## Interim Financial Statement Presentation

(for the Six Months Ended September 30, 2004)



## **Electric Power Development Co., Ltd.**

November 15, 2004



The following contains statements that constitute forward-looking statements, plans for the future, management targets, etc. relating to the Company and/or the J-POWER group. These are based on current assumptions of future events, and there exist possibilities that such assumptions are objectively incorrect and 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 warrant its accuracy or dependency.

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## . 2004 Interim Financial Statement Summary of the 2004 Interim Financial Statement



First time for results in an interim period to show an increase in sales and earnings since the September 2001 interim period

#### • Electricity Sales:

Due to the high load factor of thermal power plant operation boosted by mainly an extremely hot summer, year- on-year wholesale power sales to electric power companies were up +5% (a record high at 30.4 billion kWh).

#### Characteristics of the Interim Financial Statements:

- Main Points
  - "Increase in sales due to higher load factor of thermal power plant operation "
  - "Progress in cost cutting"
  - "Significant decrease in interest expenses"
- Widening of the scope of consolidation
- Early adoption of impairment accounting

(Rounded off to the nearest ¥100 million)
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	Six months to	Six months to Six months to		Year-on-year change		
	Sept. 30, 2003	Sept. 30, 2004	Increase/decrease	Increase/decrease (%)		
(Consolidated)	2,769	2,919	150	5.4%		
Operating Revenues (Non-consolidated)	2,629	2,767	138	5.2%		
(Consolidated)	764	705	59	7.7%		
(Non-consolidated)	725	660	65	8.9%		
Ordinary Income (Consolidated)	309	457	149	48.3%		
(Non-consolidated)	275	426	151	54.9%		
Net Income (Consolidated)	193	296	103	53.2%		
(Non-consolidated)	176	282	107	60.8%		



	Electric Power	Others	Subtotal	Elimination	Consolidated
Operating Revenues	2,775	1,012	3,787	868	2,919
Operating Income	659	36	695	10	705
Assets	20,060	1,067	21,127	635	20,492
Depreciation	619	15	634	16	618
Capital Expenditure	224	9	233	13	220





\* Standard coal price per ton for contractual (annual and long-term contracts) purchase of Australian steam coal for electric power companies

## **Comparison of Consolidated Revenues and Expenditures**



		Six months to Sep.30,2003	Six months to Sep 30, 2004	Increase/Decrea	ase Main Factors
	Operating revenues	2,769	2,919	150	
	Electric power operating revenues	2,648	2,768	121	
Ordinary	Hydro	721	728	7	Annualized expansion of the Okutadami and Otori hydro power plants
Revenues	Thermal	1,597	1,719	122	Increase in fuel prices and electricity sales
	Transmission etc.	330	322	9	Increase due to partial revision of contractual rates and new consolidations
	Other operating revenues	121	151	29	Increase in non-subsidiary orders, revenues from the coal sales business
	Non-operating revenues	21	21	0	
	Equity income of affiliates	4	1	3	Unrealized losses on currency exchanges in overseas IPP business companies
	Other	17	20	3	Increase in dividends received
	Total Ordinary Revenues	2,790	2,940	150	
	Operating expenses	2,005	2,214	209	
Ordinary	Electric power	1,846	2,029	183	
Expenses	Personnel expenses	220	186	34	Reduction in personnel
	Fuel costs	414	544	130	Increase in fuel prices and increase in electricity sales
	Repair expenses	125	191	66	Increase in periodic inspections of thermal plants
	Depreciation	636	602	34	Decrease due to progress in depreciation
	Other	451	506	55	Increase in consignment and retirement costs
	Other operating expenses	158	184	26	Increase in cost of sales at subsidiaries, coal sales business expenses
	Non-operating expenses	476	268	208	
	Interest expenses	462	243	219	Decrease in upfront interest payments on early redemptions and the like, and fall in interest rates & loan balances
	Other	14	26	12	Early adoption of impairment accounting
	Total Ordinary Expenses	2,481	2,482	1	
	Ordinary Income	309	457	149	



