

# Japan: which gov't nuclear policy?

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## **Despite cost, adherence to gov't nuclear fuel reprocessing policy still seen**

Estimates released April 19 by the Japan Atomic Energy Commission (JAEC) have shown that the government's policy of reprocessing all spent nuclear fuel generated at nuclear power plants across Japan would cost more than burying a portion of the fuel underground. Yet a number of government and nuclear power plant officials remain firmly attached to the policy of reprocessing fuel, and the barriers to changing the nation's policy on fuel reprocessing are high.

A feature of the latest estimates from a JAEC subcommittee is that the "concurrent" method of partially reprocessing and partially burying spent nuclear fuel was deemed to be the cheapest as long as nuclear power plants remained in operation, while directly disposing of all spent fuel would be the cheapest method if all nuclear power plants were to cease operation in Japan by 2020. The conclusions indicate that a path for directly disposing of spent nuclear fuel could be opened.

Under the estimates, 5 trillion yen to cover the decommissioning of the Rokkasho Reprocessing Plant in Aomori Prefecture and other expenses have been added to the costs of disposing of all spent nuclear fuel. Because of this, complete disposal has been deemed economically disadvantageous as long as nuclear power plants are still operating in Japan.

Hideyuki Ban, a committee member who serves as a joint representative of the Citizens' Nuclear Information Center, commented, "Unless we look carefully at how the calculations were made, we can't judge whether they are appropriate or not. The conclusions indicate that there is still an attachment (within the government) to the stalled nuclear fuel cycle."

Cost is not the only factor in the attachment to the reprocessing cycle. Supposing the ratio of nuclear power to the total amount of electric power generated in Japan stood at 20 percent by 2030, reprocessing instead of disposing of spent nuclear fuel would result in a 15 percent saving in uranium fuel, and stockpiles of fissile uranium which are restricted under international rules (amounting to about 30 tons) would decrease from 2030 onwards. This gives the reprocessing model the upper hand.

One reason the government and power suppliers have stuck firmly to reprocessing is that stockpiles of spent nuclear fuel continue to build up at nuclear power plants. As of September last year, there were a total of 14,200 tons of spent fuel onsite at Japan's 54 reactors, including four Tokyo Electric Power Co. reactors which were officially decommissioned on April 19. Unless this "nuclear waste" is dealt with, nuclear power plants may have to cease operations. But even if a decision is made to directly dispose of spent fuel, the issue of finding a disposal site must still be addressed.

The estimates produced by the JAEC subcommittee will be reflected in a mid- to long-term energy strategy to be compiled by the government's Energy and Environment Council, while taking feasibility issues into consideration. But it remains to be seen whether the government's line of reprocessing spent fuel will be changed. When the outline for Japan's current nuclear power strategy was compiled in 2005, direct disposal of spent fuel was calculated to be about 10 percent cheaper than reprocessing it, but after a general evaluation, the line of reprocessing all nuclear fuel

was adopted.

Subcommittee member Hidenori Oda, a member of the JAEC subcommittee who serves as head of the nuclear power division of the Federation of Electric Power Companies of Japan, called for maintaining the status quo.

"The selection of a reprocessing site was sought earnestly together with a local body involved (the Aomori Prefectural Government). A policy change would negate this," he said.

Tatsujiro Suzuki, who presides over the subcommittee, told reporters after the subcommittee's meeting, "Rather than cost, the issues of spent nuclear fuel stockpiles and the influences a policy change would have on local bodies are more important."

*Mainichi Shimbun*, April 20, 2012

<http://mainichi.jp/english/english/newsselect/news/20120420p2a00m0na025000c.html>

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### **Kan, other DPJ members to launch group to seek exit from nuclear power**

TOKYO (Kyodo) — Former Prime Minister Naoto Kan and some other ruling Democratic Party of Japan lawmakers on Wednesday decided to start a group as early as next week that seeks to create a road map for ending the country's reliance on nuclear power.

"Thinking about the future of Japan...why don't we seek a society that does not rely on nuclear power? This group is intended to properly discuss the time frame for realizing that goal," Kan, who was the Japanese leader when the nuclear crisis erupted at the Fukushima Daiichi complex last March, told reporters after a gathering to prepare for the group's launch.

The anti-nuclear activities led by Kan, whose efforts to end Japan's use of nuclear power date back to when he was still in office, come as the government moves closer to a decision on whether to allow the restart of some of the country's idled reactors, despite concerns among the public over their safety.

