

# Management Reference Materials

**May, 2007**



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# Characteristics of the business base

## Advantage

<b>Demand for Electric Power</b>	<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>
<b>Competition</b>	<ul style="list-style-type: none"> <li>◆ Severance from competition among electric power companies on account of independent producers</li> <li>◆ No competition with PPS</li> <li>◆ The advance of private power generation operations is limited (Prevention of demand withdrawals through Progressive Energy Corp)</li> </ul>

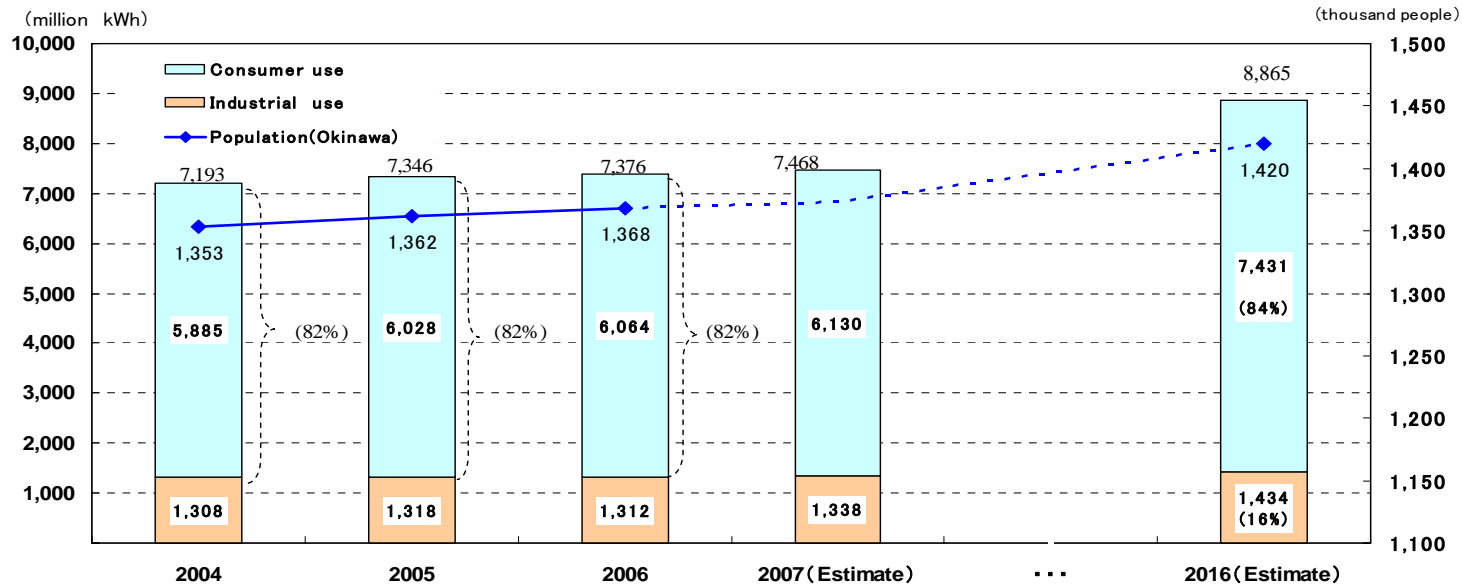
## Disadvantage

<b>Electric Power Generation Facilities</b>	<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>
<b>Fuel</b>	<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>
<b>Remote Islands</b>	<ul style="list-style-type: none"> <li>◆ With a high ratio of remote islands where cost efficiency is low, the company constantly records losses</li> </ul>
<b>The Environment</b>	<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.



Annual Average Growth Rate		1995-2005	2005-2016
Demand for Electric Power	Consumer use	2.4 (2.4)	1.9 (2.1)
	Commercial use	1.9 (1.9)	0.8 (0.8)
Total		2.3 (2.3)	1.7 (1.9)

Note : Figures in brackets are post temperature correction.

Annual Average Growth Rate		1995-2005	2005-2016
Demand for Electric Power	Consumer use	2.3 (2.2)	1.1 (1.4)
	Commercial use	0.8 (0.9)	0.6 (0.6)
Total		1.7 (1.6)	0.9 (1.1)

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

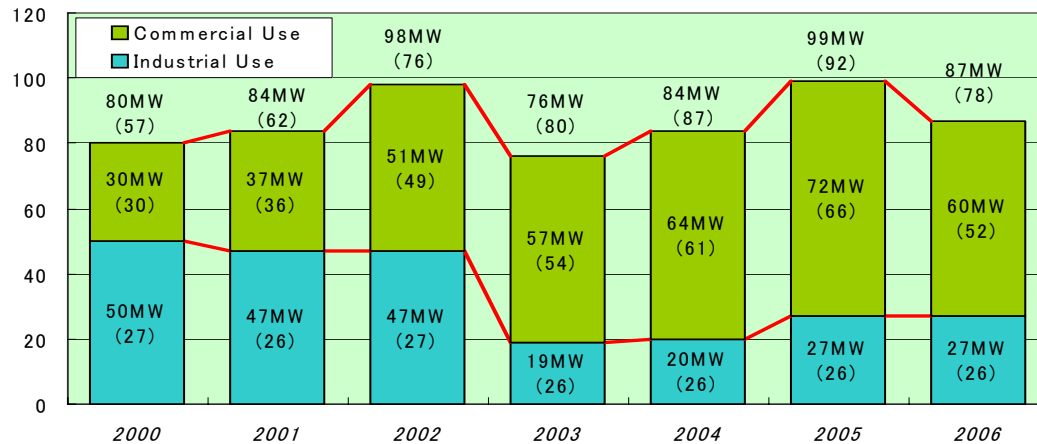
Note: Figures in brackets are post temperature correction.



# Competition with Private Power Generation Operations

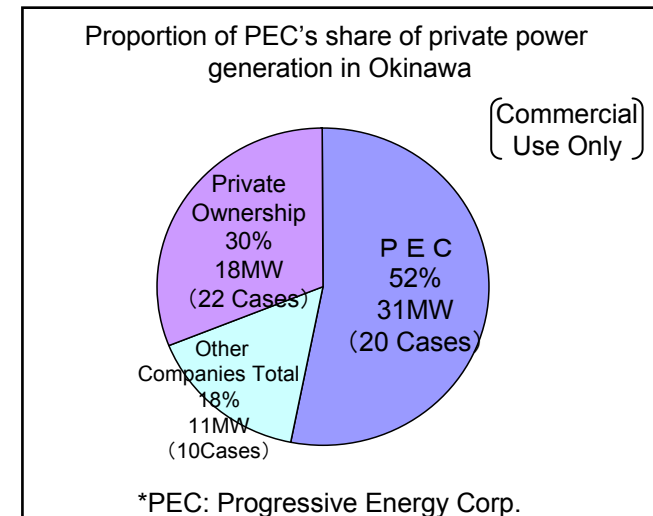
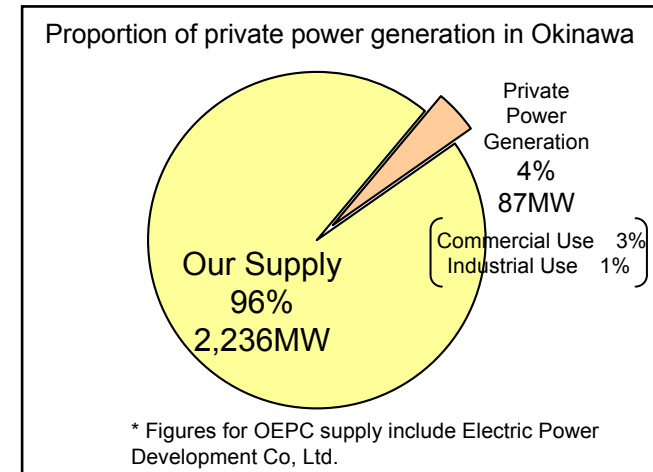
- The proportion of private power generation in Okinawa is 4%
- Progressive Energy Corp's share in commercial use sectors is 52%
- Competition with Private Power Generation Operations  
Private generations are losing their competitiveness due to the effects of increasing cost owing to the high price of crude oil and the reduction of electricity rates by the company last year. An increasing number of private power generation operations have changed to buying power from OEPC. (As of March 2007)

## Trend in the Permitted Output of Private Power Generators



- Number of cases and output (kW) : converted to buying electricity from OEPC
- 2005 : Commercial Use 2 cases, Industrial Use 1 case (total 1,220kW)
- 2006 : Commercial Use 20 cases (total 14,451kW)

## Status of market penetration by private power generators



# Power Generation Facilities [1/4]

## Generation Reserve Margin

### Demand-Supply Balance

#### OEPC

(10 Thousands of kW, %)

	2006(Result)	2011	2016
Peak Load	141	156	170
Supply Capacity	189 (162)	213 (193)	230 (210)
Reserve Capacity	48 (22)	57 (37)	60 (40)
Reserve Margin (%)	34.1 (15.4)	36.5 (23.4)	35.3 (23.3)

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

#### 10 Major Electric Power Companies

(10 Thousands of kW, %)

	2006(Result)	2011	2016
Peak Load	17,022	17,958	18,681
Supply Capacity	19,262	19,875	20,680
Reserve Capacity	2,241	1,918	1,999
Reserve Margin (%)	13.2	10.7	10.7

(Source : Agency for Natural Resources and Energy, Ministry of Economy, Trend and Industry, "Summary of Electric Power Supply Planning ,FY2007")

- A high generation reserve margin is necessary for such reasons as the inability to be flexible with other electric power companies because of OEPC's isolated system and the responsibility to provide stable supply as a public utility.
- The required 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

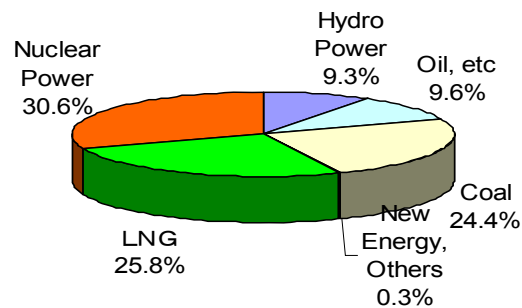
■ Power supply is dependent on oil and coal because of the difficulty of finding sites for hydro or nuclear power generation due to factors including geographic and topographical characteristics and constraints on the scale of demand.



