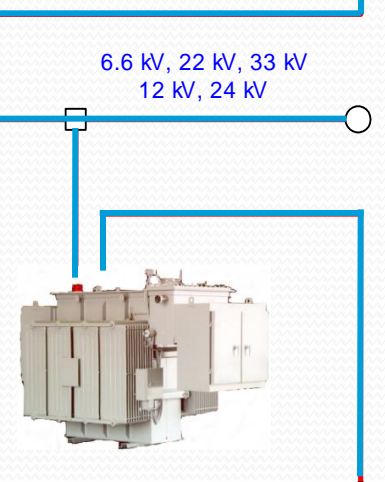
400/230 V (PEA)  
416/240 V (MEA)



~60 MVA  
(Substation Transformer)  
MEA & PEA



Private Substation  
Big Industry  
> 10 MVA



6.6 kV, 22 kV, 33 kV  
12 kV, 24 kV

6.6 kV, 3.3 kV  
416/240 V, 400/230 V

# *Products of TRT*



## *POWER TRANSFORMER*

Under license of FUJI ELECTRIC, JAPAN  
Under license of VA TECH EBG Transformatoren GmbH / Austria  
Capacity 5 - 300 MVA Rated Voltage 230 kV



## *DISTRIBUTION TRANSFORMER*

Under license of FUJI ELECTRIC / Japan  
Capacity 1 - 100 MVA Rated Voltage 36 kV



## *RECTIFIER & INDUCTION FURNACE*

Under license of FUJI ELECTRIC, JAPAN  
Capacity 1 - 10 MVA Rated Voltage 36 kV



# *Business Goals*



# *Mission & Visions*

## Visions

- To be a leading transformer manufacturer in South-East Asia
- To meet Customers' needs
- To maintain good image of the organization

## Missions

- Determined to develop the technology and efficiency of its production for excellence of transformer manufacturing
- Develop personnel at all levels to obtain the required knowledge and abilities by means of Team work, Integrity, Quality and Customer Focus
- Create the added value to shareholders and social responsibilities, as well as fair treatment to all stakeholders

# *Company Goals*

## *Being a leading transformer manufacturer in South-East Asia Region*

- TRT is a Thai manufacturer of transformer who produced variety of quality Transformer products with international standard upon customers' needs and satisfaction.
- TRT also provides variety quality service to meet our customers' demands.
- Having production capacity to produce up to 300 MVA with Voltage 230 KV of Power Transformer in order to cope up with the incremental Electricity Demand both locally and regionally.

