

# J-POWER

# FY2008 Group Management Plan

# (FY2008-2012 Management Targets)

March 2008 Electric Power Development Co., Ltd.

> The English version is a translation of the original Japanese version. Please note that if there is any discrepancy, the Japanese version will take priority.

# J-POWER Group is...



A wholesale electric power company responsible for **about 7% of Japan's electric power supply**, we own and operate power generation facilities with an output of about 17GW consisting mainly of technologically advanced, highly efficient hydropower and coal-fired thermal power. As a utility company with 2,400km of transmission lines and frequency converter stations, we play a vital role in linking the regions of Japan and ensuring a stable power supply.

"We aim to ensure constant supplies of energy to contribute to the sustainable development of Japan and the rest of the world" is the corporate philosophy(\*) and the starting point of J-POWER's Corporate Social Responsibility (CSR).

The most efficient, cleanest energy companies are poised to benefit from the challenges and opportunities created by global warming and the need for stable energy supplies. J-POWER, with the principle of "harmonization of energy and environment", is well-positioned for sustainable growth given the company's development of innovative clean coal technology and its expanding overseas market.

(\*) Please see page 38 for the J-POWER Group's Corporate Philosophy and Corporate Conduct Rules

We expect to achieve the management targets we committed to for the three years from FY2005 to 2007 (average consolidated ordinary income of 55 billion yen or above, consolidated shareholders' equity ratio of 23% or above).

We have established and will work to achieve our new 5-year management targets for the period beginning FY2008. Consolidated ordinary income: over 55 billion yen (FY2010), over 60 billion yen (FY2012) Consolidated shareholders' equity ratio: over 25 % (end of FY2010), over 26% (end of FY2012) [Management Index]

Return on assets (ROA) 2.4% (FY2008-2010), 2.5% (FY2011-2012)

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# To Our Stakeholders



It has been nearly four years since our company took its stock public. During that time, with the strong trust and support of our stakeholders, our group has continued to accumulate solid business results. Also during this time, particularly three years between FY2005 and FY2007, we focused on the key management targets of consolidated ordinary income and consolidated shareholders' equity ratio, and worked to expand the scope of our business while revitalizing our organization. Domestically, we have increased operating revenue by increasing the output of our facilities, including progress with the construction of the Isogo New No. 2 plant. Our new business, centered on wind power generation, also saw steady growth, and on the technology development side, we were successful in the continuous operation of EAGLE, our oxygen-blown coal gasification pilot plant, which is the key component in our approach to the global warming issue. Overseas, mainly in Southeast Asia, the U.S., and China, we moved ahead with participations in power generation business, and our share of output there has now reached almost 2,700MW.

At the same time, the management environment in which we work is heading into a period of significant change. First, as global warming progresses, Japan and the world have, from this year, entered into the first five-year commitment period under the Kyoto protocols, and efforts to reduce CO2 need to begin in earnest. Second, demand for electricity in Japan seems assured to begin experiencing systemic lower growth, due, in the long term, to our shrinking population. Third, the extreme rise in resource costs originated with oil and natural gas in recent years has begun affecting coal as well, leading to uncertainty regarding the future of both the quantity and price of resources overall. These shifts in the management environment represent issues and risks for our long-term business expansion and stable growth. Still, the solid foundation we have built through our results as a private enterprise enables us to assess these global trends, face the issues that such change presents, and turn risk into opportunity for further growth.

To do this, over the next five-year span, we will establish new management targets for both consolidated ordinary income and consolidated shareholders equity ratio, and will use ROA as a reference indicator of the efficiency of total capital invested. To achieve these two management targets, we have set forth the following five areas of emphasis on the business side, and will focus all of our resources on them: (1) Strongly enhanced power generation facilities with the Isogo New No. 2 and Ohma nuclear plants; (2) Promotion of technological innovation through further testing of integrated coal gasification combined cycle power generation and other technologies; (3) Renewal and repair of existing power facilities to increase their asset value; (4) Further global business expansion, including investment in overseas power generation; (5) Aggressive moves toward business diversification through open market wholesale power trading, the coal business, wind power, enabling us to achieve our two key management targets. At the same time, to ensure stable growth, we will continue to implement measures for enhancing corporate governance, addressing environmental issues, strengthening our financial position, revitalizing our workplaces and nurturing of human resources.

