

# Management Reference Materials

**May 2009**



The Okinawa Electric Power Company, Inc.

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# Characteristics of the Business Base

## Advantage

Demand for Electric Power	<ul style="list-style-type: none"> <li>◆ Increasing demand as population increasing</li> <li>◆ As the proportion of energy for consumer use is high, the effects of business fluctuations are low</li> </ul>
Competition	<ul style="list-style-type: none"> <li>◆ Severance from competition among electric power companies on account of its isolated system</li> <li>◆ No competition with PPS (Power Producers and Suppliers)</li> <li>◆ The advance of private power generation operations is limited (Prevention of demand withdrawals through Progressive Energy Corp , a subsidiary of OEPC.)</li> </ul>

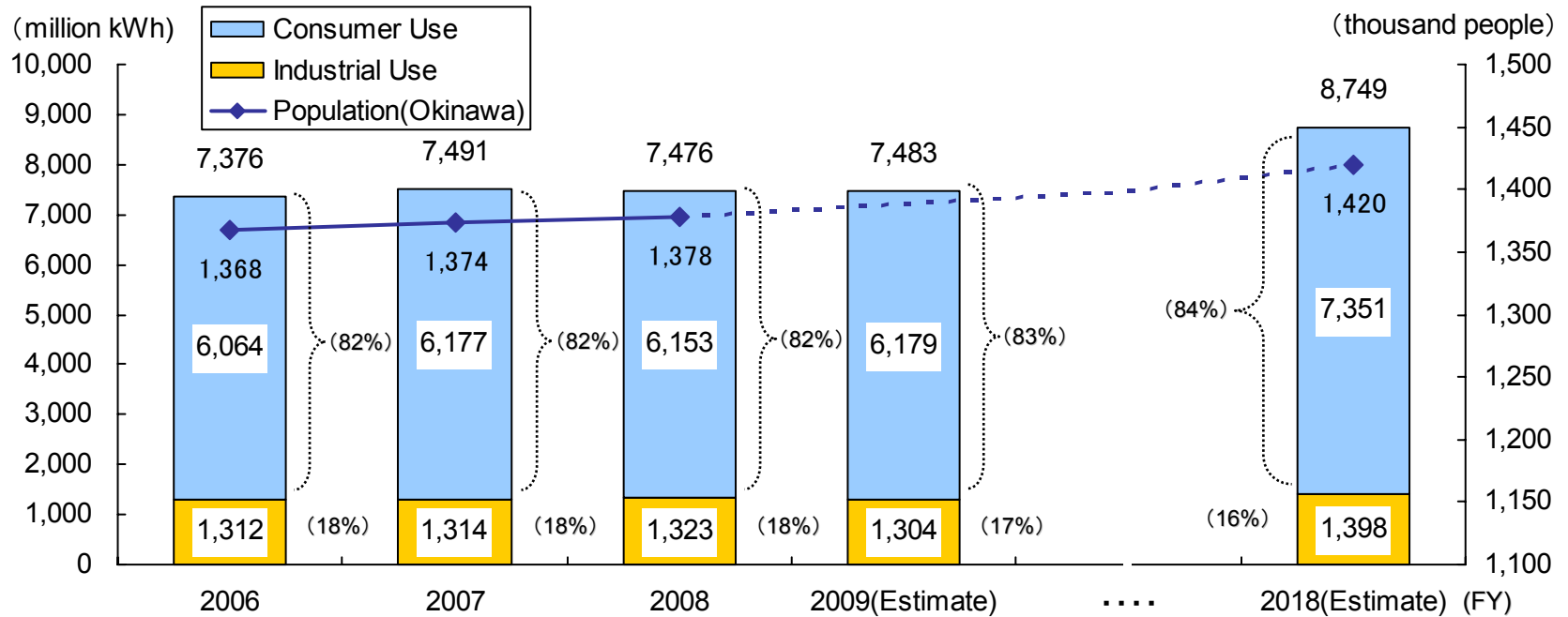
## Disadvantage

Electric Power Generation Facilities	<ul style="list-style-type: none"> <li>◆ Due to having an isolated system, it is necessary to have a high margin of power generation reserves</li> <li>◆ Electrical power source composition reliant only on oil and coal</li> </ul>
Fuel	<ul style="list-style-type: none"> <li>◆ As oil and coal are the only fuels used, high commodity prices exert a great influence</li> </ul>
Remote Islands	<ul style="list-style-type: none"> <li>◆ With remote islands where cost efficiency is low, the Remote Islands Company constantly records losses</li> </ul>
The Environment	<ul style="list-style-type: none"> <li>◆ Dependent on fossil fuels (oil and coal) with a high environmental burden</li> </ul>



# Demand for Electric Power

Stable growth is forecasted for demand for electric power, centering on increased demand for consumer use accompanying population increases.



Okinawa		Okinawa (%)	
Annual Average Growth Rate		1997-2007	2007-2018
Demand for Electric Power	Consumer use	2.2(2.1)	1.6(1.7)
	Industrial use	1.5(1.4)	0.6(0.6)
Total		2.0(2.0)	1.4(1.5)

Note : Figures in brackets are post temperature and leap year correction.

Nationwide (Excluding Okinawa)		Nationwide (Excluding Okinawa) (%)	
Annual Average Growth Rate		1997-2007	2007-2018
Demand for Electric Power	Consumer use	2.1(1.9)	1.0(1.2)
	Industrial use	1.1(1.1)	0.4(0.4)
Total		1.7(1.6)	0.8(0.9)

Source : Japan Electric Power Survey Committee  
(Growth rates were calculated from loads for distribution)

Note: Figures in brackets are post temperature and leap year correction.

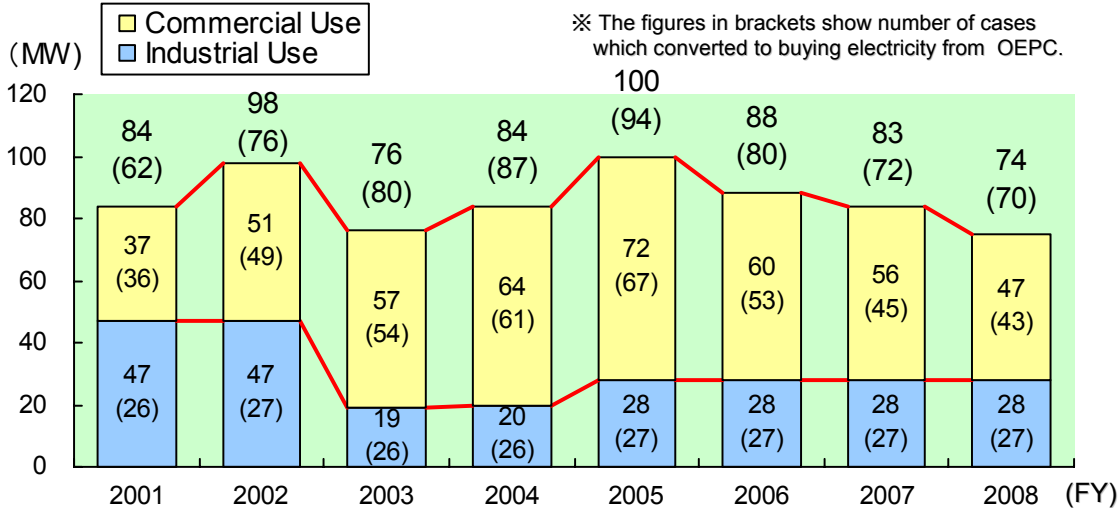


# Competition with Private Power Generation Operations

- The proportion of private power generation in Okinawa is 3%
- Progressive Energy Corp's share of private power generation in commercial use sectors is 56%

(As of March 31, 2009)

## Trend in the Permitted Output of Private Power Generators

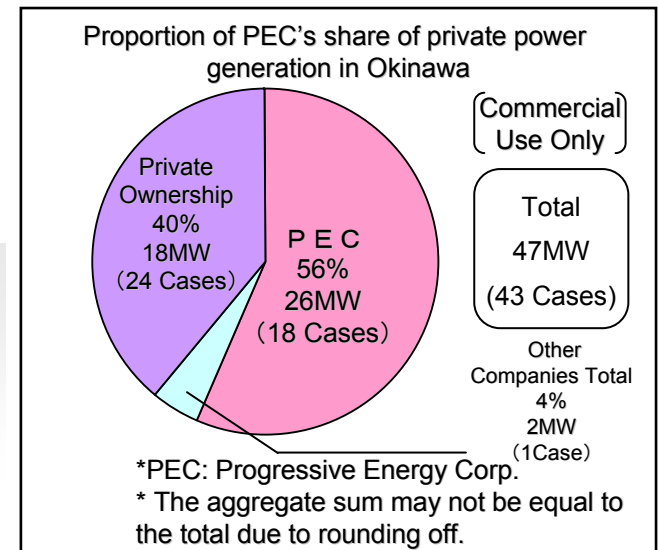
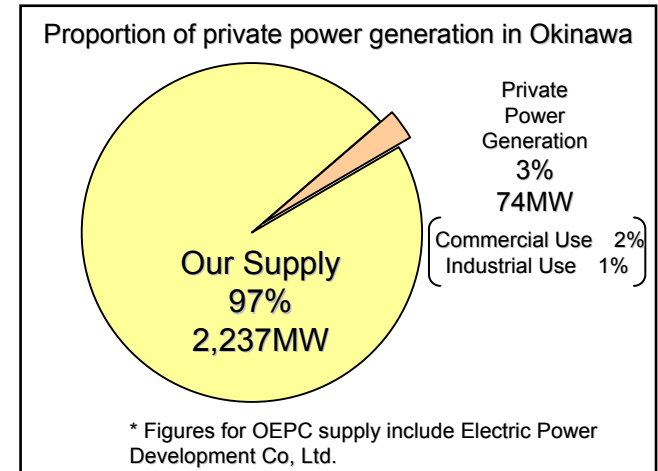


- Number of cases and output (kW) : converted to buying electricity from OEPC
- FY2006 : Commercial Use 20 cases (total 14,451kW)
- FY2007 : Commercial Use 8 cases (total 5,010kW)
- FY2008 : Commercial Use 8 cases (total 10,570kW)

\* The number of change in output and switchover to private power generation within a fiscal year do not correspond with each other as there are customers who newly establish private power generation system and switch over to private power generation.

The Okinawa Electric Power Company, Inc.

## Status of market penetration by private power generators



# Power Generation Facilities [1/4]

## Generation Reserve Margin

### Demand-Supply Balance

OEPC	(10 Thousands of kW, %)			
	2008 【Result】	2009	2013	2018
Peak Load	139	143	153	165
Supply Capacity	187 (163)	196 (171)	214 (194)	236 (221)
Reserve Capacity	49 (24)	53 (28)	61 (42)	71 (56)
Reserve Margin(%)	35.0 (17.1)	37.1 (19.6)	39.9 (27.2)	42.9 (33.7)

Note :The figures in brackets show demand-supply balances when gas turbines are excluded.

### 10 Major Electric Power Companies (10 Thousands of kW, %)

	2008 【Result】	2009	2013	2018
Peak Load	17,521	17,343	17,869	18,584
Supply Capacity	19,313	19,426	19,865	20,722
Reserve Capacity	1,793	2,082	1,996	2,137
Reserve Margin(%)	10.2	12.0	11.2	11.5

(Source :The Central Electric Power Council, "Summary of Electric Power Supply Planning ,FY2009")

- A high generation reserve margin is necessary for such reasons as the inability to exchange power with other electric power companies because of OEPC's isolated system and the responsibility to provide stable supply as a public utility.
- The power supply reserve is achieved by securing the equivalent reserve capacity of the largest single generator so that it is possible to provide stable supply even if the largest unit breaks down.
- Part of the margin is provided by gas turbines, which carry lower investment burden (permitted output: 266MW)

Although there are factors encouraging increased facility investment associated with the growth of electric power demand, OEPC is making efforts to suppress the level of facility investment and promote load leveling and the like, aiming at efficient facility formation.



# Power Generation Facilities [2/4]

## Power Supply Composition

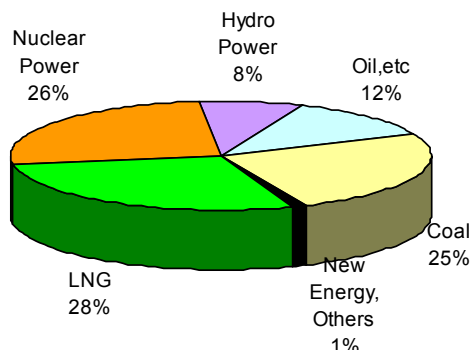
- Power supply is dependent on oil and coal because of the difficulty of finding sites for hydro or nuclear power generation due to factors including geographic and topographical characteristics and constraints on the scale of demand.