# *Electricity Demand Overview*

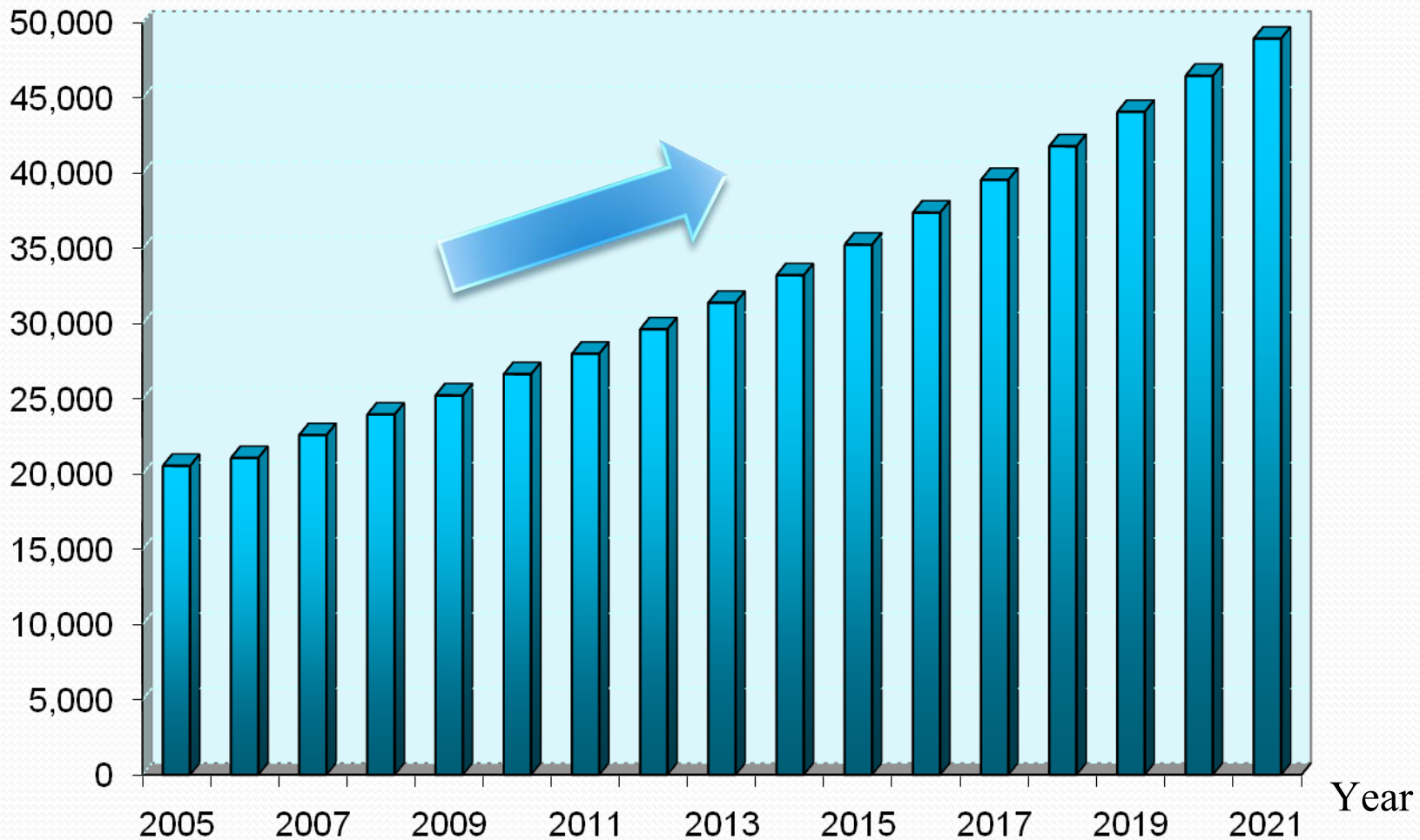


## Peak Electricity Demand Forecast

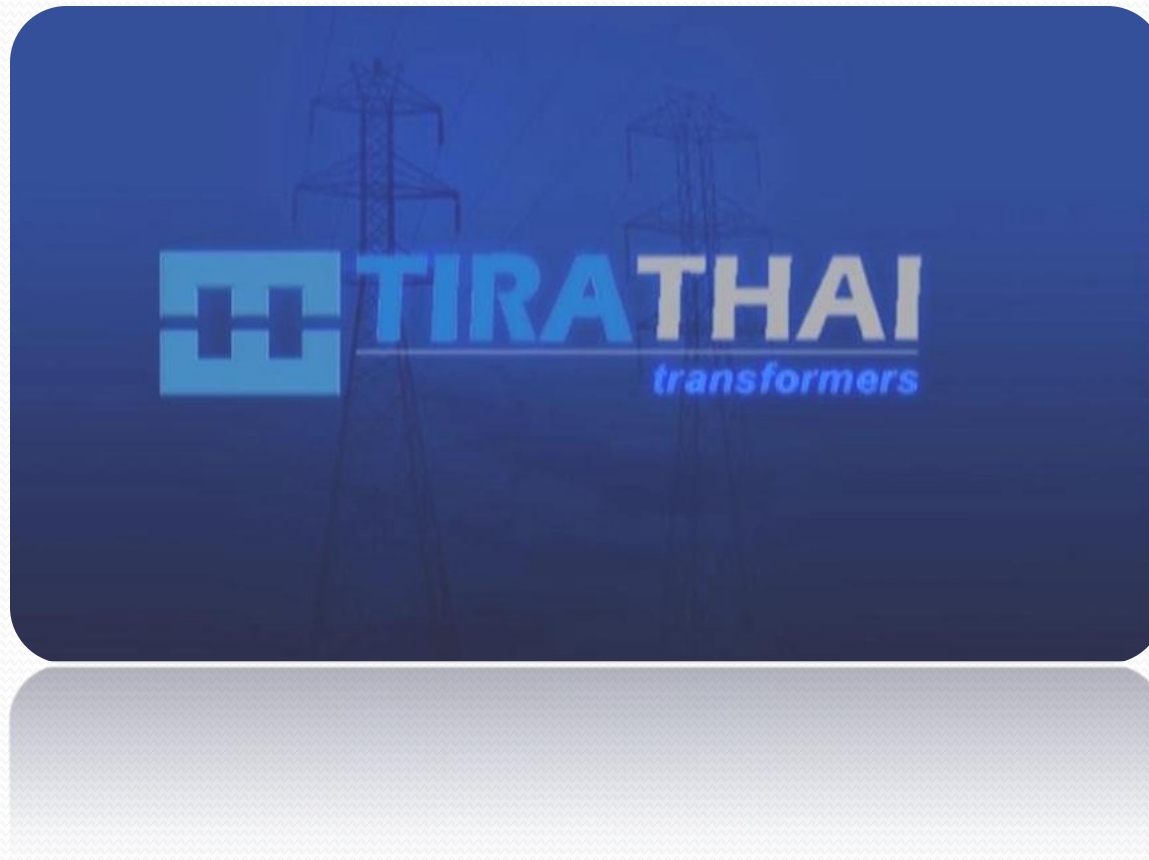
Year	MW	PEAK Increase MW	%	GWH	ENERGY Increase GWH	%	Load Factor (%)
2005	20,538	1,212	6.27	134,827	7,370	5.78	74.94
2006	21,064	527	2.56	142,005	7,178	5.32	76.96
2007	22,586	1,522	7.23	148,073	6,068	4.27	74.84
2008	23,957	1,371	6.07	156,335	8,262	5.58	74.49
2009	25,225	1,268	5.29	164,774	8,439	5.40	74.57
2010	26,635	1,410	5.59	173,835	9,061	5.50	74.50
2011	27,996	1,361	5.11	182,618	8,782	5.05	74.46
2012	29,625	1,629	5.82	193,258	10,640	5.83	74.47
2013	31,384	1,759	5.94	204,844	11,586	6.00	74.51
2014	33,216	1,832	5.84	216,949	12,105	5.91	74.56
2015	35,251	2,035	6.13	230,370	13,421	6.19	74.60
2016	37,382	2,131	6.05	244,365	13,966	6.08	74.62
2017	39,560	2,178	5.83	258,657	14,291	5.85	74.64
2018	41,795	2,235	5.65	273,387	14,730	5.69	74.67
2019	44,082	2,287	5.47	288,404	15,017	5.49	74.69
2020	46,481	2,399	5.44	304,154	15,750	5.46	74.70
2021	48,958	2,477	5.33	320,376	16,223	5.33	74.70

