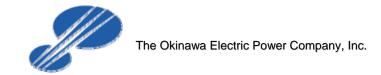
# Management Reference Materials

# March 2010



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# Characteristics of the Business Base

### Advantage

Demand for Electric Power	<ul> <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> <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>

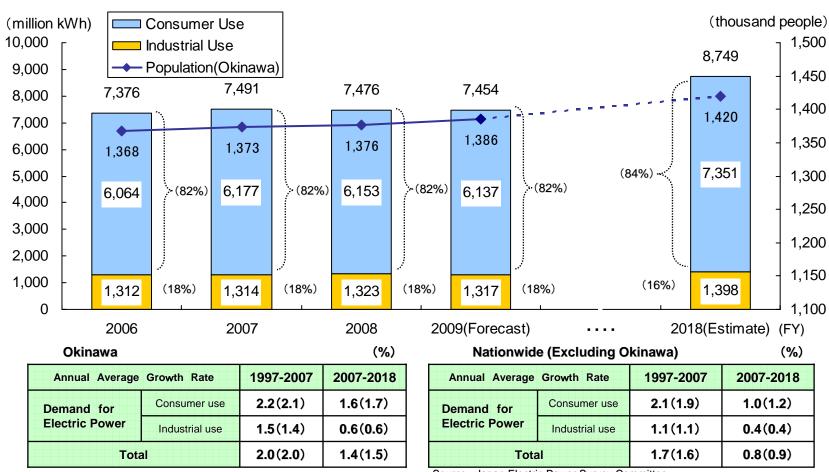
### Disadvantage

Electric Power Generation Facilities	<ul> <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> <li>As oil and coal are the only fuels used, high commodity prices exert a great influence</li> </ul>
Remote Islands	<ul> <li>With remote islands where cost efficiency is low, the Remote Islands Company constantly records losses</li> </ul>
The Environment	Dependent on fossil fuels (oil and coal) with a high environmental burden



# Demand for Electric Power

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



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

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.



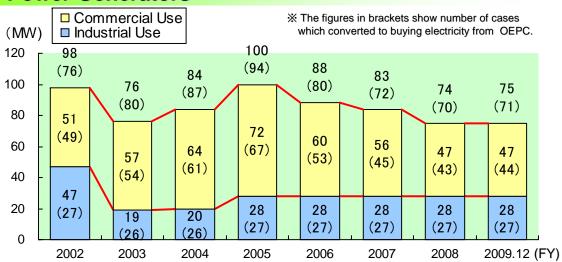
The Okinawa Electric Power Company, Inc.

# 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 55%

(As of December 31, 2009)

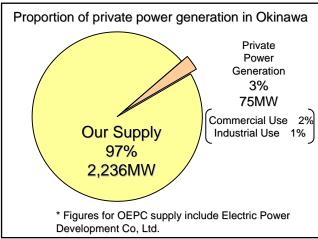
# Trend in the Permitted Output of Private Power Generators

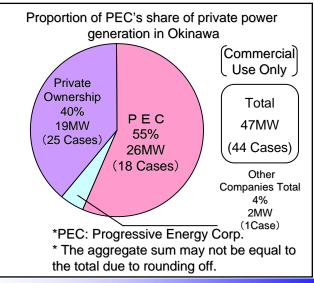


- Number of cases and output (kW): converted to buying electricity from OEPC
- > FY2007: Commercial Use 8 cases (total 5,010kW)
- > FY2008: Commercial Use 8 cases (total 10,570kW)
- FY2009 3<sup>rd</sup> Q: Commercial Use 0 cases (total 0kW)
  - \* The number of change in output and switchover to private 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 【Result】	2013	2018
Peak Load	139	142	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)	37.5 (19.9)	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)

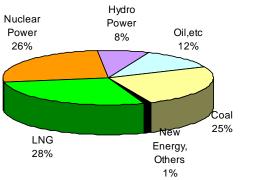
### **Power Supply Composition**

- 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

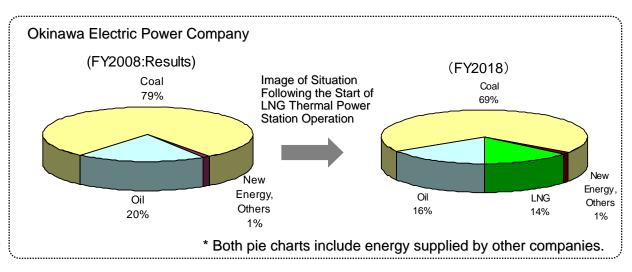
#### Electric Power Composition Ratio (Generating End)

Totals for the 10 Major Electric Power Companies

(FY2008: Estimated Results)



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





# 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】 北中城村 中城城跡 中城村 中城村 中城村 大田城村 大田城村

#### Conceptual Image of the Completed Facility

#### **Construction Schedule**

2003-2007
Environmental assessment, etc., investigation of various procedural matters, facility specifications, etc.

2007 -2012 Construction work Nov. 2012 Start of operations at Generator No.1 May 2013
Start of
operations at
Generator No.2

From 2016 on: Start of operations at Generators No.3 & 4

**Main Points for 2010** 

· Foundation work for Gas turbine structure

\*The construction has made progress smoothly since November, 2008.





# 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

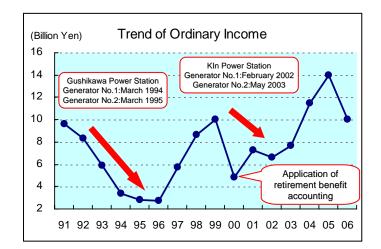
#### Countermeasures

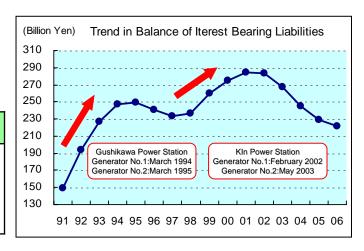
- Creation of strong financial characteristics able to withstand the Yoshinoura Thermal Power Station investment burden
  - → Control the increase of the balance of interest bearing liabilities
- Reduction of the depreciation burden associated with the start of operations at Yoshinoura Thermal Power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

#### **Perspective**

Power Generation Facilities	LNG Terminals
<ul> <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> <li>Aim at stable costs for a part of fuel costs</li> <li>Currently investigating cost leveling through lease finance</li> </ul>

<sup>•</sup>If finance lease is adopted, the company applies on-balance sheet and non-transferownership contracts.