We will try hard to achieve our two management targets, by emphasizing on these five key business areas, so that we can continue to distribute the fruits of our effort to our stakeholders who strongly support us, including shareholders, customers and employees, responding to good trust and expectations. Among those, we will emphasize maintaining a sustainable dividend policy to our shareholders, while enhancing dividend with the result of the long term growth of our new businesses.

J-POWER Group is indeed entering an age of unknown turmoil, but we must tackle the risks underlying these changes, and turn them into opportunities for new business. All of us are committed to even greater teamwork built around our long-term proposition of "Harmonization of energy and the environment," and to using innovation as our key competence in facing new challenges. We look forward to even greater support and cooperation from all of our stakeholders, and we thank you for your continued understanding.

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# I. FY2005 to 2007 Results

Achievement of the 3-year Management Targets and Overview

# I. FY2005 to 2007 Results



### - Key 3-year Achievements -



Streamlining of personnel system (8,000  $\rightarrow$  6,000) ·Improvement in corporate governance · Measures to prevent recurrence of compliance problems ·Establishment of an integrated maintenance system A summary of the three-year efforts based on these results and achievement of the management targets...

(\*1) Comparison with FY2002 -2004 average of 57.9 TWh

(\*2) Based on J-POWER's stake in assets in operation (excluding those under construction)

### I. FY2005 to 2007 Results



- Achievement of the 3-year Management Targets and Overview -

Consolidated	Ordinary	Income
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### Target: over 55 billion yen

(FY2005 - 2007 average)

### Forecast: 56.8 billion yen

(Outlook for same three-year average as of the 3rd quarter)

#### Achievements of this 3-year period

- Steady progress in Isogo New No. 2 construction, and steady results in development of coal gasification technology
- High operating results recorded in both hydroelectric and thermal power generation, contributing to stable supply
- Launch of new initiatives in areas such as trading in the wholesale market
- Steady expansion of overseas power generation and wind power businesses

Technological innovation and development of new electricity sources

Stable supply and strengthening sales activities

Expansion of domestic and overseas businesses

Consolidated Shareholders' Equity Ratio

Target: over 23% (end of FY2007)

Forecast: 23.3%

(Outlook for end of FY2007)

#### Future priorities

- Early construction start for Ohma Nuclear Power Plant
- Next phase in the development of coal gasification technology
- Maintenance of economic efficiency and reliability of aging power facilities
- Stable increases in earnings in new business
- Enhance resilience to business risks and maintain appropriate leverage



FY2008 – 2012 Mid-term Plan



### - Changes in the Management Environment -

#### Issue of Global Warming

- As the first commitment period of the Kyoto Protocol approaches, efforts to prevent global warming are becoming mainstream practice internationally
- Discussions addressing the "post Kyoto" framework are accelerating
- Technological innovation and new ideas are needed to establish new coal thermal facilities and replace existing ones

#### PRIORITY

Innovative initiatives that will contribute to "harmonization of energy and the environment" and new business development that will address existing issues and lead to new growth

### Outlook for Power Supply and Demand

- Growth in domestic electric power demand is expected to remain at less than 1% on an annual basis. Maximum growth in electric power generation is also forecasted to remain at the same level.
- Therefore, to maintain capacity utilization in a low-growth market environment, reliability of all electric power facilities and cost competitiveness are all the more important.