# Peak Electricity Demand Forecast

MVA

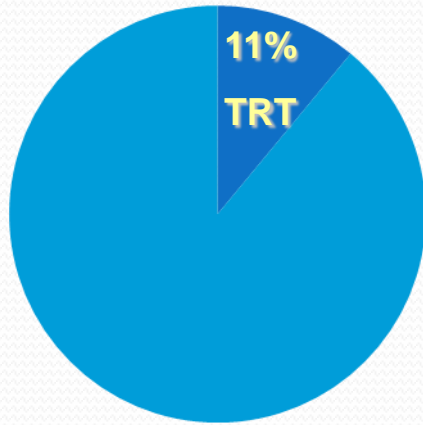


# *Transformer Industry Overview*

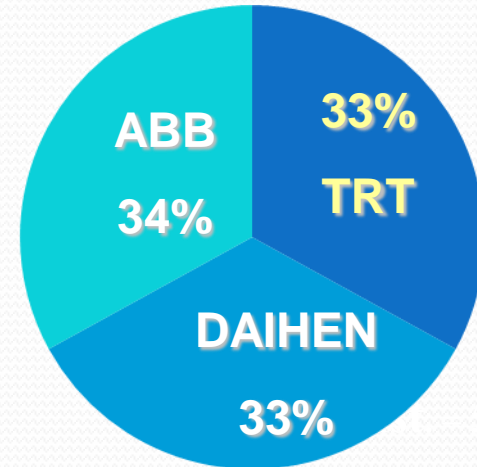


# TRT Local Market Share

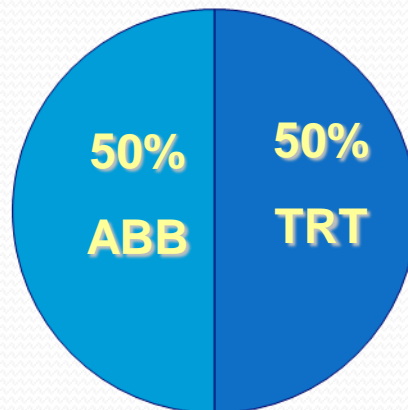
*Distribution Transformer*  
 $\leq 3000 \text{ kV} - 10,000 \text{ kV Voltage} \leq 33 \text{ kV}$



