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Energy Outlook for 2010

At the year-end Energy Symposium as a regular IEEJ event held on December 25, The Institute of Energy Economics, Japan (IEEJ) announced its energy outlook for 2010. IEEJ projects that the annual average price of WTI will stay at around \$70 per barrel in 2010 and Japan's primary energy consumption will turn to a positive growth of 2.8% for the first time in three years. The gist of the reports is summarized below. The detailed version of the reports (in Japanese) is available on IEEJ's website for members only; any inquiry may be made to ieej-member@tky.ieej.or.jp.¹

Global petroleum supply/demand and crude oil price outlook for 2010

Dr. Ken Koyama, Director of IEEJ, presented the following forecast concerning the crude oil price outlook for 2010:

Crude oil prices, after hitting a record high of \$147 per barrel in July 2008, took a nosedive amid the deepening financial crisis; WTI dropped to as low as \$33 per barrel in December in the same year. In 2009, the crude oil prices bottomed out at around \$33 per barrel in February and then started to rise, once reaching a \$81 per barrel mark in October. While the prices have hovered at around the \$70 per barrel level or slightly upward since then, the crude oil prices in 2009 demonstrated drastic fluctuations with a range as much as 139% between the lowest and the highest with financial and supply/demand factors closely intertwined.

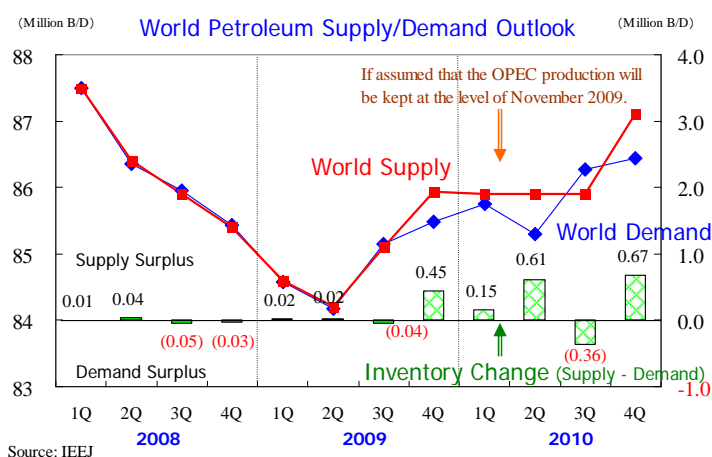
In the Reference Case projection on the international petroleum market in 2010, the following assumptions are made as the basic factors (please also refer to the graph);

- (1) Although the world economy appears to be on the recovery track, the trend may lack strength and remain erratic.

¹ Registration is necessary to read detail reports listed on the IEEJ Homepage, where all past reports are stored in electronic format. Executives and staff of an organization/corporation as a patron of IEEJ can register as the member of the "IEEJ Information Club" free of charge, while others are charged a minimal subscription fee.

- (2) While the global petroleum demand is expected to turn to a positive year-on-year growth, the extent of demand increase may remain around one million to 1.2 million barrels per day.
- (3) Non-OPEC crude oil production will show a slight increase over the previous year, while OPEC's NGL output will maintain the increasing trend.

As a result, demand for OPEC crude oils will remain flat to a marginal increase as compared to the 2009 level, and the oversupply situation, as observed in OPEC's excess-production capacity or high stock levels, will not be remedied, which will in turn work to maintain the weak supply/demand position. On the other hand, a favorable trend in the stock market reflecting the moderate economic recovery and relative stability of the dollar exchange rate will act as supporting factors for the crude oil prices.



There is a good possibility that OPEC led by Saudi Arabia may try to adjust production in order to avoid excessively high or low prices. For these reasons, despite the economy being on the weak upward track, the crude oil prices will have upper and lower resistance lines to prevent them from getting too high or too low. Thus, in 2010, the crude oil prices in the international petroleum market will stay at relatively low levels (around \$65 as the median) in the first half of the year, while the economic recovery remains uncertain and an oversupply position continues in the petroleum market. In the second half of the year, as the economic recovery gradually progresses, the crude oil prices will stay relatively high, around \$75 per barrel as the median. As a result, the annual average price of WTI will end up around \$70 (\pm \$10) per barrel.