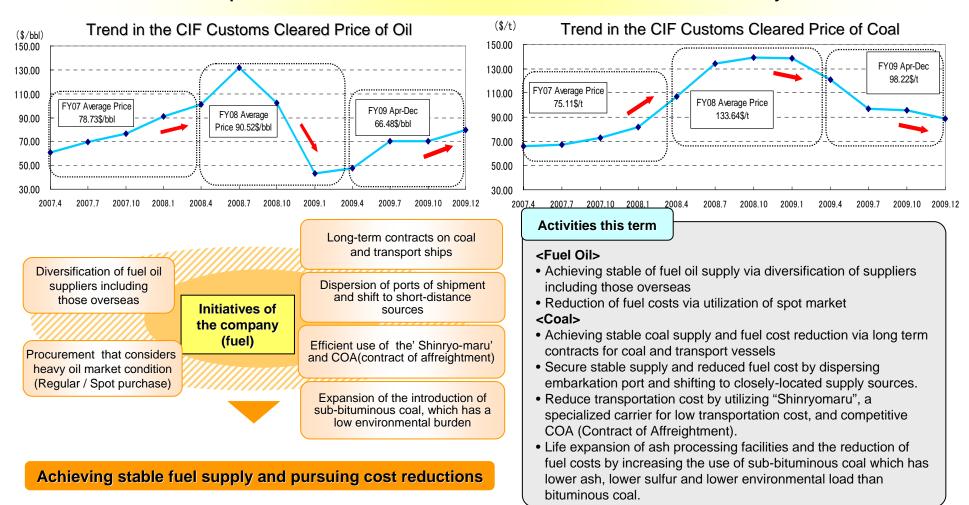






# Fuel

- Great effects are exerted on the company by movements in fuel prices.
- The outlook of fuel prices is uncertain due to the rise trend with a hint of economic recovery.





<sup>\*</sup> Although there is a time lag, fuel price changes are reflected to the electricity rates through the Fuel Cost Adjustment System. The Okinawa Electric Power Company, Inc.

# The Fuel Cost Adjustment System

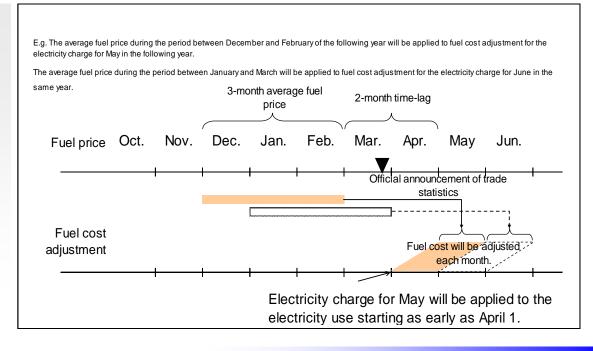
#### **Summary of the System**

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 and LNG prices that alter the economic situation.

#### 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.
- The maximum level of fuel cost adjustment will be 50%.
- There will be no lower adjustment limit.

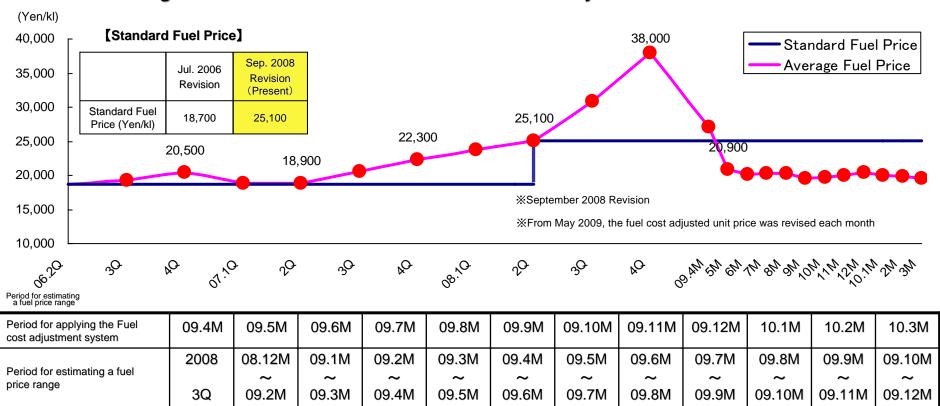
#### Conceptual drawing of the fuel cost adjustment system





# Trend of Average Fuel Price and Standard Fuel Price

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



[Method of calculating Average Fuel Price]

27,100

47,771

13,838

20,900

27,834

12,575

20,200

25,703

12,374

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

20,300

27,340

12,174

 $\times$   $\alpha$  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)

20,300

29,334

11,688

19,600

32,258

10,503

19,700

36,932

9,555

20,000

39,626

9.305

20,400

41,714

9,167

20,000

41,057

8,963

19,800

41,734

8,647



Average Fuel Price (yen/kl)

Average Coal Price(yen/t)

Average Crude Oil Price (yen/kl)