- Introducing LNG thermal power stations to diversify power supply sources  
Improving security for the stable supply of electric power

## Electric Power Composition Ratio (Generating End)

Totals for the 10 Major Electric Power Companies  
(FY2008: Estimated Results)



(Source: The Central Electric Power Council, "Summary of Electric Power Supply Planning ,FY2009")

### Okinawa Electric Power Company

(FY2008: Results)

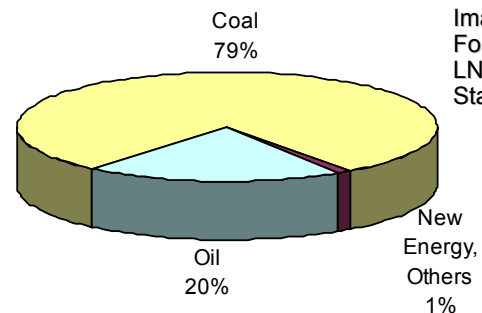
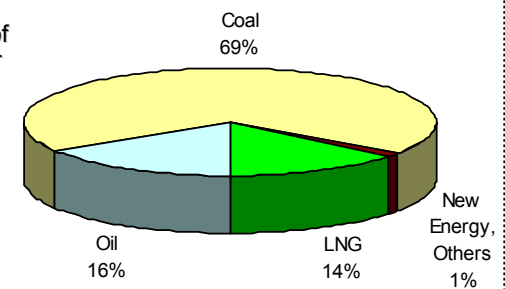


Image of Situation Following the Start of LNG Thermal Power Station Operation

(FY2018)



\* Both pie charts include energy supplied by other companies.





# Power Generation Facilities [3/4]

## ~ Yoshinoura LNG Thermal Power Plant ~

### Construction Purpose

Response towards steady demand increases  
Environmental measures → Avoidance of large environment costs  
Fuel diversification → Improvement of energy security  
Search for new business opportunities making efficient use of LNG

### Investment Plan

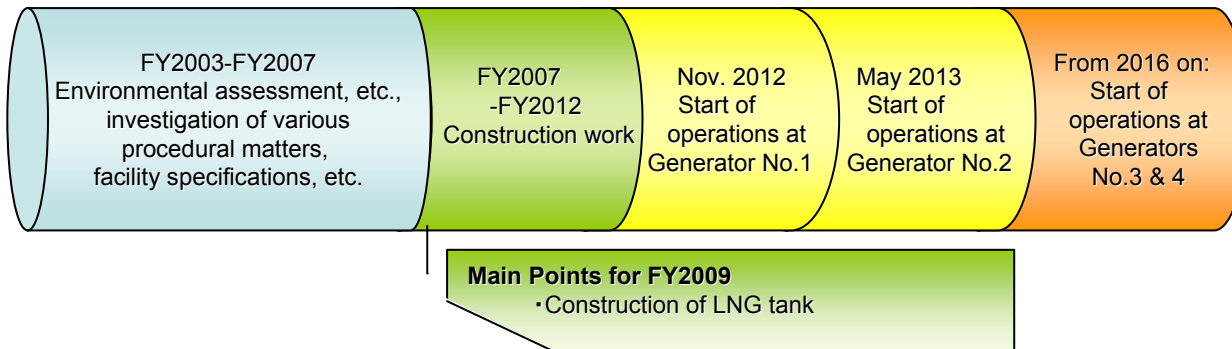
Power generation facilities, Generators No.1 & 2 (251,000 kW each)  
2 LNG terminals (140,000 kl each)  
Including other expenses, the operation is on the scale of 100 billion yen  
The forecast investment peak is from FY2010 – FY2011

Okinawa Prefecture

【Site for Power plant construction】



### Construction Schedule



Conceptual Image of the Completed Facility



\* The start of operation was postponed for a year again.





# Power Generation Facilities [4/4]

## ~ Yoshinoura LNG Thermal Power Plant ~

### Effects on Finance (Past Tendencies)

- The balance of interest bearing liabilities increased
- Large depreciation burden and decreased income associated with large-scale facility investment

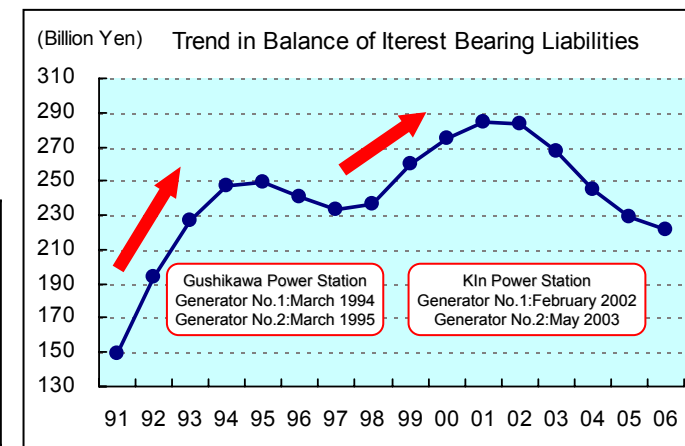
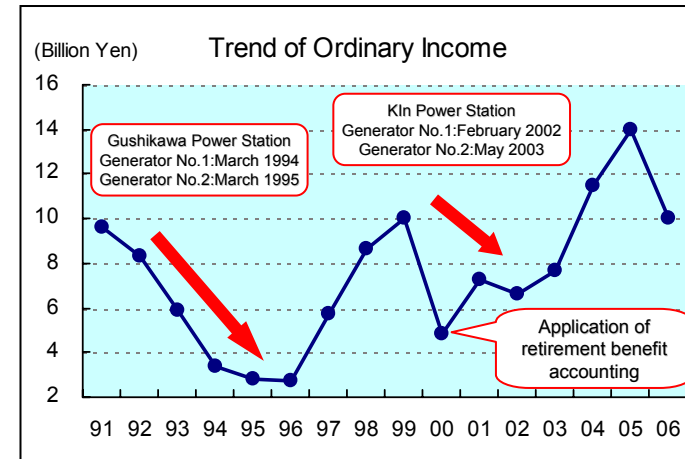
### Countermeasures

- Creation of strong financial characteristics able to withstand the Yoshinoura Thermal Power Station investment burden
  - Control the increase of the balance of interest bearing liabilities
- Reduction of the depreciation burden associated with the start of operations at Yoshinoura Thermal Power Station
  - Currently investigating cost leveling through lease finance for the LNG terminals

### Perspective

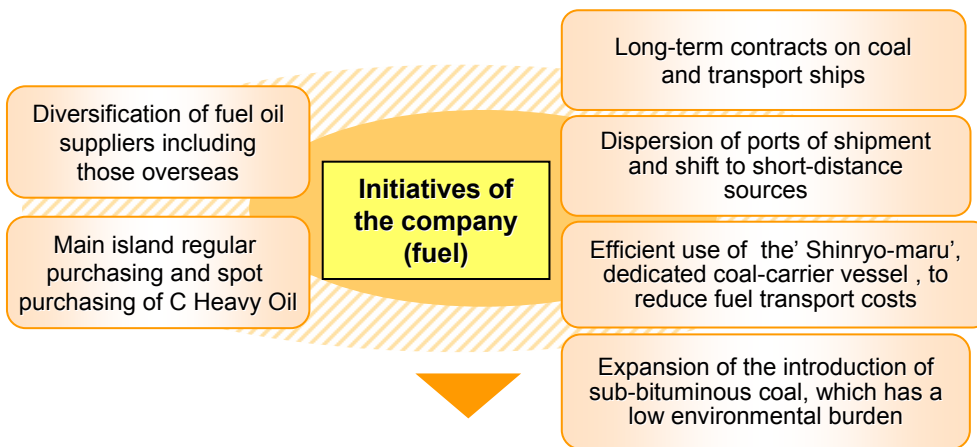
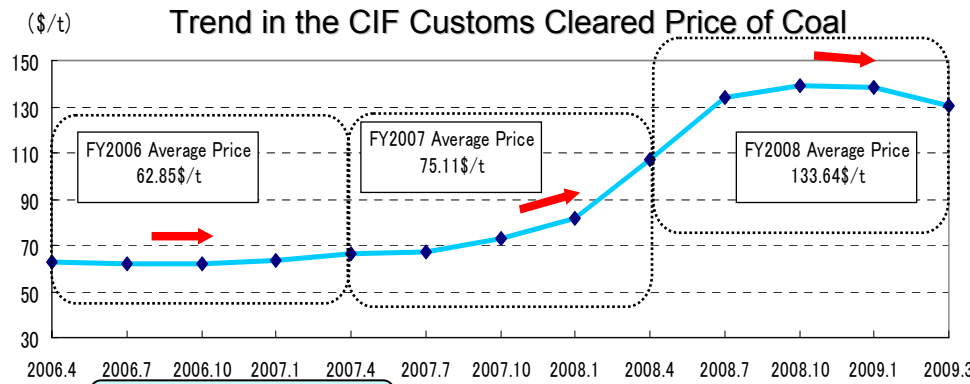
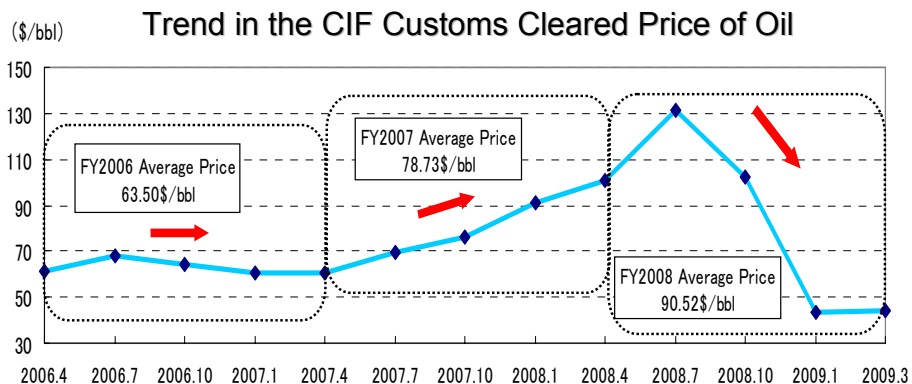
Power Generation Facilities	LNG Terminals
<ul style="list-style-type: none"> <li>■ Application of usual finance to electricity operation as a whole</li> <li>■ Earlier depreciation as previously using a fixed percentage method</li> </ul>	<ul style="list-style-type: none"> <li>■ Aim at stable costs for a part of fuel costs</li> <li>■ Currently investigating cost leveling through lease finance</li> </ul>

\* Concerning finance lease, the Company will apply on-balance sheet non-transfer-ownership contracts.



# Fuel

- Great effects are exerted on the company by movements in fuel prices.
- Fuel price kept surging since FY 2007, however, the crude oil price dropped suddenly and remained low since September 2008, and the coal price is expected to start decreasing from April 2009. But the outlook on the prices remains unclear.



**Activities this term**

**<Fuel Oil>**

- Achieving stable of fuel oil supply via diversification of suppliers including those overseas
- Reduction of fuel costs via utilization of spot market

**<Coal>**

- Achieving stable coal supply and fuel cost reduction via long term contracts for coal and transport vessels
- Secure stable supply and reduced fuel cost by dispersing embarkation port and shifting to closely-located supply sources.
- Reduce fuel cost by making the best use of "Shinryomaru," which is a specialized carrier for low transportation cost.
- Life expansion of ash processing facilities and the reduction of fuel costs by increasing the use of sub-bituminous coal which has lower ash, lower sulfur and lower environmental load than bituminous coal.

**Achieving stable fuel supply and pursuing cost reductions**

\* Although there is a time lag, fuel price changes are reflected to the electricity rates through the Fuel Cost Adjustment System.

# The Fuel Cost Adjustment System (applicable through to the electricity charge for April 2009)

## Summary of the System

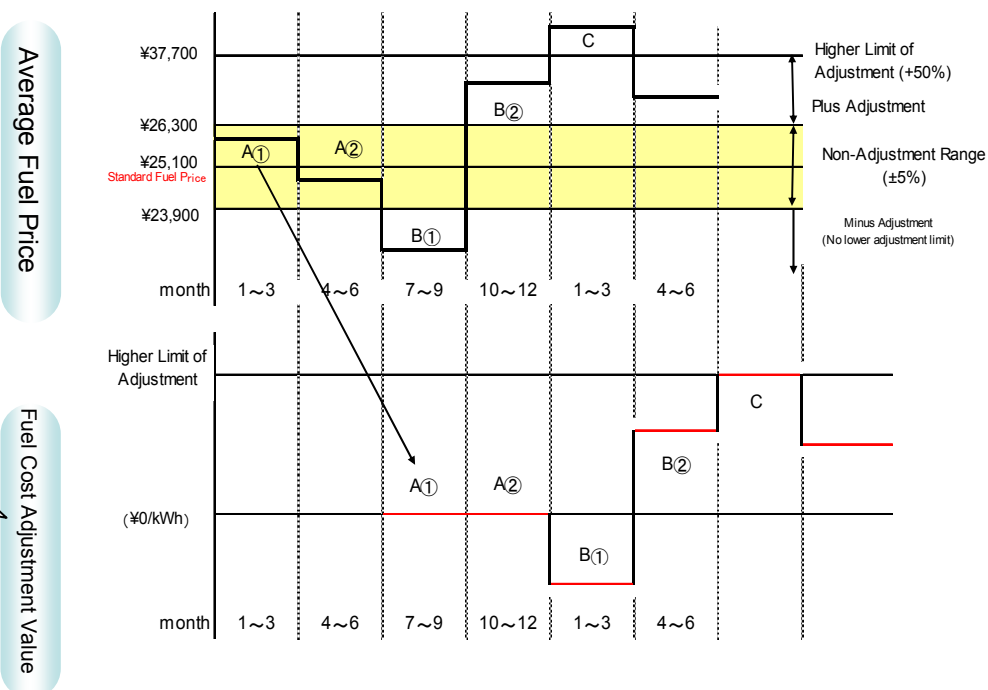
The fuel cost adjustment system was introduced for the purpose of clarifying the “internal factors” such as the results of efforts to promote management efficiency at electric power companies and reflecting “external factors” onto electricity rates such as exchange rates and oil and coal and LNG prices that alter the economic situation. \*The revised system was applied from the electricity charge for May 2009.

