

A QUESTION OF COMMITMENT

Japan's Climate Change Policies Revisited

Cindy Termorshuizen
Tokyo Institute of Technology
(c) 1998 Cindy Termorshuizen

It is now over six months since the historic Kyoto Conference (COP3) came to a close. Preparations for COP4, to be held in Argentina this November, are well underway. Japan, which signed the Kyoto Protocol on 28 April and has been pumping out climate change- and energy policy-related reports and legislation ever since appears to be deeply committed to the process.

However, there is increasing evidence that this commitment is not much more than skin deep. In both the domestic and international arena, a look at the fine print of key government documents reveals a disturbing lack of commitment on the part of the Japanese government (and particularly on the part of the Ministry of International Trade and Industry -- MITI) to fulfilling its obligations under the Kyoto Protocol. These obligations include, most importantly, a 6% reduction in greenhouse gas emissions from 1990 levels by 2010, to be achieved largely through domestic measures (Article 6.1 (d)). In the following paper, I will outline key "problem" policies, both domestic and international, discuss major criticisms of these policies, and point out ways in which these policies might be made more "climate-friendly."

THE DOMESTIC ARENA

On the domestic level, four key changes have been made in energy policy over the past half year with significant implications for, particularly, carbon dioxide emissions. In May a revision of the Energy Conservation Law passed the Diet and an updated "Long-Term Energy Supply and Demand Forecast" was released by a subcommittee of the Advisory Committee for Energy. In addition, as part of the slow, steady move toward deregulation in electricity retailing, the Electricity Utility Industry Council recommended that partial liberalization of electricity sales be permitted. Finally, in June a government task force, set up in January and consisting of key officials from most of Japan's ministries and agencies, released guidelines specifically aimed at the fulfillment of Japan's Kyoto Protocol obligations. The following section will elaborate on these four areas of policy change.

The Energy Conservation Law

The amendment of the Energy Conservation Law is perhaps the most positive of the four domestic policy changes considered here in terms of its potential to actually reduce CO₂ emissions. The law now

stipulates that energy conservation targets be based on a "top runner" system, under which manufacturers must achieve efficiency levels equivalent to the best available. This is a substantial improvement over the past system, where only average efficiency levels were required. The law also requires mid-size and large manufacturers to make medium-term efficiency plans.

The strengths of this law, however, hide some serious weaknesses. The top runner system, for instance, does not apply to all appliances and machines, nor are the methods of calculation which underpin it clear. The efficiency plans, though required, do not have to be made public. Furthermore, the law does not stipulate any sanction should companies fail to draw up these plans. Full information disclosure and strong compliance incentives are indispensable if the law is to operate effectively.

The Long-Term Energy Supply and Demand Forecast

The new "Long-Term Energy Supply and Demand Forecast," which outlines the general direction to be taken by Japanese energy policy until 2010, is considerably more problematic than the Conservation Law. As in the 1994 forecast, the main goals of Japan's energy policy are stated to be energy security, economic growth, and environmental protection (though energy security is given much less emphasis than previously). On the positive side, the forecast calls for a slow move away from coal (from 16.4% of primary energy in 1996 to 14.9% in 2010) and a significant expansion, at long last, of co-generation. It also sees renewable energy, not including hydro and thermal, rise from 1.1% to 3.1% of primary energy. The good news stops there.

A closer look at the forecast reveals questionable assumptions about growth and emissions, a stubborn and even foolish commitment to nuclear power development, and only half-hearted action on renewables. The total package bodes ill for achievement of Japan's 6% reduction obligations and even worse for the achievement of the deeper cuts necessary in the long term. The problem areas of the forecast are briefly expanded on below.

The key assumption underlying the new forecast is a 2% economic growth rate (actually, a 3% growth rate until 2000, and 2% thereafter). Editorials in Japanese newspapers and reports by NGOs have been critical of this assumption, pointing out that the country's economy is in recession and unlikely to see sustained growth for some time. The forecast's assumption that domestic energy policy measures need only stabilize CO₂ emissions (as opposed to reducing them by 6%) has also been lambasted. Even some members of the Advisory Committee for Energy, which drafted the forecast, have publicly voiced opposition to this assumption.

The forecast's commitment to sharply expanding nuclear power

production (from 35% of electric power to 45% by 2010 -- approximately equivalent to 20 new reactors) has been greeted with skepticism from industry, the press, and NGOs. Besides the obvious safety and waste disposal concerns, criticism has focused on the unfeasibility of such a major increase given strong local opposition to reactor siting and on the huge amount of investment required, leaving insufficient funding for efficiency improvements and for development of other energy sources, particularly renewables.

In the area of renewables, the forecast is less ambitious than it might initially appear. An international comparison will help to illustrate this point. In Denmark, where the promotion of renewables has been an energy policy priority, an estimated 12-14% of total gross energy will come from renewables (in particular, biomass, wind, and solar) by 2005. Japan, as mentioned above, plans to have only 3.1% of its energy come from renewables by 2010. Though some might argue that Japan's vastly higher total energy consumption makes this comparison unjust, megawatt comparisons give similar results. For instance, in the case of wind power, by 2010 Japan plans to have 150 MW installed. Denmark plans to have 10 times that (1500 MW) by the year 2000.

