

## Recent Trends of Economy and Energy Demand in Japan

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### <Summary>

#### [Background]

The Japanese economy has been recovering since the spring of 2009 following a serious recession on the September 2008 Lehman Shock. The recovery has been faster than earlier expected thanks to various consumption stimuli as well as robust exports to Asian countries that have achieved a relatively faster economic rebound. Energy demand has turned up in response to a V-shaped recovery in production. Based on these recent trends, economic outlook has been updated and energy demand outlook has been revised.

#### [Key Conclusion]

##### 1. Recent Economic Trends and FY2010 Economic Outlook

###### (1) Economic Trends from FY2009 to Present

The current Japanese economy is recovering smoothly, led mainly by exports. In response to a rebound in the world economy including Asia, exports have been growing substantially. The export expansion has allowed production to achieve a V-shaped recovery. But production levels are still at 80% of levels in 2007, failing to result in any expansion in capital investment. Consumption-supporting effects of the so-called Eco-Point system, tax breaks for eco-friendly vehicles and other incentives have almost run their course. Child allowances in the current fiscal year have been limited to half the planned level. While domestic demand lacks momentum, the Japanese economy depends remarkably on external demand. In FY2009, GDP posted a real contraction of 2.0% from the previous year and the index of industrial production recorded an 8.9% decline. The recovery in the second half of the year was faster than projected in previous forecast (in December 2009).

Real GDP growth (FY2009): -2.7% (previous forecast*) → <b>-2.0%</b> (actual)
Index of Industrial production: -10.2% (previous forecast) → <b>-8.9%</b> (actual)

###### (2) Outlook on Key Economic Indicators for FY2010

The Japanese economy is expected to continue an export-led recovery. Although the future world economy is uncertain due to such factors as the lingering fiscal problem in Europe, this outlook projects the world economy to smoothly recover on robust growth in emerging countries. Therefore, it is expected production in Japan to continue recovery led by export-oriented industries.

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\* As FY 2009 results have been made available, a revision has been made to the FY 2010 outlook.

It has been revised the forecast growth in the index of industrial production for FY2010 upward to 13.9%. The production expansion is expected to lead to an increase in capital investment. As the employment situation has begun to improve, though still in serious conditions, consumption is expected to recover soon. Although public investment is set to fall substantially in FY2010 after a substantial rise in the previous year, domestic private demand and external demand may be combined to drive Japanese GDP to score a real rise of 2.5% (with the carryover at 1.5%) in FY2010, the first positive growth in three years.

Real GDP growth [FY2010]: +1.3% (previous forecast) → <b>+2.5%</b> (latest forecast)
Index of Industrial production: +9.9% (previous forecast) → <b>+13.9%</b> ((latest forecast)

## 2. Recent Energy Demand Trends and FY2010 Outlook

### (1) Energy Demand Trends from FY2009 to Present

**Electricity sales** have achieved a V-shaped recovery due mainly to an increase in large-scale industrial demand, responding to the industrial activity recovery. Electricity sales to large industrial users retained a double-digit year-to-year fall before turning up around the end of 2009 and continuing to record double-digit growth. Electricity sales to households remained below year-before levels until they turned up in the beginning of 2010. For the whole of FY2009, overall electricity sales posted a 3.4% decline from the previous year, worse than the 2.8% fall in the previous forecast.

**Town gas sales** have also attained a V-shaped recovery due mainly to an industrial demand expansion, responding to the industrial activity recovery. Gas sales to industrial users turned up around the end of 2009, after retaining a double-digit year-to-year decline, and have since then continued to post double-digit growth. Gas sales to commercial users have also been recovering. Low ambient temperatures in spring prompted sales to households to expand sharply. Overall town gas sales in FY2009 recorded a 1.9% decline from the previous year, slightly better than a 2.2% fall in the previous forecast.