#### PRIORITY

Enhancing earning power by improving reliability and profitability of existing power facilities, and by developing businesses in growing market

### Increasing Uncertainty

- Growing cost uncertainty due to increase in coal price volatility in the wake of changes in world resource supply and demand conditions
- Disruptions in planned load factor due to natural disasters and other power supply issues
- Volatilities will increase both in revenue side and procurement side, especially in coal market

#### **PRIORITY**

Capital structure must reflect measures to mitigate risks. Measures will include further diversification of revenue streams

### - View of New Targets in Light of Management Issues -

Driven by the principle of "harmonization of energy and the environment", the J-POWER Group will achieve further growth and navigate the changing management environment in the era of global warming by:

- > Steady formation of facilities in Japan and overseas, with technological innovation
- > Improvement in the reliability and economic efficiency of existing power facilities
- > Establishment of a business and financial structure which will enhance resilience to risk

View of the new management targets

- To achieve mid- to long-term growth, the target period will be expanded from the former 3 years to a period of 5 years.
- As specific indicators in the management targets, we will again commit in terms of:

"Consolidated ordinary income" to measure growth of businesses, and

"Consolidated shareholders' equity ratio" to measure improvement in financial soundness In addition to these indicators, we will use

### "Return on Assets (ROA)"

as a management reference index of assets earning rate

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### POWER

### Consolidated Ordinary Income

# FY2010over 55 billion yenFY2012over 60 billion yen

- Aim for growth by systematically investing in new energy projects while maintaining profitability of power facilities in operation by improving maintenance efficiency
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- Boost earning power through **new business both in** domestically and overseas
- Promote efforts to increase productivity and reduce costs in areas such as administration expenses

Progress in investment recovery of existing power facilities, increase in maintenance costs and financial costs ContributionAchievingto earningsprofits inwith the startoverseasof businessprojects inoperations ofThailand andIsogo Newother areasNo. 2Image: State of the state of the





Consolidated Shareholders' Equity Ratio

# End of FY2010over 25%End of FY2012over 26%

- Balance sheet management is an important issue during the facilities formation phase
- Continue to strengthen the Company's financial position to enhance resilience to business risk and maintain appropriate leverage
- Steady capital accumulation through retained earnings

Management target for major electric power companies: **30%** ... out of 10 companies, 7 are aiming for 30% (consolidated basis)



### Management Index: Return on Assets (ROA)



### Consolidated Ordinary Income / Total Assets

Return on assets (ROA) will be used as an indicator for overseeing the earning power of assets
Given that we are now in the facilities formation phase where investment precedes returns, checks and reviews will be conducted on an annual basis using the following figures as targets:



### FY2011 - 2012 2.5%

#### [Reference] The reason why consolidated ordinary income is a suitable indicator for the management of J-POWER's results

An amount equivalent to financial costs is included in the electricity rates of the wholesale business. Therefore, at the ordinary income stage, amounts equivalent to the financial cost income and expenditure are added and deducted; at the operating income stage, however, only charges equivalent to the financial cost are posted.
Construction of facilities require large-scale investment and return on investment is obtained through operation of these facilities. Therefore, the ratio of financial costs to net sales is higher than general industries.

• Moreover, in overseas power generation business "equity method income" accounts for the main income at present, and in the future will be reflected in consolidated results as non-operating profit and loss.



# III. Five Key Approaches

Business Strategy for Achieving Targets

# III. Five Key Approaches



- Action Plans for the Growth Strategy -





### (1) Steady Growth in Power Generation Facilities

#### Isogo New No. 2 (Kanagawa Prefecture)

- Construction of No. 2 plant to update the former plant of 2-units x 265MW with the latest coal firing technology
- World's highest level of thermal efficiency in coal-fired thermal power generation, and combined output of New No. 1 and 2 units will increase considerably to 1.2GW, contributing to stable supply in metropolitan Tokyo. CO<sub>2</sub> per unit of electricity produced will fall by more than 10%.

#### Actions in FY2008

 Proceed with construction work and test operations in the lead up to the start of commercial operation in FY 2009

### Ohma Nuclear Power Plant (Aomori Prefecture)

- As J-POWER's largest power generation unit (1.383GW), will contribute to the growth strategy as well as to regional development
- As Japan's first full MOX-ABWR(\*), will play an important role in the nuclear fuel cycle and contribute to Japan's energy security
- As a power plant emitting almost no CO<sub>2</sub> during the power generation stage, will contribute to efforts to address global warming

#### Actions in FY2008

- Obtain necessary permits and expedite construction
- Giving top priority to safety, undertake construction work with full regard for environmental protection.