In terms of solar power, problems lie less with the forecast itself than with its implementation. Though the plan is to expand solar capacity from 400 MW in 2000 to 4600 MW in 2010, actual installed capacity was still foundering at only 90 MW in March of this year. This is but one instance of a consistent problem in this country's energy policy: a steady output of policy papers and legislation but a mere trickle of measures to make their prescriptions work on the ground.

Deregulation of Electricity Retailing

While the general climate impact of the Long-Term Energy Supply and Demand Forecast is relatively straightforward, the implications of deregulation are difficult to judge, particularly as the process is only in its infancy in Japan. In general, the effect of deregulation in electricity retailing depends very much on the ultimate design of the new system. For instance, if bids to supply energy are considered solely in terms of price, there is likely to be a shift to the cheapest possible energy sources (low-quality coal and oil or, more positively, combined cycle gas turbines). Low-emission energy sources, like wind, which remain relatively high cost (in Japan, anywhere from 12 to 23 yen per kWh) compared to fossil fuel sources (10 yen per kWh), will lose out.

This is of particular concern in Japan, where retail liberalization is presently aimed only at industrial and other large-scale customers. While environmentally conscious households might choose higher cost, renewable energy given the option, industrial customers are unlikely to do so without regulation or strong incentives. The electricity industry is

presently discussing ways of evaluating bids so that not only price, but also environmental criteria, would be taken into account. Moves toward adopting such criteria need to be supported more vocally by the Diet and environmental NGOs.

Guidelines for Meeting Kyoto Protocol Obligations

The final area of concern in domestic energy policy is the guidelines for meeting Japan's Kyoto Protocol obligations, set out by a special government task force. The guidelines call, as expected, for major increases in nuclear power and also for the implementation of other measures such as daylight saving, better home insulation, and better public transportation. Though some of the task force's recommendations are positive, their legal status and the effect they will have on emissions is unclear. Individual ministries are expected to transform the recommendations into concrete measures, but there is no obligation for them to do so, nor any indication of how the success of any implementation efforts will be measured. As in other areas of energy policy, there is the distinct possibility that little of substance will come out of the recommendations. Clarifying the legal status of the guidelines and indicating who is responsible for their implementation and evaluation would go far toward putting them into practice.

THE INTERNATIONAL ARENA

On the international level, Japanese approaches to sinks, joint implementation (JI), and CFCs go one step further than domestic policies. They not only betray a lack of commitment to the fulfillment of Japan's own Protocol obligations, but also show a willingness to undermine hard-won international agreement on such matters as the definition of sinks and which gases to include in the Protocol. The following section briefly discusses each of these policy problems.

Sinks

Sinks, defined as "direct human-induced land-use changes and forestry activities, limited to afforestation, reforestation, and deforestation since 1990" (Article 3.3) under the Protocol, can technically only help achieve 0.3% of Japan's emission reduction obligations. MITI, however, would like to see 3.7% of the 6% reduction (equivalent to the CO₂ absorbed by all of Japan's forests) achieved by sinks. The Environment Agency disagrees with this 3.7% figure, pointing out that under the expanded definition, a country like Canada could cover 100% of its Protocol obligations by means of sinks. The Japan Tropical Forest Action Network (JATAN), a well-known Japanese NGO, is equally critical, bringing up the role of timber imports in maintaining Japanese forest cover at its present high levels. JATAN accuses the Japanese government of ignoring the fact that the annual amount of

timber imported to Japan "exceeds the rate of increase in domestic forest cover." Given this fact, JATAN argues that CO2 emissions for timber should be attributed to the importing country (as is now the case with petroleum emissions). This suggestion is well worth considering, as it would bring more fairness into the sinks debate.

Joint Implementation

Joint implementation, which refers to investing in emission-cutting projects in other countries and using the reduced emissions to meet the Protocol obligations of the investing country, is another device which Japan is utilizing to sidestep domestic emission reductions. MITI intends to achieve 1.8% of its 6% reduction obligation through a combination of JI and emissions trading. To realize this, the ministry recently earmarked 2.2 billion yen to survey JI opportunities in Russia. Japanese corporations have already shown an extraordinary interest in JI, especially in Russia, and to a lesser extent in China. While both of these countries desperately need to increase the efficiency of their power generating sectors and could certainly use Japanese assistance, dependence on Japan for plant upgrades may very well inhibit both countries from developing domestic environmental technology to do this work on their own. It would also provide Japan a way out of making domestic cuts. To keep JI fair and beneficial in the long run, developing countries and economies in transition need to acquire not only environmental technologies, but also the know-how to produce them. And to keep industrialized countries honest, a cap on JI's contribution to total emission reduction obligations needs to be put in place.