**Fuel oil sales** are ending a decline on the economic recovery and a crude oil price drop since the previous fiscal year. The government's policy of limiting a holiday expressway toll to 1,000 yen has supported gasoline demand, while naphtha sales expanded on an ethylene output increase. However, industrial fuel oil sales are still unlikely to turn up, despite industrial production's V-shaped recovery. Overall fuel oil sales in FY2009 posted a 3.0% drop from the previous year, slightly better than a 3.2% decline in the previous forecast.

Electricity sales [FY 2009]:-2.8%(previous forecast) → <b>-3.4%</b> (actual)
Town gas sales : -2.2%(previous forecast) → <b>-1.9%</b> (actual)
Fuel oil sales : -3.2%(previous forecast) → <b>-3.0%</b> (actual)
LPG sales : -4.1%(previous forecast) → <b>-5.3%</b> (actual)

### (2) Outlook on Energy Demand in FY 2010

**Electricity sales** are expected to continue increasing on a sharp rise in large-scale industrial demand. Particularly, machinery manufacturers including export-oriented firms will drive up electricity demand. In the consumer sector, electricity demand is expected to increase on an economic recovery and a switch to electricity from other energy sources. Given a relatively warmer summer projected this year, air conditioning demand is estimated to rise. FY2010 electricity sales are forecast to expand 5.5% (against 4.2% in the previous forecast) from the previous year.

**Town gas sales** are expected to rise on a sharp increase in industrial demand and a firm recovery in commercial and other demand. Exploration of new gas demand and an increase in gas-based air conditioning demand are also anticipated. But household demand cannot be expected to score any sharp increase, despite an early spring rise. FY2010 town gas sales are forecast to increase 6.2% (against 5.9% in the previous forecast) from the previous year.

**Fuel oil sales** are likely to follow a downtrend due to a fuel switchover and improvements in automobile fuel efficiency, despite a further recovery of industrial and economic activities. The early spring rise in fuel demand might have been a temporary one. The demand season of winter (ambient temperatures are projected to remain unchanged from the previous year) is likely to see another sharp decline. FY2010 fuel oil sales are forecast to decline 2.3% (against 2.6% in the previous forecast) from the previous year.

Electricity sales [FY2010]:	+4.2%(previous forecast) → <b>+5.5%</b> (latest forecast)
Town gas sales	: +5.9%(previous forecast) → <b>+6.2%</b> (latest forecast)
Fuel oil sales	: -2.6%(previous forecast) → <b>-2.3%</b> (latest forecast)
LPG sales	: +0.6%(previous forecast) → <b>+3.3%</b> (latest forecast)

### 3. Possible Impacts of Temperature Changes

A summer ambient temperature increase boosts air conditioning demand while reducing hot-water demand, resulting in a rise in overall energy demand. If the average summer (July-September) temperature is 1°C higher than usual, annual electricity sales are estimated to increase 0.6% on an air conditioning demand rise. Fuel oil sales are estimated to increase 0.2% on a rise in fuel consumption for power generation and automobiles' fuel efficiency decline emerging from increased operations of air conditioners. Town gas sales are estimated to increase only 0.1% as a rise in gas-based air conditioning demand is partly offset with a decline in hot-water demand. LPG sales are estimated to fall 0.4% on a hot- water demand drop.

A winter temperature decline boosts both heating demand and hot-water demand. If the average winter (January-March) temperature is 1°C lower than usual, electricity sales are estimated to increase 0.3% on greater heating demand. Fuel oil sales are estimated to expand 0.2% on an increase in demand for heating fuels. Town gas and LPG sales are estimated to rise 0.7% on a rise in heating demand and hot- water demand.