Ohma's Trunk Transmission lines (Aomori Prefecture)

• Important transmission lines (about 61km in length) for transmitting electricity generated by Ohma Nuclear Power Plant are responsible for the steady transmission of electricity and will contribute to stable supply

<u>Actions in FY2008</u> Proceed with steady construction work

(\*) Full MOX-ABWR: boiling water reactor where uranium/plutonium mixed oxide fuel (MOX) may be used.





If Isogo Coal-fired Thermal Technology were to be Applied Throughout the World



be equivalent to about 1.3 billion tons of Japan's total CO2 emission (5% of the World total)

"BP Case": Trial calculation applying Japanese best practices (maximum efficiency of commercial medium-size electric power plants) Source: IEA World Energy Outlook 2006, Ecofys Comparison of Power Efficiency on Grid Level

# III. Five Key Approaches

### (2) Technology Innovation and New Project Development



- Dealing with global warming, in relation to coal usage, involves technological challenges that will provide seeds for new projects
- Mid- to long-term initiatives to replace existing electric power generation sources through the application of innovative technologies

#### Coal Gasification Technology

- 1,000 hours continuous operation in 2007 (record for the longest operation in Japan); successful large-scale proof of the necessary technology
- Currently in discussion with Chugoku Electric Power regarding a joint largescale proof of concept; accelerating discussions for commercialization of technology
- Pursuing various technological advantages including expansion to IGFC(\*1), ease of CO<sub>2</sub> recovery, and suitability for synthetic fuels

<u>Actions in FY2008</u> Commence  $CO_2$  recovery trials aimed at " $CO_2$  zero emissions"

#### SOFC Development (\*2)

- Ultimate efficiency in electric power generation based on an oxygen-blown gasification system = testing of a fuel cell aimed at IGFC
- Succeeded in proof tests of a 25kW level sub-module and, based on those results, in FY2007 clocked about 4,500 hours of operation of a 100kW level model, which will achieve Japan's highest output. The trial testing also included 1,050 hours of continuous operation.

### Actions in FY2008

Demonstration test of permitted capacity, long-term reliability and operational flexibility

### (\*2) SOFC: Solid oxide fuel cell electric power generation

### CO<sub>2</sub> Capture Trials

- Commencement of CO<sub>2</sub> capture trials before combustion using a facility with an oxygen-blown coal gasification pilot
- Continuation of trials for CO<sub>2</sub> capture after combustion using a chemical absorption method at Matsushima Thermal Power Plant
- Participation in an oxygen-burning CO<sub>2</sub> capture and underground storage project in Callide, Australia

#### <u>Actions in FY2008</u> Steadily implement respective trial projects and obtain results

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### CO2 Reduction through Coal Gasification Technology



### - Aiming for superior CO2 reduction -

### High-efficiency generation technology

- Aiming for a significant improvement through ultra-super critical (USC) coal thermal generation, J-POWER is now considering large-scale demonstration equipment for an integrated coal gasification combined cycle (IGCC) mainly on oxygen-blown coal gasification technology. We also promoting the development of an integrated coal gasification fuel cell combined cycle (IGFC), which is an extremely efficient technology.
- We also direct our efforts to the development of further enhancing USC coal-fired thermal generation



### CO<sub>2</sub> Zero Emissions Technology

- 3 main methods used for  $CO_2$  recovery: post-combustion recovery and oxygen combustion recovery for thermal generation using pulverized coal, and pre-combustion recovery for coal gasification generation.
- We are taking a range of approaches in developing world-leading technologies to verify these three methods.