CFCs

The final area of concern regarding Japan's international climate change negotiations is its position on CFCs. At a preparatory meeting for COP4 held in Bonn in early June, a member of the Japanese negotiating team announced that Japan intends to push for the inclusion of CFCs in the list of gases covered under the Kyoto Protocol. CFCs, as most readers will know, deplete the ozone layer and their production is already regulated under the Montreal Protocol. Though CFCs also contribute to global warming, delegates at COP3 agreed to leave them under the Montreal Protocol. The Japanese government, however, argues that as the latter Protocol only regulates production and not disposal of CFCs, CFC destruction should fall under the Kyoto Protocol. For good reason, the Climate Action Network (CAN), an international NGO network, vehemently disagreed with this proposal in its newsletter ECO. It noted that incentives to destroy CFCs can and should fall under the Montreal Protocol; placing them under the Kyoto Protocol would simply add one more loophole to an already very flawed emissions reduction framework. Japanese NGOs and Diet members need to do their utmost to

ensure that CFCs stay out of the Kyoto Protocol.

THE DECISION-MAKING PROCESS

The above sections have outlined some key problem areas in Japan's energy and climate policies and argued that the prospects for achieving the country's emission reduction obligations are limited. Underlying this dizzying array of flawed policies is an even more flawed decision-making process (which, unfortunately, is not limited to energy and environment issues). In general, the environmental policymaking process in Japan has little toleration for dissent from status quo opinion, allows only limited participation by environmental experts and NGOs, and includes almost no oversight by the Diet. These general points certainly hold true in the case of climate change.

Ministry advisory councils dealing with climate change were handpicked by the relevant ministry and usually included no climate or environmental scientists. At best, only one token NGO member (never one from an energy-related or environmental NGO) per council was appointed. No system was in place to accept or discuss documents or opinion papers submitted by NGOs not represented in the councils. The Diet, constitutionally Japan's highest legislative body, had virtually no input into the policies discussed above. To my knowledge, its only active involvement was in the Energy Conservation Law, which had to be deliberated upon and passed by the Lower and Upper Houses. Though thorough scrutiny by the Diet of energy and climate policies would not guarantee more environmentally sound decision-making, it would open space for greater citizen participation (through lobbying, for instance) and allow decision makers unaffiliated with the ministries to question ministry assumptions and priorities.

A questioning of present priorities and assumptions is desperately needed. According to the Intergovernmental Panel on Climate Change (IPCC), a 50% reduction in global CO₂ emissions is necessary to slow climate change to a level to which natural ecosystems can adapt. If one accepts the argument that developing countries have the right to increase emissions past their present levels for reasons of equity, then industrialized countries like Japan will have to cut emissions by 80 or even 90%. Piecemeal policies like those described in this paper will not bring emissions anywhere close to these figures. A more holistic, visionary energy policy that grapples with not only supply and demand but also with social needs and environmental limitations is necessary.

CONCLUSION

Japanese energy and climate change policy are underpinned by a "hold the course" attitude. On the domestic level, changes in everything from energy conservation legislation to the long-term energy supply and demand forecast are minor adjustments to an environmentally

unsustainable energy policy. On the international level, Japanese policy towards sinks, joint implementation and CFCs shows a similar tendency to avoid energy sector reform at all costs.

It is only a more open and critical decision-making process that will open Japan's energy policy to fundamental reform. At best, without fundamental reform, the introduction of sound climate change policies will be delayed. At worst, such policies may not be put in place until it is far too late.

REFERENCES

Akira Endou. "Kaze ni noru kankyou hozenkei enerugii". Global Net, no. 86, pp.5-6.

"CFC no hakai mondai ni tsuite" (A Kiko Network report from the 8th SBI/SBSTA meeting in Bonn, Germany). 11 June 1998.

Cindy Termorshuizen. "Dangerous Detours: Japan's Approach to Sinks and Joint Implementation". Forum on Environmental Administration Reform, 1998.

"CO2 tsukunai dengen, yuuguu mo". Asahi Shimbun (Tokyo morning edition), 22 April 1998.

Deborah Justus. "Policies and Measures for Common Action: Working Paper 18. Electricity Sector: Market Reform". Annex I Expert Group on the UNFCCC, November 1997.

"Greenhouse gas mitigation in Denmark". Green Times, vol.4 no.3, October 1997.

Japan Tropical Forest Action Network. "Timber Trade: Another Loophole for Japan?" 8 June 1998.

"Liberalized Electricity Sales Muddled". Japan Times. 9 May 1998.

"New energy proposal dictates 'drastic' changes in lifestyle". Japan Times, 14 October 1997.

"Reliance on forest CO2 sinks called problematic". Japan Times, 22 June 1998.

"Shin enerugii fukyuu no torikumi to kadai". Enerugii Fouramu, May 1998, pp.64-67.

Shuuichi Katou (Member, Upper House). Question submitted to the government regarding climate change measures. 12 June 1998.

Sougou enerugii chousa kai dai rokkai jukyuu bukai chuukan houkoku (an), Shiryuu 1. 11 June 1998.

JAPAN ENVIRONMENT MONITOR

E-Mail Edition

Issue #98 (1)

Jul-Aug 1997