■ 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  
 (FY2006: Results)



(Source: Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, "Summary of Electric Power Supply Planning, FY2007")

### Okinawa Electric Power Company

(FY2006: Results)

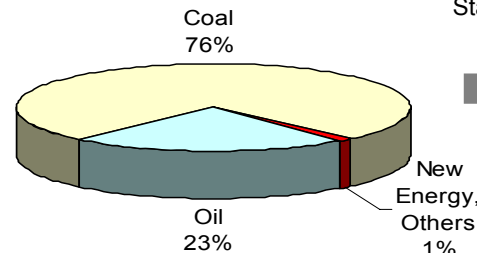
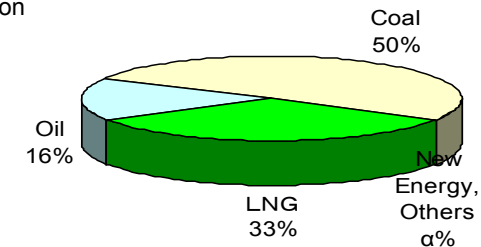


Image of Situation Following the Start of LNG Thermal Power Station Operation

(FY2016)



\* 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-related costs  
Fuel diversification → Improvement of energy security  
Search for new business opportunities making efficient use of LNG

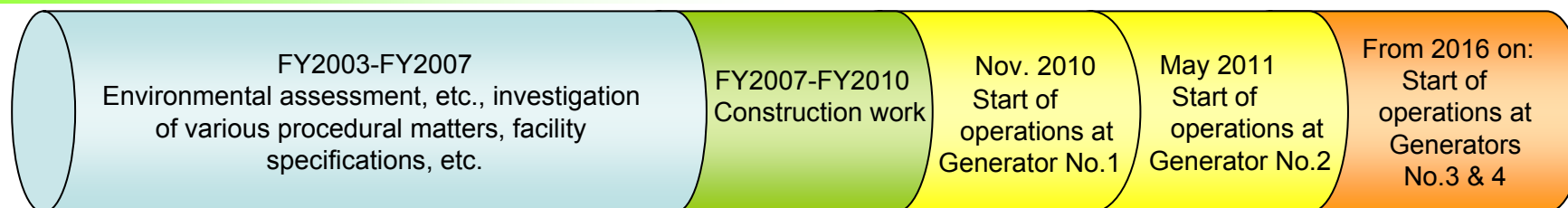
### Investment Plan

Power generation facilities, Generator Nos.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 FY2007 – FY2010



Conceptual Image of the Completed Facility

### Construction Schedule



#### Main Points for FY2007

- Second submission of documents required under article 48 of the Electric Utility law
- Submission of documents required under article 9 of the Electric Utility law

#### Main Points for FY2007

- Preparatory construction
- Construction of main equipment





# Power Generation Facilities [4/4]

## ~ Yoshinoura LNG Thermal Power Plant ~

### Effects on Finance (Past Tendencies)

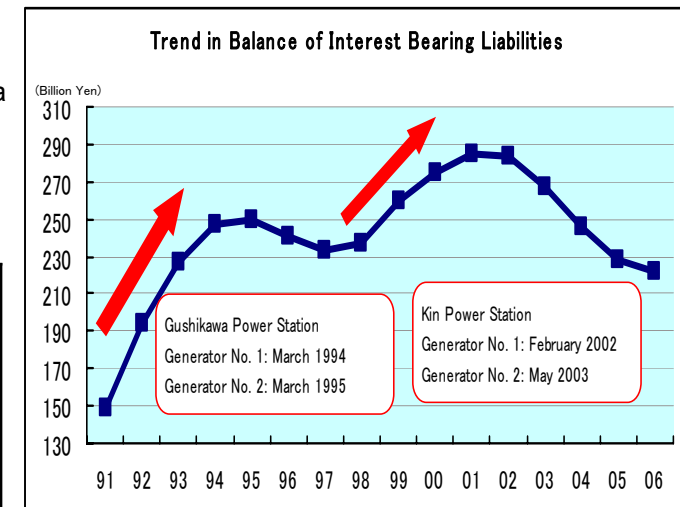
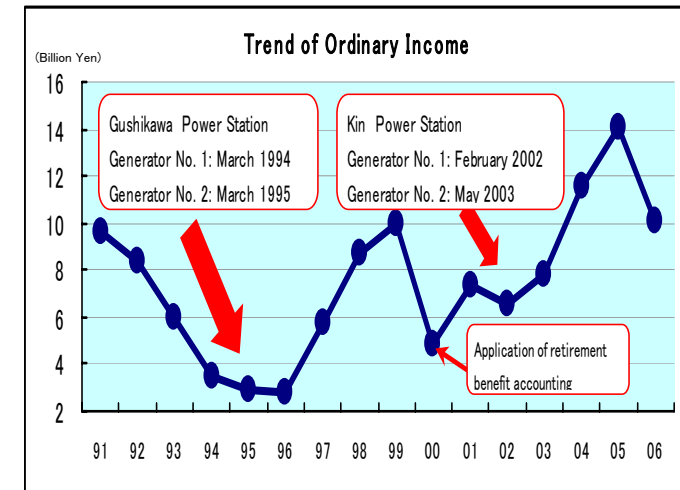
- Large depreciation burden and decreased income associated with large-scale facility investment
  - Constraining the depreciation burden is a issue.
- The balance of interest bearing liabilities will increase
  - In order to minimize deterioration of the company's financial standing following the start of operations at Yoshinoura Thermal Power Station, reducing the balance of interest bearing liabilities is an urgent task.

### Countermeasures

- Creation of strong financial characteristics able to withstand the Yoshinoura Thermal Power Station investment burden
  - Promotion of further reductions in 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

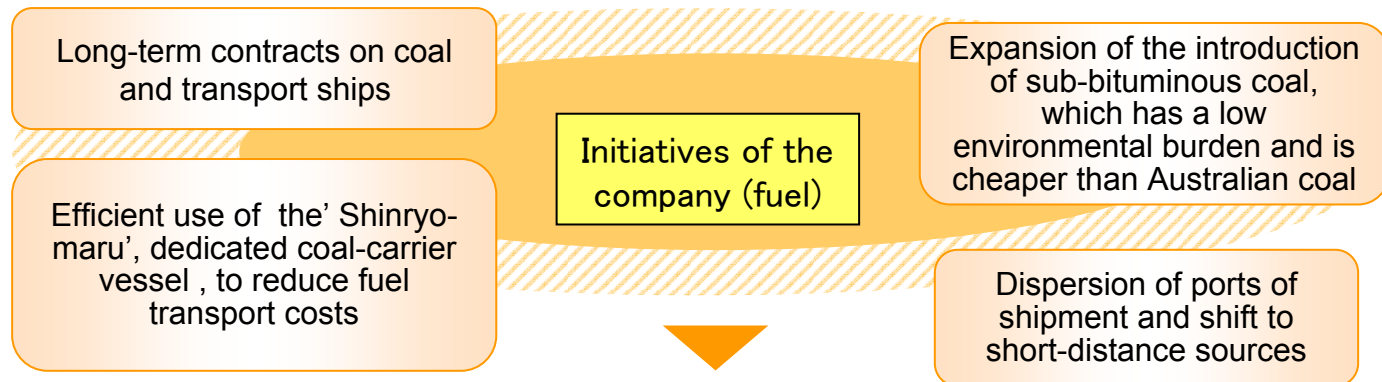
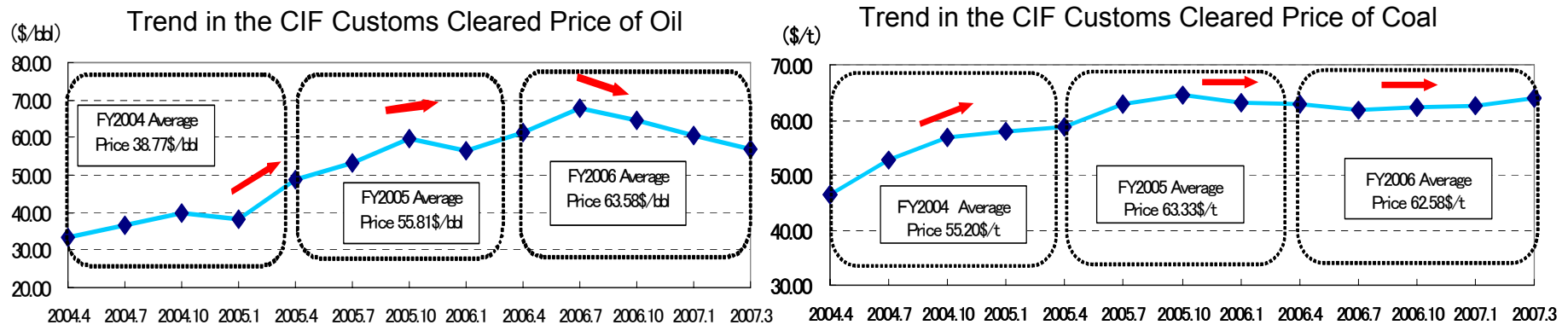
### Perspective

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>



# Fuel

**Great effects are exerted on the company by movements in fuel prices and both oil and coal prices are tending upwards.**



**Ensuring stability of procurement and cost reduction**

\* Although there is a time lag due to the fuel cost adjustment system, price changes are reflected in electricity rates.



# The Fuel Cost Adjustment System

## Summary of the System

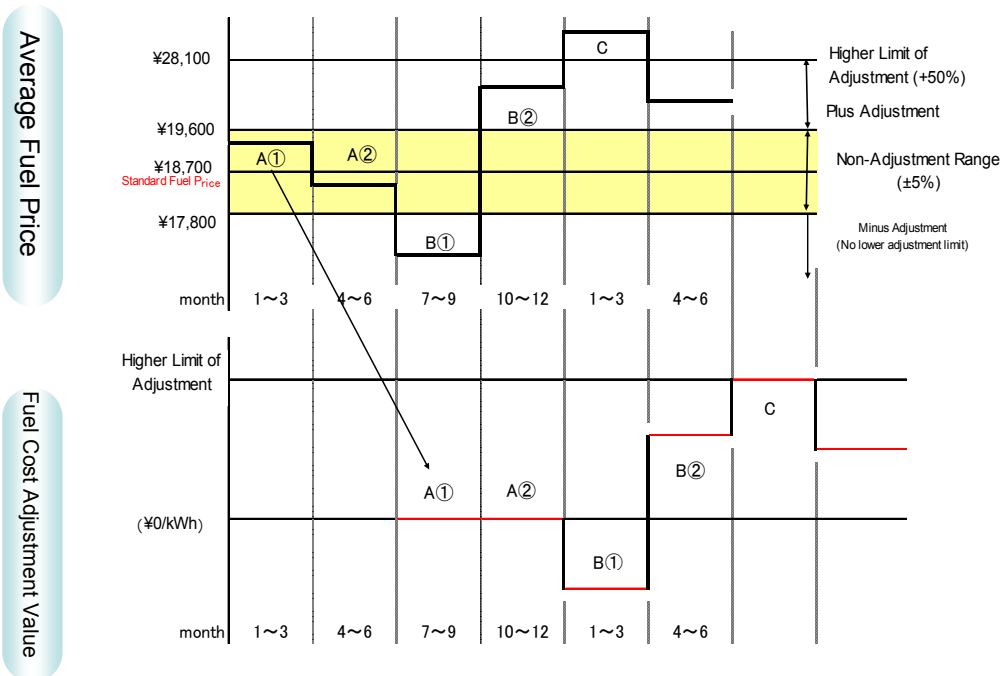
The fuel cost adjustment system was introduced for the purpose of clarifying the “internal factors” such as the results of efforts to promote management efficiency at electric power companies and reflecting “external factors” onto electricity rates such as exchange rates and oil and coal prices that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

## Scope of Fuel Cost Adjustment

- The average price of oil, coal, 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.

