



France, Six Nations Sign Accord on \$12.9 Billion Iter Reactor

By Tom Cahill

Nov. 21 (Bloomberg) -- France, the U.S. and five other nations signed a 10 billion euro (\$12.8 billion) agreement to build an experimental nuclear-fusion reactor that one day could replace conventional nuclear power plants.

The U.S., South Korea, China, India, Japan, Russia and the European Union agreed to finance and share the International Thermonuclear Experimental Reactor, or ITER, at a ceremony at France's Elysees Palace in Paris today.

France, which operates 58 nuclear reactors, fought hard to host the project in southern France, winning out over Japan. French companies including Areva SA, the world's biggest maker of nuclear reactors and Alstom SA, a maker of power stations, will compete with companies such as Toshiba Corp., General Electric Co. and Westinghouse Electric Co. to build the project.

`` If nothing changes, humanity will have devoured in 200 years the basic fossil fuels accumulated during hundreds of millions of years, triggering a climactic earthquake," French President Jacques Chirac said, after a ceremonial signing of the accord. `` We are duty-bound to take these steps for our dependence."

The project's funds will be invested over 40 years, half of which will be spent on construction in the coming decade.

`` There's a lot at stake," said Raymond Orbach, undersecretary for science at the U.S. Department of Energy. `` We will have enough energy for the whole world if it works. What we're talking about is 30 years from now power from this flowing into the grid. Skepticism is well-placed, but we think it's worthwhile trying."

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The project is aimed at harnessing new sources of energy based on nuclear fusion that have less waste than nuclear power and emit no greenhouse gasses.

Fusion, the process that powers stars, could be cheaper and safer than fission, the action at the core of contemporary nuclear power plants. ITER members say uniting the atoms of lighter elements such as hydrogen instead of splitting heavier ones such as uranium generates more energy, less radioactivity.

The experimental reactor in France is expected to lead to a prototype reactor that all nations can draw from in building fusion reactors to deliver electrical power.

To contact the reporter on this story: Tom Cahill in Paris at tcahill@bloomberg.net

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