Under the "high price scenario" it is assumed that; (1) the global economy will remain stable without significant fluctuations and, from around the middle of 2010, it will start to show signs pointing toward a full-fledged recovery; (2) Reflecting the economic recovery, the world oil demand will grow by around 1.4 million barrels per day over the previous year; (3) Increase in Non-OPEC oil production may not be as robust as expected, leading to faster draw-down of inventory, and a sense of oversupply will gradually disappear; and (4) Expectations on positive factors, such as global economic recovery, improving oil supply/demand balance and further economic growth and a tighter oil market in 2011 and onward, may invite active inflow of funds into the crude oil futures market. In this case, the crude oil prices will start to rise in the second half of the year and the average price of WTI could reach \$90 (\pm \$10) per barrel in 2010. In addition, it is possible that any event of risk-incurring would serve as a pressure to push the price much higher.

Under the "low price scenario," (1) A downside risk for the global economy would take place in the first half of 2010, causing concerns over yet another worsening of the global economy; (2) The world oil demand increase will remain at around 600,000 to 700,000 barrels per day over the previous year; (3) The non-OPEC supply will increase faster than expected, and expectations would grow for the faster recovery of Iraqi oil production; (4) Surplus supply capacity will expand, prolonging a slackened condition in the market; and (5) In the futures markets, selling pressure would dominate in response to the stagnant economic and financial

situation and loosening of the world oil supply/demand balance. In this case, the crude oil prices would incur a considerable decline in the first half of the year; the annual average of WTI lowering to \$50 (\pm \$10) per barrel in 2010.

Japan's energy demand will rebound in 2010

With regard to Japan's energy demand for 2010, Shigeru Suehiro, Group Leader, Econometric Data and Modeling Center of IEEJ, presented the following outlook. Figures cited here are based on the Japanese fiscal year (FY) starting in April and ending in March.

Background

The world economy has emerged out of the worst period in spring/summer of 2009, with many countries showing signs of recovery. The Japanese economy, too, is deemed to have bottomed out during January-March of 2009, with the manufacturing sector heading for recovery driven by increasing exports to Asia. Although domestic demand is buttressed by a variety of measures such as eco-points system on purchase of cars and home appliances, tax cuts, subsidies, etc., to stimulate consumption, it remains sluggish due to deteriorating employment and corporate earnings, leading to a deflationary trend in general. By now, the prolonged and severe decline in energy demand is coming to a halt with recovery of production activities. In Japan, the historic change of the government that took place in September 2009 is going to bring drastic changes in the direction of policies on economy, energy and environment.

Major conclusions

1. Economic outlook for FY 2009/2010

The Japanese economy in FY2009 has been seeing a slight recovery in industrial production driven by increasing exports reflecting worldwide economic recovery. But Japan's domestic demand remains weak, though the economy is now on a moderate recovery track in general. The real GDP growth for FY2009 is estimated to be down by 2.7% from the previous year despite occasional push-up caused by the massive decline recorded in the last quarter of FY 2008 (or January-March of 2009). Production activities saw recoveries in automobiles, electric machinery and steel industries during the second half of the fiscal year, but they were not enough to offset the severe fall recorded in the first half. In FY2009, the Index of Industrial Production (IIP) is estimated to go down by 10.2% from the previous year after the historical decline of minus 12.7% recorded in FY2008.

In FY2010, it is forecast that exports will grow and production activities will head for recovery mainly in the machinery sector, partly due to a rebound from the previous year; the IIP is expected to grow by 9.9% from the previous year. The IIP in absolute value, however, would not likely return to the pre-crisis level, while excess-capacities in the industry sector will still prevail. On the other hand, policies initiated by the new government such as child allowances are expected to push up household consumption. Recoveries in domestic as well as external demands will probably change the GDP growth rate to a positive figure, up 1.3% over the previous year. Crude oil price (CIF Japan) may remain more or less at the level of \$70 per barrel on the average for FY2010.