*Power Transformer*  
 $\leq 100 \text{ MVA Voltage} \leq 132 \text{ kV}$



*Power Transformer*  
 $>100 \text{ MVA Voltage} \leq 230 \text{ kV}$





*Structure of Incomes*

*&*

*Financial Highlight*



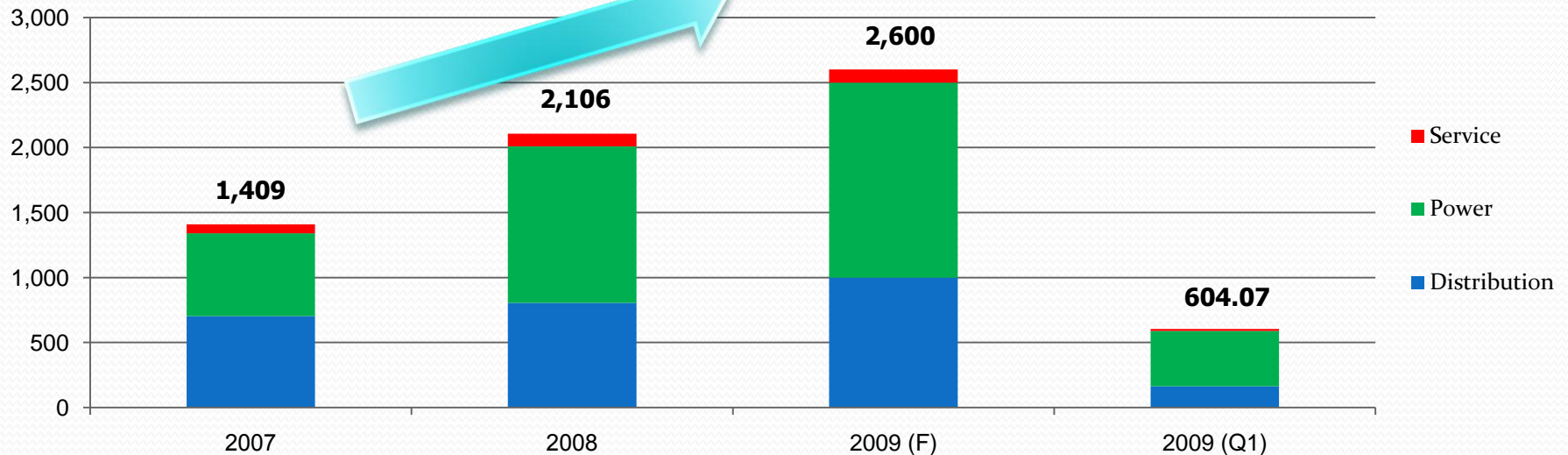
# Structure of Incomes

(by type of Transformer & Service)

(Million Baht)

	2007	2008	2009 (F)	2009 (Q1)
- Distribution	704	804	1,000	163.25
- Power	637	1,205	1,500	425.82
- Service	68	97	100	15.00

Total Sales (Million baht)



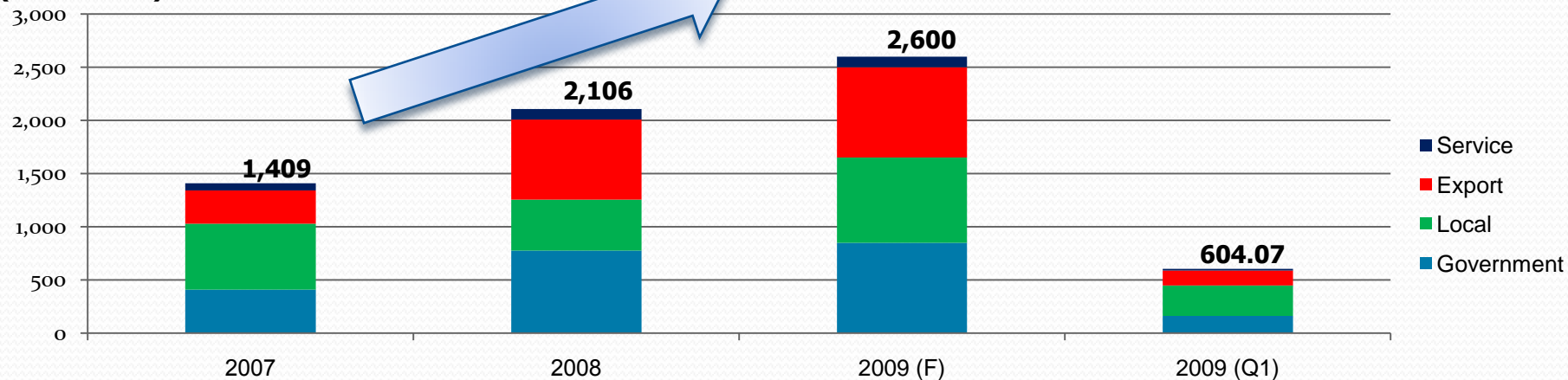
# Structure of Incomes

(by Type of Customers)