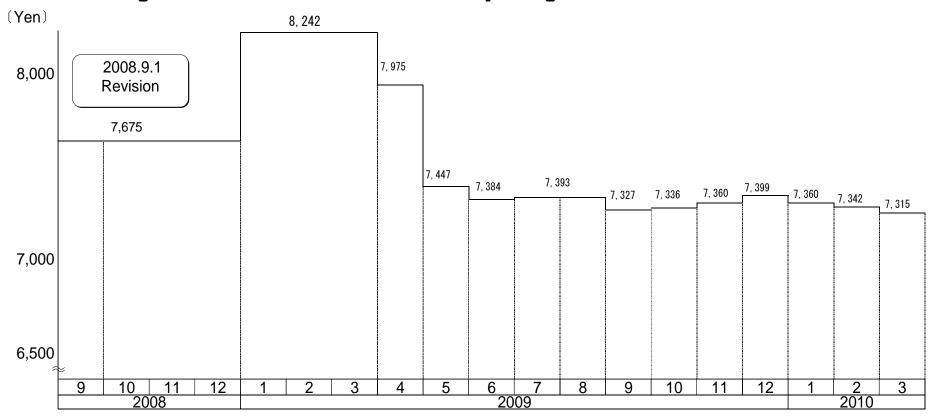
19,500

42,330

8,280

# Recent changes in standard household electricity charges

### O Changes in standard Household electricity charges



- ¾1 300kWh/Month
- ※2 From Jan.2009 to Apr. 2009, electricity charge after special measures are implemented were applied.
- X3 After May 2009, electricity charge after special measures and transitional measures are implemented were applied.



# Special measures and transitional measures for fuel cost adjustment

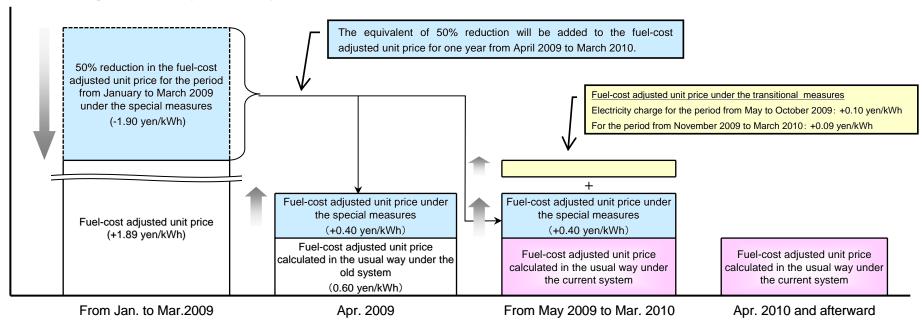
#### <Special measures>

In response to the request from the Minister of Economy, Trade and Industry, we have implemented special measures in which we reduce the unit price of adjustment for the fuel price adjustment amount for the period from January to March 2009 for customers in the regulated retail sector and reflect the actual amount of reduction to the electricity charge for the period between April 2009 to March 2010.

#### <Transitional measures>

In response to the revision of the fuel cost adjustment system starting with the electricity charge for May 2009, fluctuations in the fuel price that are not reflected will be reflected to the fuel-cost adjusted unit price for the electricity charge for the period between May 2009 and March 2010 based on the statutory transitional measures in shifting from the old system to the current system.

Image chart of the unit price of adjustment for the fuel price (in the case of low-voltage Demand)
\*Including the consumption tax equivalent amount



# The New Buyback Program for Photovoltaic Generation

The New Buyback Program for Photovoltaic Generation was launched on November 1, 2009, based on the Japanese state law to cover the cost of introducing solar photovoltaic power generation facilities by the entire nation and promote the introduction of solar photovoltaic generation with the aim of reducing CO<sub>2</sub> emissions domestically.

This system obliges electric power companies to purchase surplus electricity, which is generated using solar photovoltaic power facilities and meets the requirements, at the unit price specified in the law for 10 years.

This program is designed to be "an all-participating system," in which all customers assume the cost incurred for the purchase as photovoltaic generation surcharge (PV surcharge) according to their electricity usages.

#### ■ Unit price of electricity purchase

(The maximum electricity receivable\*1)

500kW			Not eligible for the purchase
50kW	50kW or greater Less than 500KW*2		24 yen (20 yen <sup>*3</sup> )
	10kW or greater Less than 50kW	24 yen (20 yen*3)	24 yen (20 yen <sup>*3</sup> )
10kW	Less than 10kW	48 yen (39 yen*3)	
		Residential electricity [Low-voltage]	Non-residential electricity [High- voltage]

- \*1. "The maximum electricity receivable" is either of the smaller of electricity generated through solar panel system or solar power inverter system.
- \*2. If the maximum electricity receivable is within the range between 50kW or greater and less than 500kW, this unit price of purchase will be applicable only when the maximum electricity receivable does not exceed the electricity contract (contract on electricity supply from us.)
- \*3. Unit price of purchase in the case where the customer has installed other in-house power generation facilities (including secondary batteries) and, while there is be no inflow of electricity from such facilities to our electricity system, inflow of electricity from solar power generation facilities may increase because in-house power generation facilities are also installed.

#### ■ Unit Price of PV Surcharge

The unit price of photovoltaic generation surcharge (PV surcharge) applicable for the FY 2010 is 0.00 yen/kWh as a result of rounding off, therefore there is no charge for customers in the FY 2010.

	Unit Price of PV Surcharge
FY 2010	0 .00yen/kWh

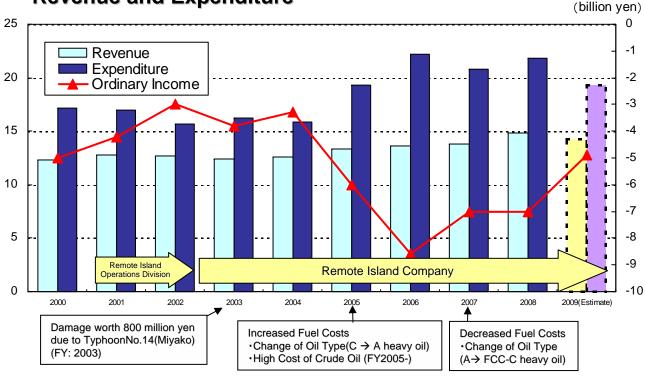
Incidentally, the actual purchasing cost for the FY 2009 which could not be collected due to rounding off will be carried forward to the time of unit price calculation for the FY 2011, and the customers will be practically charged the cost in and after FY 2011.



The Okinawa Electric Power Company, Inc.

