

Inconsistent “Innovative Energy and Environment Council”

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“Innovative Strategies for Energy and the Environment” (hereafter “Strategies”) has been determined by the state Energy and Environmental Council. Usually, bills in accordance with this are submitted to the Diet, and a new policy can be made. However, this time, since the Democratic Party of Japan administration is running scarce, it is not known to what degree this will be implemented as a bill. With less than one year of debate for such a long term problem as the energy policy until the 2030s, it is incomprehensible to make a last-minute decision during the waning years of the administration.

Furthermore, when examining the details, the selling point “zero nuclear” is not promised, and on the other hand, atomic fuel cycle being able to continue, the contents are full of contradictions. In regard to these circumstances, there seems to have been various internal pressures from influential powers and compromises with government offices, but as a whole, it is not known what they are trying to do. Here, I will outline these “Strategies,” inspect the Democratic Party administration’s inconsistent energy policy, and consider the energy policy after this administration.

“Zero nuclear” cannot be a policy objective.

“Strategies” lists its purposes as such.

“Before the earthquake, supposing how an energy-oriented society should be, we raised our degree of dependence on nuclear energy as a pillar, aimed at guaranteeing stable supply, and exploring for a solution for the problems of global warming. However, now that we stare the serious reality of this accident in the eye, we are more deeply understanding the lessons from we learned from this accident, and arriving at the conviction that the government should hitherto reexamine this continuing national energy strategy from scratch.” [trans.]

What is “the serious reality of this accident”? The Fukushima Daiichi nuclear power plant accident was the worst in history in an OECD nation, though not one casualty from radioactivity has come forth, and many specialists predict that none will come forth hereafter. Because of the accident, still 160,000 refugees cannot return to their homes, but this is due to the government’s mistakes regarding evacuation orders.

Muller declared, concerning the Fukushima accident, “This is not as catastrophic an accident as many people think, and we should not revise energy policy on a grand scale, [trans.]” The IAEA and other specialists are indicating and assessing the relative safety of nuclear power, as the damage from the Fukushima accident was far less than predicted. The point is that this accident is not so serious as to “reexamine national energy policy from scratch.”

As many international organizations indicate, nuclear power leaves a small burden on the environment than compared to thermal power generation, and has the lowest threat to health. As in the following statistics according to an [EU commission](#), the external costs (air pollution and mining accidents etc.) of atomic energy, 0.25 Euro cents/kWh, are far less than that of coal (2.55Euro cents) and gas (1.12 Euro cents).

QUANTIFIED MARGINAL EXTERNAL COSTS OF ELECTRICITY PRODUCTION IN GERMANY ² (IN € CENT PER kWh)							
	Coal	Lignite	Gas	Nuclear	PV	Wind	Hydro
Damage costs							
Noise	0	0	0	0	0	0.005	0
Health	0.73	0.99	0.34	0.17	0.45	0.072	0.051
Material	0.015	0.020	0.007	0.002	0.012	0.002	0.001
Crops	0	0	0	0.0008	0	0.0007	0.0002
Total	0.75	1.01	0.35	0.17	0.46	0.08	0.05
Avoidance costs							
Ecosystems	0.20	0.78	0.04	0.05	0.04	0.04	0.03
Global Warming	1.60	2.00	0.73	0.03	0.33	0.04	0.03

Other than health risks such as air pollution and mining accidents, risks of global warming are also included in this external cost. Costs for the compensation for the accidents are not included, but by IAEA standards, if it is once for every 100,000 reactor years, cost per kWh is little. However, since nuclear safety standards continue to become stricter, capital cost is high, and the price of natural gas deflates, it makes no business sense today.

Therefore, the correct set of goals can formulate problems such as, "how to minimize social costs if we combine fossil fuel, which is low in direct cost and atomic energy, which is low in social cost." In regard to cost of energy, as uncertain primary factors are great, this becomes a problem of probable conditional minimization. Solving this and deciding optimal energy proportions is a market problem, not a government problem.

The integrity of the ambiguous "Zero Nuclear" and nuclear fuel cycles

In "Strategies" the first pillar being touted is "The earliest possible realization of a society which does not rely on nuclear energy," but I struggle to understand why would we reduce a particular energy source to zero, and in addition to narrowing Japan's options by "investing all policy resources." "Permitting zero nuclear operations in the 2030s" being written looks at a glance like a promise of "zero nuclear," but the words "permitting zero operation" are deceiving.

The government's IT strategy office published a target amount stating within 5 years, 30 million households will be able to access high-speed internet, and 10 million households will have access to continuous ultra high-speed internet." in 2001's "e-Japan strategy." The broadband by the end of 2005 did not reach either target, but the government claimed, "As fiber optic networks have reached over 90% of households, our mark has been met."