(Million Baht)

	2007	2008	2009 (F)	2009 (Q1)
- Government	409	775	850	161.87
- Local	619	479	800	285.36
- Export	313	755	850	141.84
- Service	68	97	100	15.00

**Total Sales (Million baht)**



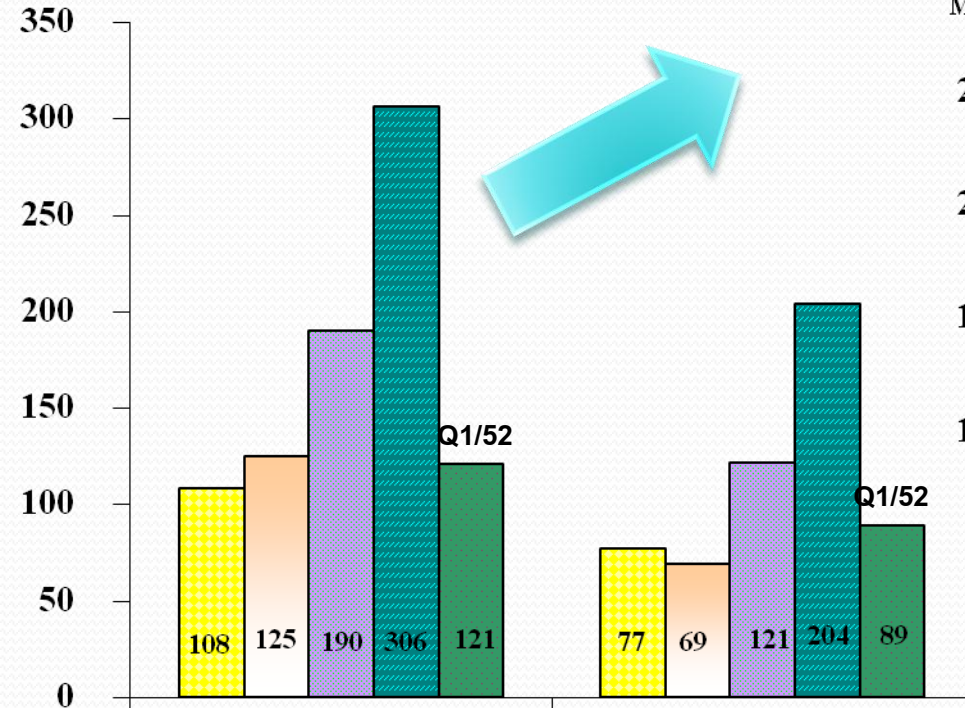
## *Financial Highlight*

Unit: Million Baht	2007	2008	Q1' 2009
Total Revenue	1,430.17	2,138.46	671.49
Revenue from Sales & Service	1,409.44	2,106.18	661.11
Gross Profit	404.19	579.21	173.69
EBITDA	230.96	335.97	129.86
EBIT	189.62	305.66	120.76
Net Profit	121.26	203.94	88.70
Total Assets	1,307.17	1,932.73	2,123.25
Total Liabilities	809.43	1,267.52	1,369.34
Shareholders' Equity	497.74	665.21	753.91
<b>Financial Ratio</b>			
Gross Profit Margin (%)	28.68%	27.50%	26.27%
Net Profit Margin (%)	8.48%	9.54%	N/A
Return on Asset (%)	14.41%	18.87%	N/A
Return on Equity (%)	26.96%	35.07%	N/A
Debt Equity Ratio (times)	1.63	1.91	1.82
<b>Unit: Baht/share</b>			
Book Value Per Share	4.91	6.57	6.57
Earning Per Share	1.20	2.01	0.88
Dividend Per Share	0.61	1.01	-

# Financial Highlight

Million Baht

## EBIT & NET PROFIT



EBIT

Net Profit

■ 2005  
 ■ 2006  
 ■ 2007  
 ■ 2008  
 ■ 2009 (Q1)