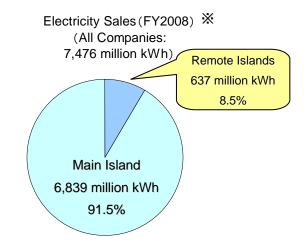
# Improvement of Remote Island Income and Expenditure [1/2]

# **Movements in Remote Island Revenue and Expenditure**

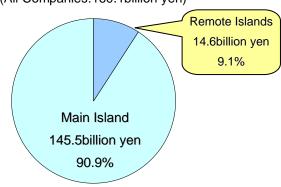


(billion yen)

	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	14.3
Expenditure	17.2	17.0	15.7	16.2	15.9	19.3	22.2	20.8	21.8	19.3
Ordinary Income	-5.0	-4.2	-3.0	-3.8	-3.3	-6.0	-8.6	-7.0	-7.0	-4.9



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.



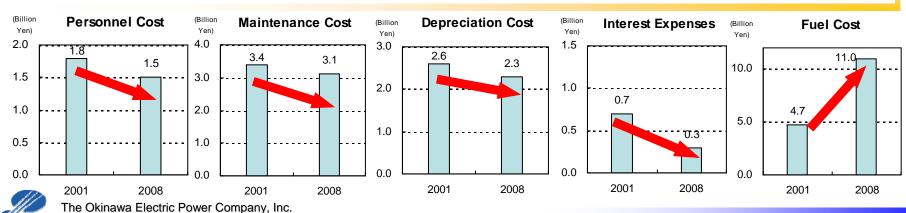
# Improvement of Remote Island Income and Expenditure [2/2]

- 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.
- Establishing remote control system for power generation plants in Miyako and Ishigaki.
- Revising the procedures for regular inspections on electric power supply facilities.
- Purchasing other companies' idle facilities and moving idle facilities of own company.
- 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

- Introduction of Wind power generation with lowering system.
- Partially laying power lines underground to prevent typhoon damages.
- Effective utilization of waste oil.

etc.



# Addressing the global warming issues

- 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.)



- Promotion of the introduction of "new energy" based on the RPS system
- Efficient operation of thermal power plants
- Promotion of multi-fuel operation with biomass energy
- Equity participation in carbon funds taking advantage of the Kyoto Mechanism

(as of December 31, 2009)

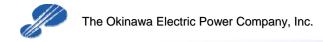
Name of Funds		Acquired credit volume or amount of investment (contract basis)
Equity participation in	Contract of amount of investment	6 million dollars
carbon funds	Contract of credit volume	Approx.3.6 million tons-CO <sub>2</sub>
Purchase Contract with a trading company etc.		,,

- ■Investment for CCS survey research
- Promoting introduction of electric vehicles for business-use (introducing 100 electric vehicles by FY2020)
- Promoting energy saving on the demand side (by offering EcoCute services, etc.)

(cf.) Actual result of CO<sub>2</sub> emission coefficient for 2008: 0.946kg - CO<sub>2</sub> /kWh (The figure after adjustment is the same)



# Q & A



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### **1** Okinawa's Economy

### **OThe current state of affairs**

While economic circumstances in Okinawa Prefecture show signs of picking up in part on the effect of economic policies, the overall conditions remain in difficulties.

- Private consumption indicates signs of recovery in sales of new car and electric appliance due to the effect of economic policies, but momentum of recovery is weak with consumers' strong consciousness of protecting their livelihood.
- Regarding the construction industry, public works increased due to the
  effect of front-loading orders and supplementary budget implementation,
  but housing starts are falling below the level in the previous year.
- Tourism industry is sluggish due to factors including weak travel demand against the backdrop of economic deterioration and the spread of the new-type influenza.

### OProspects

There is a high possibility that the economic conditions remain in difficulties.

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

		FY2008	FY2009		
Indicators	First Half	Second Half	Total	First Half	3rd Quarter
Sales by large-scale retailers	-0.6	-2.5	-1.5	-2.4	-5.3
No. of new car sold	-1.8	-17.5	-9.4	-11.9	10.3
Wholesale shipments of household appliance	5.8	6.4	6.2	7.4	22.0
New residential construction starts	-0.0	96.6	36.8	-1.7	-29.8
Value of public works contracts	8.9	7.5	8.2	8.3	10.7
No. of Inbound tourists	4.6	-3.1	0.7	-4.0	-10.7
Total unemployment rate	7.5	7.8	7.6	7.6	7.1
Value of corporate failures	1009.9	53.9	466.2	-83.2	83.7

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

Note 2: The figures quoted here for the wholesale price of electric appliance for shipment are estimates.

Note 3: The figures for total unemployment rates are raw data. Source: Okinawa General Bureau, Okinawa Prefecture,

Okigin Economic Institute, and others.



# 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 3.7% in Okinawa prefecture up to 2011, higher than the national annual average of 0.7%.
- Furthermore, per capita income is also expected to increase, supported by the growth of prefectural GDP. Growth of about 7.5% is anticipated, in contrast to the national figure of 3.8%.

#### **Annual Average Growth Rate of GDP**

	FY2007	FY2011	Annual Average Growth Rate FY2007-Y2011
Prefectural	3,916.3	4,531.1	Approx. 3.7%
GDP	billion yen	billion yen	
National	562,434.6	579,337.3	Approx.0.7%
GDP	billion yen	billion yen	

Sources: "Economic and Social Perspectives in Figures", in the Okinawa Promotion and Development Plan FY2007 Prefectural Economic Accounts
Cabinet Office, Japan Electric Power Survey Committee

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

	FY2007	FY2011	Annual Average Growth Rate FY2007-Y2011
Prefectural	2.05	2.74	Approx. 7.5%
Income	million yen	million yen	
National	2.93	3.40	Approx. 3.8%
Income	million yen	million yen	

"Sources: "Economic and Social Perspectives in Figures", in the Okinawa Promotion and Development Plan, FY2007 Prefectural Economic Accounts



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

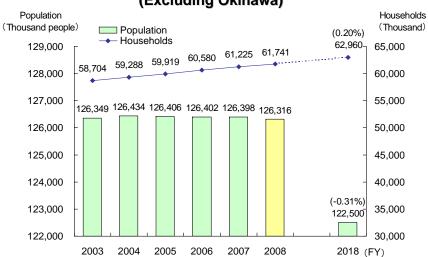
- Stable growth is expected for the population of Okinawa, with an annual average growth rate of 0.32% up between 2008-2018, in excess of the national rate of -0.31%.
- Whereas the population reached a peak in 2004 on a nationwide basis and has entered a downswing since then, Okinawa is expected to shift to a population decline between 2025 and 2030.