The reactors have passed safety checks that were newly introduced following the devastating nuclear accident.

Former Justice Minister Hideo Hiraoka, who also joined the gathering, told reporters, "Edging toward restarting reactors is unacceptable to the public."

Kan said he hopes to officially launch the group as early as next week, adding that it will try to make its views reflected in government policy.

Around 25 lawmakers, mainly those close to Kan such as former Justice Minister Satsuki Eda, attended the gathering.

**Kyodo Press**, March 29, 2012

<http://mainichi.jp/english/english/newsselect/news/20120329p2g00m0dm008000c.html>

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## **Japan Nuclear Fuel to resume MOX plant construction**

AOMORI (Kyodo) — Japan Nuclear Fuel Ltd. will resume possibly next week the construction of a plant to produce mixed oxide nuclear fuel known as MOX in northeastern Rokkasho village, Aomori Prefecture, Japan Nuclear Fuel President Yoshihiko Kawai said Friday.

The decision came after the company began to test a spent nuclear fuel reprocessing plant in January, while the government's Japan Atomic Energy Commission was considering nuclear policy reforms, including discussions on whether to discontinue the reprocessing following the March 2011 Fukushima Daiichi nuclear plant accident.

The construction has been suspended since the earthquake and tsunami devastated northeastern Japan and triggered the nuclear crisis.

Japan Nuclear Fuel plans to produce plutonium-uranium MOX fuel at the Rokkasho plant by reprocessing spent nuclear fuel from power stations in Japan.

"Reprocessing without MOX production will be meaningless," Kawai said, but added his company will abide by the decision if the commission decides on stopping the reprocessing.

Kawai indicated that the completion of the MOX plant, originally planned for March 2016, could be delayed due to the suspension in the past year.

**Kyodo Press**, March 30, 2012

<http://mainichi.jp/english/english/newsselect/news/20120330p2g00m0dm125000c.html>

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## **Ratio of electric power generated by thermal plants surpasses 70% following nuke crisis**

The ratio of electric power generated by thermal power plants in Japan has surpassed 70 percent following the March 2011 nuclear meltdowns, while that by nuclear plants, which stood at over one-fourth, has fallen below 3 percent, say industry insiders.

Since fuel for thermal plants is more expensive than that for nuclear plants, all nine electric power companies in Japan that have nuclear plants are estimated to have run into the red in the business year that ended in March this year. Okinawa Electric Power Co. in Okinawa Prefecture has no nuclear power stations.

In February last year, the month before the disaster, 36 of 54 commercial nuclear reactors owned by the nine companies were in operation, generating 26.81 percent of power consumed in their service areas.

Following the accident, however, many of the nuclear reactors were stopped one after another for regular inspections and for other reasons, and the number of such reactors in operation had decreased to a mere three by February this year. As a result, the ratio of power generated by such plants declined to 2.46 percent.

In contrast, the ratio of electricity generated by thermal power stations, which had stood at 50.08 percent, sharply rose to 73.82 percent. The ratio for hydraulic power stations remains largely unchanged.

Of the three reactors, the No. 3 reactor at Kansai Electric's Takahama Nuclear Power Plant was stopped for regular inspections that began on Feb. 20. Furthermore, the No. 6 reactor of the Kashiwazaki-Kariwa Nuclear Power Plant, the last reactor operated by Tokyo Electric Power Co. (TEPCO), stopped on March 25. Operations at the No. 3 reactor of Hokkaido Electric Power Co.'s Tomari plant, the last of the 54 nuclear reactors, are scheduled to be stopped on May 5.

As a result, utilities' reliance on thermal power will further increase. However, thermal power stations cannot be regarded as stable sources of electricity because they cannot endure full operations over a long period.

If power suppliers are forced to operate such plants over an extended period, they could develop technical problems one after another, according to a senior official with the Federation of Electric Power Companies of Japan.

Moreover, the nine power suppliers' increased reliance on thermal power pushed up their total fuel costs over the April-December period of last year alone by approximately 1.43 trillion yen.

Moreover, an increase in the dependence of utilities on thermal power will result in a rise in the emissions of carbon dioxide that is believed to cause global warming. The Institute of Energy Economics, Japan (IEE) estimates that Japan's carbon dioxide emissions in fiscal 2011 increased 2.1 percent from a year earlier.