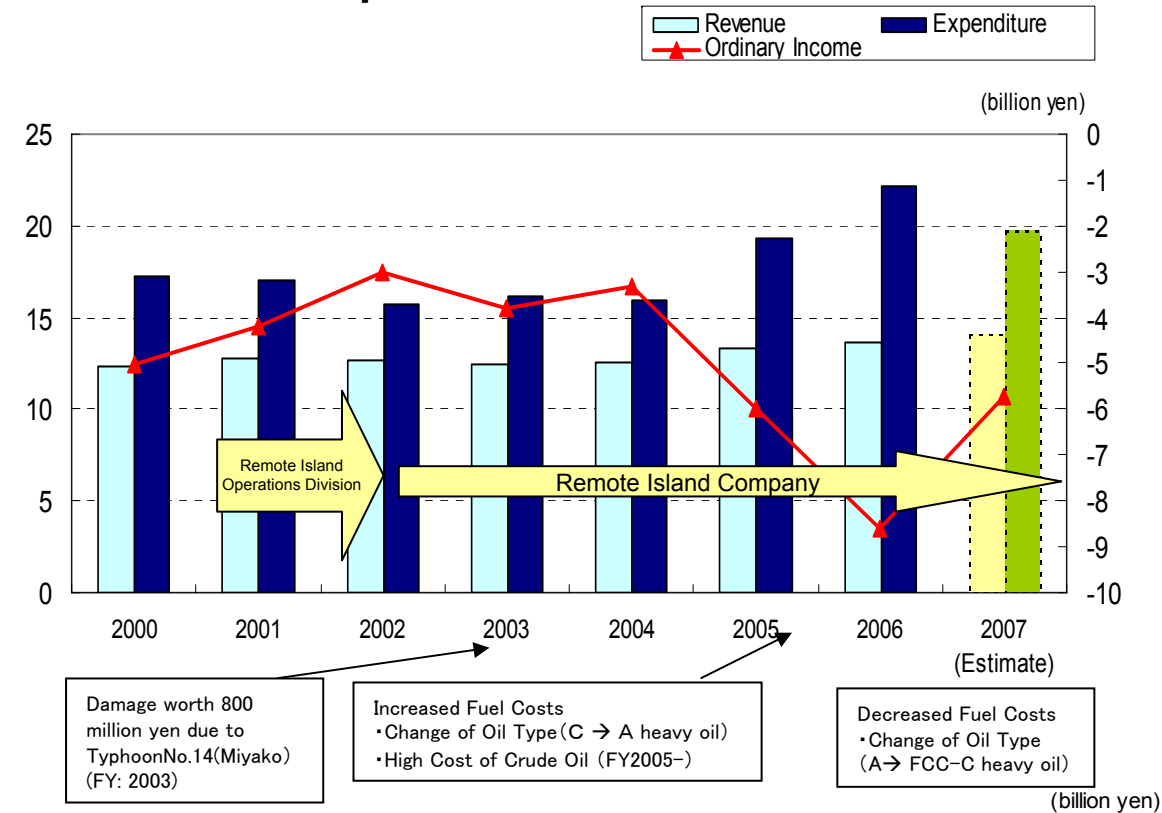
- A No adjustment is made because the change is small ( $\pm 5\%$ )
- B Adjustment is made in accordance with the size of the change
- C Price adjustment is stopped at the higher limit as the increase is large

## Image of the Fuel Cost Adjustment System

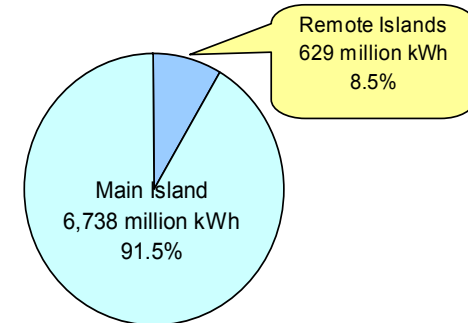


# Improvement of Remote Island Income and Expenditure [1/3]

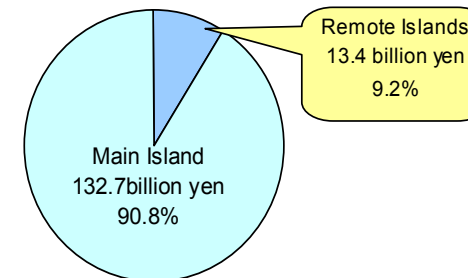
## Movements in Remote Island Revenue and Expenditure



Electricity Sales (FY2006)  
(All Companies: 7,367 million kWh)



Residential, Commercial and Industrial Use Charges (FY2006)  
(All Companies: 146.1 billion yen)



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

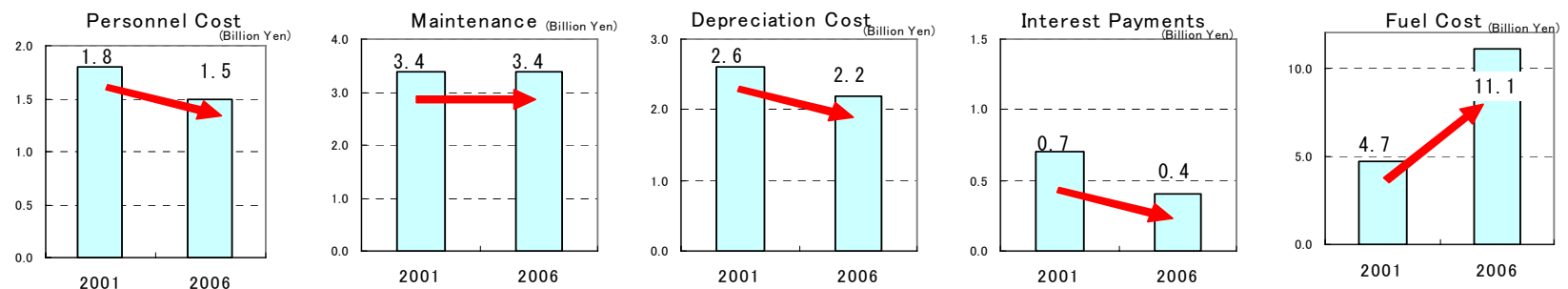


## Improvement Of Remote Island Income and Expenditure [2/3]

- 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.
- Due to the measures to improve income and expenditure implemented to this point, there is a trend towards reductions in personnel costs, maintenance costs, depreciation expenses and interest payments from among the main cost items.
- New energy generation facilities are utilized to decrease fuel expenses. However, the revenue and expenditure balance is deteriorating owing to the effects of the rising prices of crude oil, as well as fuel expense increase due to fuel type conversion (C heavy oil → A heavy 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: building facilities for FCC-C heavy oil in Kume, Miyako and Ishigaki islands; introducing a pipeline to the second generating plant in Miyako island; partially laying power lines underground to prevent typhoon damages, etc.)



# Improvement of Remote Island Income and Expenditure [3/3]

## 1. FCC-C heavy oil verification test

- A verification test of FCC-C heavy oil (including silica and alumina) was started in May 2006 at the power generation plant in Kume island.
  - After transferring the FCC-C heavy oil (including silica and alumina) for boilers at Ishikawa thermal power plant to Kume island, its impurities were removed by a fuel purifier and a fine filter, and then used.
- [Conditions after 2,000 hours] > No problem with impurities and combustibleness  
 > No adverse effects detected in the interior materials after release inspection

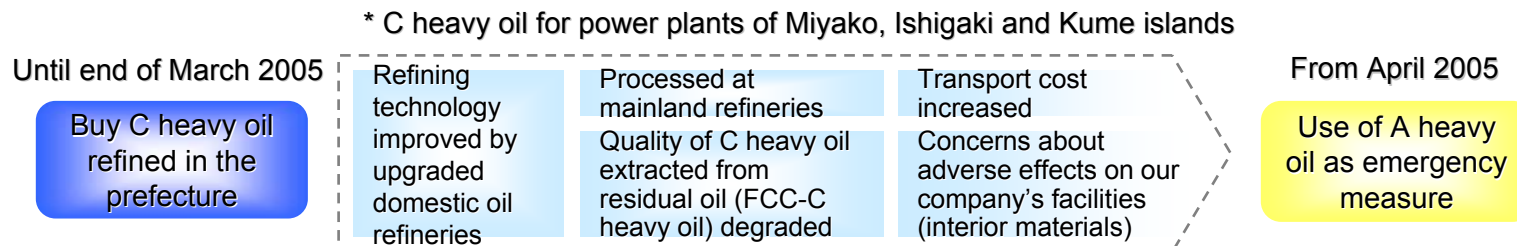
## 2. Future development

- Countermeasure equipment (fuel purifier, fine filter, etc.) in power plants in Miyako, Ishigaki and Kume islands were constructed in April, 2007.
  - Fuel conversion (A heavy oil > FCC-C heavy oil) will be completed by the end of May, 2007.
- \* Possibility of blending a maximum of 30% of A heavy oil, depending on combustion condition.

Economic efficiency estimate

Though facility countermeasure expenses are expected to amount to about 670 million yen, fuel expenses are supposed to be reduced by 1.2 to 1.7 billion yen.

### <Reference> Oil class change background (C heavy oil > A heavy oil)



#### Procurement possibilities of traditional C heavy oil

- Although there is still a margin for supply from both mainland Japan and abroad, it tends to decrease in the long term.
- Stable procurement may be difficult owing to the severe conditions such as difficulty arranging tankers and transport means.