#### **Growth of Population and Households in Okinawa**

#### Population Households (thousand People) (Thousand) (0.72%)Population 724 750 1,500 -- Households 700 655 (0.32%)1,450 650 1,420 600 1,400 1,376 1,373 550 1,368 1,362 1,353 500 1,345 1,350 450 400 1.300 350 300 1.250 250 1,200 200 2003 2004 2005 2006 2007 2008 2018 (FY)

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 2008-2018

### 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 2008-2018

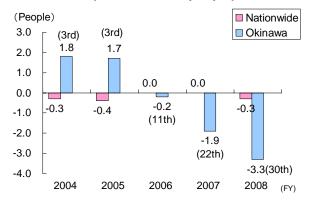
Thanks to the stability growth of household numbers in association with the increasing population, residential demand increases are expected.



# 4 Okinawa Prefecture Demographics

- Demographics of Okinawa Prefecture are in outflow of 3.3 person per 1,000 people in terms of social increase in population, 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.

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

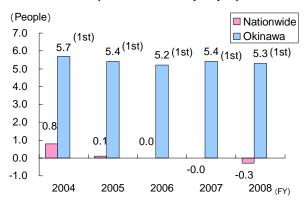


Source: Bureau of Statistics, Ministry of Internal Affairs and Communications, "Yearly Population Estimates"

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

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

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

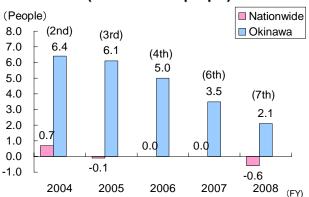


Source: Bureau of Statistics, Ministry of Internal Affairs and Communications, "Yearly Population Estimates"

Note: Natural increase of population = Births - Deaths

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

### Trend in the 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

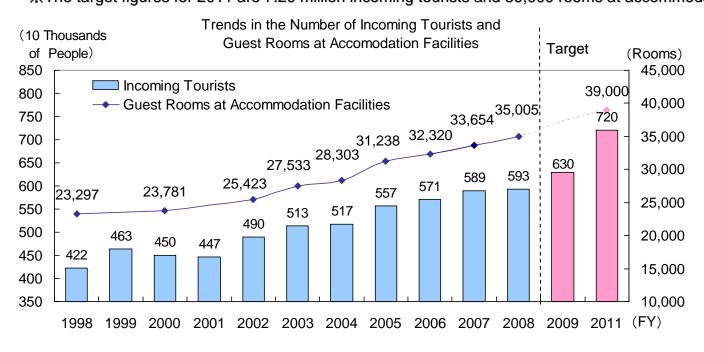
The figures in brackets in the chart show Okinawa Prefecture's national ranking.



The Okinawa Electric Power Company, Inc.

### 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) XThe target figures for 2009 are 6.30 million incoming tourists \*The target figures for 2011 are 7.20 million incoming tourists and 39,000 rooms at accommodation facilities



#### [Reference]

①FY2009

Visit Okinawa Plan

Incoming Tourists 6.30million

(Including Tourists from foreign countries 0.3million)

•Tourist Income 485.1billion Yen

2Apr. ~Dec. FY2009 Results

Incoming Tourists 4.27million

(Including Tourists from foreign countries 0.2million)

-- 6.2% growth rate (PoP)

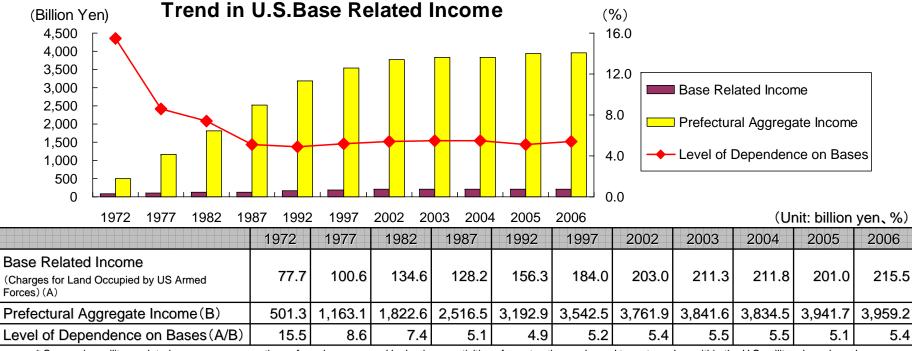
Because of holding back on traveling due to economic slump and H1N1 flu, the number fell below the previous year.

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.



6 Trend in U.S. Base Related Income



<sup>\*</sup> 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 2009"

- 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 it had fallen to 5.4% in FY2006 from the 15.5% share at the time Okinawa was returned to Japan (1972).