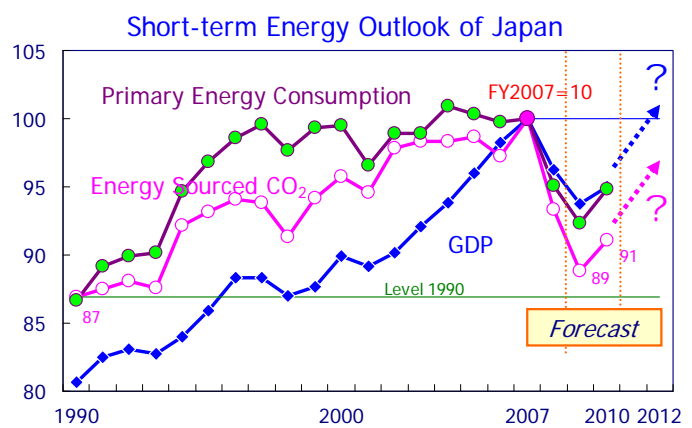
2. Energy supply/demand outlook for 2009/2010

1) Primary energy supply and total annual energy consumption

The total annual energy consumption in FY2009 is estimated to record a decline of 2.2% from the previous year. Due to the sluggish production activities in the first half, energy consumption is estimated to shrink by 2.7% in the industrial sector. It will be reduced by 1.1% in the residential/commercial sector reflecting the reduced demand for space cooling during the last summer. In the transportation sector, it is estimated to decrease by 2.3% due to weak transportation demand and improvement in automobile fuel efficiency. Furthermore, the total primary energy supply (TPES), including the energy consumption in the transformation sector such as power generation and oil refineries, is estimated to fall by 2.9% over the previous year. All in all, CO₂ emissions of energy-origin are expected to go down by 4.8% from the previous year reflecting the declining energy consumption and the increasing nuclear power generation.

The final energy consumption in FY2010 is forecast to go up by 1.9% over the previous year in response to the recovery of production activities.

The above study forecasts a 4.5% increase in energy consumption in the industrial sector to be attained by increased production and a 2.0% decline in the transportation sector due to continued improvements in fuel and traffic efficiencies, as well as a 1.0% increase in the commercial/residential sector because of the weather impact from the last year and the recovery in the service activities. The TPES is projected to go up by 2.8% over the previous year. The CO₂ emissions are expected to rise by 2.6% caused by the increase in energy consumption. The CO₂ emissions have been declining for two years in a row for FY2008 and FY2009 owing to the economic downturn, but they will return to a growth trend led by the economic recovery.



It should be noted that the new energy/environmental policies advocated by the new administration, such as Global Warming Tax and the mandatory purchase of all power generated by renewable energies as well as other energy and environmental policies, are not incorporated in the above forecast. Likewise, abolition of the provisional portion of the gasoline tax and introduction of toll-free expressways are not taken into account in the forecast.

2) Demand outlook by energy type:

- Electricity sales for FY2009 are estimated to be down by 2.8% from the previous year due to a dramatic decline in the first half of the year caused by the cool summer although production activities are heading for recovery in the second half of the year. The electricity sales for FY2010 are expected to grow by 4.2% due to the recovery of production activities as well as growing consumption in the residential/commercial sector reflecting the weather factor.
- City gas sales in FY2009 are estimated to fall by 2.2% from the previous year since the industrial demand is seriously affected by the sluggish production and demand for space cooling also fell. As the household gas demand for FY2010 is expected to show a slight increase reflecting the weather factor, a high rebounding effect will be seen in the industrial and commercial city gas demand pushing up the overall city gas sales by an annual 5.9%.
- Concerning the 2009 sales of petroleum products, although naphtha is estimated to show a

positive growth as driven by the early recovery of the chemical industry, the overall demand is going to decline by 3.2% over the previous year caused by slowdown of the economic activity. In FY2010, despite the expected recovery of production activity, progress of fuel switching and improvement of automobile fuel efficiency are expected to lead to an annual 2.6% decline in sales.