*Mainichi Shimbun*, April 3, 2012

<http://mainichi.jp/english/english/newsselect/news/20120403p2a00m0na006000c.html>

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## **Gov't aims to secure two-thirds of voting rights to reform TEPCO**

The government aims to secure more than two-thirds of voting rights to bring Tokyo Electric Power Co., (TEPCO) under state control and drastically reform the operator of the crippled Fukushima No. 1 Nuclear Power Plant, according to a comprehensive business plan whose details were made available to the Mainichi on March 22.

TEPCO and the governmental Nuclear Damage Liability Facilitation Fund are currently working to map out the business plan within this month. Leaders of the Ministry of Economy, Trade and Industry (METI) and the Ministry of Finance (MOF) agreed to set the ratio of voting rights — the focus of debate on TEPCO's future — at more than two-thirds with certain conditions.

Their attention will now shift to a new TEPCO management team including a new chairman.

Regarding TEPCO's voting rights, TEPCO was reluctant to surrender a controlling interest and MOF was also worried about shouldering a heavier fiscal burden. But METI and the fund insisted on nationalizing the utility to overhaul it.

According to officials, the government will obtain 51 percent of voting right-attached common shares and about 12 percent of unlisted shares without a voting right which will be converted to

common shares depending on the degree of progress in TEPCO reform and other conditions.

This mechanism will raise the government's voting rights to more than two-thirds. Fifty-one percent of voting rights will enable the government to have control over personnel including the appointment of board members and keeping more than two-thirds of voting rights will allow the government to make important decisions such as on mergers.

The main pillars of the envisioned business plan include strengthening TEPCO's fiscal foundation and financing. Aided by a capital infusion of 1 trillion yen of taxpayers' money through the fund and 1.07 trillion yen in loans from financial institutions, TEPCO is required to improve its financial situation which has been aggravated due to fuel price increases and costs associated with handling the nuclear crisis.

The business plan to reform TEPCO will be implemented in three stages. The first stage calls for establishing four companies in charge of thermal power/fuel procurements, transmission and distribution of electric power, retailing, and corporate affairs in the first year. It also calls for setting up a panel with outside directors accounting for a majority while raising electricity fees for corporate customers by an average 17 percent from April and doing the same for households by about 10 percent from July.

During the second phase through the middle of the 2010s, TEPCO is requested to jointly procure liquefied natural gas with other electric power companies and gas firms and operate related facilities with other firms to ease the financial burden due to rising fuel costs. From fiscal 2016, TEPCO will aim to issue corporate bonds.

In the third stage, the plan is for TEPCO to become a consultant for power companies in emerging countries to help expand revenue sources.

But the business plan is contingent upon restarting the Kashiwazaki-Kariya Nuclear Power Plant in Niigata Prefecture, and TEPCO may change the proposed electricity fees depending on when and how the municipalities hosting the power plant will give their consent for TEPCO to restart the plant.

*Mainichi Shimbun*, March 20, 2012

<http://mdn.mainichi.jp/mdnnews/national/archive/news/2012/03/23/20120323p2a00m0na018000c.html>

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## **TEPCO Stops Last Nuke Reactor for Regular Checks**

Tokyo, March 25 (Jiji Press)—Tokyo Electric Power Co. shut down the last of its 17 nuclear reactors around midnight Sunday for regular inspections.

Now that the No. 6 reactor of TEPCO's Kashiwazaki-Kariwa nuclear power plant in Niigata Prefecture, central Japan, has gone offline, the country has only one active reactor, the No. 3 unit of Hokkaido Electric Power Co.'s <9509> Tomari plant.

But as the Tomari reactor in the northernmost prefecture of Hokkaido is scheduled to undergo regular checks from early May, Japan will see all its 54 reactors suspended since the nuclear accident at TEPCO's tsunami-devastated Fukushima No. 1 power plant last March. There is no

prospect of any reactor getting restarted.

TEPCO President Toshio Nishizawa said in a written statement Sunday that the company will be able to supply power stably for the time being. But he quickly added that its customers, mainly in eastern Japan, will be continuously asked to conserve electricity.

TEPCO stopped the Kashiwazaki-Kariwa reactor after gradually reducing its output from 2 p.m. the same day (5 a.m. GMT). The inspections are expected to last two and a half months. This is the first time for the major utility firm to entirely halt its nuclear power generation since spring 2003, when its nuclear trouble cover-up scandal came to light.

**Jiji Press**, March 25, 2012

<http://jen.jiji.com/jc/eng?g=eco&k=2012032500181>

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