# III. Five Key Approaches



### (3) Enhancing the Value of Business Assets

- Secure infrastructure reliability, making stable supply to customers the top priority
- Undertake large-scale facility updating and replacement of ageing facilities after careful comparison with other measures for increasing value
- Promote improvement in efficient O&M management and enhance economic and environmental efficiency

#### Hydroelectric Power

- Steady operation and maintenance of 59 locations generating about 8.5 GW as pure domestic clean energy
- In addition to construction to upgrade facilities focusing on measures for aging facilities, initiatives in comprehensive upgrades in generators and water turbines, etc. to increase efficiency and output

#### Actions in FY2008 Complete comprehensive upgrade construction at Tagokura No. 2 (Fukushima Prefecture) and commence construction of unit No. 3

### Power Transmission

- Operate network infrastructure to ensure the stable supply of power including frequency converter stations and 2,400 km of transmission lines including interconnecting lines between regions
- Initiatives to provide for infrastructure that factors in changes in the surrounding environment including the development of housing and appropriate maintenance of aging facilities necessary for steady operation

#### Actions in FY2008

Complete upgrade construction of control protection equipment of Kitahon Transmission Facility (Hokkaido and Aomori Prefectures)

#### Thermal Power

- Steady operation and maintenance of 8 locations generating about 7.8GW with high economic efficiency (\*)
- Promotion of upgrade construction focusing on measures for aging facilities, and measures to accommodate biomass mixed fuel
- Strengthening of risk management to stabilize income and expenses including fuel procurement
- Initiatives in diversifying electric power sales for the power exchange

#### Actions in FY2008

Undertake upgrade construction of Takasago Thermal (Hyogo Prefecture) which has been in operation since 1968)

# Specific Examples of Improvement in Business Asset Value



### Comprehensive Upgrade at the Tagokura Power Plant

Instead of conventional partial replacement of separate equipment in the 4 hydraulic turbines and power generators, comprehensive upgrades were undertaken on the hydraulic turbines, power generators, and main transformers to improve efficiency and achieve increased output

#### Output of 95MW → 100MW Weighted average efficiency About 3% increase

Unit No. 2 (planned completion in FY2008) Unit No. 3 (planned construction start in FY2008) Unit No. 4 (already completed) Unit No.1 (planned construction start in FY2010)



Tagokura Hydraulic Turbine Runner



### Kitahon Linkage Facilities

Replacement of Control Protection Equipment

Replacement of control protection equipment to maintain and improve facility reliability as a measure to counter degradation due to age and improve operating efficiency that will result in improvement of convenience for linkage facility users \*

 Resolving current restriction of minimum flow (restriction on operation at facility capacity of 10% or less due to tides) Takasago Thermal Power Plant Refurbishment (large-scale upgrade)

Large-scale, intensive upgrade to replace the main facility due to age degradation (including boiler tubing, exciting apparatus, transformer, control systems, etc.) to improve reliability



### Unit No. 2 FY2008

### Unit No. 1 FY2010

Takasago Thermal Boiler

# III. Five Key Approaches



### (4) Global Business Expansion

Overseas Power Generation Business

> Consulting Business

- Efforts to expand business and increase its contribution to earnings as the next major business domain
- Planning for equity assets after commercial operation of new IPP projects in Thailand to exceed 7GW
- Stable electric power supply in 6 countries and regions through the steady operation of 16 power plants in the respective countries
- Steady promotion of new projects in Thailand and further business expansion mainly in the US, China and Southeast Asia
- Improvement in project management framework that helps drive growth in overseas electric power business
- Provision of electric power and environmental technologies developed in Japan to overseas
- Proven results of about 280 projects in over 60 countries and regions (about 30 of which are currently in progress)

### New Projects Planned in Thailand

#### •Samet Tai

Location: Samet tai district, Chachoengsao Province Output: 1.6GW (800MW x 2 units) Commencement of Operation: 2012 (planned)

Nong Saeng

Location: Nong Saeng, Saraburi Province

Output: 1.6GW (800MW x 2 units) Commencement of operation: 2013 – 2014 (planned)

#### Actions in FY2008

- Generate revenue through the steady operation of Kaeng Khoi #2 gas thermal plant (No. 2 unit) and other existing projects
- Develop and promote new projects
- Improvement in project management and development framework (establishment of subsidiaries, etc.)
- Steadily undertake consulting projects and new initiatives utilizing J-POWER's engineering expertise



Note: J-POWER's owned capacity is total project capacity multiplied by J-POWER's investment ratio (capital contribution), and is recorded at the end of each fiscal year. J-POWER's equity income from projects is total project income multiplied by J-POWER's investment ratio (capital contribution), and is recorded for the relevant fiscal year. J-POWER's capital contribution in the new project in Thailand is recorded as 70%.