Table-1 Short-term Energy Outlook of Japan

		FY2007 (Actual)	FY2008 (Actual)			FY2009 (Estimation)			FY2010 (Forecast)
			1st Half	2nd Half	Total	1st Half	2nd Half	Total	
E c o n o m i c I n d u s t r y	GDP (2000 price billion Yen)	562,435 (1.8)	274,120 (-0.9)	267,375 (-6.5)	541,494 (-3.7)	259,157 (-5.5)	267,980 (0.2)	527,137 (-2.7)	534,135 (1.3)
	Private Demand	417,575 [0.5]	203,751 [-1.3]	201,022 [-3.2]	404,773 [-2.3]	192,400 [-4.1]	196,821 [-1.6]	389,221 [-2.9]	393,399 [0.8]
	Public Demand	117,210 [0.0]	55,541 [-0.3]	60,258 [-0.2]	115,799 [-0.3]	57,273 [0.6]	61,647 [0.5]	118,920 [0.6]	118,170 [-0.1]
	Overseas Demand	28,082 [1.2]	15,123 [0.8]	6,324 [-3.1]	21,447 [-1.2]	8,628 [-2.4]	9,572 [1.2]	18,200 [-0.6]	22,554 [0.8]
	Corporate Goods PI (2005=100)	104.9 (2.3)	110.5 (6.1)	106.0 (0.4)	108.3 (3.2)	102.9 (-6.9)	102.6 (-3.3)	102.7 (-5.1)	101.2 (-1.5)
	CPI (2005=100)	100.6 (0.4)	102.1 (1.8)	101.2 (0.4)	101.7 (1.1)	100.5 (-1.6)	99.6 (-1.6)	100.0 (-1.6)	99.0 (-1.1)
	IIP (2005=100)	108.1 (2.7)	105.2 (-0.3)	83.6 (-24.4)	94.4 (-12.7)	80.0 (-24.0)	89.5 (7.1)	84.7 (-10.2)	93.2 (9.9)
	Crude Steel (1,000t)	121,511 (3.2)	61,507 (2.9)	43,993 (-28.7)	105,500 (-13.2)	43,329 (-29.6)	54,131 (23.0)	97,460 (-7.6)	110,143 (13.0)
	Ethylene (1,000t)	7,559 (-1.3)	3,472 (-7.3)	3,048 (-20.1)	6,520 (-13.7)	3,514 (1.2)	3,708 (21.6)	7,222 (10.8)	7,171 (-0.7)
	Exchange Rate (Yen/\$)	114.2 (-2.3)	106.1 (-11.1)	94.9 (-13.1)	100.5 (-12.0)	95.4 (-10.0)	90.0 (-5.1)	92.7 (-7.7)	90.0 (-2.9)
	Crude Oil CIF (\$/Bbl)	77.9 (22.4)	119.8 (76.5)	60.3 (-31.4)	90.1 (15.6)	61.7 (-48.5)	69.8 (15.7)	65.7 (-27.0)	69.5 (5.7)
	Heating Degree day	996 (15.2)	36 (-36.5)	863 (-8.1)	899 (-9.7)	35 (-2.2)	958 (11.0)	993 (10.4)	980 (-1.3)
	Cooling Degree Day	437 (16.1)	398 (-8.2)	- (-100.0)	398 (-8.8)	328 (-17.6)	1 -	329 (-17.3)	411 (24.6)
	E n e r g y	Total Primary Energy (10 ¹⁰ kcal = KTOE)	537,872 (0.2)	257,760 (-0.4)	253,763 (-9.1)	511,523 (-4.9)	234,496 (-9.0)	261,975 (3.2)	496,471 (-2.9)
Final Energy Consum (10 ¹⁰ kcal = KTOE)		362,256 (-0.9)	168,144 (-2.4)	171,420 (-9.8)	339,564 (-6.3)	155,375 (-7.6)	176,833 (3.2)	332,208 (-2.2)	338,559 (1.9)
Industry		176,770 (-0.4)	84,213 (-1.3)	76,555 (-16.3)	160,768 (-9.1)	73,706 (-12.5)	82,724 (8.1)	156,430 (-2.7)	163,425 (4.5)
ResCom		98,131 (-0.4)	41,232 (-3.0)	53,359 (-4.0)	94,591 (-3.6)	40,226 (-2.4)	53,304 (-0.1)	93,530 (-1.1)	94,507 (1.0)
Transport		87,355 (-2.6)	42,699 (-3.9)	41,506 (-3.3)	84,205 (-3.6)	41,443 (-2.9)	40,805 (-1.7)	82,249 (-2.3)	80,628 (-2.0)
Electricity (billion kWh)		954.7 (3.5)	473.2 (0.1)	447.6 (-7.1)	920.8 (-3.6)	436.2 (-7.8)	459.0 (2.5)	895.2 (-2.8)	933.1 (4.2)
City Gas (million cm/10,000kcal)		35,896 (6.3)	16,713 (1.1)	17,793 (-8.1)	34,505 (-3.9)	15,299 (-8.5)	18,445 (3.7)	33,744 (-2.2)	35,743 (5.9)
Petroleum Products (1,000kl)		218,421 (-2.4)	96,834 (-4.9)	104,208 (-10.7)	201,042 (-8.0)	89,828 (-7.2)	104,686 (0.5)	194,513 (-3.2)	189,527 (-2.6)
s	CO ₂ (Energy source) (million t-CO ₂)	1,219 (2.8)			1,138 (-6.7)			1,083 (-4.8)	1,111 (2.6)
	(FY1990=100)	115.1			107.4			102.2	104.9