Million Baht

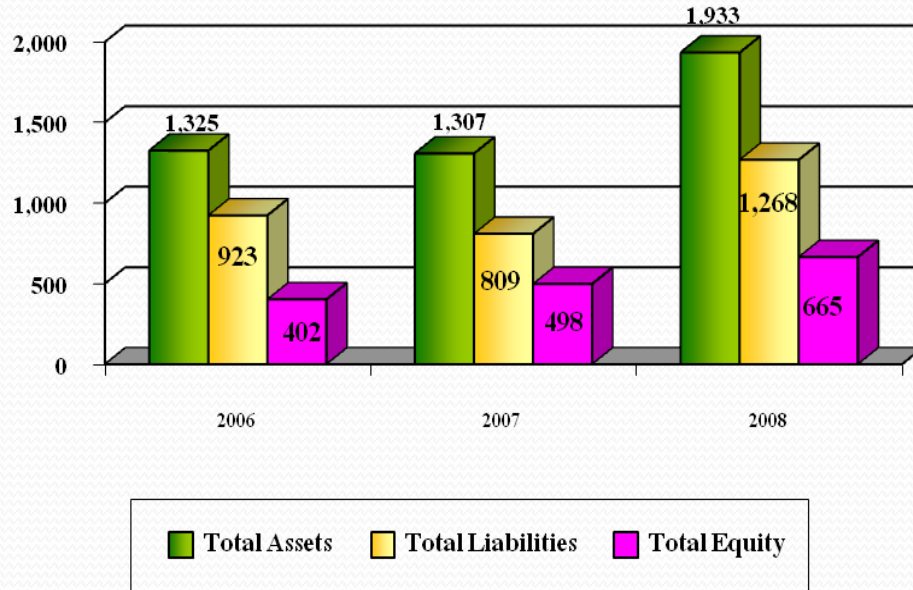
◆ Total Incomes



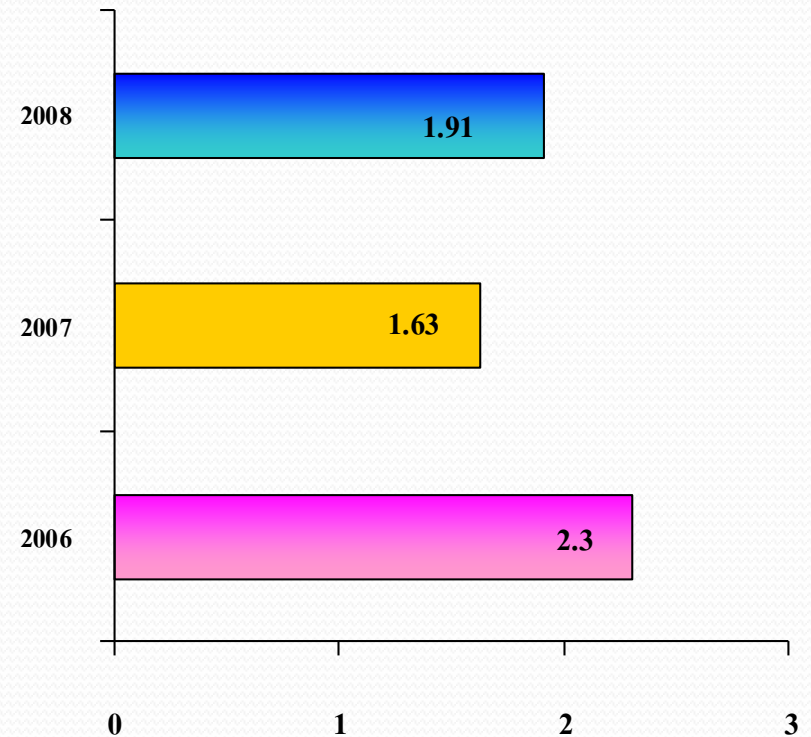
# Financial Highlight

## Balance Sheet

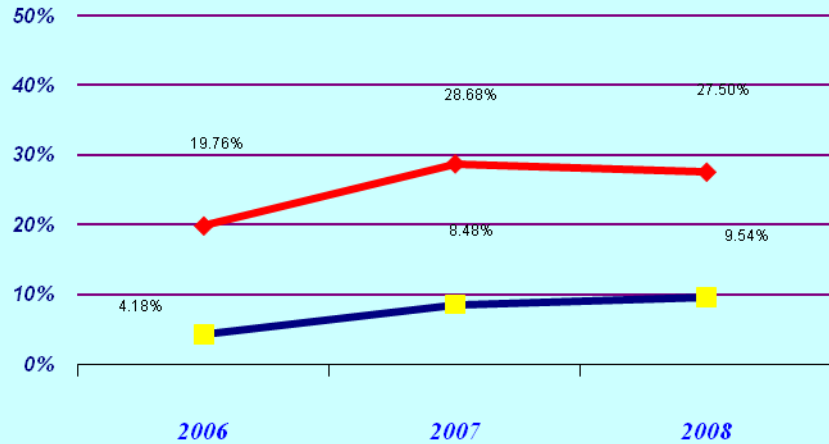
Million Baht



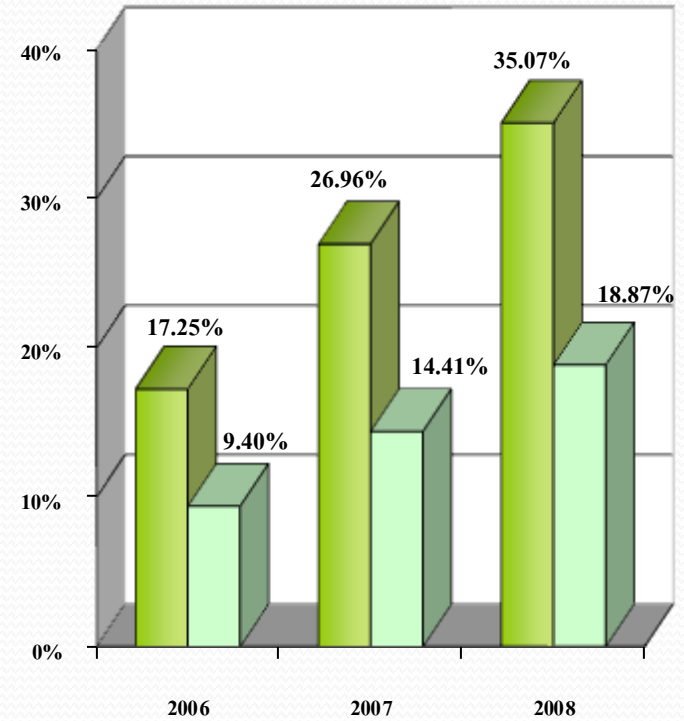
## D/E Ratio (Times)