# III. Five Key Approaches



### Electric power value chain

- Market trading of electricity
- Coal sales and trading
- Coal mine development projects

#### Challenges in the Coal Business

Strengthen procurement power and establish an integrated earnings base by taking advantage of J-POWER's competitive edge as a major player in the coal market

### Engineering expertise

- Dry-type desulphurization system (ReACT)
- Comprehensive consulting in the development and utilization of subterranean space
- Telecommunications (mobile communications infrastructure construction, etc.)

### Environmental value

- Wind power generation (in operation at 9 locations in Japan)
- Biomass generation (dedicated combustion plants, mixed combustion in existing coal-fired facilities)
- Carbon business

Challenges in Wind Power Generation Business Increase revenue scale by promoting projects in Japan and overseas and improve profitability through the introduction of new project schemes

### Long-term business management skill

- Management of PFI/PPP waterworks projects (Fukuoka Prefecture)
- Construction and management of sewage treatment facilities through PFI schemes (Kanagawa and Chiba Prefectures)
- Development of technologies that will contribute to new businesses
- Creation of business synergies and new development through collaboration with other companies

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Note: The amounts recorded are the amounts recorded in J-POWER's consolidated assets.

Moreover, we plan to establish project financing for overseas projects, and this will limit J-POWER's exposure to an amount equivalent to project capital multiplied by our investment ratio (expected amount of direct contribution: about 100 billion yen).



# . Sharing Growth with Our Stakeholders

# IV. Sharing Growth with Our Stakeholders



### - Various stakeholders who support the J-POWER Group -



• By promoting "Five Key Approaches", Management focus on enhancing corporate value sustainably while meeting the needs of all our stakeholders

# IV. Sharing Growth with Our Stakeholders



- View of Return to Shareholders -

- Management focus on enhancing corporate value sustainably while meeting the needs of all our stakeholders
- •Boosting earning power and increasing shareholder value through the development of overseas business and new business in electric power and coal

View of return to shareholders

- The most prominent characteristic of our business is that we secure returns on our investment in power plants and other infrastructure through the long-term operation of these facilities, utilizing our well-established enterprise management expertise, including the construction of power plants and other infrastructure.
- Business results achieved over the long term constitute the source of returns to shareholders. In view of the characteristics of our business, we place the utmost importance on a sustainable dividend policy.
- Moreover, we will make long-term efforts to enhance our corporate value on an ongoing basis. Then, reflecting the results of growth, we will seek to further enhance profit distribution to shareholders.

### Steady Increase in Total Amount of Dividends





•A steady increase in dividends, underpinned by sustainable dividend policy



for Achieving Sustainable Growth



- Corporate Governance Framework -



- Establishment of a corporate governance framework headed by 13 directors and executive officers with extensive knowledge of the electric power business, and 5 auditors (including 3 external auditors) with extensive experience in corporate auditing (slimed from a previous framework of 20 directors and 3 corporate auditors)
- J-POWER will continue to make improvements to the compliance framework in the future in response to changes in the business environment



### - Infiltration of Compliance Activities-

Falsified data and defective procedures were detected throughout the industry.

J-POWER conducted thorough checks of all electric power generation facilities (2007)

Checks confirmed the need to make improvements to corporate culture and staff awareness

Measures to Prevent Recurrence

- Thorough corporate ethics
- Rule-making that does not allow for personal interpretation
- Full communication among organizations and officers
- Visibility of business processes and risk factors, etc.

To become a company worthy of society's trust

- Plan and carry out activities to acquire and maintain even greater trust of society by evaluating and improving activities to date.
- As a priority for the entire Group for the foreseeable future, promote activities that will instill the corporate culture and an awareness of compliance in individual staff (set firmly in place through PDCA)
- As specific measures, provide compliance education from the perspective of enhancing professional skills and initiatives in compliance activities for maintenance of security activities, etc.