Source: Various Japanese statistics. Forecast is made by IEEJ.

- Note: 1. Numbers in parenthesis show annual growth rates, while those for GDP show contributions.
2. Sectoral GDP would not necessarily add up to the total.
3. Energy consumption of the industrial sector includes non-energy use.

Table-2 Outlook of Primary Energy Supply

	FY2007 (Actual)	FY2008 (Actual)			FY2009 (Estimation)			FY2010 (Forecast)
		1st Half	2nd Half	Total	1st Half	2nd Half	Total	
Primary Energy Supply (10[^]10Kcal)								
Coal	121,894 (4.3)	61,795 (5.2)	55,362 (-12.4)	117,157 (-3.9)	52,946 (-14.3)	58,586 (5.8)	111,532 (-4.8)	119,176 (6.9)
Oil	243,321 (-0.0)	109,785 (-1.9)	113,806 (-13.4)	223,591 (-8.1)	97,656 (-11.0)	113,660 (-0.1)	211,316 (-5.5)	207,016 (-2.0)
Natural Gas	93,144 (8.5)	45,858 (1.9)	46,674 (-3.0)	92,532 (-0.7)	43,006 (-6.2)	48,041 (2.9)	91,047 (-1.6)	96,418 (5.9)
Hydro	16,522 (-14.9)	10,044 (0.1)	6,753 (4.1)	16,797 (1.7)	9,325 (-7.2)	6,641 (-1.7)	15,966 (-4.9)	16,975 (6.3)
Nuclear	55,527 (-13.0)	26,554 (-10.0)	27,771 (6.7)	54,325 (-2.2)	28,333 (6.7)	31,242 (12.5)	59,575 (9.7)	63,078 (5.9)
Others	7,464 (2.0)	3,724 (2.4)	3,397 (-11.2)	7,121 (-4.6)	3,229 (-13.3)	3,806 (12.0)	7,035 (-1.2)	7,618 (8.3)
Total	537,872 (0.2)	257,760 (-0.4)	253,763 (-9.1)	511,523 (-4.9)	234,496 (-9.0)	261,975 (3.2)	496,471 (-2.9)	510,282 (2.8)

3. Impact assessment of energy supply/demand fluctuation factors – FY2010

Factors to cause fluctuations in the energy supply/demand and their impacts are analyzed as follows:

- In the case where the crude oil import price is set at a level \$20 higher than the Reference Case, the real GDP growth rate will drop by 0.1% and the total primary energy supply (TPES) will fall by 0.5%. Among demand sectors, the industrial sector shows a relatively large fall responding to the economic slowdown. By energy source, higher crude oil import prices have a significant impact on petroleum and city gas sales while giving a positive impact on electricity sales. This is because electricity becomes relatively cheaper, leading to a shift from kerosene heating to electric air conditioners and from private power generation to purchased power.
- When the global economy recovers at a lower level than expected and the real GDP growth rate is 1.0% lower than the Reference Case, the TPES will decline by 1.4%. This will affect industry, in particular the exporting manufacturing sector, leading to a significant decline in energy consumption in the industrial sector.
- If domestic demand recovers at a higher level than expected thanks to effects of stimulus policies, resulting in a real GDP growth 1.0% higher than the Reference Case, the TPES will grow by 0.5%. Energy consumption of the industrial sector will increase relative to other sectors. However, the impact on overall energy will be significantly different from that of the low-growth case.
- When the average temperature in summer (July to September) becomes 1°C higher than an average year, the TPES goes up by 0.3% per year. By sector, the rise in demand in the business/commercial sector becomes significant where demand for space cooling is high, whereas the growth in the household sector remains relatively small. In the transportation sector, demand will also go up due to deterioration of the fuel efficiency caused by heavier use of car-air conditioners. By energy source, the increase in electricity becomes the greatest while the rise in city gas consumption remains minimal as the demand for making hot water will be reduced.
- When the average temperature in winter (January to March) drops by 1°C from the level of an average year, the TPES goes up by 0.3% for the whole year. By sector, contrary to summer, demand in the household sector grows significantly due to the rising demand for

space heating and hot water supply. By energy source, the increase in the city gas demand becomes the greatest.

Committee Highlights

METI launches a conference on next generation energy and social system

In November 2009, the Ministry of Economy, Trade and Industry (METI) launched a Conference on Next Generation Energy and Social Systems by assembling top echelon METI officials and heads of major departments as well as seven experts headed by Hisashi Ishitani, professor emeritus at the University of Tokyo, in an effort toward building a low-carbon society where both economic and environmental goals could be pursued in a compatible manner. Earlier on, METI had initiated various studies looking to building a low-carbon society undertaken by study groups such as the following:

Research Group on Strategy for Storage Battery System Industry, Research Group on Next Generation Vehicles Strategy, Urban Heat Energy Committee, Research Group on Development and Deployment of Zero Emission Buildings, Research Group on Next Generation Power Transmission and Distribution, Research Group on International Standardization for Next Generation Energy Systems, and Forum on Smart Community-related Systems

The mission of the project team organized this time is to coordinate the studies being conducted by these existing research groups and to take them further in an integrated and cross-cutting manner. At the first meeting held on November 13, 2009, the Conference first heard reports from relevant study groups, followed by a round of free discussions. Corporate hearings were scheduled to follow the meeting so that an interim report could be compiled in mid December, 2009. Fact-finding interviews would then be conducted with local communities in the new year.

The project team will likely focus on the realization of a “Smart Energy Network” aimed at building a low-carbon society, as a core agenda. The following comments were provided by experts attending the first meeting:

- While a smart grid is based on an amalgamation of energy and information systems, the former is a conservative system laying greater importance on stability, whereas the latter is an ambitious one containing certain instability. Therefore, it is important that the two elements are sufficiently-discussed and coordinated.
- Smart grids are often considered in the context of electricity supply, but it is similarly important to capture the heat demand issues. We need to consider an integrated system embracing other types of energy such as heat, gas, and hydrogen as well.
- The key is on how to design a system where rational actions of individual players can lead to a total optimization, which is the government’s duty. For example, under the New Purchase System for Solar Power-Generated Electricity, selling electricity instead of consuming it would yield more profits and would thus be the more rational action on a clear day. The government must assume greater responsibilities especially because it regulates the electricity market.
- A partially optimized system could impose large costs on society as a whole. We must devise a system that will optimize the total costs.