# Reference: Main Economic Indicators

#### **Trends in Main Economic Indicators (Year-on-Year Comparison)**

Indicators		FY2008					FY2009									
mulcators	1st half	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Sales by large- scale retailers	-0.6	1.1	0.1	-2.5	-0.8	-9.4	-3.8	-2.5	-1.5	-3.5	-4.3	-5.9	1.1	-5.2	-8.8	-2.5
No.of new car sold	-1.8	-0.5	-14.9	-9.2	-19.5	-20.5	-29.7	-15.4	-26.4	-23.2	-12.1	5.7	4.3	6.8	11.7	12.5
W holesale shipments of household appliance	5.8	16.6	3.2	12.8	14.9	2.4	-6.3	10.7	5.2	-1.7	8.4	8.0	16.4	5.9	35.2	24.8
New residential construction starts	- 0.0	106.5	173.3	206.1	31.8	44.9	48.3	-31.8	-0.3	16.9	-8.6	75.7	-17.4	-16.0	-34.3	-35.7
Value of public works contracts	8.9	-8.9	-26.2	28.1	41.5	-8.4	26.5	-22.8	77.5	-12.9	27.6	-0.5	5.7	6.2	16.8	13.0
No.of Inbound tourists	4.6	5.3	-0.2	-1.5	-3.3	-14.5	-4.7	-7.4	-7.4	-2.7	0.5	-4.0	-3.7	-12.3	-12.2	-7.3
Total unemployment rate	7.5	8.0	7.7	7.2	7.6	7.8	8.2	7.6	8.6	7.5	6.6	7.5	7.7	7.1	7.5	6.8
Value of corporate failures	1009.9	-6.0	-37.3	-32.7	977.0	-58.9	-84.6	90.8	44.6	19.4	-98.9	-58.0	-74.9	49.6	495.6	-26.8

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

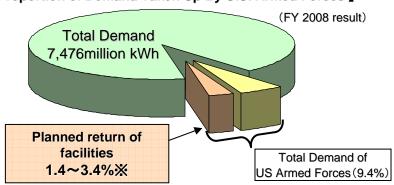
Note 2: The figures for total unemployment rates are raw data.

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. 2009)

		,
	No. of Facilities	33
	Area	229 km²
*	Soldiers	21,277
Jersonnel*	Other Staff, Families	19,139
Per	Total	40,416

- \* The figures for personnel are as of the end of September 2008. 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 2009," 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.
- The schedule for return of US military bases, which should have been developed by March 2007, has not been formulated yet and the detailed plan remains uncertain.
- In addition, as several proposals have been put forth as a relocation site of the US Marine Corps Futenma Air Base after the administration change in September 2009, the prospects have become more uncertain.
- 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.

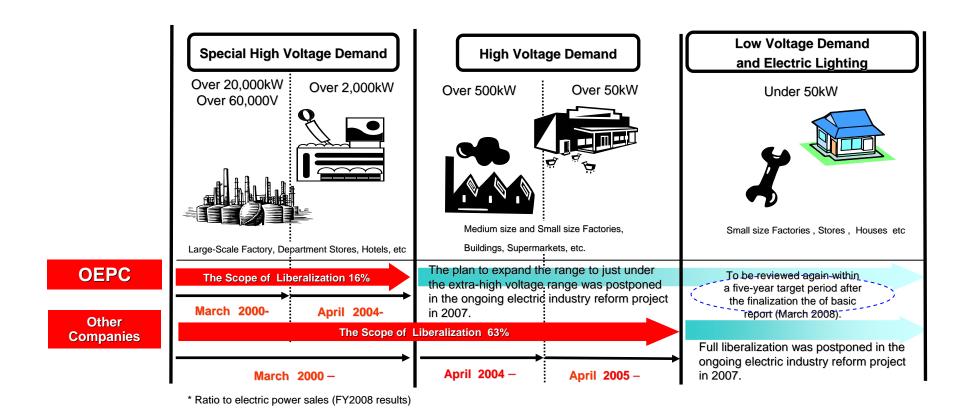
#### [Others]

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





### 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 necessary for industrial development and improving the living standards of people in Okinawa Prefecture given that there has been no changes to the conditions of remote islands such as bearing of deficit arising from structural disadvantage.

# Value of Tax Alleviation Due to the Preferential Measures

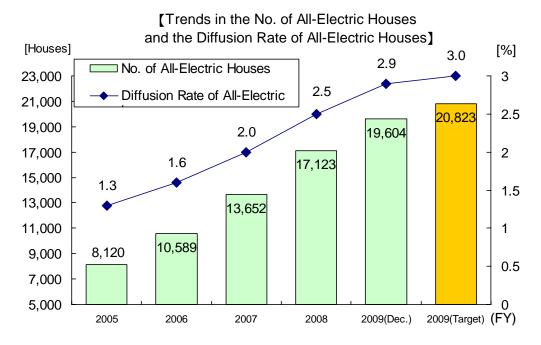
- The value of the alleviation measures in FY2008 was about 2.4 billion yen.
- The average value of the alleviation measures after FY2009 will be about 2.3-2.4 billion yen per year.

Amount of reduction by applying preferential treatment is deducted in calculating the Total Unit Cost of electricity charge and consequently is returned to customers.



# 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.



#### [Reference]

Adoption rate (results 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

10Thousands of kWh

FY	2005	2006	2007	2008	2009 (Dec.)	2008~ 2010 Target
Commercial Electrification Equipment (Cumulative)	267 (5,660)	417 (6,077)	433 (6,510)	876 (7,386)	429 (7,815)	1,500 (8,010)

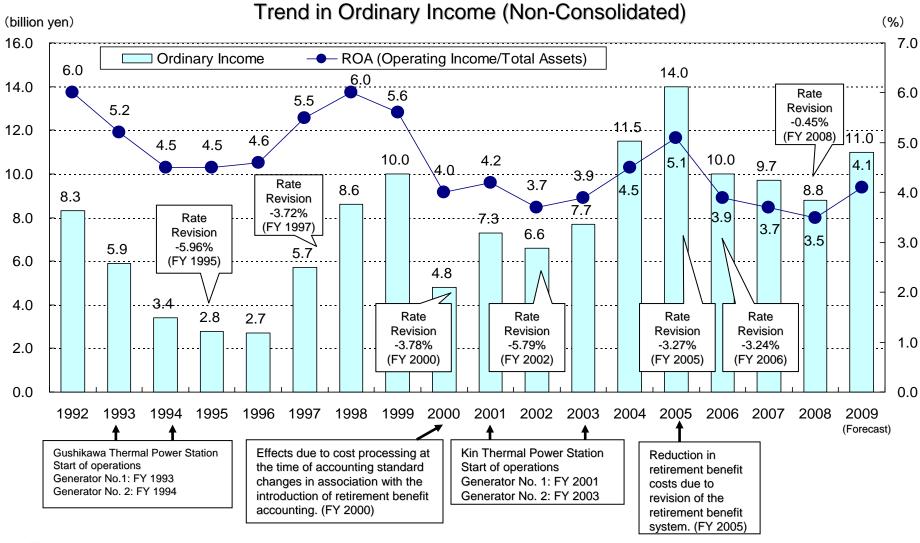
<sup>10</sup>Thousands of kWh 8,500 8.010 8.000 7.500 7.000 6,510 6.500 6,077 6.000 5.660 5.500 5,000 FY2005 FY2006 FY2007 FY2008 2009(Dec.) FY2010