## Scope of Fuel Cost Adjustment

- The average price of oil, coal, LNG etc., is calculated every quarter based on customs clearance statistics and electricity rates are adjusted automatically by comparison with the standard fuel price when charges are revised.
- If the change is no greater than  $\pm 5\%$ , no adjustment is made.
- The limit on upward adjustments is 50%.
- There is no limit on downward adjustments.

- A** No adjustment is made because the change is small ( $\pm 5\%$ )
- B** Adjustment is made in accordance with the size of the change
- C** Price adjustment is stopped at the higher limit as the increase is large

## Image of the Fuel Cost Adjustment System



# The Fuel Cost Adjustment System (applied from the electricity charge for May 2009)

Detailed discussion on the fuel cost adjustment system has been made in the Electricity Industry Committee to enable expedient responses in the current situation of significant and rapid movements in energy prices typified by the crude oil price; after the amendment of the ministerial ordinance, a new fuel cost adjustment system has been put into practice starting the May 2009 bill. Specifically, while in the former system the average fuel prices over three months was applied to the rate every three months after a lag of three months, in the new system the average fuel price over three months is applied to the rate every month after a lag of two months (see the figure below).

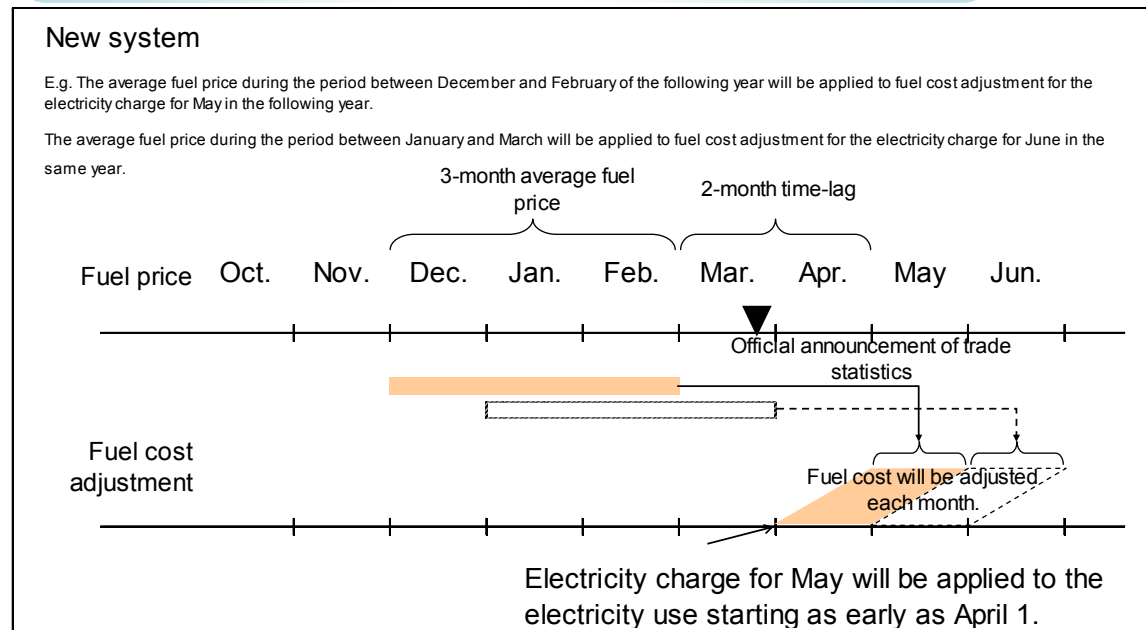
Due to the system revision, there will be a certain period during which the fuel price cannot be reflected in the power rate, but the fuel prices during such a period will be adjusted in the power rate by March 2010 bill.

【Ex. Case of Low voltage metered residential : +0.1Yen/kWh (May-Oct. 2009), +0.09Yen/kWh (Nov.2009-Mar.2010)】

## Range of fuel cost adjustment

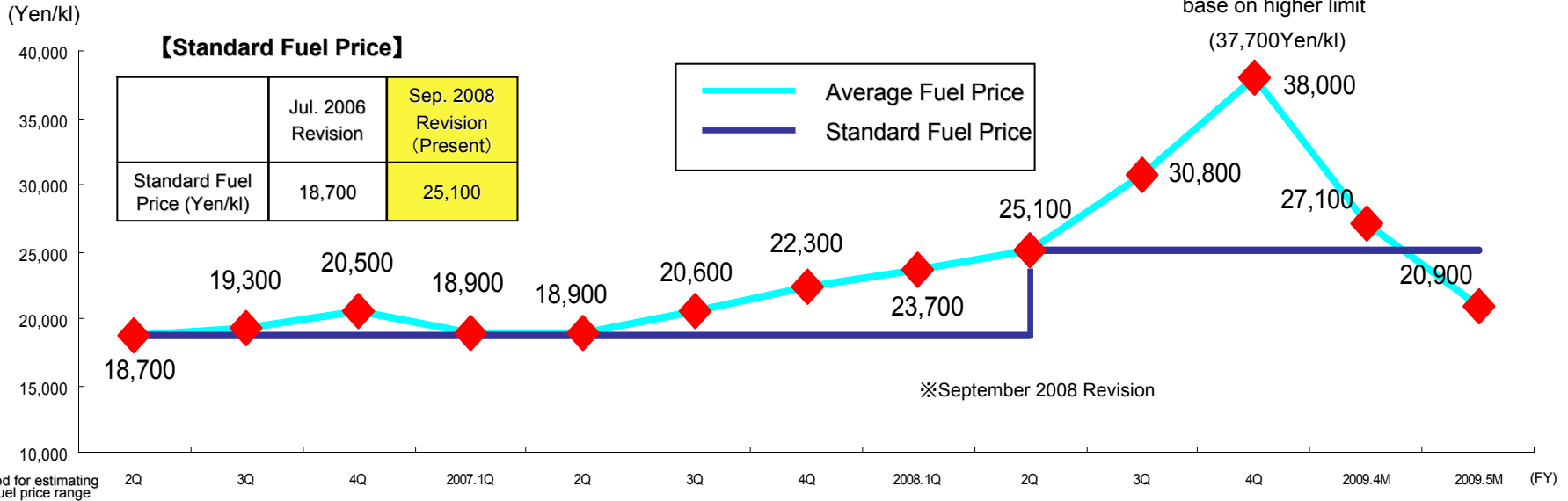
- We will calculate the average fuel price based on the prices of crude oil, coal and LNG on the trade statistics during the period between five months and three months prior to the fuel cost adjustment, and electricity charge will be automatically adjusted each month by comparing the above price with the standard fuel price at the time of electricity rate revision.
- Non-adjustment band, which is applied in the case where the fluctuation of fuel price falls within the range of plus or minus 5 %, will be abolished.
- The maximum level of fuel cost adjustment will be 50% (unchanged).
- There will be no lower adjustment limit (unchanged).

## Conceptual drawing of the fuel cost adjustment system



# Trend of Average Fuel Price and Standard Fuel Price

## ■ Trend of Average Fuel Price and Standard Fuel Price (Since July 2006)



Period for applying the Fuel cost adjustment system	06.2Q	3Q	4Q	07.1Q	2Q	3Q	4Q	08.1Q	2Q	3Q	4Q	09.4M	09.5M
Period for estimating a fuel price range	05.4Q	06.1Q	2Q	3Q	4Q	07.1Q	2Q	3Q	4Q	08.1Q	2Q	3Q	08.12M ~2M
Average Crude Oil Price (yen/kl)	43,728	46,831	51,587	44,907	43,197	48,666	53,137	59,131	62,735	71,306	87,776	47,771	27,834
Average Coal Price(yen/t)	7,311	7,166	7,159	7,250	7,573	7,980	8,462	8,406	8,873	12,101	14,929	13,838	12,575

### 【Method of calculating Average Fuel Price】

$$\text{Average Fuel Price} = A \times \alpha + B \times \beta$$

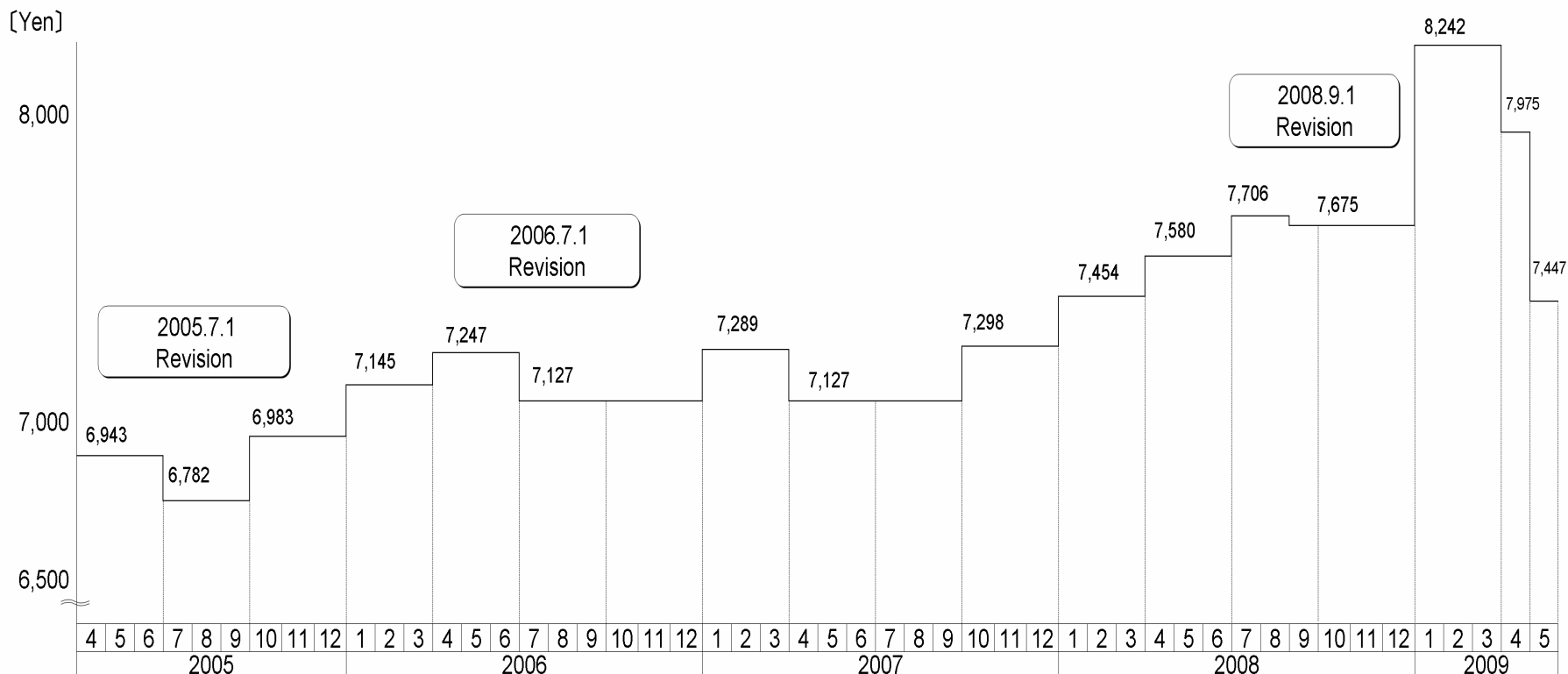
A : Average crude oil price per kiloliter in each quarter B : Average coal price per ton in each quarter

※  $\alpha$  and  $\beta$  are coefficients in Provisions of supply to calculate the average fuel price. (Reference  $\alpha$ :0.2410、 $\beta$ :1.1282 Provisions of supply Sep. 2008 effective)



# Recent changes in standard household electricity charges

Changes in standard household electricity charges after the electricity rates revision in July 2005 are as shown below.



※1 300kWh/Month

※2 In the fourth quarter of FY2008 and April 2009, electricity charge after special measures are implemented were applied.

※3 In May 2009, electricity charge after special measures and transitional measures are implemented were applied.