#### 【Research participants】

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**【Summary Table】**

		Actual			Forecast	(Reference) Forecast in December 2009	
		FY2007	FY2008	FY2009	FY2010	FY2009	FY2010
Nominal GDP (% change from previous year)		0.9	-4.2	-3.7	1.5	-4.0	0.0
Real GDP		1.8	-3.7	-2.0	2.5	-2.7	1.3
Contribution	Domestic private demand (Contribution: %)	0.5	-2.3	-3.0	1.5	-2.9	0.8
	Domestic public demand	0.0	-0.3	0.7	-0.3	0.6	-0.1
	External demand	1.2	-1.2	0.4	1.3	-0.6	0.8
Index of industrial production (Contribution: %)		2.7	-12.7	-8.9	13.9	-10.2	9.9
Corporate goods price index		2.3	3.2	-5.2	0.8	-5.1	-1.5
Consumer price index		0.3	1.1	-1.6	-0.9	-1.6	-1.1
Crude oil CIF price (\$/bbl)		77.9	89.9	69.1	75.0	65.7	69.5
Output	Crude steel (1,000 tons)	121,511	105,500	96,449	110,106	97,460	110,143
	Ethylene (1,000 tons)	7,559	6,520	7,219	7,181	7,222	7,171
	Cement (1,000 tons)	70,600	65,895	58,378	55,055	59,183	56,944
	Paper/paperboard (1,000 tons)	31,414	28,850	26,892	27,550	27,259	28,804
	Automobiles (1,000 units)	11,790	10,006	8,865	10,060	8,750	9,824
	Electrical machinery, etc. (CY2005=100)	111.7	94.8	82.5	101.3	81.4	95.2

		Actual			Forecast	(Reference) Forecast in December 2009	
		FY2007	FY2008	FY2009	FY2010	FY2009	FY2010
Electricity sales (Billion kWh)		<b>954.7</b>	<b>920.8</b>	<b>889.4</b>	<b>938.1</b>	<b>895.2</b>	<b>933.1</b>
(% change from previous year)		3.5	-3.6	-3.4	5.5	-2.8	4.2
Town gas sales (Million m <sup>3</sup> )		<b>35,896</b>	<b>34,505</b>	<b>33,837</b>	<b>35,938</b>	<b>33,744</b>	<b>35,743</b>
(% change from previous year)		6.3	-3.9	-1.9	6.2	-2.2	5.9
Fuel oil sales (1,000 kL)		<b>218,421</b>	<b>201,042</b>	<b>194,934</b>	<b>190,416</b>	<b>194,513</b>	<b>189,527</b>
(% change from previous year)		-2.4	-8.0	-3.0	-2.3	-3.2	-2.6
LPG sales (1,000 ton)		<b>18,659</b>	<b>17,333</b>	<b>16,421</b>	<b>16,970</b>	<b>16,647</b>	<b>16,750</b>
(% change from previous year)		-0.2	-7.1	-5.3	3.3	-4.1	0.6

Sources: Actual results data prepared from various publications; forecasts by IEEJ

**【Effects of Temperature Changes】**

	1°C rise in summer (July-September)			1°C r fall in winter (January-March)		
	Change in demand	% change		Change in demand	% change	
		Period on period	Year on year		Period on period	Year on year
Electricity sales (million kWh)	<b>5,607</b>	(2.3)	(0.6)	<b>3,038</b>	(1.2)	(0.3)
Town gas sales (million m <sup>3</sup> /10,000kcal)	<b>46</b>	(0.6)	(0.1)	<b>256</b>	(2.4)	(0.7)
Fuel oil sales (1,000 kl)	<b>311</b>	(0.7)	(0.2)	<b>456</b>	(0.9)	(0.2)
LPG sales (1,000 t)	<b>-65</b>	(-1.7)	(-0.4)	<b>122</b>	(2.7)	(0.7)

Table 1 Macroeconomic Outlook (Reference case)