### - Environmental Initiatives -



Reducing global environmental impact

Target 10% reduction in CO<sub>2</sub> emissions per unit of electricity sales compared to FY2002 figures in J-POWER Group's domestic and overseas electric power businesses by FY2010

# Reducing regional environmental impact

Target 97% efficient energy use for the entire J-POWER group by FY2010 and aim for zero emissions in industrial waste

### Increasing transparency

Introduce environmental management systems (EMS) through the entire J-POWER group by the end of FY2007

Accomplished according to plan

Put into practice comprehensive measures to address the problem of global warming from a long-term perspective by pursuing the clean use of coal in combination with hydropower, nuclear power, renewable energy, and the development of new technologies

Coal as fuel for generating electricity 40% of world generated output

Oil 10%, Natural gas 20%

Available reserves: about 155 years

Oil 41 years, Natural gas 65 years

Contributing to stable energy supply

#### Improvement in energy use efficiency

- Introduction of highly efficient thermal coal technology (p18)
- Comprehensive upgrades of hydroelectric power generation facilities (p21)

#### Development of electric power sources

with low CO<sub>2</sub> emissions

- •Construction of Ohma Nuclear Project (p16)
- Promotion of wind power, geothermal power generation and biomass use, etc. (p24)

### Development, transfer, and promotion of technology

- •High-efficiency oxygen-blown coal gasification integrated power generation (EAGLE) (p19)
- •CO<sub>2</sub> capture and storage (p18)
- Transfer of advanced technology to overseas countries through electric power projects (p22)

<u>Utilization of the Kyoto mechanisms</u> Participation in CDM/JI projects (p24)

(\*) CDM: clean development mechanism, JI: joint implementation. Both are international cooperation mechanisms for reducing greenhouse gases recognized under the Kyoto Protocol

Source IEA World Energy Outlook 2006, BP Statistical Review Of World Energy (June 2006)

- Stronger Financial Position -

### Responding to robust demand for funds during the facility formation phase

Stable issuance of bonds and procurement of loan funds at competitive terms

Use of bonds and borrowings

### In particular,

- Enhance financial resilience to business risk to navigate changes in the business environment and asset composition
- Relatively low shareholders' equity ratio in comparison with other companies

Ongoing improvement in financial position through planned improvement in shareholders' equity

Aiming to achieve a further increase in earnings following the Facilities Formation Phase



(Unit:¥100 million)

Sound financial structure for supporting fund raising at competitive terms

Improvement in shareholders' equity





- Group Management for Increasing Consolidated Corporate Value -

### Mainly in charge of plant facility maintenance

JP Business Service	Providing high-quality, detailed services as a general service company within the group
JPHYTEC Co., Ltd.	Contributing to group corporate value through maintenance work in hydroelectric and transmission/transforming facilities
Jpec Co., Ltd.	Contributing to group corporate value through maintenance work in thermal power generation and operation of coal handling facilities
KDC Engineering Co., Ltd.	Supporting owners' engineering and providing technology to meet needs in the field of civil engineering
J-POWER RESOURCES Co., Ltd.	Contributing to thermal power generation through coal import agency work and coal mine project management

### Mainly in charge of new business development

KEC Corporation	Contributing to group value through the maintenance of communications facilities and the design and construction of various communications systems within and outside the group	
J-POWER EnTech Co., Ltd.	Providing technology in smoke extraction purification technology without the use of water based on experience gained through the electric power business	
<b>J-POWER Group in USA</b> Development and operation of power projects in the U.S.		
J-POWER Group in Thailand Development and operation of power projects in Thailand		
Japan Network Engineering Co., Ltd. Kaihatsu Hiryo Co., Ltd. Ecogenomics Inc. Freash Water Miike Co., Ltd.		

• We will strive to increase consolidated corporate value through plant maintenance and new business expansion which demonstrates the special characteristics of each company.