- If we aim to reduce GHG emissions by 80 percent by 2050, energy supply needs to be sourced from nuclear and natural energies, together with carbon capture and storage (CCS). If we are yet to rely on fossil fuels, availability of CCS will be an extremely important condition. We should develop a clear perspective on how to address CCS and a realistic time table. Without CCS, the scenario would likely become a totally different one.
- Massive introduction of natural energy will entail providing the base power supply with natural energy sources, in which case the mandate of Green Electricity is bound to be instituted with the adoption of smart meters and smart interface.
- The appearance of the energy system should vary depending on the weight placed on nuclear power and solar panels. If as much as 53 million kW of photovoltaic power is introduced by 2030, we may end up with an excess power supply, possibly calling for remedies such as power storage or increased power consumption as the case may be. However, if this target cannot be achieved by 2030, our energy system will look completely different. Therefore, we must consider a number of different scenarios in our study.
- Social systems must also be addressed from the dimensions of urban or town development. Consequently, landscape issues related to solar panels, wind turbines, or recharging stations will also become important. Treatment of existing houses should be considered as well.

Nuclear Energy SC compiled an interim report

On December 18, 2009, the Special Subcommittee on International Affairs of Japan Atomic Energy Commission met to deliberate on an interim summary of discussions and debates that had taken place in the Subcommittee since its inception in July.

The resultant summary reviews the past discussions in the following four categories, with its proposals given in each section: (a) Promotion of peaceful utilization of nuclear energy and prevention of nuclear proliferation, (b) Positioning of nuclear energy as a means to counter global warming, (c) International development of nuclear industry and associated businesses, and (d) Ensuring Japan's international leadership in nuclear technologies. The summary emphasizes that, with its track record of more than 50 years of peaceful nuclear utilization and proven capability, Japan should be playing a role model and lead the international community in areas such as nuclear security or coping with the global warming. It also stresses the need for collaboration among public and private sectors to enhance Japan's international competitiveness.

The summary concludes by stating that Japan's measures to deal with international nuclear issues, to be truly effective, should be incorporated into the greater context of national foreign relations strategy.

Energy News in Japan & Asia

METI approves commercial operation of Tomari No.3 Nuclear Unit

On December 22, METI issued an official approval on commercial operation of No.3 plant of the Tomari nuclear power station of Hokkaido Electric Power Co., Inc. It is a PWR type plant with a generating capacity of 912 MW. Hokkaido EPC started construction of the plant in November 2003 and has been conducting test operation since March 2009.

The plant is the 57th nuclear unit in Japan. With demolition of three plants so far, there are

54 nuclear power plants in Japan including the latest one, with total generating capacity of 48,847MW. Among them, No.1 – No.5 plants of the Kashiwazaki-Kariwa nuclear station of Tokyo EPC with a total capacity of 5,500MW, which were shut down due to a strong earthquake in 2007, are still under inspection, while No.6 and No.7 plants were restored to operation last year.

Incidentally, on December 18, Chugoku EPC filed an application to METI for construction of the No.1 plant of the Kaminoseki nuclear power station. It is an ABWR type plant with a generating capacity of 1,373MW. Chugoku EPC is now constructing the No.3 plant at its Shimane nuclear station with the same design and capacity to start up in 2015. Kaminoseki is a new nuclear site located in the western Inland Sea (Setonaikai) and Chugoku EPC plans to construct two nuclear units there. The first plant is scheduled to start in 2018 and the second, with the same capacity, in 2022.

Abu Dhabi starts joint oil stockpiling in Japan

Following the agreement made last June between METI and the Supreme Petroleum Council (SPC) of Abu Dhabi, the first ship carrying 300,000kl of crude oil for the Joint Oil Stockpiling Program arrived at the Kiire Terminal, Kagoshima, Japan, on December 21. Under the agreement, METI borrows a crude oil storage capacity of 600,000kl at the terminal from Nippon Oil Corporation and make it available to the Abu Dhabi National Oil Corporation (ADNOC). The latter will provide its own crude oils there and use the capacity for commercial activities.