	FY2007 (Actual)	FY2008 (Actual)			FY2009 (Actual)			FY2010 (Forecast)
		1st half	2nd half	Total	1st half	2nd half	Total	
Real GDP (Chained to year 2000, in billions of yen)	<b>562,344</b> (1.8)	<b>274,020</b> (-0.9)	<b>267,321</b> (-6.5)	<b>541,344</b> (-3.7)	<b>259,028</b> (-5.5)	<b>271,682</b> (1.6)	<b>530,710</b> (-2.0)	<b>543,798</b> (2.5)
Private demand	<b>417,585</b> (0.7)	<b>203,734</b> (-1.8)	<b>201,094</b> (-4.3)	<b>404,828</b> (-3.1)	<b>192,091</b> (-5.7)	<b>196,606</b> (-2.2)	<b>388,697</b> (-4.0)	<b>396,332</b> (2.0)
Private consumption	<b>310,582</b> (1.4)	<b>152,653</b> (-0.9)	<b>152,245</b> (-2.8)	<b>304,897</b> (-1.8)	<b>151,553</b> (-0.7)	<b>155,304</b> (2.0)	<b>306,856</b> (0.6)	<b>310,686</b> (1.2)
Private residential investment	<b>15,907</b> (-13.5)	<b>7,571</b> (-11.7)	<b>7,751</b> (5.7)	<b>15,323</b> (-3.7)	<b>6,407</b> (-15.4)	<b>6,089</b> (-21.4)	<b>12,496</b> (-18.5)	<b>12,739</b> (1.9)
Private nonresidential investment	<b>88,240</b> (1.3)	<b>42,225</b> (1.6)	<b>40,021</b> (-14.3)	<b>82,245</b> (-6.8)	<b>33,096</b> (-21.6)	<b>36,594</b> (-8.6)	<b>69,690</b> (-15.3)	<b>72,766</b> (4.4)
Public demand	<b>117,214</b> (0.2)	<b>55,542</b> (-1.4)	<b>60,263</b> (-1.0)	<b>115,805</b> (-1.2)	<b>57,347</b> (3.3)	<b>61,714</b> (2.4)	<b>119,061</b> (2.8)	<b>117,959</b> (-0.9)
Government consumption	<b>97,147</b> (1.5)	<b>47,800</b> (-0.3)	<b>49,250</b> (0.1)	<b>97,049</b> (-0.1)	<b>48,673</b> (1.8)	<b>49,973</b> (1.5)	<b>98,646</b> (1.6)	<b>99,805</b> (1.2)
Public investment	<b>19,752</b> (-6.4)	<b>7,610</b> (-8.1)	<b>10,846</b> (-5.4)	<b>18,456</b> (-6.6)	<b>8,573</b> (12.6)	<b>11,601</b> (7.0)	<b>20,174</b> (9.3)	<b>17,904</b> (-11.2)
Net exports of goods & services	<b>28,068</b> (30.2)	<b>15,076</b> (16.8)	<b>6,132</b> (-59.6)	<b>21,207</b> (-24.4)	<b>8,494</b> (-43.7)	<b>12,000</b> (95.7)	<b>20,494</b> (-3.4)	<b>28,560</b> (39.4)