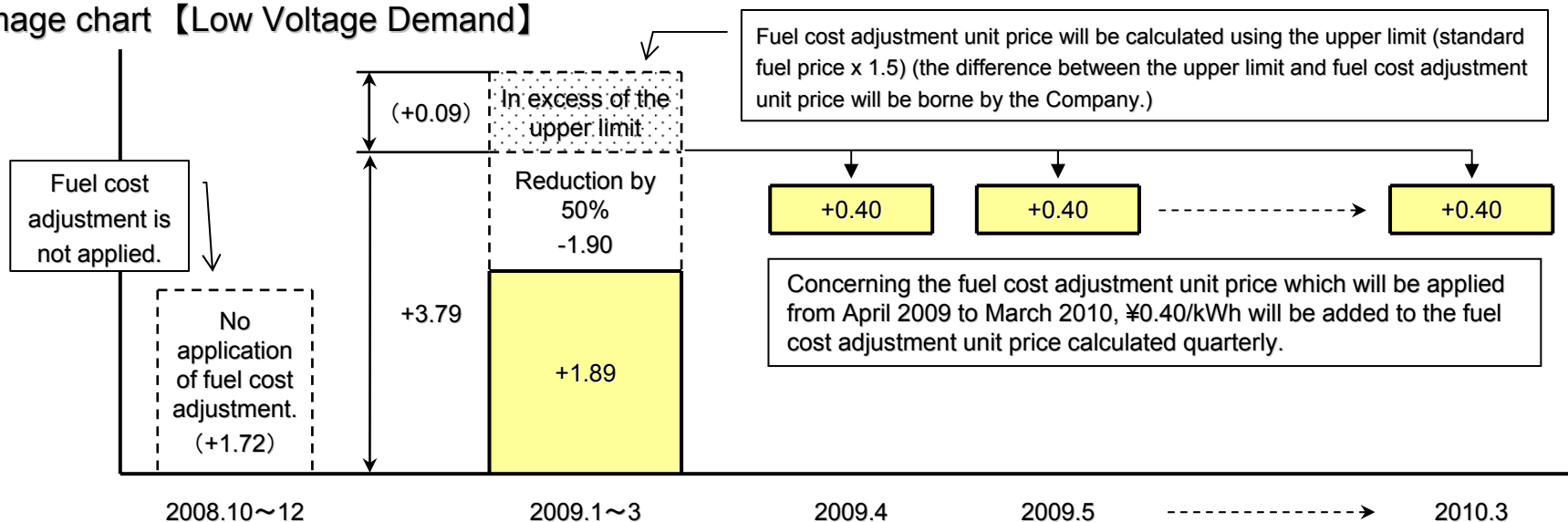
# Special measures for fuel cost adjustment

Unit: Yen/kWh

	Fuel cost adjustment unit price for the period between January 2009 and March 2009			Fuel cost adjustment unit price for the period between April 2009 and March 2010		
	Calculated under the normal conditions (A)	Reduction through application of special measures (B)	Unit price that will be applied practically (C)=(A)+(B)	Calculated under the normal conditions (A')	Adjustment through application of special measures (B')	Unit price that will be applied practically (C')=(A')+(B')
<b>Low Voltage Demand and Electric Lighting</b>	3.79	- 1.90	1.89	* **	0.40	* **
<b>High Voltage Demand</b>	3.67	- 1.84	1.83	* **	0.36	* **
<b>Special High Voltage Demand</b>	3.60	—	3.60	* **	—	* **

※ (A')「\* \* . \*」means Fuel cost adjustment unit price to be calculated under the normal conditions each period for applying Fuel cost adjustment unit price.

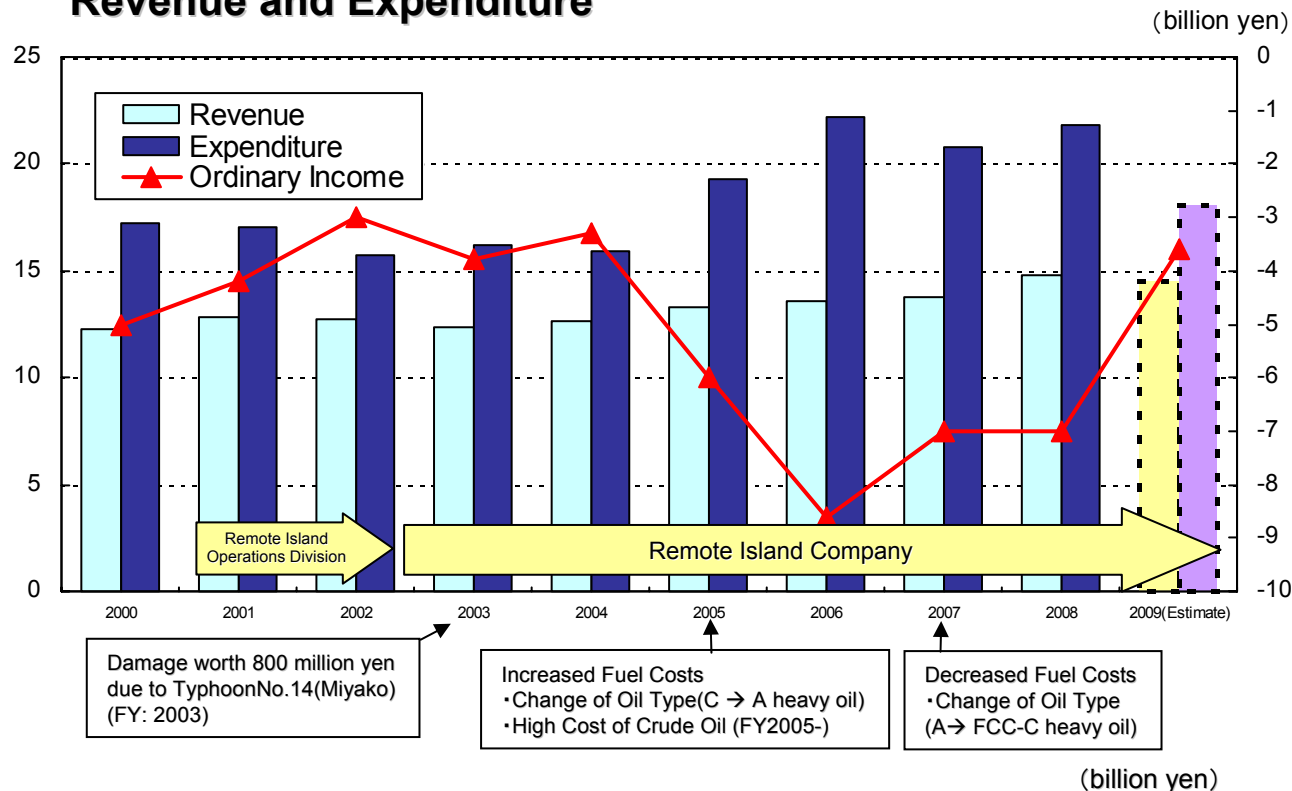
Image chart 【Low Voltage Demand】





# Improvement of Remote Island Income and Expenditure [1/2]

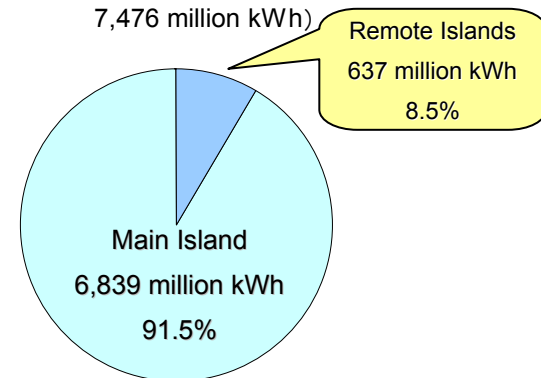
## Movements in Remote Island Revenue and Expenditure



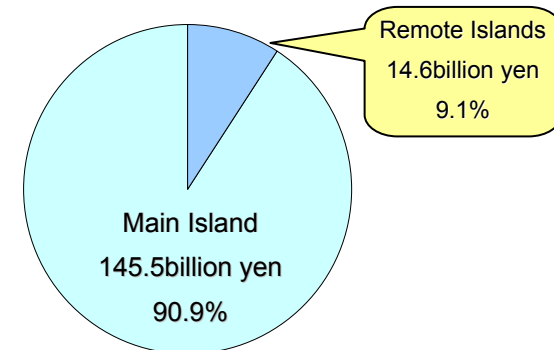
(billion yen)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 (Estimate)
Revenue	12.3	12.8	12.7	12.4	12.6	13.3	13.6	13.8	14.8	14.5
Expenditure	17.2	17.0	15.7	16.2	15.9	19.3	22.2	20.8	21.8	18.1
Ordinary Income	-5.0	-4.2	-3.0	-3.8	-3.3	-6.0	-8.6	-7.0	-7.0	-3.6

Electricity Sales (FY2008) ※  
 (All Companies:  
 7,476 million kWh)



Residential, Commercial and Industrial Use Charges (FY2008)  
 (All Companies: 160.1 billion yen)



Remote island business occupies slightly less than one-tenth of electricity sales and residential, commercial and industrial use charges.

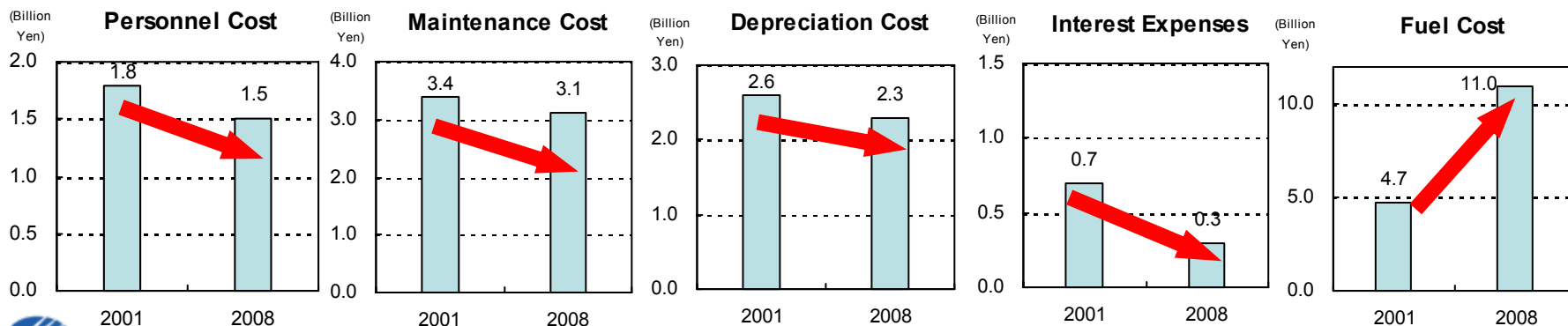


# Improvement of Remote Island Income and Expenditure [2/2]

- The region has a high cost structure because of such reasons as having small islands scattered about a vast sea area and the narrow scale of the economy.

- In order to construct a system enabling fast implementation of measures to improve inequalities in income and expenditure, a Remote Island Operations Division was launched in FY2001 and from FY2002, this was converted into the Remote Island Company.
  - Reduction of labor cost achieved by establishing remote control system for power generation plants in Miyakojima and Ishigaki island.
  - Reduction of repair cost achieved by revising the procedures for regular inspections on electric power supply facilities.
  - Reduction of depreciation expenses achieved by purchasing other companies' idle facilities and moving idle facilities of own company.
  - Reduction of fuel cost achieved by switching from A heavy oil to FCC-C heavy oil.
- Fuel costs are greatly increasing due to the recently soaring price of crude oil.

We work out new measures to stabilize supply and improve the balance of revenue and expenditure while pushing ahead with ongoing various measures (For example: Introduction of Wind power generation with lowering system, partially laying power lines underground to prevent typhoon damages, etc.)



# Environmental Burden Countermeasures

- Finding sites for hydro or nuclear power is difficult in Okinawa Prefecture due to reasons including the region's geological and geographic characteristics and constraints on the scale of demand  
 → **Dependency on fossil fuels (oil, coal, etc.)**



Company Efforts

- Introduction of LNG thermal power, which creates low CO<sub>2</sub> emissions (Yoshinoura Thermal Power Station)
- Promotion of the introduction of “new energy” based on the RPS system
- Maintenance and improvement of the heat efficiency of thermal power stations
- Promotion of load leveling
- Promotion of multi-fuel operation with biomass energy
- Promotion of energy reduction and recycling
- Equity participation in carbon funds taking advantage of the Kyoto Mechanism

Name of Funds		Acquired credit volume or amount of investment (contract basis)
Equity participation in carbon funds	Contract of amount of investment	6 million dollars
	Contract of credit volume	Approx.2.8 million tons-CO <sub>2</sub>
Purchase Contract with a trading company etc.		



# Q & A



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# Q1.What is the Current State of the Okinawa Prefectural Economy and What is the Future Forecast?

## 1 Okinawa's Economy

### ◎The current state of affairs

Business is declining in Okinawa:

- Construction related business is beginning to pick up in terms of housing starts due to weaker impact of the revised Building Standards Act and public works also exceed the result of pervious year.
- Consumer spending is sluggish with a stronger sense of living-protection by consumers even though the sale of electric appliances has underlying strength.
- Tourism is slowing down, affected by economic deterioration, less flights and foreigners' lower aspiration for trips due to appreciation of yen where the number of incoming tourists has been decreasing since Nov, falling into negative territory on a year to year basis.

### ◎Prospects

Highly possible to continuously deteriorate with a few fluctuations:

- There is concern that consumer will increase their defensive stance on consumption against the backdrop of deterioration in employment and income environment, which would weigh down consumer spending.
- There is concern that tourism related industry will be subject to the influence of economic deterioration and appreciation of the yen such as decreases in domestic and foreign visitors.