# Environmental Burden (Global Warming) Countermeasures [1/2]

- 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.)**
- **This situation means it is extremely difficult for the company to take action against global warming**

## Company Efforts

- Introduction of LNG thermal power, which creates low CO<sub>2</sub> emissions (Yoshinoura Thermal Power Station)  
(Generator No.1 starts operations in November 2010, Generator No.2 starts operations in May 2011)
- Equity participation in carbon funds (6 cases) taking advantage of the Kyoto Mechanism
  - (1) Community Development Carbon Fund (CDCF)
  - (2) Bio Carbon Fund (BioCF)
  - (3) Japan Greenhouse Gas Reduction Fund (JGRF)
  - (4) Greenhouse Gas Credit Aggregation Pool (GG-CAP)
  - (5) New Co-Purchase (NCP)
  - (6) Purchase Contract with a "SHOSHA", a trading company
- 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 energy reduction and recycling

**Contributing to the Prevention of Global Warming**



## Environmental Burden (Global Warming) Countermeasures [2/2]

OEPC has contributed to the following carbon funds as part of its countermeasures against global warming:

Name of Funds	Acquired credit volume or amount of investment (contract basis)
Community Development Carbon Fund (CDCF)	2.5 million dollars (about 300 million yen)
Bio Carbon Fund (BioCF)	2.5 million dollars (about 300 million yen)
Japan Greenhouse Gas Reduction Fund (JGRF)	1 million dollars (about 100 million yen)
Greenhouse Gas Credit Aggregation Pool (GG-CAP)	1.5 million tons-CO <sub>2</sub>
New Co-Purchase (NCP)	0.5 million tons-CO <sub>2</sub>
Purchase Contract with a trading company	0.25 million tons-CO <sub>2</sub>





# Q & A



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

## 1 Okinawa's Economy

### ◎ Current Situation

Consumer spending shows a steady growth in addition to the rise in the number of tourists into the region. As for the construction-related business, private sector construction business also shows an upward trend with housing constructions, hotel investment, etc. Okinawa's economy is rapidly growing.

### ◎ Prospects

Backed by the continuing "Okinawa Boom," tourism-related sectors are forecasted to do well. Personal consumption is expected to be robust. Also, the construction industry is expected to show continuing momentum toward recovery, due to a rise in private-sector new housing construction. We expect the prefectural economy to expand as a whole.

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

(%)

Indicators	2006 (FY)		
	First half	Second half	Total
Sales by large-scale retailers	-2.4	-1.6	-2.0
No. of new cars sold	3.2	-2.8	0.2
Wholesale shipments of household appliances	12.8	1.3	7.0
New residential construction starts	19.8	6.4	13.5
Value of public works ontracts	-22.1	16.3	-4.0
No. of inbound tourists	-0.6	5.4	2.4
Total unemployment rate	7.9	7.4	7.6
Value of corporate failures	-69.5	227.4	-21.1

Note 1: The figures for 'Sales by large-scale retailers' are calculated from the values given in preliminary figures for March 2007, 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 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 2.9% in Okinawa prefecture up to 2011, higher than the national annual average of 1.8%.
- Furthermore, per capita income is also expected to increase, supported by the growth of prefectural GDP. Growth of about 4.6% is anticipated, in contrast to the national figure of 2.7%.

#### Annual Average Growth Rate of GDP

	FY2004	FY2011	Annual Average Growth Rate FY2004-FY2011
Prefectural GDP	3,716.7 billion yen	4,531.1 billion yen	<b>Approx. 2.9%</b>
National GDP	527,826.7 billion yen	597,513.8 billion yen	<b>Approx. 1.8%</b>

Sources: "Economic and Social Perspectives in Figures", in the Okinawa Promotion and Development Plan  
 FY2004 Prefectural Economic Accounts  
 Cabinet Office, Japan Electric Power Survey Committee

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

	FY2004	FY2011	Annual Average Growth Rate FY2004-FY2011
Prefectural Income	2.00 million yen	2.74 million yen	<b>Approx. 4.6%</b>
National Income	2.83 million yen	3.40 million yen	<b>Approx. 2.7%</b>

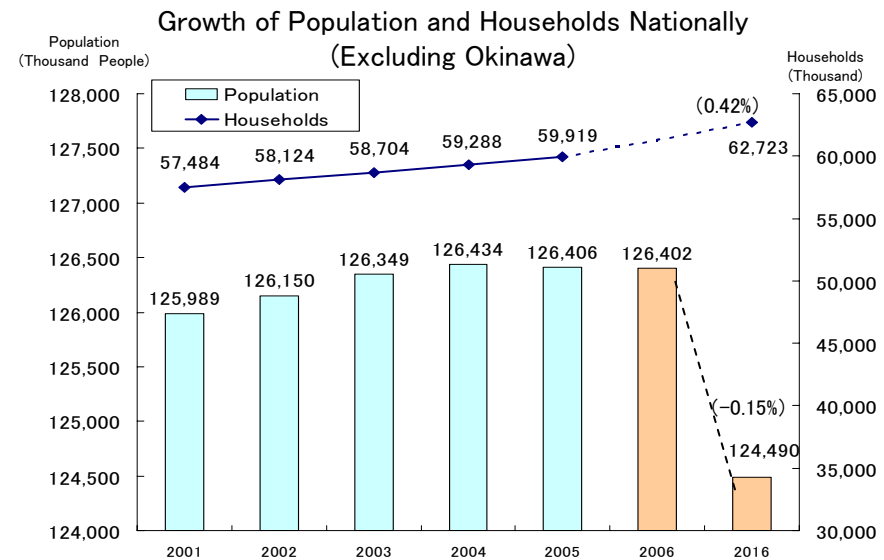
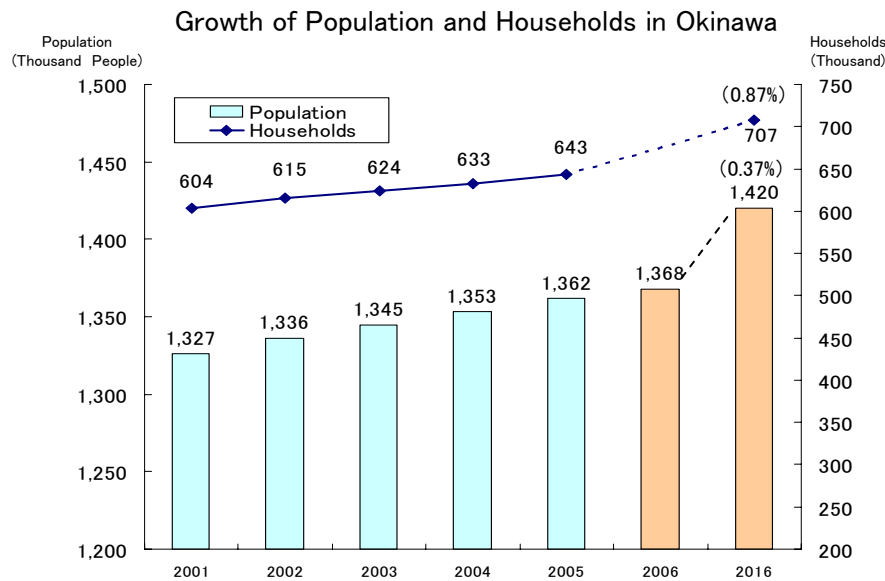
"Sources: "Economic and Social Perspectives in Figures", in the Okinawa Promotion and Development Plan,  
 FY2004 Prefectural Economic Accounts



# Q1: What is the Current State of the 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 0.37% up to 2016, in excess of the national rate of -0.15%.
- In contrast to the national situation, where the population is entering a phase of decrease following a peak in FY2004, the population of Okinawa is forecasted to continue growing until 2025.



Source: National Census, Ministry of Internal Affairs and Communications, Japan Electric Power Survey Committee  
 Note: For 2016, the rate in parentheses is the average annual growth rate for FY 2006-2016

Source: National Census, Ministry of Internal Affairs and Communications, Japan Electric Power Survey Committee  
 Note: For 2016, the rate in parentheses is the average annual growth rate for FY 2006-2016

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



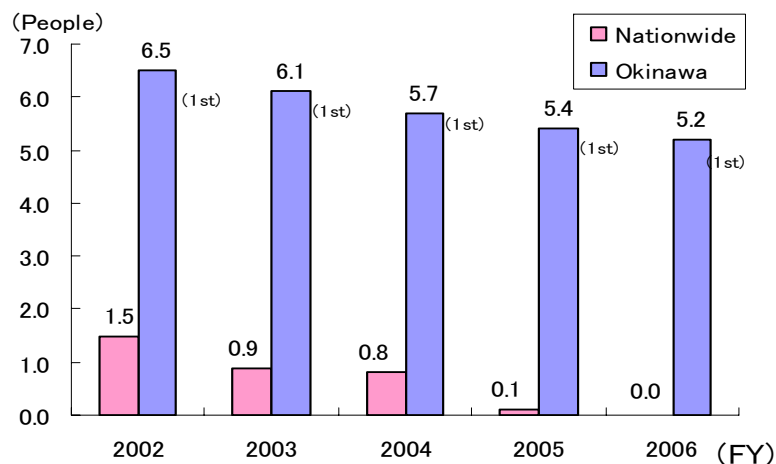
# Q1: What is the Current State of the Prefectural Economy and What is the Future Forecast?

## 4

### Okinawa Prefecture Demographics

- The increase of population in Okinawa Prefecture is 5.0 people per thousand, substantially in excess of the national level of 0.0 people per thousand. The number of Okinawa's natural increase of population 5.2 people per thousand is the highest in Japan.
- As a result, the population of Okinawa Prefecture is growing stably.

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

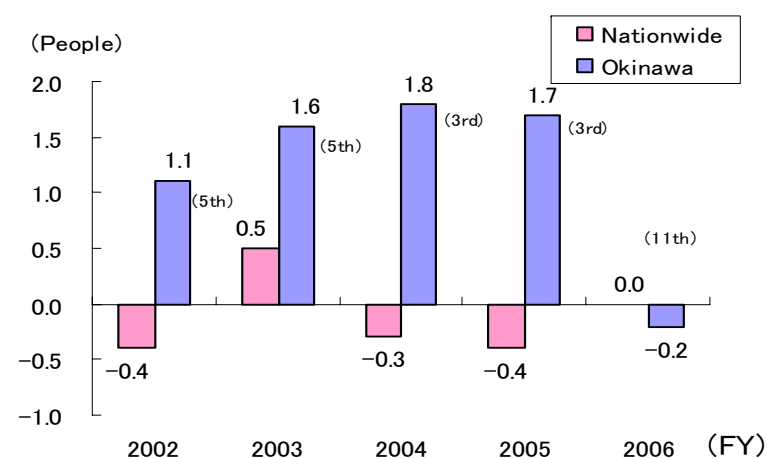


Source: Bureau of Statistics, Ministry of Internal Affairs and Communications, "Yearly Population Estimates"

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.