# Financial Highlight



◆ Gross Profit Margin      ■ Net Profit Margin



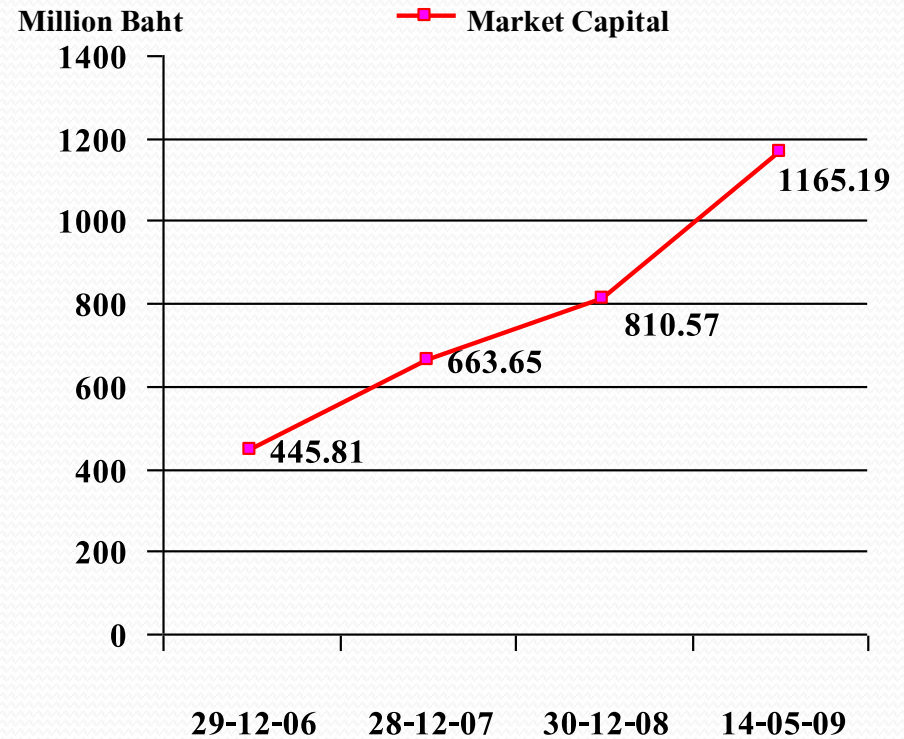
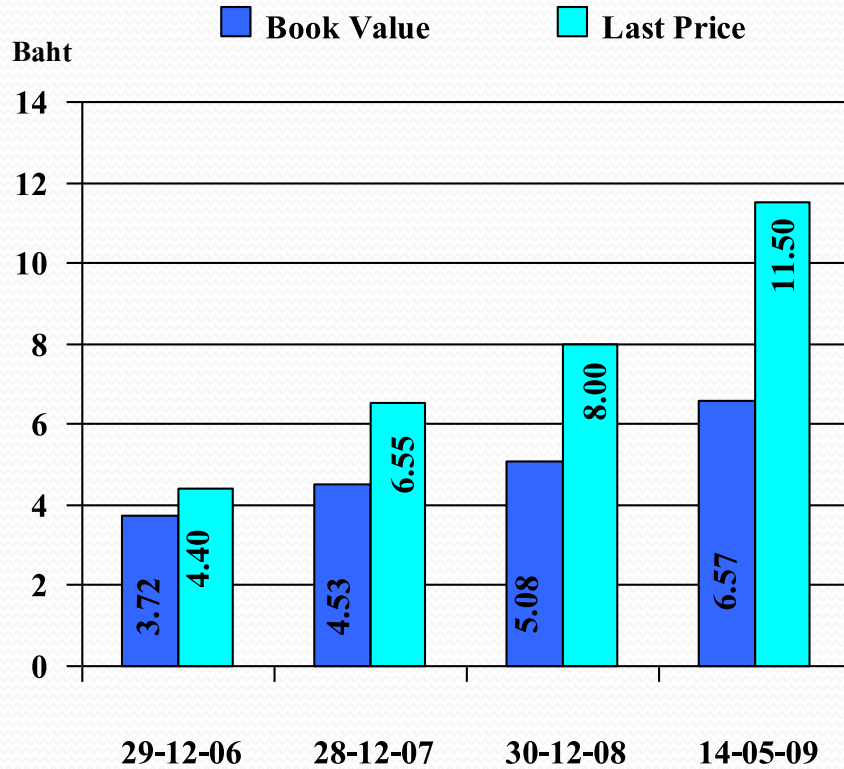
■ ROE      ■ ROA

## *Financial Highlight*

As of	28/12/2007	30/12/2008	14/05/2009
P/E	<b>8.03</b>	<b>6.90</b>	<b>5.71</b>
P/BV	<b>1.45</b>	<b>1.57</b>	<b>1.75</b>
Book Value per share (Baht/share)	<b>4.53</b>	<b>5.08</b>	<b>6.57</b>
Dividend Yield (%)	-	<b>7.62</b>	<b>8.78</b>
Last Price (Baht)	<b>6.55</b>	<b>8.00</b>	<b>11.50</b>
Market Capital	<b>663.65</b>	<b>810.57</b>	<b>1,165.19</b>



# Financial Highlight



# *Our Highlight Performance*



*Example of Backlog Orders as of 30 March 2009 > 30 Million Baht*

<b>Client</b>	<b>Project</b>	<b>Values (Million Baht)</b>
- EGAT.	The Greater Bangkok Area	196
- PEA.	PEA-M(BU)073	118
- A.I. Engineering	PEA's Substation	152
- Stone & Webster	Singapore's Project	108
- Loxley	PEA's Substation	81
- Japan AE	Korea's Project	38
	Canada's Project	38

# ELECTRICITY GENERATING AUTHORITY of THAILAND

180/200/300 MVA 3 Ø 230/121 – 11 kV Qty. 2 units

Project : The Greater Bangkok Area

Within Feb. 2010



# JULY 2008

60/70 MVA 3 Ø 220 – 15 KV QTY. 4 UNITS  
**SIEMENS PAKISTAN ENGINEERING CO., LTD.**

PROJECT : ATLAS POWER PLANT, SHEIKHUPURA, PAKISTAN



## NOVEMBER 2008

125 MVA 3 Ø 225 – 115 – 23 KV QTY. 3 UNITS  
**THE SOUTHERN VIETNAM POWER PROJECT**

PROJECT : 220 KV, LONG AN SUBSTATION, VIETNAM



# DECEMBER 2008

300 MVA 3  $\emptyset$  220 – 69 – 24 KV QTY. 2 UNITS  
**METROPOLITAN ELECTRICITY AUTHORITY**

PROJECT : CHIDLUM TERMINAL STATION, BANGKOK / THAILAND



## Question & Answers