### Trends in Main Economic Indicators (Rates of Growth)

(%)

Indicators	FY2008		
	First Half	Second Half	Total
Sales by large-scale retailers	-0.6	-2.5	-1.5
No. of new car sold	-1.8	-17.5	-9.4
Wholesale shipments of household appliance	5.8	6.4	6.1
New residential construction starts	-0.0	96.6	36.8
Value of public works contracts	8.9	7.5	8.2
No. of Inbound tourists	4.6	-3.1	0.7
Total unemployment rate	7.5	7.9	7.7
Value of corporate failures	1009.9	53.9	466.2

Note 1: The figures for 'Sales by large-scale retailers' are calculated from the values given in preliminary figures for March 2009, and on an all-store base.

Note 2: The figures for total unemployment rates are raw data.

Source: Okinawa General Bureau, Okinawa Prefecture, Okigin Economic Institute, and others.



# Q1.What is the Current State of the Okinawa Prefectural Economy and What is the Future Forecast?

## 2

### Annual Average Growth Rates for GDP and Per Capita Prefectural (National) Income

- Due to measures based on the Okinawa Promotion and Development Plan, GDP growth in Okinawa prefecture is expected to exceed the national average. The forecast is for an annual average growth rate of 2.7% in Okinawa prefecture up to 2011, higher than the national annual average of 1.0%.
- Furthermore, per capita income is also expected to increase, supported by the growth of prefectural GDP. Growth of about 5.6% is anticipated, in contrast to the national figure of 3.1%.

#### Annual Average Growth Rate of GDP

	FY2006	FY2011	Annual Average Growth Rate FY2006-Y2011
Prefectural GDP	3,966.8 billion yen	4,531.1 billion yen	Approx. 2.7%
National GDP	552,276.5 billion yen	579,337.3 billion yen	Approx. 1.0%

Sources: "Economic and Social Perspectives in Figures", in the Okinawa Promotion and Development Plan  
FY2006 Prefectural Economic Accounts  
Cabinet Office, Japan Electric Power Survey Committee

#### Annual Average Growth Rate of Per Capita Prefectural (National) Income

	FY2006	FY2011	Annual Average Growth Rate FY2006-Y2011
Prefectural Income	2.09 million yen	2.74 million yen	Approx. 5.6%
National Income	2.92 million yen	3.40 million yen	Approx. 3.1%

"Sources: "Economic and Social Perspectives in Figures", in the Okinawa Promotion and Development Plan,  
FY2006 Prefectural Economic Accounts





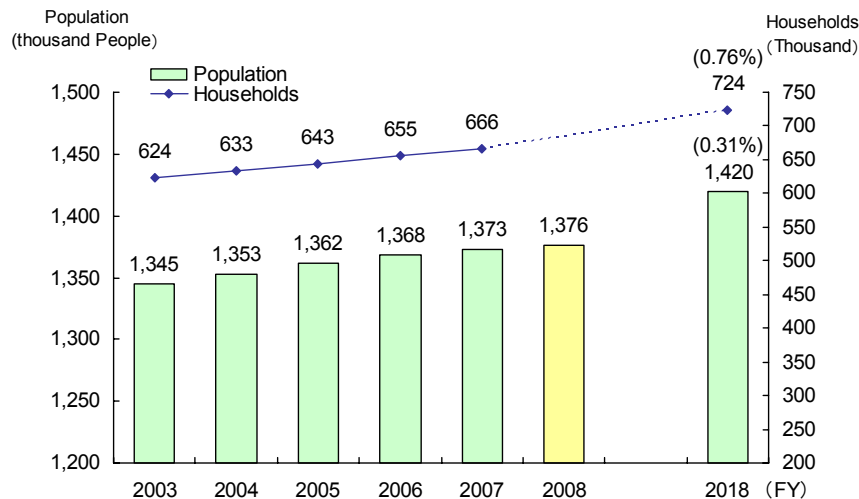
# Q1. What is the Current State of the Okinawa Prefectural Economy and What is the Future Forecast?

## 3

### Population and Household Growth in Excess of Nationwide Growth

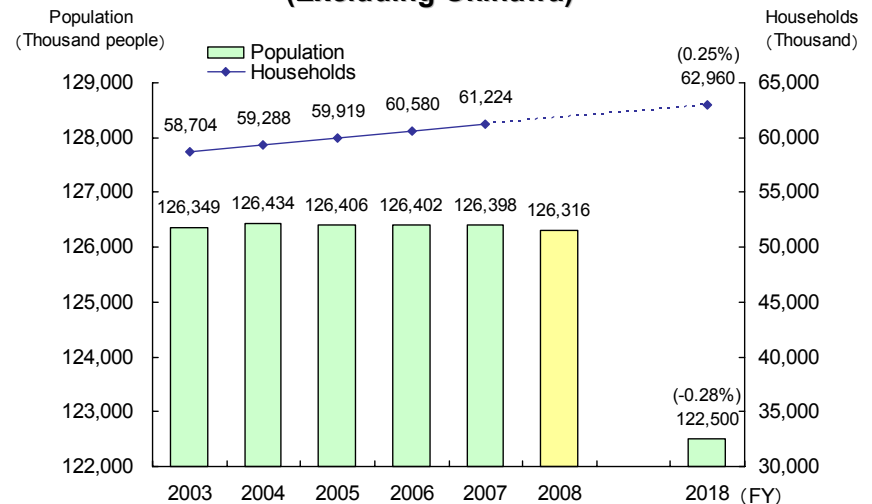
- Stable growth is expected for the population of Okinawa, with an annual average growth rate of 0.31% up between 2007-2018, in excess of the national rate of -0.28%.
- Whereas the population reached a peak in 2004 on a nationwide basis and has entered a downswing since then, Okinawa is expected to shift to a population decline between 2025 and 2030.

**Growth of Population and Households in Okinawa**



Source: National Census, Ministry of Internal Affairs and Communications, Japan Electric Power Survey Committee  
 Note: For 2018, the rate in parentheses is the average annual growth rate for FY 2007-2018

**Growth of Population and Households Nationally (Excluding Okinawa)**



Source: National Census, Ministry of Internal Affairs and Communications, Japan Electric Power Survey Committee  
 Note: For 2018, the rate in parentheses is the average annual growth rate for FY 2007-2018

Thanks to the stability growth of household numbers in association with the increasing population, residential demand increases are expected.

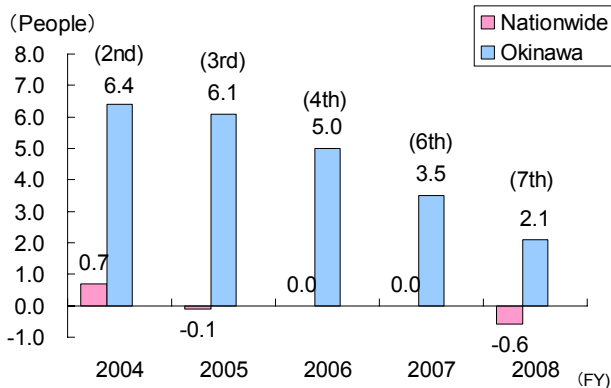


# Q1.What is the Current State of the Okinawa Prefectural Economy and What is the Future Forecast?

## 4 Okinawa Prefecture Demographics

- Demographics of Okinawa Prefecture are in outflow of 3.3 person per 1,000 people in terms of increase/decrease of population in the society, but natural increase in population remains steady and is at the top nationwide with 5.3 persons per 1,000 people. Consequently, growth of population in the prefecture significantly exceeds the national average of -0.6 person, with 2.1 persons per 1,000 people.
- As a result, the population of Okinawa Prefecture is growing stably.

**Trend in the Increase of population  
(Per Thousand people)**

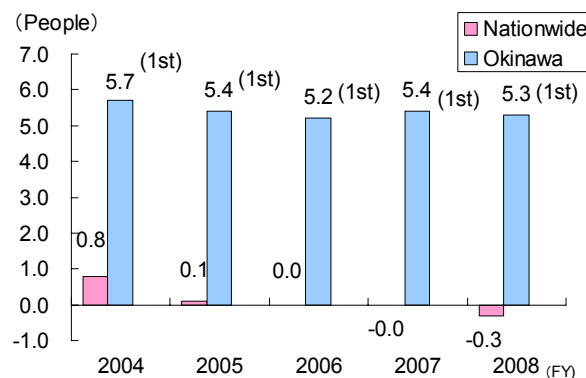


Source: Bureau of Statistics, Ministry of Internal Affairs and Communications, "Yearly Population Estimates"

Note: Population increase = natural increase in population + increase/decrease of population in the society

The figures in brackets in the chart show Okinawa Prefecture's national ranking.

**Trend in the Natural Increase of population  
(Per Thousand people)**

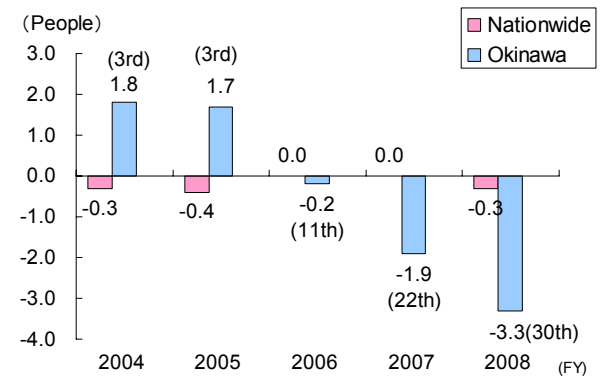


Source: Bureau of Statistics, Ministry of Internal Affairs and Communications, "Yearly Population Estimates"

Note: Natural increase of population = Births – Deaths

The figures in brackets in the chart show Okinawa Prefecture's national ranking.

**Trend in the Social Increase of population  
(Per Thousand people)**



Source: Bureau of Statistics, Ministry of Internal Affairs and Communications, "Yearly Population Estimates"

Note: Social increase of population = Incoming population – Outgoing population

The figures in brackets in the chart show Okinawa Prefecture's national ranking.



# Q1.What is the Current State of the Okinawa Prefectural Economy and What is the Future Forecast?

## 5

### Trends in the Number of Incoming Tourists and Guest Rooms at Accommodation Facilities

- FY2008 Result for incoming tourists: Record high of 5.93 million people(+0.7% in the previous year's figure)
- ※The target figures for 2009 are 6.3 million incoming tourists
- ※The target figures for 2011 are 7.2 million incoming tourists and 39,000 rooms at accommodation facilities



#### 【Reference】

FY2009

Visit Okinawa Plan

• Incoming Tourists

6.3million

(Including Tourists from foreign countries 0.3million)

• Tourist Income

485.1billion Yen

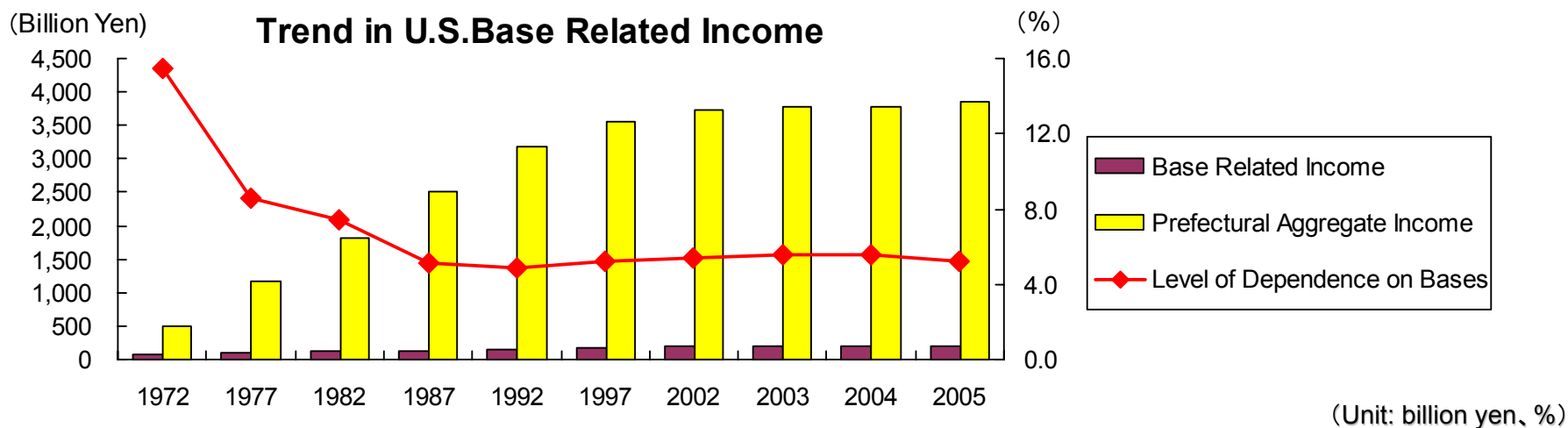
Sources: "Summary of Okinawa Promotion measure", "Tourism Directory", "Visit Okinawa Plan"  
 •The survey of guest rooms at accommodation facilities changed from a biennial to an annual basis from 2003.  
 •The incoming tourists target of 7.2 million people for 2011 is on a calendar year basis.

With the number of tourism related facilities (hotels, etc.) increasing in association with increased numbers of incoming tourists, increases are forecast for demand for commercial use electricity.