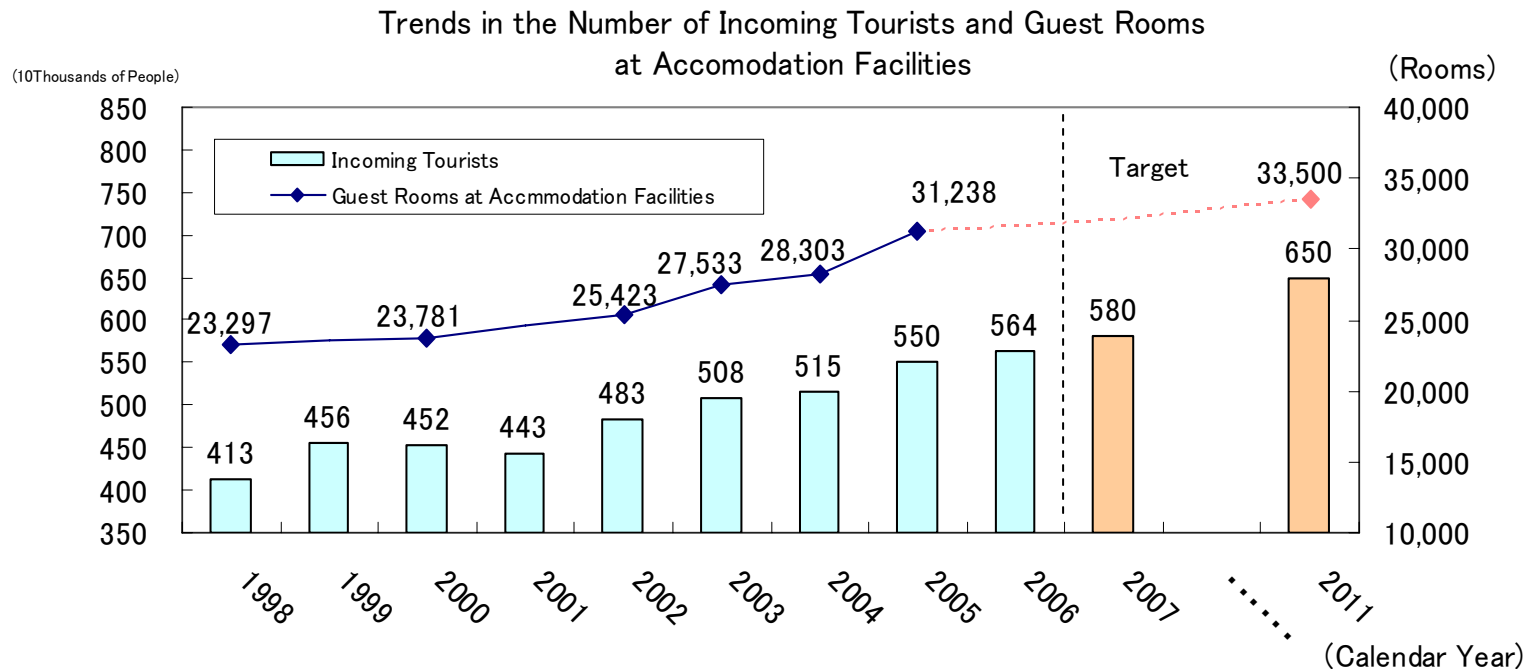


# Q1: What is the Current State of the Prefectural Economy and What is the Future Forecast?

## 5

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

The target figures for 2011 are 6.5 million incoming tourists and 33,500 rooms at accommodation facilities (FY2006 Result for incoming tourists: Record high of 5.6 million people)



Sources: "Summary of Okinawa Promotion measure", "Tourism Directory"

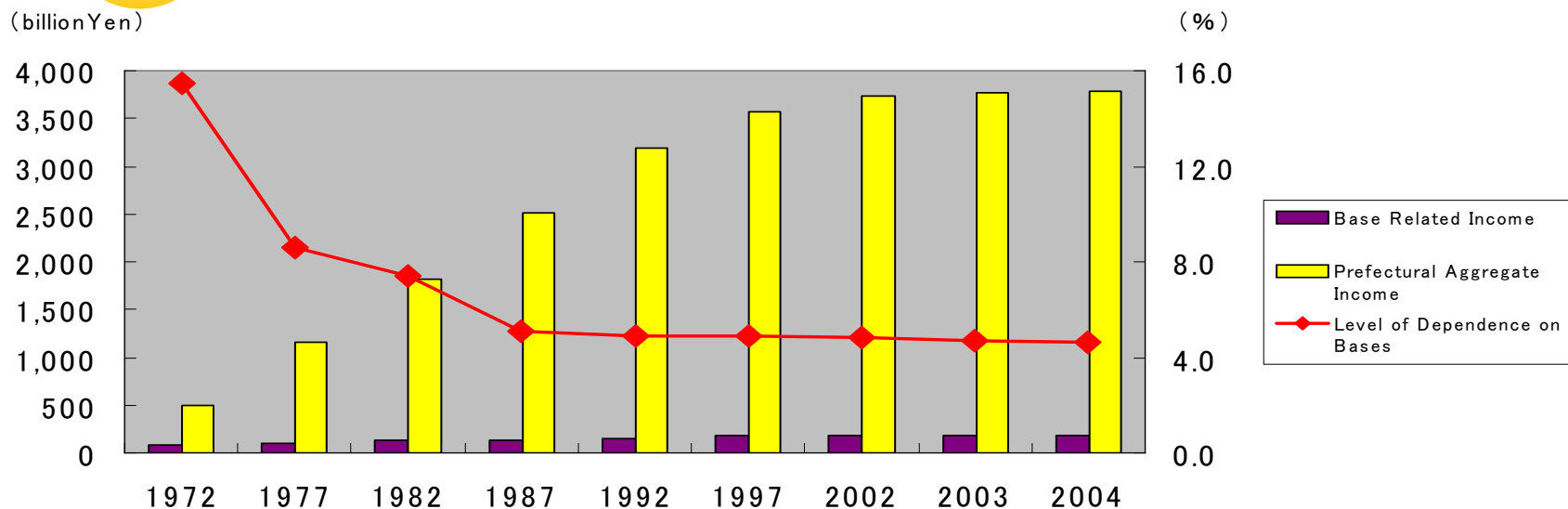
\* The survey of guest rooms at accommodation facilities changed from a biennial to an annual basis from 2003.

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 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
Base Related Income (Charges for Land Occupied by US Armed Forces, etc) (A)	77.7	100.6	134.6	128.2	156.3	174.6	179.7	178.3	174.3
Prefectural Aggregate Income (B)	501.3	1,163.1	1,822.6	2,516.5	3,192.9	3,555.3	3,735.3	3,767.5	3,792.8
Level of Dependence on Bases (A/B)	15.5	8.6	7.4	5.1	4.9	4.9	4.8	4.7	4.6

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 2007"

- 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 FY2004 had fallen to 4.6% from the 15.5% share at the time Okinawa was returned to Japan (1972).

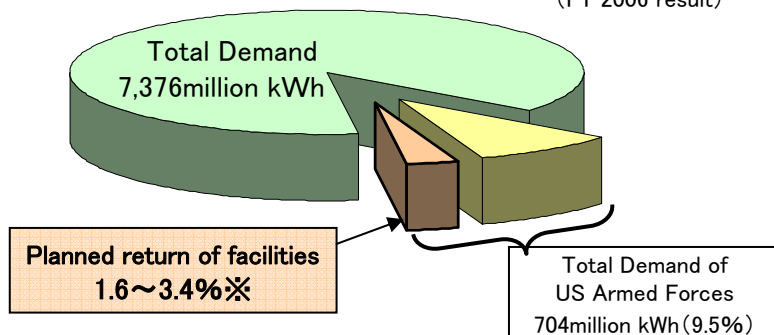




## Q2: What is the Current state of U.S. Military Bases

### [Proportion of Demand Taken Up By U.S. Armed Forces]

(FY 2006 result)



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

### [Summary of U.S. Armed Forces in Okinawa] (As of Jan. 2007)

No. of Facilities		33
Area		229 km <sup>2</sup>
Personnel*	Soldiers	22,470
	Other Staff, Families	20,100
	Total	42,570

\* The figures for personnel are as of the end of September 2005.  
Reference: No. of army employees: 9,023 \*As of the end of September 2006

\* Source: Website of Defense Facilities Administration Agency; "Bases of the U.S. Armed Forces and Japan's Self-Defense Forces in Okinawa (collection of statistics and materials) March 2006," 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 9.5% of total demand and about 7.3% of revenue in fiscal 2006.
- 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. (According to the press, the reversion was delayed because the plan to transfer US marines in Okinawa to Guam remains undetermined while the media also says the adjustment of detailed schedule setting is accelerating between Japan and the U.S.)
- 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 Defense Facilities Administration Agency)

- 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.

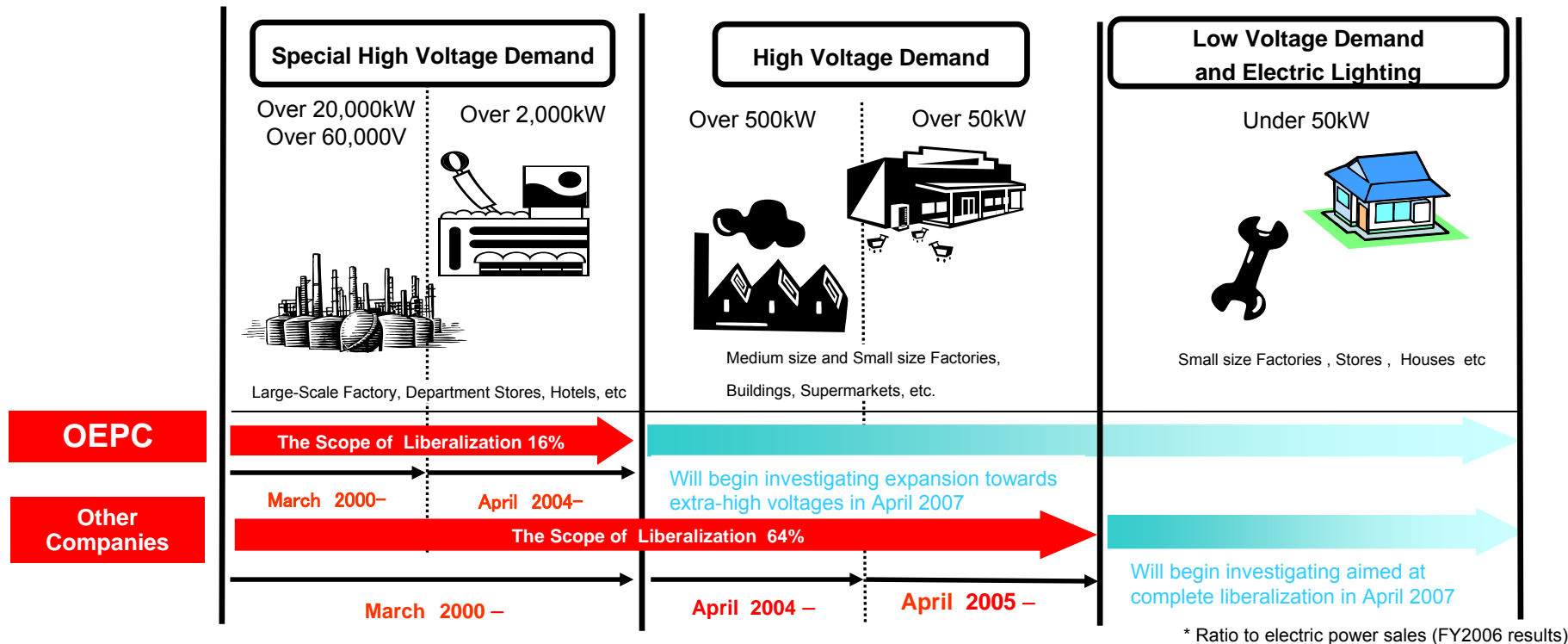
#### [Others]

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



**Wholesale Electricity Market** April 2005: Start of trading on the Japan Electric Power Exchange

**Private Power Generation** Expanding since the revision of the Electric Utility Law in 1995, the establishment of system related guidelines, the menu setting for purchasing surplus power from other companies, government support for cogeneration, etc.



