



INTERNATIONAL

N-fusion plan divides backers

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Japan and France are squaring off in a battle to host an international project to build an experimental nuclear fusion reactor, a technology proponents believe is the future of energy generation.

France appears determined to prevail over Japan.

Nuclear fusion reactors are sometimes called artificial suns, since they are intended to generate electricity using the same processes that occur inside the sun.

The fuel they use--heavy hydrogen--can be extracted from sea water in limitless quantities. In contrast with conventional nuclear reactors, they also produce almost no radioactive waste.

These advantages mean nuclear fusion is regarded as the ultimate form of energy generation.

Japan, the United States, the European Union, China, Russia and South Korea plan to jointly build the experimental reactor, known as the International Thermonuclear Experimental Reactor (ITER).

Rokkashomura in Aomori Prefecture and Cadarache in southern France are competing to host the project.

Japan's bid has the backing of the United States and South Korea, and the government hopes the country will be awarded the project at a ministerial meeting of the relevant countries scheduled for the end of this month.

But France has the tentative support of Russia, China and the EU. France also has appointed a special ambassador to lead its international campaign to host ITER.

The man appointed to the post, National Assembly member Pierre Lellouche, is a politician infamous for his arrogant attitude.

He has taken an aggressive approach to the project, based on a firm

belief that "it is natural for ITER to be based in Europe, given Europe's leading role in nuclear research alongside the United States and Russia."

He also has been outspoken on the politics of the ITER project. "The United States supports Japan because it wants to punish France for our opposition to the Iraq war. It is also because the United States wants to reward (Prime Minister Junichiro) Koizumi for sending troops to Iraq," he said.

Lellouche's solution to the standoff between the two nations also is controversial. "The Japanese can save face if we give them equipment to simulate fusion," he suggested.

Encouraged by Lellouche, top French government officials have even proposed that France and the EU should embark on their own nuclear fusion project if Japan is chosen to host ITER.

The proposal took Tokyo and Washington by surprise, given the agreement to make ITER a showpiece of international cooperation.

Japan has played a leading role in nuclear fusion research since its earliest days. The country's nuclear fusion critical plasma test reactor, known as the JT60, was the first device to sustain the 520 million degree temperatures necessary for fusion to occur.

Japan has many such achievements of direct benefit to ITER. This is the real reason why the United States supports the Japanese bid, not the spurious political reasons cited by Lellouche.

The level of nuclear technology studies in Europe is also high and Cadarache is a suitable site in many respects.

But some are concerned that the site suffers from inadequate transport links.

Critics also oppose France's "European unilateralism," which they see as a bid by the EU to dominate fusion research.

After France criticized the United States for "unilateralism" concerning the war in Iraq, the country now faces the same accusation concerning its position on ITER.

Japan's Ambassador to France, Hiroshi Hirabayashi, recently put Tokyo's case in a major French newspaper. He called for a "debate centering more on scientific viewpoints," and said Rokkashomura was the right choice.

Japan, he argued, should emphasize that if the level of nuclear studies in Asia and the region's demand for nuclear power generation rise, the

French will still benefit as pioneers and key suppliers in the field.

Last week, when Chinese President Hu Jintao visited France, the French side tried to obtain his support in the ITER contest. But diplomatic sources said Hu avoided making any promises. That means Japan still has time to persuade China to support its bid.

The ITER project will be the basis of worldwide nuclear fusion research for years to come, though it may be a long time before the technology becomes commercial. Experts say it will be another 50 years before a nuclear fusion reactor is put into practical use.

Now the the key to winning the bid may be which side succeeds in winning the support of China.



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