Exports of goods & services	<b>89,773</b> (9.3)	<b>45,428</b> (5.0)	<b>34,992</b> (-24.7)	<b>80,420</b> (-10.4)	<b>33,649</b> (-25.9)	<b>39,080</b> (11.7)	<b>72,729</b> (-9.6)	<b>85,016</b> (16.9)
Imports of goods & services	<b>61,705</b> (1.8)	<b>30,353</b> (-0.1)	<b>28,860</b> (-7.9)	<b>59,213</b> (-4.0)	<b>25,155</b> (-17.1)	<b>27,080</b> (-6.2)	<b>52,235</b> (-11.8)	<b>56,455</b> (8.1)
Nominal GDP (In billions of yen)	<b>515,645</b> (0.9)	<b>248,463</b> (-2.2)	<b>245,719</b> (-6.1)	<b>494,182</b> (-4.2)	<b>233,419</b> (-6.1)	<b>242,600</b> (-1.3)	<b>476,019</b> (-3.7)	<b>483,197</b> (1.5)
Index of industrial production (100 for year 2005)	<b>108.1</b> (2.7)	<b>105.2</b> (-0.3)	<b>83.6</b> (-24.4)	<b>94.4</b> (-12.7)	<b>80.6</b> (-23.4)	<b>91.3</b> (9.2)	<b>86.0</b> (-8.9)	<b>97.8</b> (13.9)
Tertiary industry activity index (100 for year 2005)	<b>103.0</b> (1.0)	<b>101.5</b> (-0.8)	<b>98.8</b> (-4.8)	<b>100.1</b> (-2.8)	<b>96.0</b> (-5.4)	<b>97.4</b> (-1.4)	<b>96.7</b> (-3.4)	<b>99.7</b> (3.1)
Corporate goods price index (100 for year 2005)	<b>104.9</b> (2.3)	<b>110.5</b> (6.1)	<b>106.0</b> (0.4)	<b>108.3</b> (3.2)	<b>102.9</b> (-6.9)	<b>102.3</b> (-3.5)	<b>102.6</b> (-5.2)	<b>103.5</b> (0.8)
Consumer price index (100 for year 2005)	<b>100.5</b> (0.3)	<b>102.1</b> (1.8)	<b>101.2</b> (0.5)	<b>101.7</b> (1.1)	<b>100.5</b> (-1.6)	<b>99.6</b> (-1.6)	<b>100.0</b> (-1.6)	<b>99.2</b> (-0.9)
Exchange rate (Yen/\$US)	<b>114.2</b> (-2.3)	<b>106.1</b> (-11.1)	<b>94.9</b> (-13.1)	<b>100.5</b> (-12.0)	<b>95.4</b> (-10.0)	<b>90.2</b> (-5.0)	<b>92.8</b> (-7.6)	<b>90.5</b> (-2.5)
Crude oil CIF price (\$US/barrel)	<b>77.9</b> (22.4)	<b>119.8</b> (76.5)	<b>60.0</b> (-31.7)	<b>89.9</b> (15.4)	<b>61.8</b> (-48.4)	<b>76.3</b> (27.1)	<b>69.1</b> (-23.2)	<b>75.0</b> (8.6)