# 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 15.17), Supplementary Provisions of the Enforcement Order of the Local Tax Law (Article 11.26)

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

Period: April 1, 1982 – March 31, 2012

### 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

## Value of Tax Alleviation Due to the Preferential Measures

- The value of the alleviation measures in FY2006 was about 2.1 billion yen.
- The average value of the alleviation measures after FY2007 will be about 2.1 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.**

## Alleviation of Business Tax

Alleviation of Business Tax will not be extended after May 2007, but other preferential measures will keep equivalent value of tax alleviation.

### **[Alleviation of Business Tax]**

**Basic Law** : Supplementary Provisions of the Local Tax Law (Article 9.2.1)

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

**Period** : December 31, 1971 – May 14, 2007



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

1. Target value for FY2007, 11million kWh

2. Approach for the promotion and diffusion.

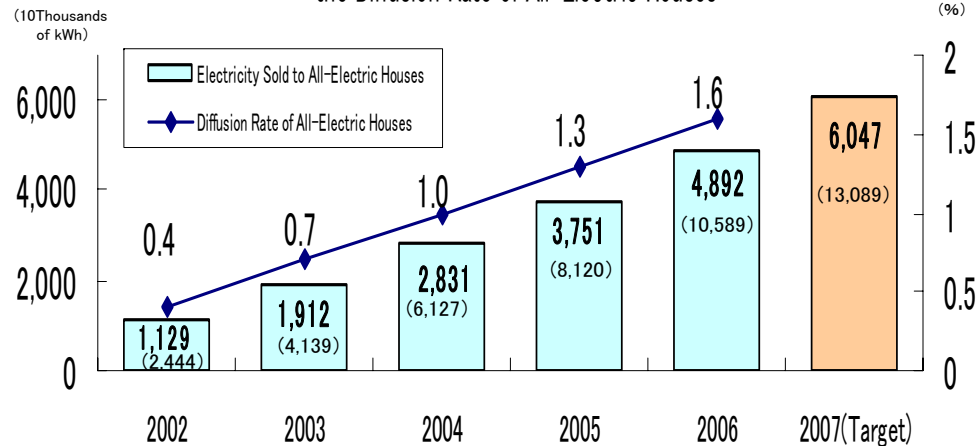
«Development of new demands and promotion of liabilities standardization. (Promote the housing which covers all necessary life energy with electricity (All-Denka))»

- (1) Active promotion of Co2 refrigerant heat pump hot-water machine (Eco-Cute).
- (2) Promote the community-based sales that focuses on the region (market).
- (3) Actively promote the architect offices, house makers, etc. (sub-users) to adopt the electrification.
- (4) Improvement of PR activity using 'electric homes simulation car' and 'electrical cooker simulation car'.
- (5) Enhance the promotion of All-Denka house in collaboration with customer-electronic makers and mass merchants.
- (6) Enhance the PR activity for All-Denka house through various events.

«Strengthen the advertisement activities.»

- (1) To establish the All-Denka brand and implement an effective promotion to customers. (Utilization of advertisement, HP, etc.)
- (2) To improve the sub user (house makers, design offices, etc.)-oriented support tool.

Trends in the Volume of Electricity Sold to 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】

Diffusion rate (result for FY2006)

$$1.6\% = \frac{10,589 \text{ [houses] (discount for "all-electric houses")}}{659,751 \text{ [houses] (metered use + residential time-of-day use + "Ee life")}}$$

Adoption rate (result for FY2005)

$$9.54\% = \frac{1,364 \text{ [houses]}}{14,303 \text{ [houses] (No. of newly-built houses: from Ministry of Land, Infrastructure and Transport materials)}}$$

\* All-electric adoption rate in newly built houses (result for FY2005): 38.9%



## Q6: What is the Current State of the New Demand Creation in Commercial & Industrial Fields ?

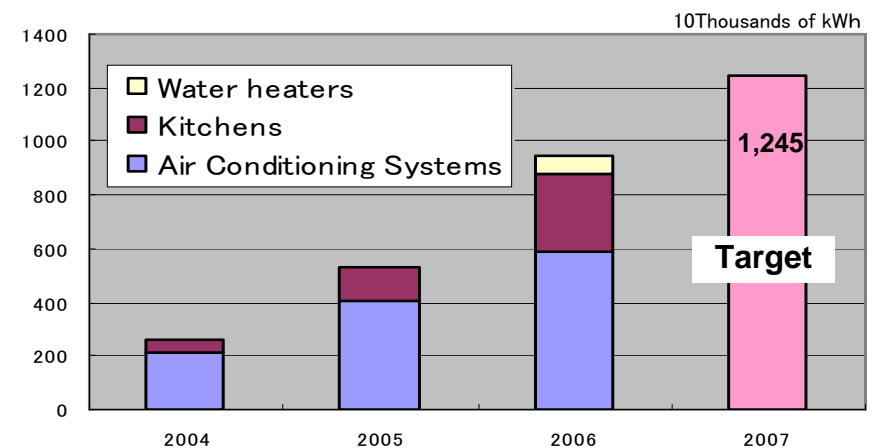
1. Target value for FY2007, 3 million kWh

2. Approach for the promotion and diffusion.

- Active promotion of regenerative air conditioning system and high-efficiency electric air conditioning system.
- Implementation of seminar to further familiarize the industrial electric kitchen.
- Promotion of water heater for business use and Eco-Cute.
- Customer follow-up.
- Implementation of sales promotion towards the government and public offices (board of education, etc.).
- Implementation of sales promotion towards school meal center, medical and welfare institutions, hotels, restaurants, etc.
- Enhance the collaboration with regeneration/kitchen makers and respective architecture associations.
- Implementation of sales promotion through presentation,

### New Demand Creation in Commercial/Industrial Fields

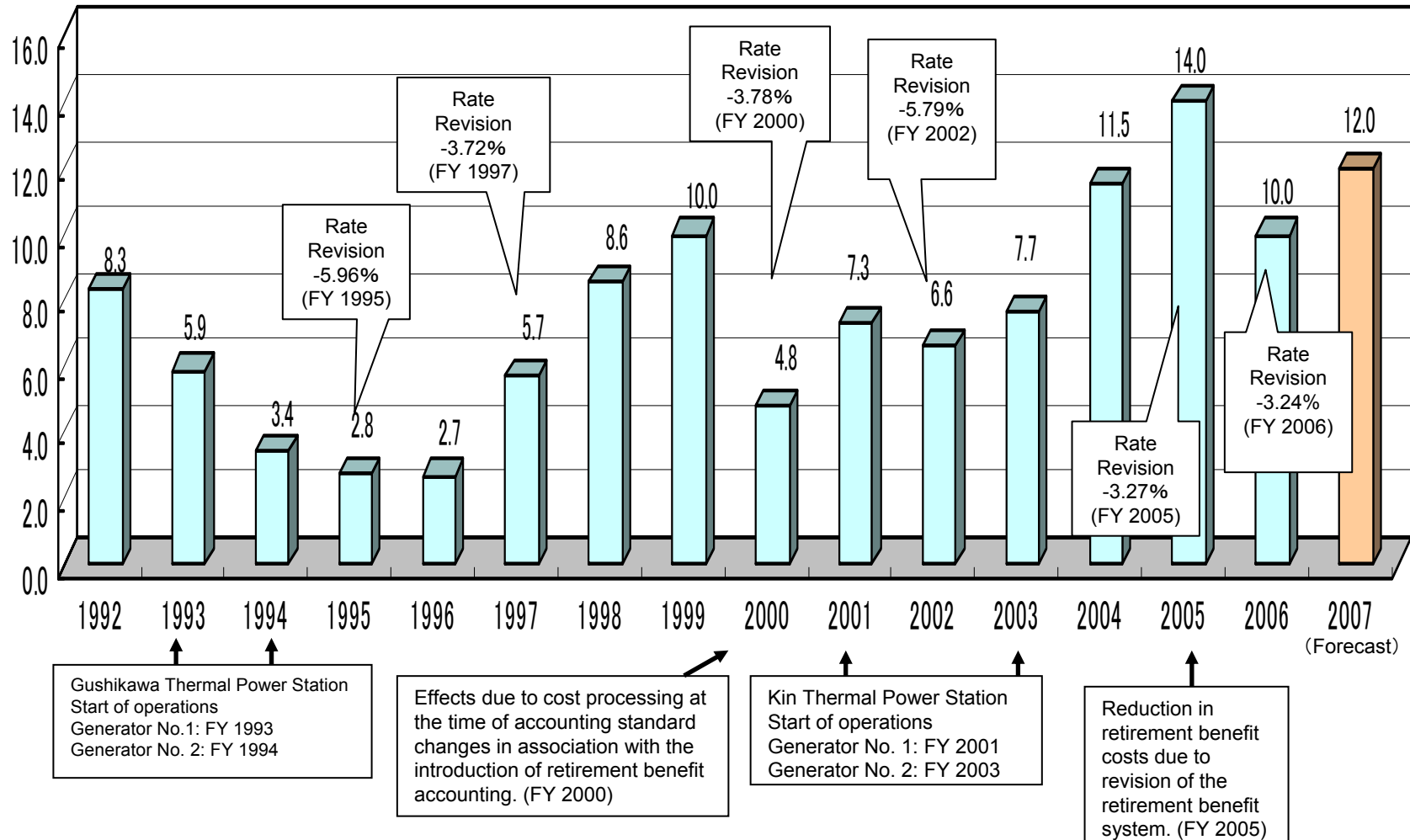
FY (Cumulative)	2004	2005	2006	2007 (Target)
Air Conditioning Systems	213 (213)	191 (405)	187 (591)	<b>300</b> <b>(1,245)</b>
Commercial Electric Kitchens	50 (50)	75 (125)	159 (284)	
Water heaters for business use	—	—	71 (71)	



