



## Deadlock in ITER talks must end

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The discussion between Japan and the European Union over where to construct the International Thermonuclear Experimental Reactor (ITER) seems to have reached a standstill.

Two weeks after a meeting in June of vice ministers from China, the EU, Japan, Russia, South Korea and the United States, those involved in the project criticized the Japanese government's hands-off attitude, saying it had done nothing to facilitate progress on the reactor's construction in Japan.

But the project cannot advance because of the deadlock in negotiations concerning a location for ITER.

In the vice ministerial meeting, which was held in Vienna, Japan put forward Rokkashomura, Aomori Prefecture, as a possible site for the project, while the EU suggested Cadarache in southern France. Both countries refused to yield on their choices.

The United States and South Korea supported Japan, while Russia and China backed the EU in what seemed like a reflection of a similar division that formed last year over the war in Iraq.

U.S. delegates apparently could not wait to catch their reserved flights home, leaving before those in attendance were able to schedule the next meeting.

A thermonuclear reactor is designed to generate the same energy as the sun's energy-producing process through nuclear fusion, which is more efficient than nuclear fission reactors.

In what will be the world's first prototype nuclear fusion reactor, fuel can be obtained from sea water rather than other resources that are much more limited in quantity.

But the costs involved in constructing such a reactor are staggering.

The development of a single ITER costs 1.3 trillion yen. As several reactors must be constructed before they can begin to provide energy, no country can afford to finance the project on its own.

Therefore, since 1985, the five countries and the EU have explored the possibility of jointly developing a thermonuclear project.

At previous meetings, the members decided to share the 570 billion yen construction fee for the main reactor and each has earmarked their contributions in state budgets.

In December, the group's members attending a ministerial meeting failed to reach an agreement on a location for the project.

At last month's meeting, Japan proposed an increase in its contribution to the

construction costs for the reactor from 48 percent to 58 percent, or by about 60 billion yen, and that the subordinate facilities be built in Europe.

But as the EU tabled a similar proposal, the meeting ended having only secured an agreement on increasing the financial contribution of the country to host the project.

The deadlock ensued because the country to host the project will benefit greatly by possibly becoming the leader of research and development on nuclear fusion as well as the economic repercussions of the project's construction.

A senior official of the Education, Science and Technology Ministry said the project could help train engineers and provide technological basis for further discoveries.

"This will be an opportunity for the country to make up for its failure in rocket launches, showing the world Japan can be a technological power," the official said.

The project will provide about 50,000 jobs, according to some estimates, and will utilize the stagnant Mutsu-Ogawara industrial base in Aomori prefecture.

Projections agree that the benefits the project will provide will be worth twice the amount Japan will invest as its host.

However, Nobel Prize-winner, Masatoshi Koshiba, professor emeritus at Tokyo University, said ITER will generate a huge amount of radioactive waste.

"If we calculate the cost accurately of disposing of this waste, it's clear that ITER is not really a promising option for the future," he said.

Some education ministry officials were similarly dubious over the possible future benefits.

ITER is a 30-year program in which each participant aims to put the technology into practical use by the middle of the century, so any further delays in selecting a location should be avoided, as should dropping the plan, which will undermine international cooperation on scientific development in the future.

More talks should be scheduled to ensure that a decision on the location for the project is made.

The government must explain to the public its motivations for attempting to host the project and pursue follow-up meetings with the other four countries involved and the EU.



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