Sources: Actual results data prepared from various publications, forecasts by IEEJ

Notes:

1. Figures in parentheses indicate year-to-year percentage changes.
2. GDP components do not add up to GDP due to inventory changes and a gap between GDP and the total of components.

Table 2 Outlook on Industrial Activities (Base Case)

		FY2007 (Actual)	FY 2008 (Actual)			FY 2009 (Actual)			FY2010 (Forecast)
			1st half	2nd half	Total	1st half	2nd half	Total	
Output (1,000 t)	Crude steel	<b>121,511</b> (3.2)	<b>61,508</b> (2.9)	<b>43,993</b> (-28.7)	<b>105,500</b> (-13.2)	<b>43,329</b> (-29.6)	<b>53,119</b> (20.7)	<b>96,449</b> (-8.6)	<b>110,106</b> (14.2)
	Ethylene	<b>7,559</b> (-1.3)	<b>3,472</b> (-7.3)	<b>3,048</b> (-20.1)	<b>6,520</b> (-13.7)	<b>3,514</b> (1.2)	<b>3,704</b> (21.5)	<b>7,219</b> (10.7)	<b>7,181</b> (-0.5)
	Cement	<b>70,600</b> (-3.5)	<b>32,777</b> (-6.1)	<b>33,118</b> (-7.2)	<b>65,895</b> (-6.7)	<b>28,748</b> (-12.3)	<b>29,630</b> (-10.5)	<b>58,378</b> (-11.4)	<b>55,055</b> (-5.7)
	Paper/paperboard	<b>31,414</b> (1.1)	<b>15,612</b> (0.6)	<b>13,238</b> (-16.7)	<b>28,850</b> (-8.2)	<b>13,330</b> (-14.6)	<b>13,562</b> (2.5)	<b>26,892</b> (-6.8)	<b>27,550</b> (2.4)
	Automobiles (1,000 units)	<b>11,790</b> (2.5)	<b>5,800</b> (5.8)	<b>4,206</b> (-33.3)	<b>10,006</b> (-15.1)	<b>3,856</b> (-33.5)	<b>5,009</b> (19.1)	<b>8,865</b> (-11.4)	<b>10,060</b> (13.5)
Indices of industrial production (100 for 2005)	Food	<b>100.0</b> (2.1)	<b>104.1</b> (1.6)	<b>97.3</b> (-0.3)	<b>100.7</b> (0.7)	<b>106.3</b> (2.1)	<b>99.1</b> (1.9)	<b>102.7</b> (2.0)	<b>103.2</b> (0.6)
	Textiles (excluding chemical fibers)	<b>88.5</b> (-5.9)	<b>81.7</b> (-8.8)	<b>74.5</b> (-14.9)	<b>78.1</b> (-11.8)	<b>66.8</b> (-18.2)	<b>66.9</b> (-10.3)	<b>66.8</b> (-14.4)	<b>58.3</b> (-12.7)
	Steel	<b>106.7</b> (2.5)	<b>107.2</b> (1.8)	<b>75.1</b> (-30.5)	<b>91.1</b> (-14.6)	<b>71.5</b> (-33.3)	<b>90.4</b> (20.5)	<b>81.0</b> (-11.2)	<b>93.9</b> (16.0)
	Chemicals (including chemical fibers)	<b>103.5</b> (0.0)	<b>99.4</b> (-2.6)	<b>90.6</b> (-13.7)	<b>95.0</b> (-8.2)	<b>95.0</b> (-4.4)	<b>99.3</b> (9.7)	<b>97.2</b> (2.3)	<b>100.7</b> (3.6)
	Ceramic, stone and clay products	<b>101.1</b> (-0.3)	<b>98.0</b> (-3.1)	<b>82.7</b> (-18.1)	<b>90.4</b> (-10.6)	<b>75.8</b> (-22.7)	<b>84.3</b> (1.9)	<b>80.1</b> (-11.4)	<b>79.2</b> (-1.1)
	Paper/pulp	<b>101.7</b> (1.2)	<b>101.4</b> (1.4)	<b>86.7</b> (-16.1)	<b>94.1</b> (-7.5)	<b>87.0</b> (-14.3)	<b>88.4</b> (2.0)	<b>87.7</b> (-6.8)	<b>90.2</b> (2.8)
	Nonferrous metals	<b>105.0</b> (1.0)	<b>100.2</b> (-3.0)	<b>77.1</b> (-27.8)	<b>88.6</b> (-15.6)	<b>78.5</b> (-21.7)	<b>89.4</b> (16.0)	<b>84.0</b> (-5.3)	<b>95.7</b> (14.0)
	Transportation equipment	<b>114.3</b> (6.8)	<b>111.9</b> (4.9)	<b>77.6</b> (-36.4)	<b>94.7</b> (-17.1)	<b>73.3</b> (-34.5)	<b>95.4</b> (22.9)	<b>84.3</b> (-11.0)	<b>98.6</b> (17.0)
	Electrical machinery and others	<b>111.7</b> (3.1)	<b>107.5</b> (-1.7)	<b>82.2</b> (-28.0)	<b>94.8</b> (-15.1)	<b>76.2</b> (-29.1)	<b>88.7</b> (8.0)	<b>82.5</b> (-13.0)	<b>101.3</b> (22.8)
	Total industrial production	<b>108.1</b> (2.7)	<b>105.2</b> (-0.3)	<b>83.6</b> (-24.4)	<b>94.4</b> (-12.7)	<b>80.6</b> (-23.4)	<b>91.3</b> (9.2)	<b>85.9</b> (-9.0)	<b>97.8</b> (13.9)

Sources: Actual results data prepared from various publications, forecasts by IEEJ

Notes: 1. Figures in parentheses indicate year-to-year percentage changes.

2. "Electrical machinery and others" covers ordinary machinery, electrical machinery, information and communications equipment, electronic components and devices, precision machinery and metallic products.