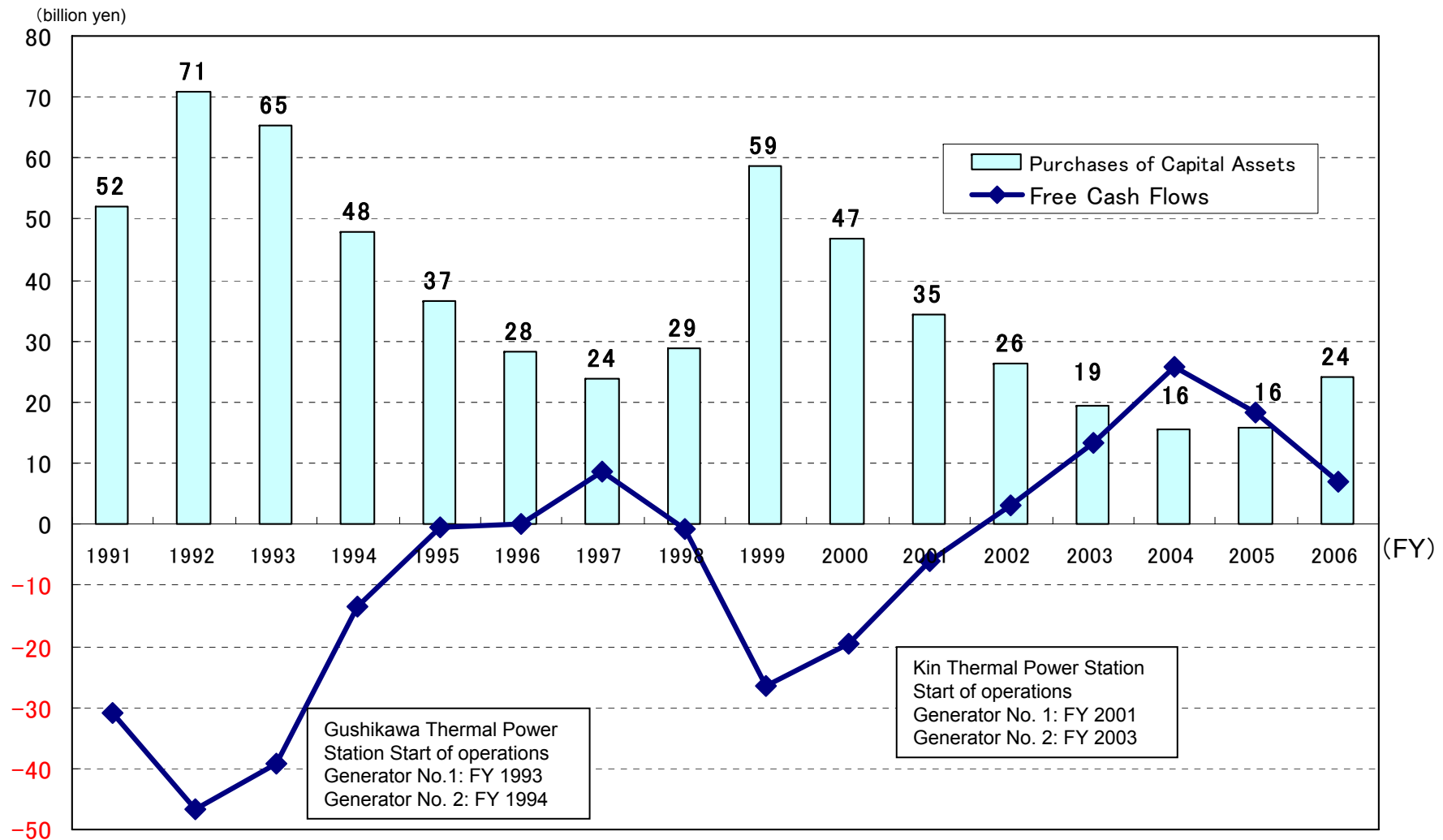
# Q7: What is the Past Trend of Ordinary Income and What is the Forecast for this Fiscal Year?

(billion yen)

## Trend in Ordinary Income (Non-Consolidated)



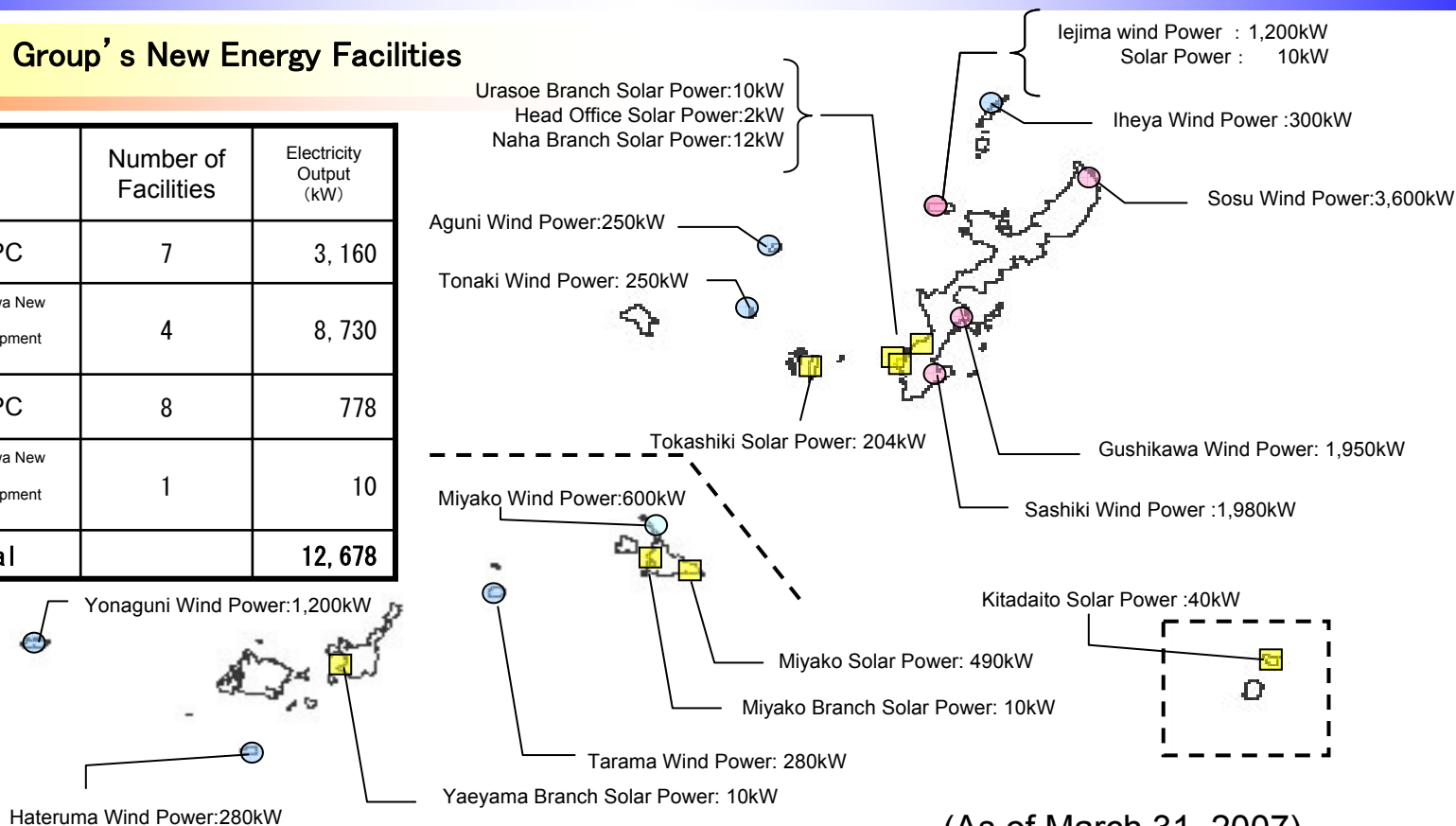
## Q8: What is the trend of the Capital Expenditure and Free Cash Flows



# Q9: What are the Status of Wind and Solar Power Electricity Generation Facilities?

## List of Okiden Group's New Energy Facilities

		Number of Facilities	Electricity Output (kW)
Wind Power	○ OEPC	7	3,160
	● Okinawa New Energy Development Co	4	8,730
Solar Power	■ OEPC	8	778
	● Okinawa New Energy Development Co	1	10
<b>Total</b>			<b>12,678</b>



(As of March 31, 2007)

- The company has established new energy facilities in all areas, including remote islands, with total output of 3,938kW (wind power: 3,160kW, solar power: 778kW)
- The Okiden Group will push forward with the introduction of wind power generation facilities.





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

With regard to the comparison of rate levels, there are limits to the publicly disclosed data so a detailed comparison is not possible. However, it is known that in general, OEPC has secured rates at about the same levels as on the mainland.

Model Unit Rates for All Companies (As of May 2007, including fuel cost adjustments and consumption taxes )

( yen/kWh)

	OEPC	Co. A	Co. B	Co. C	Co. D	Co. E	Co. F	Co. G	Co. H	Co. I
Metered Residential	23.76	23.66	22.18	21.96	21.36	20.90	21.33	22.19	21.83	20.84
Model Basic Unit 300	⑩	⑨	⑦	⑥	④	②	③	⑧	⑤	①
Commercial Use Electricity (High Voltage)	19.25	17.19	17.08	17.18	16.35	15.25	16.36	17.15	16.25	15.95
Model Basic Unit 250 (Power Factor 100%)	⑩	⑨	⑥	⑧	④	①	⑤	⑦	③	②
High Tension Power A	17.06	16.10	15.53	15.61	16.26	14.58	15.56	15.98	16.26	15.48
Model Basic Unit 250 (Power Factor 100%)	⑩	⑦	③	⑤	⑧	①	④	⑥	⑧	②

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



## 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	1.20
C Heavy Oil	71.5	0.79	1.00	0.68	0.83	1.00
LNG	49.5	0.55	0.69	0.36	0.44	0.53

\*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 50% were assumed for coal, oil and LNG respectively in calculations.

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



# Q12: Progress of Discussion in the Gas Industry

## LNG thermal power introduction

Considering the introduction of Yoshinoura thermal power plant, which is scheduled to launch the operation in FY2010 with LNG as its fuel (amount of LNG used: approximately 400,000t per year), as an opportunity for the integrated energy business-oriented new business, and started to discuss the development of gas business in view of a tie-up with local enterprises.



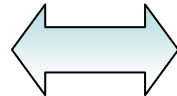
## For the promotion of LNG

Started to discuss the business expansion that enables an interactive development with the existing energy business companies in order to improve Okinawa's energy environment through diffusion of LNG in the prefecture. LNG is the fuel that is both clean and safe.



## Today

- Discussion on the business scheme that enables the diffusion in Okinawa.
- Discussion on the collaborative infrastructure building with Yoshinoura thermal power plant.
- Discussion on the securing of stable fuel supply.

