

World

Wrangle over site could pull fusion reactor project apart:

By RAPHAEL MINDER March 7, 2005

Europe and Japan are standing behind their chosen locations for research into a radical new energy source, says Raphael Minder



The spat between the European Union and Japan about where to locate the world's largest energy research centre might have to be settled by tossing a coin, according to one Japanese negotiator.

The wrangling over the International Thermonuclear Experimental Reactor has exposed the limits of international scientific co-operation when jobs and money are at a stake.

ITER is intended to be the first large-scale demonstration of nuclear fusion - the reaction that powers the sun. But the Dollars 10bn (Pounds 5.19bn) project will also create about 10,000 jobs.

As the largest financial contributor to ITER, the EU thought it would be able to secure support for building the project in Europe after resolving a dispute between France and Spain about which state should host the project.

But when it sought endorsement for its choice of Cadarache in France at a meeting of the six project partners in December 2003, Japan rejected the move. It wanted ITER built in Rokkasho, in northern Japan.

To the EU's dismay, South Korea then lined up with the US behind Rokkasho, balancing Chinese and Russian backing for Cadarache.

Both sides have since dug in their heels. Following a fruitless visit to Brussels last month, Satoru Ohtake, director for fusion energy at Japan's Ministry of Education, Science and Technology, said: "We are really determined to host ITER and so is the EU, so these negotiations are really proving very difficult."

He said that if the deadlock persisted "tossing a coin or drawing lots might seriously be the most peaceful, best and only way to solve this".

Japan's determination to host ITER appears to have strengthened in recent months after what Mr Ohtake described as a "scornful" suggestion from the EU that it might go it alone on ITER if the deadlock remained unresolved.

Tokyo insists any move by the EU to break ranks with some of its partners would violate the spirit, if not the letter, of the ITER agreement. ITER was conceived as a project involving every country with a significant research programme.

Japan has since turned down European suggestions of a further round of high-level meetings as a pointless gesture.

Meanwhile France yesterday gained endorsement at an EU ministerial meeting to start construction in Cadarache before the end of the year, with fewer partners if necessary. The ministers set a de facto deadline of April 18 to settle the dispute.

Both sides have offered to give the other a "privileged partnership" in return for not hosting the project. Such a partnership would probably involve a big role in simulation studies and the building of ITER, which is expected to cost Euros 4.6bn (Pounds 3.16bn) and generate about 2,000 construction jobs.

But Mr Ohtake admits such benefits would not match those that could be gained from hosting ITER, which is likely to act as a magnet for the high-technology industry. "It would of course be ideal to find a win-win solution but I think the best that can be hoped for is a win-less, lose-less result," he said.

ITER is due to start operating in 2014 and run for about 20 years. Some energy experts say fusion is the best option for clean and plentiful power in the second half of the 21st century. But scientists who have spent more than a decade designing ITER are aware that, without a political breakthrough, the project might never get off the drawing board.

Chris Llewellyn Smith, the director of the Culham division of the UK Atomic Energy Authority, which is responsible for the UK's thermonuclear fusion programme, said: "Every day of delay is a day later in making fusion power a reality, so this is very frustrating. Unfortunately this is totally out of the control of scientists."

The project is already behind the schedule set out in the 1992 ITER agreement, which had set 2005 as the year to start operations. EU officials claim Japan is fighting tooth-and-nail to defend its bid because Rokkasho would face a bleak future without ITER. While Cadarache is already home to a nuclear research centre, Rokkasho is a large-scale commercial nuclear complex that includes a uranium enrichment centre and temporary storage for radioactive waste.

It is not the first time high-profile international scientific projects have been dogged by political wrangling. The construction of a new European particle accelerator led to a major stand-off in the 1960s. It was resolved when participants agreed to build the accelerator at Europe's existing nuclear research centre near Geneva.

Europe and Japan seem set to find it even more difficult to settle their differences. Tossing a coin might yet offer a low-tech way of ending the dispute.