# Q1.What is the Current State of the Okinawa Prefectural Economy and What is the Future Forecast?

## 6 Trend in U.S. Base Related Income



	1972	1977	1982	1987	1992	1997	2002	2003	2004	2005
<b>Base Related Income</b> (Charges for Land Occupied by US Armed Forces) (A)	77.7	100.6	134.6	128.2	156.3	184.1	202.7	211.3	211.2	200.6
<b>Prefectural Aggregate Income (B)</b>	501.3	1,163.1	1,822.6	2,516.5	3,192.9	3,547.5	3,741.1	3,778.4	3,781.3	3,863.8
<b>Level of Dependence on Bases (A/B)</b>	15.5	8.6	7.4	5.1	4.9	5.2	5.4	5.6	5.6	5.2

\* Concerning military-related revenue, remunerations of employers earned by business activities of construction works and tenant vendors within the U.S. military base have been included from FY2005 and figures back to FY1997 are estimated retroactively.

Source: Okinawa Prefectural Government, Governor's Office, US Base Countermeasure's Office, "Okinawa Bases of the US Armed Forces and Self Defence Forces (Statistics), March 2008"

- U.S. Base related income has become an income source that supports the Okinawa economy.
- However, the level of dependence on the bases has been falling year on year as the prefectural economy expands, and in FY2005 had fallen to 5.2% from the 15.5% share at the time Okinawa was returned to Japan (1972).



# Reference : Main Economic Indicators

**FY2008 Okinawa prefecture Trends in Main Economic Indicators (Year-on-Year Comparison)**

Indicators	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Sales by large-scale retailers	-2.1	0.0	0.9	0.8	-1.1	-3.1	1.1	0.1	-2.5	-0.8	-9.4	-3.8
No.of new car sold	-0.4	2.8	-0.5	-2.3	-1.8	-7.7	-0.5	-14.9	-9.2	-19.5	-20.5	-29.7
Wholesale shipments of household appliance	1.7	-5.0	14.7	7.1	7.6	7.2	16.0	3.2	12.8	14.9	2.4	-6.3
New residential construction starts	11.6	-35.3	-45.8	48.2	11.7	102.4	106.5	173.3	206.1	31.8	44.9	48.3
Value of public works contracts	104.5	2.3	-20.5	9.4	-3.6	22.6	-8.9	-26.2	28.1	41.5	-8.4	26.5
No.of Inbound tourists	1.8	8.7	5.2	10.0	2.0	1.2	5.3	-0.2	-1.5	-3.3	-14.5	-4.7
Total unemployment rate	6.5	7.6	8.4	7.9	7.4	7.2	8.0	7.7	7.2	7.6	7.8	8.2
Value of corporate failures	-59.0	26.7	69.1	13902.5	865.3	599.8	-6.0	-37.3	-32.7	977.0	-58.9	-84.6

Note 1: The figures for 'Sales by large-scale retailers' are calculated from the values given in preliminary figures for March 2009, and on an all-store base.

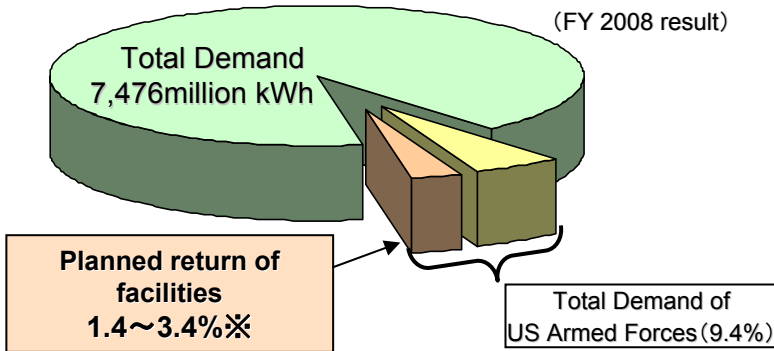
Note 2: The figures for total unemployment rates are raw data.

Source: Okinawa General Bureau, Okinawa Prefecture, Okigin Economic Institute, and others.



# Q2. What is the Current State of U.S. Military Bases ?

## 【Proportion of Demand Taken Up By U.S. Armed Forces】



※Range in figures due to planned return of facilities includes partial return.

## 【Summary of U.S. Armed Forces in Okinawa】 (As of Jan. 2008)

No. of Facilities		33
Area		229 km <sup>2</sup>
Personnel*	Soldiers	22,720
	Other Staff, Families	25,770
	Total	48,490

\* The figures for personnel are as of the end of September 2007.  
Reference: No. of army employees: 9,078 \*As of the end of November 2008

\* Source: Website of Japan Ministry of Defense ; "Bases of the U.S. Armed Forces and Japan's Self-Defense Forces in Okinawa (collection of statistics and materials) March 2008," issued by the Military Base Affairs Office, Executive Office of the Governor, Department of General Affairs, Okinawa Prefectural Government; and the guide on recruitment of employees at U.S. Forces in Japan, prepared by the Labor Management Organization for USFJ Employees

- U.S. Armed Forces demand was about 9.4% of total demand and about 7.5% of revenue in fiscal 2008.
- The proposal for reorganization of the U.S. Armed Forces was agreed upon by the U.S.-Japan Security Consultative Committee on May 1, 2006, and the facilities to be returned were clarified.
- Okinawa's reversion scheduled to be set by March 2007 is yet to be determined, and thus, its detailed schedule is still unclear. Although there will be a temporary decrease in demand if facilities are returned, activation of the regional economy is forecasted in line with the redevelopment of returned sites.
- From now on, the company shall analyze the effects of returns on operations while paying attention to state and prefectural activity with regard to the proposal for reorganization of the U.S. Armed Forces.

### 【U.S.-Japan roadmap drafted for realignment of U.S. forces】

(Source: Website of Japan Ministry of Defense )

- Realignment of U.S. forces in Okinawa (main contents)
  - (a) Construction of supplement facility of Futenma Airbase: Futenma Replacement Facility (FRF)
    - Relocation to Camp Schwab scheduled to complete in 2014.
  - (b) Reduction of military forces and relocation to Guam
    - Relocation of 8,000 Marine Corps and their family (9,000 persons) to Guam by 2014.
  - (c) Return of land
    - Total or partial return of land of six bases south of Kadena airport.
    - \* Said return of land will take place after completion of personnel relocation, after 2014.

### 【Others】

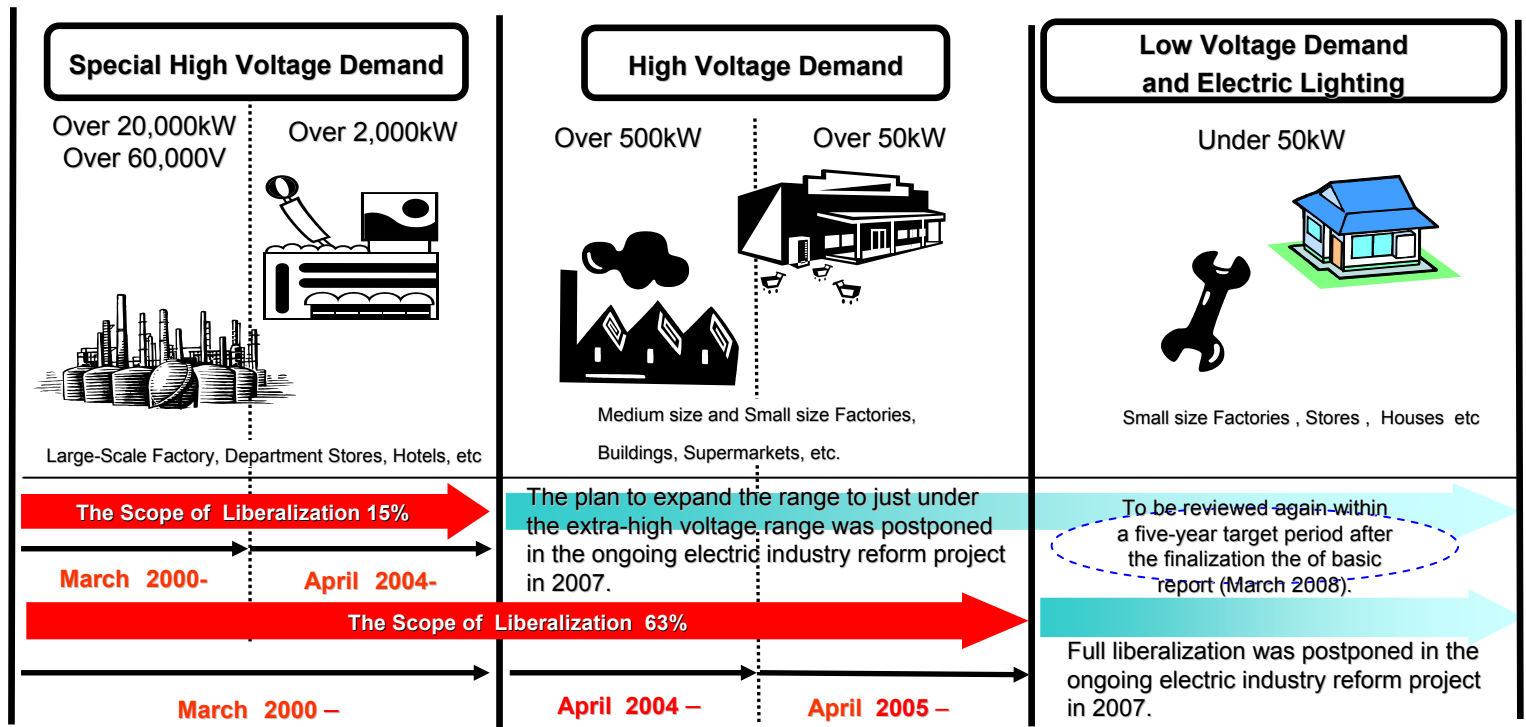
In addition to the plan mentioned above, there is a plan to deploy a PAC-3 unit, which calls for relocation of 600 staffers and their 900 family members from Texas, the U.S., to Okinawa. Operation of PAC-3 will partially start by the end of 2006.





# Q3. What are the Effects of Liberalization of Electric Power and What is the Future Forecast for Liberalization?

**Retail Market** Compared to other electricity companies, this will be a more cautious step in the liberalization process



\* Ratio to electric power sales (FY2007 results)





# Q4. What are the Preferential Tax Measures?

## Currently Applied Preferential Tax Measures

### 1. Alleviation of Fixed Property Tax

Basic Law: Supplementary Provisions of the Local Tax Law  
(Article 15.14)

Details: Alleviation to 2/3 of the Standard Tax Rate

Period: April 1, 1982 – March 31, 2012  
(Extended for 5 years from April 1, 2007)

### 2. Exemption from the Oil and Coal Tax

Basic Law: Special Measures Law for the Promotion of  
Okinawa (Article 65.2), Special Taxation  
Measures Law (Article 90.4.3.1)

Details: Exemption from the Oil and Coal Tax for coal

Period: October 1, 2003 – March 31, 2012  
(Extended for 5 years from April 1, 2007)

### ※ Alleviation of Business Tax was abolished on May 15, 2007

Details : Standard Tax Rate: 1.1%  
(Standard Tax Rate for Electric Utilities: 1.3%)

Period : December 31, 1971 – May 14, 2007

## Need for preferential treatment

- Preferential treatment is required as the Company is expected to continue to record a loss resulted from the power supply at remote islands which suffer disadvantages deriving from their geographical conditions.

## Value of Tax Alleviation Due to the Preferential Measures

- The value of the alleviation measures in FY2008 was about 2.4 billion yen.
- The average value of the alleviation measures after FY2009 will be about 2.3-2.4 billion yen per year.

**The value of tax alleviation due to the preferential measures is returned in whole to the residents of the prefecture through the lowering of electricity rates.**



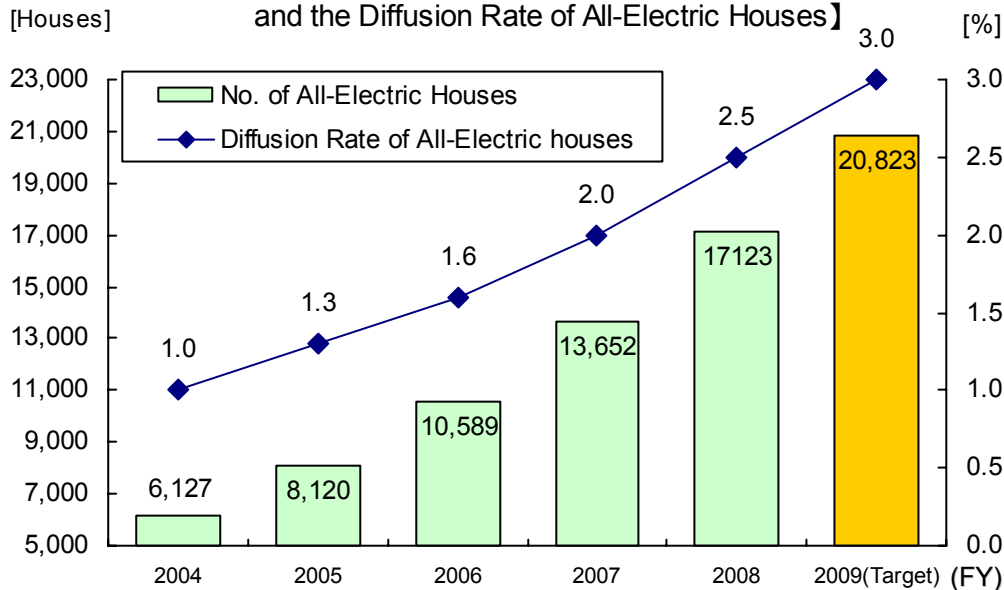
# Q5. What is the Current State of the Promotion of All-Electric Houses?