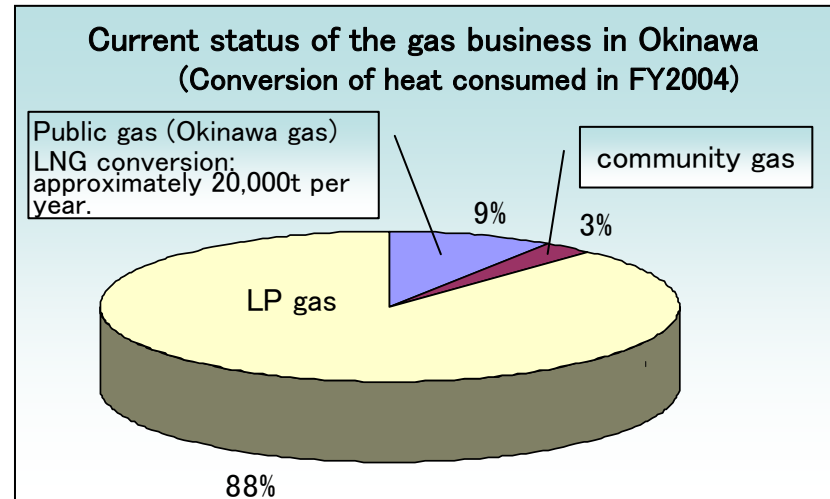


We are currently exchanging information on the business scheme for LNG promotion within the prefecture with Okinawa Gas, the public gas company in Okinawa, based on our ideas about the gas business.

## Perspective for the launch of business



Will aim at the launch of gas business within 1-2 years after the operation launch of Yoshinoura thermal power plant in consideration of the construction progress on Yoshinoura plant and LNG fuel supply status.



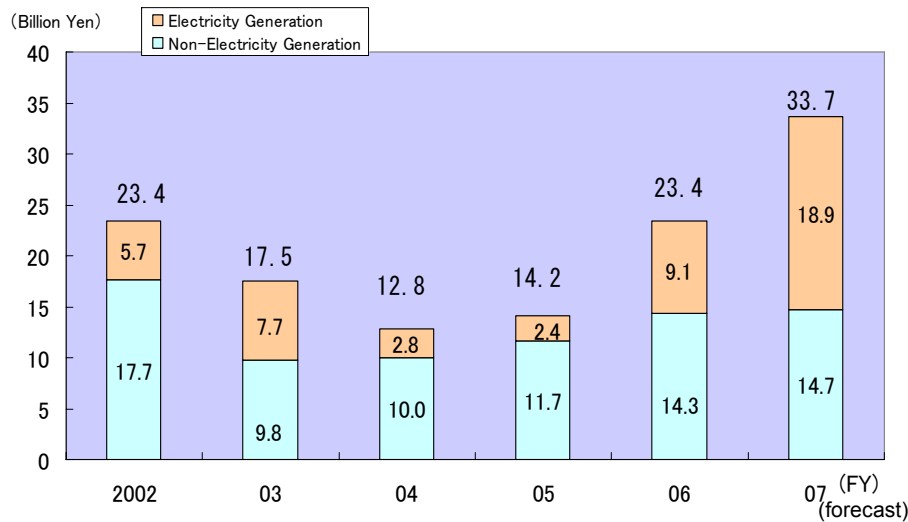
Source: Statistical yearbook of Okinawa, Japan LP Gas Association website.

**Reference: Corporate profile of Okinawa Gas**  
**Date of foundation** : July 22, 1958.  
**Capital** : JPY 250,222,000  
**Sales** : JPY 5.54bn (as of December 2005)

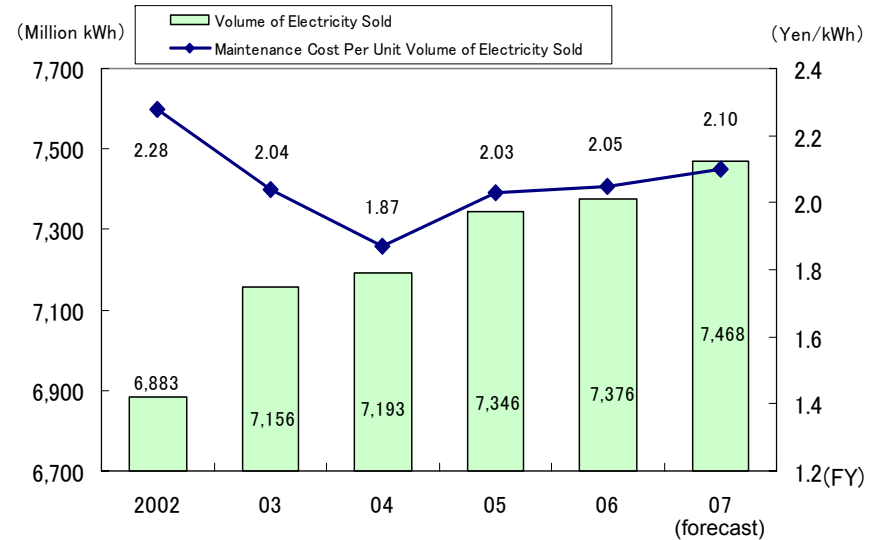


# Q13: What is the Past Trend for Capital Expenditure and Maintenance cost?

Trend in Value of Facility Investment



Maintenance Cost Per Unit Volume of Electricity Sold



## Main Efforts

### ■ Suppression of the Value of Facility Investment

Suppression of construction costs through a review of design, specification, construction methods and ordering methods, and also through the diversion of existing facilities

Promotion of costs reduction in the procurement of materials through reuse of inventories of merchandise and supplies and efficient use of materials

### ■ Suppression of Maintenance Costs

Promotion of maintenance costs reduction through reviewing our maintenance process and outsourcing contracts.

Cost reduction and leveling through a review of the intervals for regular inspections and repairs.



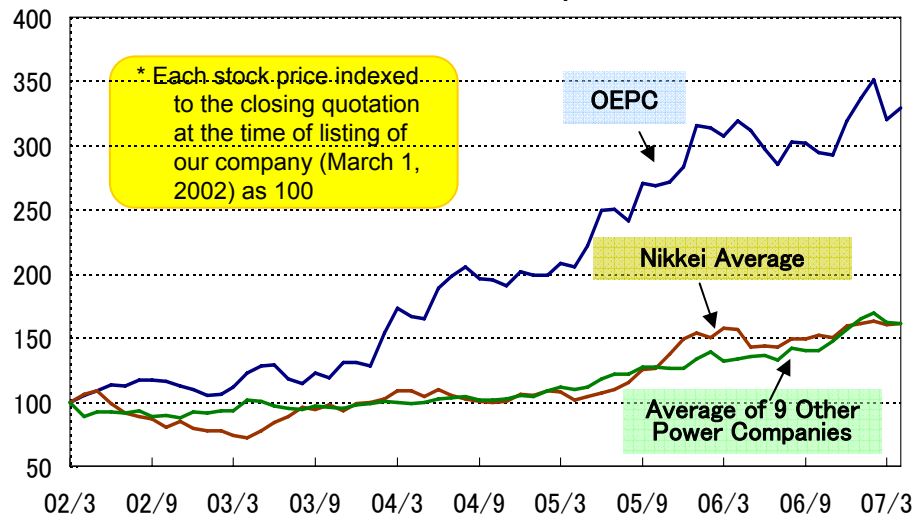
# Change in Okinawa Electric Power's Stock Price

Change in Stock Price since the Time of Listing in First Section (March 1, 2002)

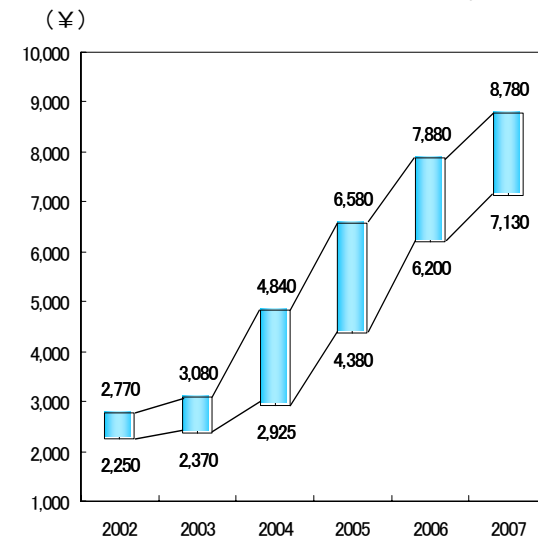
(As of April 27, 2007)

	Okinawa Electric Power	Average of 9 Other Power Companies	Nikkei Average
Stock price on March 1, 2002	¥2,300	¥1,985	¥10,812
All-time high	¥8,780 as of March 22, 2007 (+281.7%)	¥3,603 as of February 7, 2007 (+81.6%)	¥18,215 as of February 26, 2007 (+68.5%)
All-time low	¥2,300 as of March 1, 2002 (± 0.0%)	¥1,712 as of December 9, 2002 (-13.8%)	¥7,608 as of April 28, 2003 (-29.6%)
Latest stock price Closing quotation on April 27, 2007	¥7,580 (+229.6%)	¥3,199 (+61.2%)	¥17,400 (+60.9%)

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

FY		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Net Income (Non-consolidated)	Million yen	2,773	4,843	2,725	2,606	4,807	4,430	5,594	7,591	9,163	6,398
Earnings per Share	Yen	186.42	325.61	179.61	171.77	316.86	286.52	363.37	494.77	571.05	402.25
Dividend per Share	Yen	50	50	50	60	60	60	60	60	60	60
Payout Ratio	%	26.8	15.4	27.8	34.9	18.9	20.9	16.5	12.1	10.5	14.9

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



# Survey result of electric power generation system and prevention measure

■ Checked up the data in the past ton the point of ‘data falsification, procedure flaw, etc.’ in our thermal power plant facilities in accordance with the instruction given by the Nuclear and Industrial Safety Agency of the Ministry of Economy, Trade and Industry (on November 30, 2006). (The survey to be conducted for total 21 power plants including the ones located on remote islands.)

## [Survey result]

11 cases of ‘procedure flaw’, ‘falsification of data’ and ‘inappropriate response’ were identified in 19 power plants. (Violation of internal rules to be included)

	Number of cases
Procedure flaw	3
Falsification of data	2
Inappropriate response	6

## To prevent the recurrence

### [Factor analysis]

Most cases were caused by the lack of understanding for compliance-related issues and insufficient knowledge of laws and regulations.

### [Issues to be handled.]

- (1) Enhance the understanding of compliance and corporate ethics-related issues.
- (2) Acquire detailed knowledge on laws and manuals.
- (3) Enhance the control and check systems.
- (4) Maintain close communication by creating a friendly atmosphere to help people speak up.

Conduct a prevention measure based on the ISO authentication method in order to prevent the recurrence of similar cases.

### Prevention measure

- (1) Familiarization of the prevention measure by the top managements.
- (2) Thorough familiarization of ‘employee’s code of ethics’.
- (3) Thorough familiarization of ‘rules for the use of inquiry counter for corporate ethics’.
- (4) Check through the periodic internal audit.
- (5) Check through the periodic external audit.
- (6) Clarification and familiarization of manuals.
- (7) Enhancement of the control system.

Create the corporate culture that does not ‘cause’ or ‘hide’ the violation of law, etc. by continuously implementing the concrete prevention measures.



# 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://cripi.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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