### - Safety Initiatives -



### Accident Prevention Initiatives

- Formulation of a "Basic Disaster Prevention Policy"
- Improve power supply dependability and regional safety particularly during earthquakes through various measures based on a master plan for earthquake response measures

Improve earthquake management manuals for each organization through the "Basic Disaster Prevention Guidelines"

Implementation of facility countermeasures based on the "Basic Disaster Prevention Investment Manual"

### Prevention of Work Accidents

- Establish and promote the J-POWER Group Health and Safety Operating Plan (Strengthening the cooperative framework of the entire group)
- Improve communications among businesses including front line workers and cooperation with in health and safety activities
- Promote of the development of healthy bodies and minds

### Reinforcement of Information Security

• Initiatives to further strengthen risk management as both an important infrastructure business and nuclear power business

Clarify information that is protected

Strengthen the role of the Information Security Committee

Promote activities for increasing the level of information security at both Headquarters and worksites

### Overseas Safety Management Systems

• Establish a Special Committee For Overseas Crisis Management and measures in recognition of the increase in overseas staff and staff traveling on business following international business expansion

Prepare a contact system and manual for emergency situations

Collect data and conducting of training as ordinary work activities



### -HR Development and Workplace Improvement throughout the Group-

### Securing Human Resources

- Establish an HR base to support the group's sustainable growth through stable HR recruitment
- Promote HR diversification that will respond to changes in the labor market environment and business content

### HR Development

- Improve skills of all group employees (formulate and coordinate a group CDP)
- Reinforce rotation and training (OJT, Off JT) to accommodate the transfer of technology and business development in Japan and overseas

### Human Resources are the Foundation of Corporate Sustainability

### Improving HR

- Create a workplace environment where each and every member of staff can perform with a feeling of fulfillment
- Promote efforts aimed at improving individual skills and work productivity (make time by promoting a work life balance)
- Establish a workplace environment and systems by which a diverse workforce, including seniors and women, can work comfortably



### -J-POWER Group's Corporate Social Responsibility (CSR)-

To clarify J-POWER's social responsibilities and to establish them as universal values for all staff, we will share the **Group Corporate Philosophy** and the **Rules of Corporate Conduct** throughout the J-POWER group

### Corporate Philosophy

We aim to ensure constant supplies of energy to contribute to the sustainable development of Japan and the rest of the world.

• Sincerity and pride underlie all our corporate activities.

•We build community trust by harmonizing our operations with the environment

•Profits are a growth source, and we share the benefits with society.

•We continuously refine our

knowledge and technologies to be a leader in these areas.

•We meet the challenges of tomorrow by harnessing our unique skills and enthusiasm.

### Corporate Conduct Rules

#### Reliable supply of energy

We will make every effort to reliably supply energy both in Japan and abroad utilizing our experienced personnel and cutting-edge technology.

#### Environmental protection

Based on an awareness that our business operations are deeply linked with the environment, we will actively engage in environmental protection activities.

#### Communication with society

To establish communication with society we will conduct information disclosure and public relations activities in a fair and transparent manner.

#### Contributing to society

Aiming to be a good corporate citizen we will undertake activities to contribute to society and assist in the development of local communities both in Japan and abroad

#### Creation of a rewarding corporate culture

In addition to providing safe and comfortable work environments, we will respect the individuality of our employees and endeavor to establish a rewarding corporate culture that encourages them to take on new challenges.

#### Compliance with the law and corporate ethics

We will conduct business in good faith and in a fair manner with a strong commitment to compliance and ethics. We will stand firm against anti-social forces that undermine the order and security of civil society.

#### Role of top management

Recognizing their responsibility in putting into practice the spirit of these Corporate Conduct Rules, our top management must set an example for others and work to spread awareness of these Rules. Should an event occur that violates the spirit of these Rules, top management must take the initiative in dealing with the problem to determine the causes and prevent recurrence. Top management must also identify and take disciplinary actions against those responsible, including themselves.



The following contains statements that constitute forward-looking statements, plans for the future and management targets, etc. relating to the Company and/or J-POWER group. These statements are made based on certain assumptions of future events, and there exist possibilities that such assumptions are objectively incorrect and that actual results may differ from those in the statements as a result of various factors.

Furthermore, information and data other than those concerning the Company and its subsidiaries/affiliates are quoted from public information, and the Company has not verified and will not ensure its accuracy or appropriateness.