By the same logic, if we think we can try to put a cease to all nuclear power by the year 2039, we should be sure to be able to cease operations. As it is now, if we do not establish new nuclear power plants, in the year 2030, the percentage of nuclear generation would be about 15%, but nevertheless, by this way of thinking, this target is not inconsistent. In brief, as this is full of loopholes, this does not make sense as a target.

Making mention of the second pillar, "green energy revolution," there is published the fanciful figures of, excluding hydraulic power, increasing 25 billion kWh in 2010 to 190 billion kWh by 2030 (8-fold). This appears to replace about 60% of the 300 billion kWh of nuclear plants, however, because we can not use solar power or wind power on rainy days or days with no wind, as a backup to this, thermal power is required. The point is that renewable energy will not be a substitute for nuclear energy.

On the other hand, the feed-in tariff of solar power became 42€/kWh, this established the highest fixed price in the world, but this cost is completely imputed on customers. This consequence, establishing "zero nuclear" by 2030 and seeing electric utility expenses nearly double is a preliminary calculation by the government.

In regard to the third pillar, "the steady supply of energy," it is written that "If the social cost of nuclear energy is understood, it is not as cheap, comparatively, as previously believed," but that is just the opposite. As the EU commission and others indicate, the direct costs of nuclear energy are high, but external costs are low. However, because the Democratic Party sees this problem conversely, policies coming out are coming out illogically.

In "Strategies," it is raised the "five policies for a turn towards the implementation of a society which does not rely on nuclear power," but above all, the biggest problem is the nuclear fuel cycle. If we reduce nuclear power to zero, there should be no need to make new fuel or have reprocessing facilities, but the government says, "The nuclear fuel cycle is clearly being

promoted in the medium-long term.”

On the other hand, concerning the fast reactor prototype “Monju,” it is written that “research shall end,” and that construction of the commercial reactor will not be carried out. What will we do with the generated plutonium driving the nuclear fuel cycle? In regard to this, there is nothing written in “Strategies.” If you look at what is written: “We are launching research on direct disposal,” they are considering the plan to abandon reprocessing substantially, but by specifying this, as this is a violation of the promise with Aomori, the description is ambiguous.

What is even more strange is the global warming counter-plan. Former Prime Minister Hatoyama made the international commitment stating to “reduce amount of greenhouse gas emission in 2020 by 25% from 1990,” but in “Strategies,” this promise is not recognized, as it is stated, “The amount of greenhouse gas emission in the year 2020, because it is uncertain if there will be operation of nuclear plants or not, the breadth of the extent must be considered. However, if we forecast with a standardized condition, we could cut 5-9% from 1990.”

Populism of the forthcoming election

In this way, as “Strategies” is incoherent, there is no promise to implement the crucial “zero nuclear” policy. The day after this was determined, METI Minister Edano approved the continuation of construction of Oma nuclear power plant in Aomori Prefecture and Shimane Unit 3 plant in Shimane. If the decommissioning in 40 years is carried out as written in “Strategies,” these nuclear power plants will operate until the year 2050. If decommission is implemented by 2030, the construction costs of nuclear power plants can not be collected, and the government will be pressured with great compensation.

The mistake that the Democratic Party administration is making in the first place is policy priority. The immediate action to be decided should not concern nuclear power plant percentages 20 years from now, but continuing operation of nuclear power plants having been stopped with no legal basis, and review the radioactive doses standard in order to allow 160,000 victims to return home.

Even with long-term energy policy, the things to think about are not whether or not to reduce certain power sources to zero, but to plan a system to be able to choose an energy that is suitable for the market and to appropriately internalize external costs of energy. What is especially important is the price stabilization of fossil fuels and nuclear power is also important as a tool for negotiation. As “nuclear power ratio” is a result of competition, the government controlling this is directed economy.

As for “Strategies,” Motohisa Furukawa, State Minister in charge of National Strategy has been said to have, under the feign of “political leadership,” rejected the METI, but as a result, was much like a university student’s report, quite below a bureaucratic composition. As the Liberal Democratic, who negate “zero nuclear” is expected to play a key role in the next administration, fortunately, it seems unlikely that “Strategies” will be executed.

Consequently, “Strategies” has no meaning in regard to energy policy, but the manifest being wiped out, it will be helpful as a slogan of public flattery published for the general election by the Democratic Party. Having been decided in the last moments of the administration, it is inevitable if people say “zero nuclear” is only for show for the sake of the next election. For these three years, it has been understood that there is no administrative ability in the Democratic Party administration, but they seem alert only for the election.

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