Japan’s nuclear future
Rokkasho and a hard place

The government’s fudge on its nuclear future remains unconvincing

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THIS remote north-eastern coastal village in Aomori prefecture would delight a North Korean or Iranian spy. Not because of the rolling countryside, but the uranium-enrichment facility, the plant undergoing testing to make nuclear fuel by reprocessing spent uranium and plutonium, and the stash of a good part of Japan’s stockpiles of more than nine tonnes of separated plutonium—enough, experts say, to make more than 1,000 nuclear warheads.

The Rokkasho plant seems an anomaly in a country that forswears nuclear weapons and that has shut down all but two of its 54 nuclear reactors. Yet the same government that says it wants to phase out atomic energy by the end of the 2030s also insists that it is committed soon to start reprocessing enough nuclear waste at Rokkasho to provide fuel for Japan’s nuclear-power plants to go flat out into the 2050s. It does not take much prodding for officials to concede a potential contradiction, big enough to render Japan’s nuclear policy almost meaningless.

The key to understanding the contradiction is this village of 11,000, and the immense leverage its plant has over national nuclear policy. Near-countrywide disgust followed the triple meltdown at the Fukushima Dai-ichi plant last year. Yet, officials say, Rokkasho has helped force the administration of Yoshihiko Noda to water down its plans for ending dependency on nuclear power, even though the prime minister’s popularity is plunging. Polls suggest many of the electorate favour a firmer anti-nuclear stance.

The plant plays a strong hand, though its completion is 15 years behind schedule and it has been a financial black hole. Rokkasho’s mayor, Kenji Furukawa, argues that if the plant were suspended after (Yen)2.2 trillion ($28 billion) had been spent on it, the blow to a once-poor fishing and farming village would be devastating. Rokkasho has grown dependent on the reprocessing complex for nearly all its jobs and income.

A stronger economic argument, from the government’s point of view, is that the plant has been built by Japan Nuclear Fuel Limited (JNFL), whose largest shareholder is Tokyo Electric Power (TEPCO), owner of the stricken Fukushima plant. If the Rokkasho project were to be scrapped, TEPCO would be on the hook for the part of JNFL’s ¥1 trillion debt that it has guaranteed. Such a move would push TEPCO even closer towards bankruptcy than the Fukushima accident has already driven it.

Government officials say that without Rokkasho, Japan might swiftly have to abandon nuclear power for good. The plant is supposed to process the spent fuel that is backed up in temporary storage tanks at nuclear-power plants. If that waste is not processed, and no agreement is reached on where to store it more permanently, safety concerns would only grow. "Without Rokkasho, we would not get approval to restart the other reactors—not ever," says a member of the ruling Democratic Party of Japan (DPJ). Since the country’s reactors were shut down, the political establishment has quietly hoped that a looming electricity shortage will turn voters back on to nuclear power.
Then comes the international dimension. Officials say that when the DPJ made its commitment to phase out nuclear power, the United States, as well as Britain and France, expressed serious concern. Partly, they raised proliferation fears, one official says. If Japan, with the largest separated plutonium stockpile of any official non-nuclear-weapons state, carried on reprocessing spent fuel while phasing out the plants, then it would send the wrong message to potential nuclear rogue states, the Americans argued. To overcome that worry, the government quickly reassured Japan’s friends that the 2030s date was more of an objective than a commitment.

Other international objections were more to do with technology and national prowess. Americans worried that if Japan abandoned its nuclear programme, the United States would lose the technical expertise that Japanese firms share with American ones via tie-ups between Hitachi and General Electric, and Toshiba and Westinghouse. It might also mean Russia and China, rather than Japan and France, would take the lead in nuclear technology.

These pressures help explain why the government’s phase-out plans contain a hint of ambiguity. Future administrations may well take advantage of this to keep nuclear power. Still, the plans fail to explain the rationale for reprocessing. Frank von Hippel, a non-proliferation expert at Princeton University, says it would be easier and far cheaper for Japan to import uranium rather than reprocess it, and safer to store nuclear waste in air-cooled concrete casks rather than ship it to Aomori.

Yet little discussion takes place in Japan about options other than reprocessing, just as there was little discussion about nuclear safety until the Fukushima disaster. In Rokkasho itself a local rhubarb farmer, Keiko Kikukawa, wages a lonely fight against the plant from her small homestead on the village outskirts. Her protest has gone on for so long, she says, that all her fellow activists have either died or are too frail to carry on. No one else in the village, she continues, listens to her.

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