<sup>\*</sup> Cumulative total indicates the cumulative total value from FY1989.



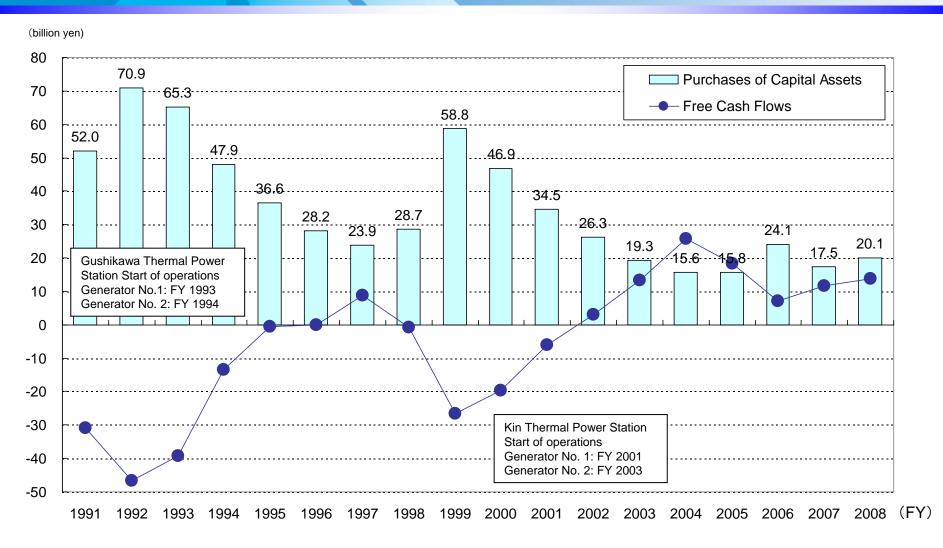
**Target** 

# 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 OEPC Group's New Energy Facilities** leiima wind Power (2Power Plants): 1.200kW Solar Power: 10kW Urasoe Branch Solar Power:10kW Head Office Solar Power:2kW Iheya Wind Power (1Power Plant):300kW No. of Facilities Electricity Naha Branch Solar Power:12kW (No. of Power Output (kW) Plants) Sosu Wind Power Aguni Wind Power (2Power Plants): 3.600kW Wind **OEPC** 6 (8) 3,120 (1Power Plant):250kW l Power Okinawa New Energy 6 (11) 12.330 Development Co **OEPC** 8 778 Solar Power Shin Karimata Wind Power (2Power Plants):1,800kW Okinawa New Tokashiki Solar Gushikawa Wind Power (1Power Plant): 1,950kW 10 Energy Power: 204kW Miyako Wind Power: Development Co (1Power Plant): 600kW Sashiki Wind Power (2Power Plants):1,980kW 21 16,238 Total Kitadaito Solar Power :40kW Yonaguni Wind Power Sadefune Wind Power (2Power Plants):1,200kW (2Power Plants): 1,800kW Miyako Solar Power: 490kW Miyako Branch Solar Power: 10kW Tarama Wind Power(1Power Plant): 280kW Hateruma retractable Wind Power Yaeyama Branch Solar Power: 10kW (2Power Plants):490kW (As of December 31, 2009)

- OEPC Group has new energy facilities with total output of 16,238kW (wind power: 15,450kW, solar power: 788kW)
- Introducing Plan of New Energy Facilities.
  - ✓ Retractable wind-power generator (Minamidaito Island:2 plants).
  - ✓ New Energy verification studies for the Remote Island Independent System (total 4,470kW solar power in 4 remote island).



# Profesence rewog-boniw eldersters a retraction?

### ■ Overview of retractable wind-power generator

Place	Hateruma Island
Manufacturer/country of manufacture	Vergnet/France
Rated power output	245kW
Wind speed for power rating/start-up/stoppage	13m/s, 4m/s, 20m/s
Number of blade	Two
Diameter of blade	32m
Height of hub	38m

※Also, we are planning to introduce retractable wind-power generator at Minamidaito.



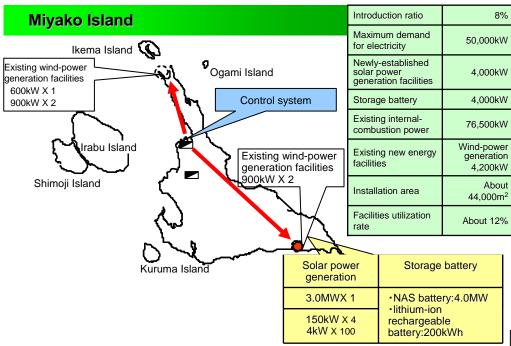


#### ■ Advantages

- Wind-power generator can be folded nearly 90 degrees so that damages by big wind in typhoon can be avoided by folding it.
- Large-size cranes are not needed to construct the wind-power generator to enable construction in hilly areas.
- Wind-power generator is retractable, making it possible to perform maintenance on the ground.
- Wind-power generator is supported by wires.