Table 3 Outlook on Electricity Demand Outlook (electric power utilities, by use) (Base Case)

		FY2007	FY2008 (Actual)			FY2009 (Actual)			FY2010
		(Actual)	1st half	2nd half	Total	1st half	2nd half	Total	(Forecast)
Electricity demand (Billion kWh)	Household demand	289.7 (4.1)	134.4 (-0.6)	150.9 (-2.3)	285.3 (-1.5)	132.6 (-1.3)	152.4 (1.0)	285.0 (-0.1)	293.4 (3.0)
	Nonhousehold demand (including specified scale demand)	665.0 (3.3)	338.8 (0.3)	296.7 (-9.3)	635.5 (-4.4)	303.6 (-10.4)	300.8 (1.4)	604.4 (-4.9)	644.7 (6.7)
	Total (including specified scale demand)	954.7 (3.5)	473.2 (0.1)	447.6 (-7.1)	920.8 (-3.6)	436.2 (-7.8)	453.2 (1.2)	889.4 (-3.4)	938.1 (5.5)
	(Regrouped) Large-scale industrial users	320.3 (4.1)	164.0 (1.7)	135.9 (-14.6)	299.9 (-6.4)	138.1 (-15.8)	142.8 (5.1)	280.9 (-6.3)	306.6 (9.2)
	Chemical	32.7 (4.6)	16.5 (0.9)	13.5 (-17.2)	30.0 (-8.1)	12.9 (-21.8)	13.8 (2.4)	26.7 (-10.9)	29.2 (9.2)
	Steel	57.4 (3.1)	28.9 (1.9)	22.3 (-23.1)	51.2 (-10.7)	21.6 (-25.4)	24.7 (10.8)	46.3 (-9.7)	51.9 (12.1)
	Machinery	83.1 (4.9)	42.8 (2.3)	33.4 (-18.9)	76.2 (-8.2)	34.1 (-20.3)	35.4 (6.0)	69.5 (-8.8)	80.5 (15.8)
	Total mining and manufacturing	270.9 (4.6)	138.9 (2.1)	112.0 (-17.0)	250.9 (-7.4)	113.3 (-18.5)	118.8 (6.1)	232.1 (-7.5)	256.8 (10.6)

Sources: Actual results data prepared from METI, "Monthly Electricity Survey & Statistics", forecasts by IEEJ

Notes: 1. Figures in parentheses indicate year-to-year percentage changes.

2. The data include specified supplies by electric power utilities and excludes their consumption.

But self-consumption at Tobata Joint Thermal Power Generation Company and Oita Joint Thermal Power Generation Company is treated as specified supplies.

Table 4 Outlook on Town Gas Sales (general gas utilities) (Base Case)

		FY2007	FY2008 (Actual)			FY2009 (Actual)			FY2010
		(Actual)	1st half	2nd half	Total	1st half	2nd half	Total	(Forecast)
Town gas sales (Million m <sup>3</sup> )	Household	9,872 (1.1)	3,748 (-1.5)	5,898 (-2.8)	9,646 (-2.3)	3,694 (-1.4)	5,934 (0.6)	9,629 (-0.2)	9,767 (1.4)
	Commercial	4,944 (3.3)	2,471 (-2.7)	2,290 (-4.8)	4,760 (-3.7)	2,361 (-4.4)	2,255 (-1.5)	4,616 (-3.0)	4,911 (6.4)
	Industrial	18,152 (10.3)	9,123 (3.8)	8,124 (-13.2)	17,247 (-5.0)	7,870 (-13.7)	8,837 (8.8)	16,707 (-3.1)	18,230 (9.1)
	Others	2,927 (6.0)	1,371 (-1.5)	1,481 (-3.5)	2,852 (-2.6)	1,373 (0.2)	1,513 (2.1)	2,886 (1.2)	3,030 (5.0)
	Total	35,896 (6.3)	16,713 (1.1)	17,793 (-8.1)	34,505 (-3.9)	15,299 (-8.5)	18,539 (4.2)	33,837 (-1.9)	35,938 (6.2)

Sources: Actual results data prepared from METI, "Monthly Gas Industry Statistics", forecasts by IEEJ

Notes: 1. Figures in parentheses indicate year-to-year percentage changes.