1. Target value for FY2009 ⇒ All-Electric Houses 3,700 (13.4million kWh)

2. Approach for the promotion and diffusion.

- ① Strengthening of sales activity to collective housing and existing homes.
- ② Launching of effective promotion activities to facilitate penetration of all electrification housing brand.
- ③ Proactive activities to promote penetration of ecocute (CO2 refrigerant heat pump water heater).
- ④ Expansion of sales activity in cooperation with sub-users.

【Trends in the No. of All-Electric Houses and the Diffusion Rate of All-Electric Houses】



\* The figures in brackets in the bar chart show the number of all-electric houses.

## 【Reference】

- Adoption rate (result for FY2008)
- All-electric adoption rate in newly built houses (included multi-family dwellings etc.) = 15.9%
- All-electric adoption rate in newly built houses = 52.5%



# Q6.What is the Current State of the New Demand Creation Through the Promotion of Commercial Electrification Equipment ?

## 1. Sales target (in total of three years from FY2008 to FY2010): 15 million kWh

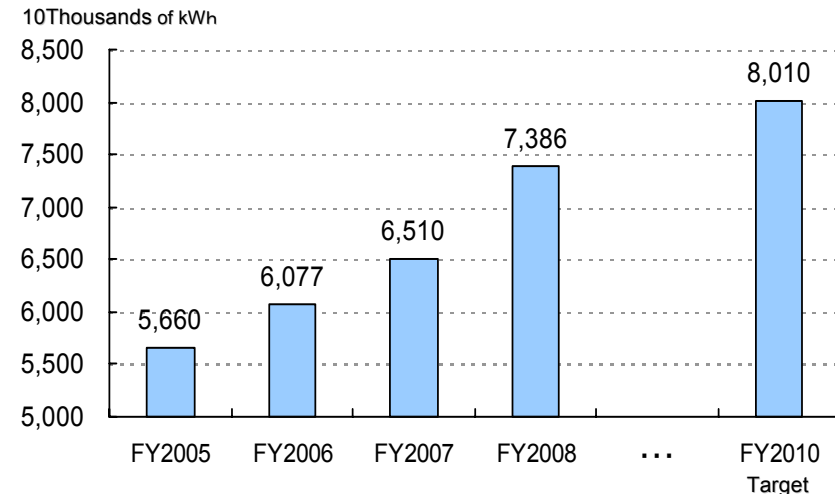
\* Electrification system (electric air-conditioning system (including heat storage), electrified kitchen and electrified water heater)

## 2. Approach for the promotion and diffusion.

- ① Implementation of electrification proposal activities suitable for the power usage of customers.
- ② Launching of effective promotion activities to facilitate penetration of Electrification equipment .
- ③ Expansion of sales activity in cooperation with sub-users.
- ④ Launching sales activities that customers in various industries.

## Changes in the net system energy demand for commercial electrification equipment

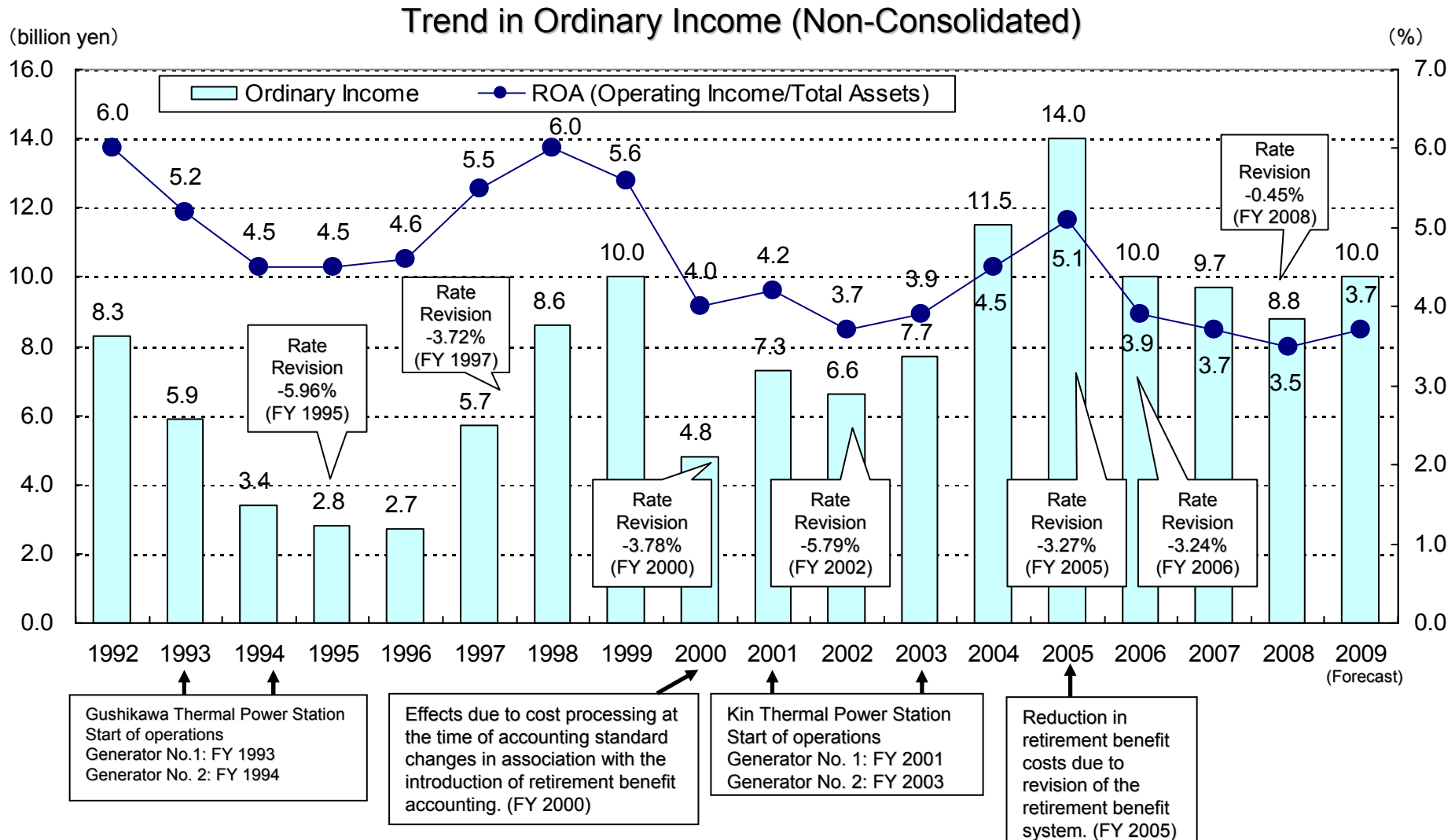
FY	2005	2006	2007	10Thousands of kWh	
				2008~2010 Target	FY2008 Result
Commercial Electrification Equipment (Cumulative)	267 (5,660)	417 (6,077)	433 (6,510)	1,500 (8,010)	876 (7,386)



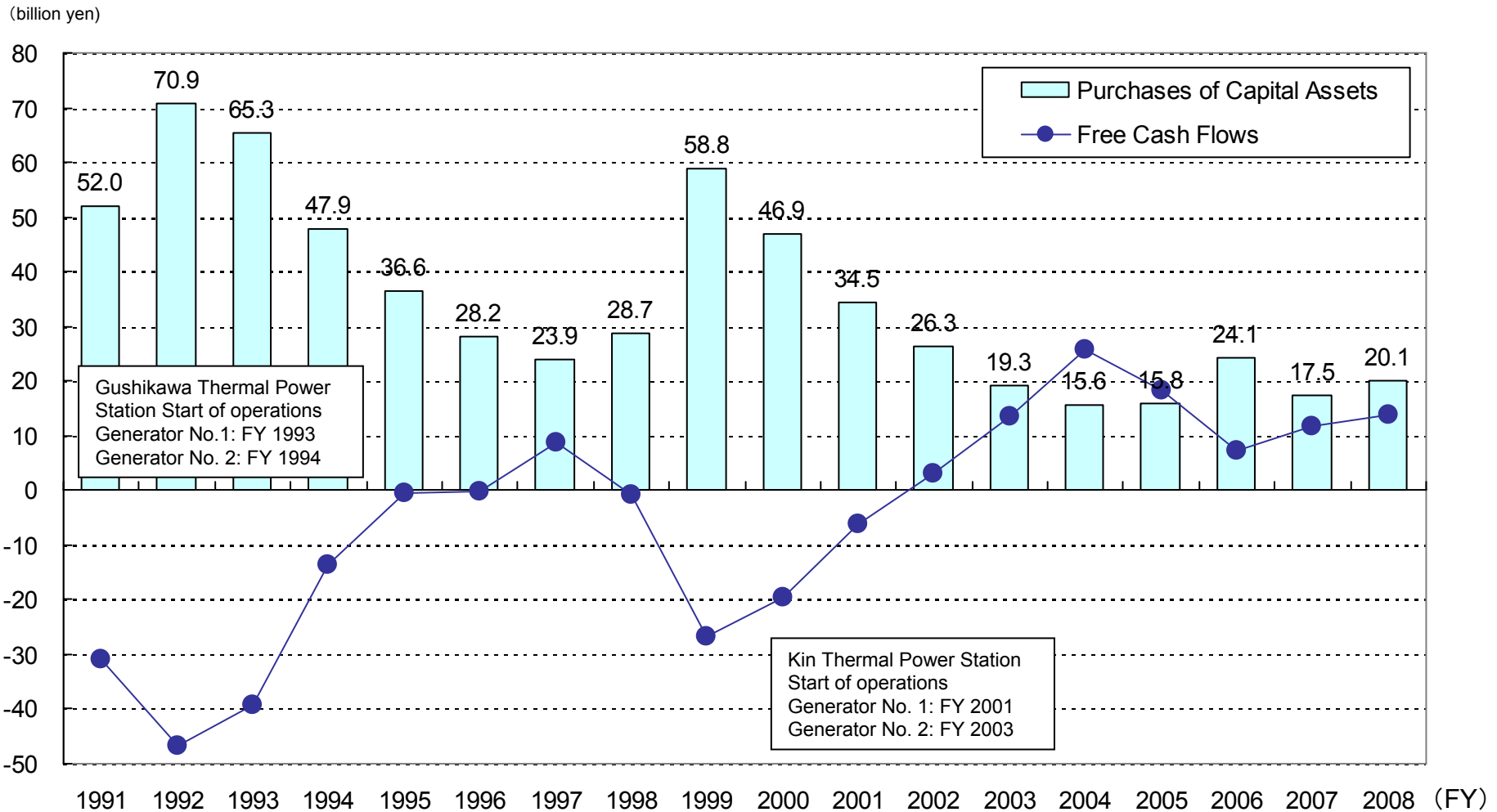
\* Cumulative total indicates the cumulative total value from FY1989.



# Q7. What is the Past Trend of Ordinary Income and What is the Forecast for this Fiscal Year?



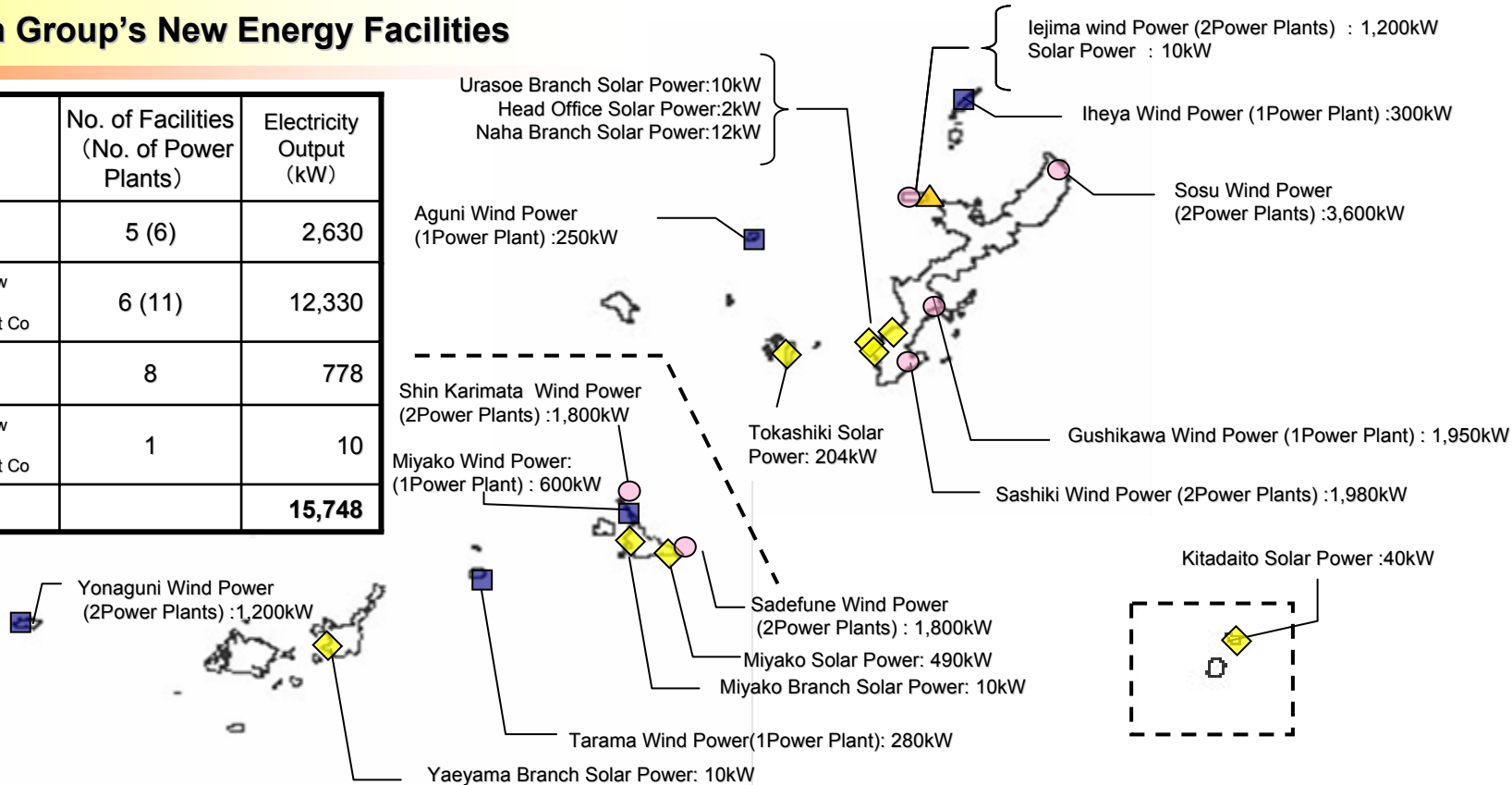
# Q8. What are the trends of the Capital Expenditure and Free Cash Flows?