This project provides Abu Dhabi a foothold closer to the East Asian market, while Japan is able to reinforce energy security with priority purchase rights in case of an emergency provided under the agreement. Japan is purchasing about one-quarter of its crude oil import from Abu Dhabi. The project is expected to strengthen the strategic partnership of the two countries.

Tax on gasoline will be maintained in 2010

The Hatoyama administration approved the “Main Points of the Tax Reform 2009” on December 22 at the cabinet meeting, which will be the basis for the FY2010 government budget. The existing tax rates on fuel are maintained in the tax reform, while it was strongly advocated in the Roadmap of the DPJ Manifesto for the 2009 Lower House election. The so called “provisional tax” will be demolished, but the actual tax rate will be maintained replacing the name tag.

This “no reform” is conditioned that, in case of extraordinary inflation of oil prices, legislative measures may be taken to suspend the provisional rates exceeding the regular tax rate. On the other hand, the provisional tax rate on the automotive purchase will be abolished, but the plenary tax rate will be doubled for private cars except for the next generation vehicles such as hybrid and electric vehicles. It is also stated that the government will endeavor to draft the Global Warming Tax for enforcement within FY2011. The decision is received calmly in Japan.

APERC News

The Asia Pacific Energy Research Centre (APERC) is a research arm of APEC providing energy research and capacity-building support. Asia-Pacific Economic Cooperation, or APEC, is a multi-lateral organization whose primary goal is to support sustainable economic growth and prosperity in the Asia-Pacific region. Twenty-one economies on both sides of the Pacific are members, including Japan, China, the United States, Russia, and Mexico. APERC is administratively-affiliated with IEEJ. Researchers from twelve different APEC economies are currently engaged in the preparation of various studies on energy in the APEC region. Publications of APERC may be downloaded free of charge from their website at <http://www.ieej.or.jp/aperc/>.

APERC releases Peer Review of Energy Efficiency for Vietnam

In December, APERC published the Peer Review of Energy Efficiency (PREE) in Vietnam (http://www.iecej.or.jp/aperc/PREE/PREE_Vietnam.pdf), an evaluation of Vietnam's energy efficiency policies by a team of experts from other APEC economies. The Vietnam PREE is the third in a series of PREEs coordinated by APERC, with reports on the PREEs for New Zealand and Chile also having been published in 2009. Under the PREE program, any APEC economy can volunteer to have their energy efficiency policies peer-reviewed. A PREE for Thailand is currently in preparation. In addition, PREEs are planned for 2010 for Chinese Taipei and Peru.

For the Vietnam PREE, the review team was impressed with Vietnam's energy efficiency activities generally, and especially their implementation of the National Energy Efficiency Programs. However, the team was able to make 40 constructive recommendations for improving the effectiveness of these activities, including recommendations for improved data collection and better coordination between agencies.

A harvesting season at APERC

Coming back from the new-year holidays, APERC researchers are busy completing several studies for presentation at a series of upcoming meetings: the APEC Expert Group on Energy Data and Analysis (EGEDA) scheduled for the first week of February in Wellington, New Zealand; the APERC Annual Conference in the first week of March in Tokyo; the second Cooperative Energy Efficiency Design for Sustainability (CEEDS) workshop on appliance energy efficiency labeling and standards, also in the first week of March in Tokyo; and the APEC Energy Working Group (EWG) Meeting scheduled for the second week of March in Tokyo. APERC will also be contributing to the 9th APEC Energy Ministers' Meeting, scheduled for June in Fukui, Japan.

For these events, APERC researchers are currently completing the next edition of the annual *APEC Energy Overview*, which summarizes the energy policies and recent policy developments in each APEC economy. Also in preparation is the first edition of the *Compendium of Energy Efficiency Policies in the APEC Economies*, which will focus in more depth on the energy efficiency policies of each APEC economy.

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