2. Converted at 1m<sup>3</sup>=41.8605 MJ (10,000 kcal)

Table 5 Outlook on Fuel Oil Sales (Base Case)

		FY2007 (Actual)	FY2008 (Actual)			FY2009 (Actual)			FY2010 (Forecast)
			1st half	2nd half	Total	1st half	2nd half	Total	
Fuel oil sales (1,000 kl)	Gasoline	<b>59,064</b> (-2.5)	<b>29,104</b> (-4.7)	<b>28,393</b> (-0.4)	<b>57,497</b> (-2.7)	<b>29,100</b> (-0.0)	<b>28,469</b> (0.3)	<b>57,569</b> (0.1)	<b>56,177</b> (-2.4)
	Naphtha	<b>48,533</b> (-3.1)	<b>22,250</b> (-5.4)	<b>20,611</b> (-17.6)	<b>42,861</b> (-11.7)	<b>22,301</b> (0.2)	<b>25,009</b> (21.3)	<b>47,310</b> (10.4)	<b>47,050</b> (-0.5)
	Jet fuel	<b>5,850</b> (7.3)	<b>2,841</b> (1.8)	<b>2,835</b> (-7.3)	<b>5,676</b> (-3.0)	<b>2,586</b> (-9.0)	<b>2,734</b> (-3.6)	<b>5,319</b> (-6.3)	<b>5,442</b> (2.3)
	Kerosene	<b>22,666</b> (-7.5)	<b>5,132</b> (-15.8)	<b>15,118</b> (-8.8)	<b>20,249</b> (-10.7)	<b>4,965</b> (-3.3)	<b>15,081</b> (-0.2)	<b>20,045</b> (-1.0)	<b>19,239</b> (-4.0)
	Diesel	<b>35,586</b> (-2.8)	<b>17,001</b> (-4.0)	<b>16,727</b> (-6.5)	<b>33,728</b> (-5.2)	<b>15,624</b> (-8.1)	<b>16,633</b> (-0.6)	<b>32,257</b> (-4.4)	<b>31,437</b> (-2.5)
	Fuel oil A	<b>21,369</b> (-10.8)	<b>8,275</b> (-13.2)	<b>9,616</b> (-18.7)	<b>17,891</b> (-16.3)	<b>6,944</b> (-16.1)	<b>9,099</b> (-5.4)	<b>16,043</b> (-10.3)	<b>15,279</b> (-4.8)
	Fuel oil B, C	<b>25,354</b> (11.7)	<b>12,233</b> (5.6)	<b>10,926</b> (-20.7)	<b>23,159</b> (-8.7)	<b>8,355</b> (-31.7)	<b>8,035</b> (-26.5)	<b>16,390</b> (-29.2)	<b>15,793</b> (-3.6)
	For power generation	<b>14,240</b> (51.8)	<b>7,170</b> (18.9)	<b>5,653</b> (-31.2)	<b>12,823</b> (-10.0)	<b>3,959</b> (-44.8)	<b>3,257</b> (-42.4)	<b>7,216</b> (-43.7)	<b>7,035</b> (-2.5)
	For other uses	<b>11,114</b> (-16.5)	<b>5,063</b> (-8.8)	<b>5,273</b> (-5.2)	<b>10,336</b> (-7.0)	<b>4,396</b> (-13.2)	<b>4,778</b> (-9.4)	<b>9,174</b> (-11.2)	<b>8,757</b> (-4.5)
	Total	<b>218,487</b> (-2.4)	<b>96,834</b> (-4.9)	<b>104,226</b> (-10.6)	<b>201,060</b> (-8.0)	<b>89,875</b> (-7.2)	<b>105,059</b> (0.8)	<b>194,933</b> (-3.0)	<b>190,416</b> (-2.3)
LPG sales (1,000 t)	<b>18,659</b> (-0.2)	<b>8,336</b> (-5.7)	<b>8,997</b> (-8.4)	<b>17,333</b> (-7.1)	<b>7,691</b> (-7.7)	<b>8,730</b> (-3.0)	<b>16,421</b> (-5.3)	<b>16,970</b> (3.3)	

Sources: Actual results data prepared from METI, "Monthly Resources & Energy Statistics;" Petroleum Association of Japan, "Monthly Oil Statistic;" Japan LP Gas Association, "LP Gas Receipt and Delivery Monthly Reports." Forecasts by IEEJ.

Notes: Figures in parentheses indicate year-to-year percentage changes.

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