# Q9.What is the Status of Wind and Solar Power Electricity Generation Facilities?

## List of Okiden Group's New Energy Facilities

		No. of Facilities (No. of Power Plants)	Electricity Output (kW)
Wind Power	■ OEPC	5 (6)	2,630
	● Okinawa New Energy Development Co	6 (11)	12,330
Solar Power	◆ OEPC	8	778
	▲ Okinawa New Energy Development Co	1	10
<b>Total</b>			<b>15,748</b>



(As of March 31, 2009)

- The company has established new energy facilities in all areas, including remote islands, with total output of 3,408kW (wind power: 2,630kW, solar power: 778kW)
- The Okiden Group will push forward with the introduction of New Energy Facilities.



# Q10. How do Current Electricity Rates Compare to Rates at Other Companies?

While the detailed comparison of electricity rates is not available due to limited amount of reported data, the following is the comparison of electricity rates for the main supply contracts.

Model Unit Rates for All Companies (As of May 2009, including fuel cost adjustments and consumption taxes)

( Unit: yen/kWh)

	OEPC	Co. A	Co. B	Co. C	Co. D	Co. E	Co. F	Co. G	Co. H	Co. I
Metered Residential	24.82	23.67	23.04	22.24	23.38	21.43	22.00	23.56	22.22	21.74
Model Basic Unit 300	⑩	⑨	⑥	⑤	⑦	①	③	⑧	④	②
Commercial Use Electricity (High Voltage)	20.28	16.93	17.63	17.08	17.95	15.57	16.84	18.16	16.37	16.86
Model Basic Unit 250 (Power Factor 100%)	⑩	⑤	⑦	⑥	⑧	①	③	⑨	②	④
High Tension Power A	18.07	15.84	16.08	15.51	17.91	14.90	16.04	17.02	16.48	16.39
Model Basic Unit 250 (Power Factor 100%)	⑩	③	⑤	②	⑨	①	④	⑧	⑦	⑥

Note: 1. The circled numbers indicate price level rankings (higher numbers indicate more expensive rates).

2. Electricity charges shown in the above table are after special measures and transitional measures for fuel cost adjustment in electricity charge are applied.





# Q11. What are the CO<sub>2</sub> Emission Volumes by Fuel Type?

LNG (Liquefied Natural Gas) produces less carbon dioxide, a major cause of global warming, than coal or oil.

Chart: Comparison of CO<sub>2</sub> Emission Volumes by Fuel Type

Fuel Type	CO <sub>2</sub> Emission Volume Per Unit Heat Value [g-CO <sub>2</sub> /MJ] * <sub>1</sub>	vs.Coal	vs.Oil * <sub>3</sub>	CO <sub>2</sub> Emission Volume Per kWh [kg-CO <sub>2</sub> /kWh] * <sub>2</sub>	vs.Coal	vs.Oil * <sub>3</sub>
Coal	90.6	1.00	1.27	0.82	1.00	1.21
C Heavy Oil	71.5	0.79	1.00	0.68	0.83	1.00
LNG	49.5	0.55	0.69	0.35	0.43	0.51

\*1 The values from the Law Concerning the Promotion of the Measures to Cope with Global Warming (April 1, 2006) were used as the CO<sub>2</sub> emission factors to calculate g-CO<sub>2</sub>/MJ.

\*2 Power generation efficiency values of 40%, 38% and 51% were assumed for coal, oil and LNG respectively in calculations.

\*3 Oil comparisons were based on type C heavy oil.



# Q12. What is the Current State of the Progress of Discussion in the Gas Industry ?

## As The integrated energy company

As LNG is expected to have potential needs as raw material for town gas and industrial fuel for its superior environmental and safety profiles, the Company is considering the supply business of LNG which will be introduced in the Yoshinoura Thermal Power Station.



## Current status

The Company is proceeding with discussions with Okinawa Gas Co., Ltd., which is a public gas provider in Okinawa Prefecture, about LNG supply and business schemes including wholesale supply system while assessing the status of procurement of LNG fuel and the progress of construction works of Yoshinoura Thermal Power Plant.



## For the promotion of LNG

In addition to the wholesale supply of LNG to Okinawa Gas, the Company is examining the possibility of supplying it to heavy consumers for commercial and industrial uses in consideration of energy environment and market trends.

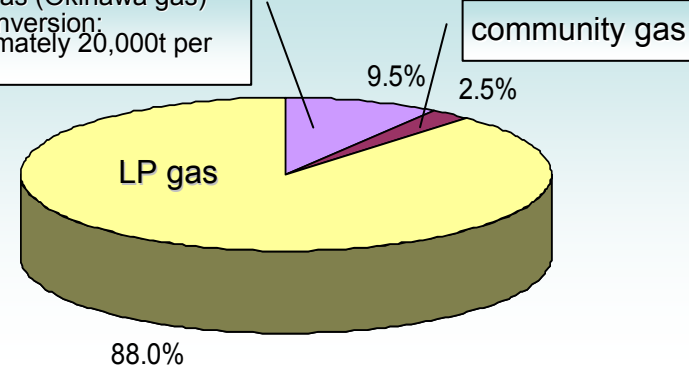


## Perspective for the launch of business

The Company aims to launch gas business within 1-2 years after the launch of operation at the Yoshinoura power plant, in consideration of the LNG fuel supply situation and the stable operation at the Yoshinoura thermal plant.

## Current status of the gas business in Okinawa (Conversion of heat consumed in FY2007)

Public gas (Okinawa gas)  
LNG conversion:  
approximately 20,000t per year.



Source: Agency for Natural Resources and Energy website, Japan LP Gas Association website, Gas Energy newspaper

Reference: Corporate profile of Okinawa Gas

Date of foundation : July 22, 1958.

Capital : JPY 250,222,000

Sales : JPY 6.15bn (December 2007)

Supply area : Most of Naha city, A part of Urasoe city, Tomishiro city, Haeburu town, Nishihara town, Nakagusuku village

No. of customers: General gas: approx.58,000 units

LP gas: approx.17,000units

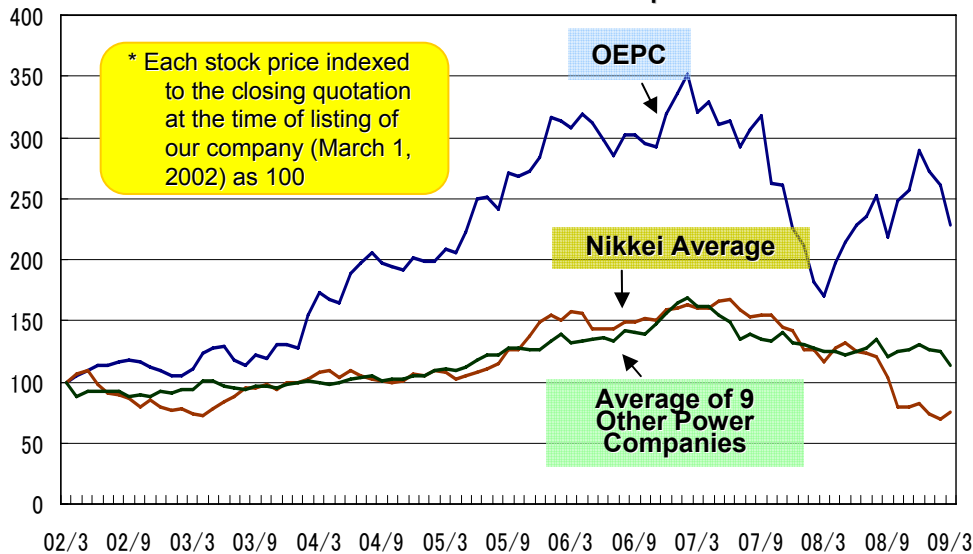


# Change in Okinawa Electric Power's Stock Price

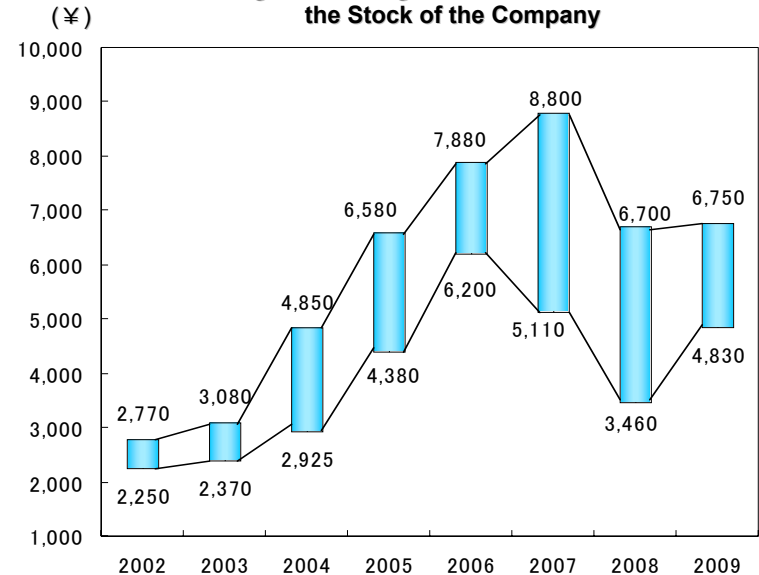
Change in Stock Price (January 4, 2008~March 31, 2009)

	Okinawa Electric Power	Average of 9 Other Power Companies	Nikkei Average
Stock price on January 4, 2008	¥5,020	¥2,508	¥14,691
All-time high	¥6,670 as of December 30, 2008(+32.9%)	¥2,719 as of September 3, 2008(+8.4%)	¥14,691 as of January 4, 2008(0.0%)
All-time low	¥3,560 as of March 17, 2008(-29.1%)	¥1,987 as of October 10, 2008(-20.8%)	¥7,055 as of March 10, 2009(-52.0%)
Latest stock price Closing quotation on March 31, 2009	¥5,240(+4.4%)	¥2,252(-10.2%)	¥8,110(-44.8%)

Changes in the Stock Price of the Company, the Nikkei Stock Average and Average Stock Price of Other Electric Power Companies



Changes in the Highest and Lowest Prices of the Stock of the Company



# Earnings Per Share and Payout Ratio

## Earnings per Share and Payout Ratio (Non-consolidated)

FY		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Net Income	Million yen	2,725	2,606	4,807	4,430	5,594	7,591	9,163	6,398	6,590	3,635
Earnings per Share	Yen	179.61	171.77	316.86	286.52	363.37	494.77	571.05	402.25	376.84	207.89
Dividend per Share	Yen	50	60	60	60	60	60	60	60	60	60
Payout Ratio	%	27.8	34.9	18.9	20.9	16.5	12.1	10.5	14.9	15.9	28.9

Date	Issued number of shares of common stock	
1992.02.10	14,728,132	Listed
1995.11.20	14,875,413	Split 1 : 1.01
1999.05.25	15,172,921	Split 1 : 1.02
2005.05.20	15,931,567	Split 1 : 1.05
2007.04.01	17,524,723	Split 1 : 1.10



# Reference

- <http://www.okiden.co.jp/english/index.html> (The Okinawa Electric Power Company Incorporated)
- <http://www.pref.okinawa.jp/english/index.html> (Okinawa Prefecture)
- <http://www.fepc.or.jp/english/index.html> (The Federation of Electric Power Companies of Japan)
- <http://criepi.denken.or.jp/en/> (Central Research Institute of Electric Power Industry)



This document includes statements concerning future results. Such statements are based on calculations and predictions and are neither definite nor guaranteed. Please be aware that future results may change in accordance with changes in assumptions related to the management environment and the like.

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