		As of March 31,2004	As of Sept. 31, 2004	Increase/ decrease	Main Factors
	Fixed Assets	19,451	19,124	327	
Asset	s Electric power business	16,234	15,862	371	Decrease due to progress in depreciation
	Other businesses	290	277	13	
	Construction in progress	1,608	1,660	52	Increase in wind power generation facilities
	Investment, etc.	1,320	1,324	5	
	Current assets	1,310	1,368	59	Increase in inventories(coal)
	Total	20,761	20,492	269	
Liabilitie:	s Interest-bearing debt	15,929	15,413	516	Decrease due to debt repayment
	Others	1,230	1,236	6	
	Total	17,159	16,649	511	
N	linority interests	5	12	7	
S	hareholders' equity	3,596	3,832	235	Increase in retained earnings
	D/E Ratio	4.4	4.0		
	Shareholders' equity ratio	17.3%	18.7%		



	Six months to Sept. 30, 2003	Six months to Sept. 30, 2004	Increase/ decrease	Main Factors
Operating activities (A)	874	791	83	Increase in sales receivables
Investing activities (B)	270	196	74	Decrease in payments for investments and advances
Financing activities	943	685	258	Decrease in debt repayment
Cash and cash equivalents Increase/decrease	337	67	270	
Free cash flow				
(A-B)	605	596	9	



		Six months to S	ept. 30, 2004	Variance with Initial Forecast		
		Initial Forecast	Results	Increase/ decrease	Increase/ decrease (%)	
(Consolidated) Operating Revenues (Non-consolidated)		2,640	2,919	279	<b>10.6%</b>	
		2,520	2,767	247	9.8%	
Ordinary Income (Consolidated)		270	457	187	<b>69.4%</b>	
	(Non-consolidated)	260	426	166	63.9%	
Net Income	(Consolidated)	170	296	126	74.1%	
	(Non-consolidated)	170	282	112	66.1%	



## Summary of the Earnings Forecast for the Full Year FY 2004



#### Electricity Sales:

A significant increase over the initial target is expected, but due to the variance with a high thermal plant operations rate for in the second half of the previous year, earnings for year-on-year wholesale sales to electric power companies are forecasted at : 3% (+ 24% Variance with the initial target).

#### Characteristics of Earnings Forecasts:

- Main Points
  - "Increase in sales due to higher load factor of thermal power plant operation"
  - "Progress in cost cutting"
  - "Significant decrease in interest expenses"
- Posting of equity method losses

write off of prior development expenses in overseas IPP project

Outlook for increase in sales and earnings for the full year

#### Assumptions on Primary Data for the Core Business and Electricity Sales



Electricity Revenues (¥100 million)							The Hy	rmal dro		
5,000		4,535			4,288		4,007			
4,000		-			-		-			
3,000		3,177			2,940		3,327			
2,000					_		-			
1,000		1,358			1,347		1,360			
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Primary Data		Results		IN	itiai i arç		New For	recas	st	
(Thermal)		FT 2003			Г	1 2004	t Full Yea	r	First half	Second half
Electricity sales	100 million kWh	479			36	2	4	65	240	225
Load factor	%	75%			57%	6	7	73%	75%	71%
Exchange (Interbank)	Yen/\$US	¥113		А	pprox. ¥11	0	Approx. ¥	110	¥110	Approx. ¥110
Australian coal price* (FO	₿) \$US/ t	27			3	9		45	45	45
(Hydro)										
Electricity sales	100 million kWh	109			9	6	1	03	64	39
Water supply rate	%	109%			100	%	10	)9%	113%	100%
(Total)								· ·		
Electricity sales	100 million kWh	588			45	8	5	568	304	264

\* Standard coal price per ton for contractual (annual and long-term contracts) purchases of Australian steam coal for electric power companies