# Q11.What is the New Energy verification studies for the Remote Island Independent System?



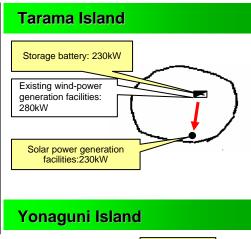
#### (1) Purpose

The purpose of performing introduction demonstration for the independent power generation system of Remote Islands with different scale of system is as follows:

- Grasping the impact of large-scale introduction of solar power generation to the actual system
- Calculation of allowable amount of solar power generation introduction
- Obtaining knowledge on stabilization technology concerning the system

#### (2) Plan

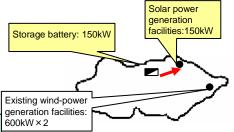
- Grasping the impact of solar power generation on four remote islands with different scale of system
- Analyzing operation data on solar power generation and secondary battery
- $\blacksquare$  Verifying the method of system stabilization for remote island independent system



Maximum demand for electricity	1,160kV
Newly-established solar power generation facilities	230kV
Storage battery	230kV
Existing internal- combustion power	1,590kV
Existing new energy facilities	280kV
Installation area	About 3,600m
Facilities utilization rate	About 12%
Introduction ratio	70

Introduction ratio

20%



Kitadaito Island

Introduction ratio	7%
Maximum demand for electricity	2,160kW
Newly-established solar power generation facilities	150kW
Storage battery	150kW
Existing internal- combustion power	2,910kW
Existing new energy facilities	1,200kW
Installation area	About 2,200m <sup>2</sup>
Facilities utilization rate	About 12%

# Existing solar power generation facilities: 40kW Solar power generation facilities: 90kW Storage battery: 90kW

	r acinties dinization rate	About 1270
	Introduction ratio	10%※1
1	Maximum demand for electricity	860kW
	Newly-established solar power generation facilities	90kW
	Storage battery	90kW
	Existing internal- combustion power	1,540kW
	Existing new energy facilities	40kW
1	Installation area	About 1,200m <sup>2</sup>
J	Facilities utilization rate	About 12%



※1: Including existing solar power generation facilities(40kW): 15%

# Q12.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 Mar. 2010, 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	24.38	23.88	22.53	21.67	21.56	20.98	21.42	22.64	22.04	20.89
Model Basic Unit 300	110	9	7	5	4	2	3	8	6	1
Commercial Use Electricity (High Voltage)	19.86	17.12	17.15	16.55	16.54	15.33	16.29	17.28	16.20	16.06
Model Basic Unit 250 (Power Factor 100%)	10	7	8	6	5	1	4	9	3	2
High Tension Power A	17.65	16.03	15.60	14.98	16.04	14.66	15.49	16.14	16.31	15.59
Model Basic Unit 250 (Power Factor 100%)	10	6	5	2	7	1	3	8	9	4

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.



# Q13. What are the CO2 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] *1	vs.Coal	vs.Oil *3	CO <sub>2</sub> Emission Volume Per kWh [kg-CO <sub>2</sub> /kWh] *2	vs.Coal	vs.Oil *з
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

<sup>\*1</sup> 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.

<sup>\*3</sup> Oil comparisons were based on type C heavy oil.



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

# Q14. 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



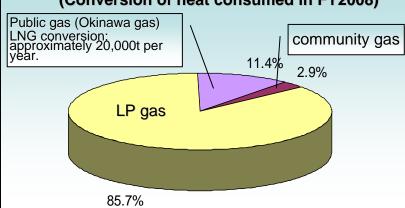
In addition to the wholesale supply of LNG to Okinawa Gas, the Company is examining the possibility of supplying it to heavy consumers for commercial and industrial uses in consideration of energy environment and market trends.

# 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 FY2008)



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 6.61bn (December 2008)

Supply area: Most of Naha city, A part of Urasoe

city, Tomishiro city, Haebaru town,

Nishihara town, Nakagusuku village

No. of customers: General gas: approx.59,000 units

LP gas: approx.17,000units

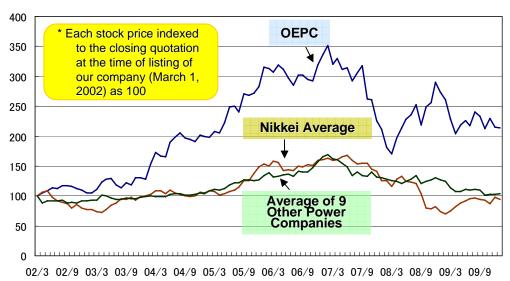


# Change in Okinawa Electric Power's Stock Price

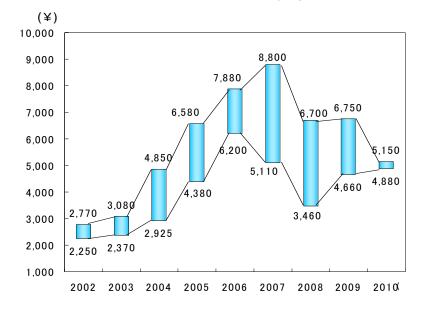
#### Change in Stock Price (January 5, 2009~January 29,2010)

	Okinawa Electric Power	Average of 9 Other Power Companies	Nikkei Average
Stock price on January 5, 2009	¥6,520	¥2,567	¥9,043
All-time high	¥6,520 as of January 5, 2009(±0%)	¥2,567 as of January 5, 2009(±0%)	¥10,982 as of January 15, 2010(+21.4%)
All-time low	¥4,690 as of April 30, 2009(-28.1%)	¥1,927 as of November 10, 2009(-24.9%)	¥7,055 as of March 10, 2009(-22.0%)
Latest stock price Closing quotation on January 29, 2010	¥4,920(-24.5%)	¥2,055(-19.9%)	¥10,198(+12.8%)

#### 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

- <a href="http://www.okiden.co.jp/english/index.html">http://www.okiden.co.jp/english/index.html</a> (The Okinawa Electric Power Company Incorporated)
- http://www.pref.okinawa.jp/english/index.html (Okinawa Prefecture)
- <a href="http://www.fepc.or.jp/english/index.html">http://www.fepc.or.jp/english/index.html</a> (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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