		FY	2004	Variance with Initial Forecast			
		Initial Forecast	New Forecast	Increase/decrease	Increase/decrease (%)		
Operating Roy	(Consolidated)	5,340	5,780	440	8.2%		
	(Non-consolidated)	4,960	5,360	400	8.1%		
(Consolidated)		440	550	110	25.0%		
	(Non-consolidated)	380	480	100	26.3%		
Net Income	(Consolidated)	280	350	70	25.0%		
	(Non-consolidated)	250	310	60	24.0%		



		FY 2003	FY 2004	Year-on-Year Change		
		Results	Forecast	Increase/ decrease	Increase/decrease (%	
Operating Revenues	(Consolidated)	5,699	5,780	81	1.4%	
	(Non-consolidated)	5,226	5,360	134	2.6%	
Operating Income	(Consolidated)	1,321	1,060	261	-19.8%	
	(Non-consolidated)	1,188	950	238	-20.0%	
Ordinary Income	(Consolidated)	444	550	106	23.7%	
	(Non-consolidated)	335	480	145	43.2%	
Net Income	(Consolidated	276	350	74	26.7%	
	(Non-consolidated)	217	310	93	42.7%	



# Activities to address Global Warming Issues



- Russia ratifies the Kyoto Protocol.
- The Kyoto Protocol will enter into force early next year.
- Japanese government is intensively revising the Guidelines in order to comply with the commitment under the Kyoto Protocol.
- J-Power has taken steps accordingly considering the enforcement of the Kyoto Protocol as a matter of time.

# The stance and activities of J-POWER remain unchanged.





Challenge the global warming issue taking into account cost effectiveness on a global scale

- Reduce CO<sub>2</sub> emissions per electricity sales continuously
- Optimize the combination of different measures including;
  - Maintaining and improving energy use efficiency
  - Development of electric power sources with less CO<sub>2</sub> emissions
  - Development, transfer and dissemination of technology
  - Utilization of the Kyoto Mechanism
- Strive for the ultimate goal of zero emissions through efforts in the recovery and sequestration of CO<sub>2</sub>



## **UN Framework Convention on Climate Change:**

- Purpose: "Stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."
- Effective since 1994

## **Kyoto Protocol:**

- Purpose: "The reduction of greenhouse gas emissions by at least 5 per cent below 1990 levels during the commitment period 2008 to 2012"
- To be effective at Early 2005



## **UNFCCC Article 3: Principles**

3. The parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects...taking into account that policies and measures dealing with climate change should be cost effective so as to ensure global benefits at the lowest possible cost....



- Maintaining and improving energy use efficiency
- Development of electric power sources with less CO<sub>2</sub> emissions
- Development, transfer and dissemination of technology
- Utilization of the Kyoto Mechanism

While taking cost effectiveness into account on a global scale, J-POWER will continue to reduce  $CO_2$  emissions per electricity sales. J-POWER's principle is to accomplish it at the minimum cost by the optimum combination of measures above.

## Maintaining and Improving Energy Use Efficiency

### Thermal efficiency of coal-fired power generation in major countries



Source: Overseas data from COMPARISON OF POWER EFFICIENCY ON GRID LEVEL

Development of Electric Power Sources with Less  $CO_2$  Emissions (1)











Development of biomass power generation (Yala, Thailand)



Development of gas-fired power generation (Ichihara Power)



#### World coal consumption will keep growing, especially in developing countries



Source: World Energy Outlook 2002

## Development, Transfer and Dissemination of Technology (2)



Advanced coal gasifier (EAGLE)

Fuel cell development facility



Solid oxide fuel cell (SOFC)



Monitoring and simulating the behavior of underground CO<sub>2</sub>



## Utilization of the Kyoto Mechanism (1)





## Utilization of the Kyoto Mechanism (2)







## Utilization of the Kyoto Mechanism (3)





Activities to promote the Kyoto Mechanism utilization



**GHG Solutions** 

#### **Point Carbon Japan:** http://www.ghg.jp/pointcarbon http://www.ghg.jp

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## **Electric Power Development Co., Ltd.**

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