



**Remarks on behalf of the United States Government  
by Dr. Raymond L. Orbach  
Director, Office of Science  
U.S. Department of Energy**

**at the ITER Ministerial Meeting  
Moscow, Russia  
June 28, 2005**

Thank you.

Here in Moscow today, the six Parties to the ITER negotiations have reached a very important milestone en route to the objective of fundamental international import: harnessing the energy that powers the sun and stars here on earth in order to promote enhanced global energy security.

Moments from now, we will formally agree that the ITER test facility will be located at the EU site in Cadarache, thereby resolving the question of site in these negotiations.

This is the culmination for the United States of numerous negotiating sessions over the 30 months since President Bush announced in January 2003 that we would join the multilateral negotiations for the construction and operation of ITER.

On behalf of U.S. Secretary of Energy Samuel W. Bodman, I am pleased to announce that the United States supports the decision of the ITER Parties to site the ITER reactor at Cadarache.

The United States looks forward to getting ITER construction underway as soon as practicable.

To be successful, however, the ITER negotiations must resolve not only the siting of the project, and an agreed-upon financial and procurement arrangement, but also critical management and oversight arrangements.

In these negotiations, the U.S. will continue to strive for a robust management structure and an oversight program based on the principles of equity, accountability and transparency to ensure both the success of the project and the best use of American taxpayer dollars.

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Recent advances in computer simulations, and in our understanding of fusion science, give us confidence that ITER will successfully provide the scientific understanding to move to commercially viable fusion energy.

As noted in its National Energy Policy, the Bush Administration considers fusion a key element in U.S. long-term energy plans. Furthermore, before the U.S. took any decision to participate in the ITER talks, we commissioned four important reviews:

First, the fusion community held a meeting in Snowmass, Colorado during the summer of 2002, followed by the Fusion Energy Sciences Advisory Committee (FESAC) of the Department of Energy's Office of Science where fusion scientists unanimously endorsed moving ahead with ITER. This community consensus will be crucial to the success of the U.S. participation in ITER.

Second, the Fusion Energy Sciences Advisory Committee developed a roadmap to a fusion power plant demonstration in 35 years with the capability to demonstrate economic electricity on the grid.

Third, the DOE Office of Science conducted a review of ITER costs and management structure at the International Team site in Garching, Germany, led by Daniel Lehman, renown for the thoroughness and rigor of his project-management oversight.

Finally, the National Research Council, an arm of the National Academies of Sciences, addressed questions about the importance of a burning plasma experiment for fusion energy and the scientific and technical readiness to undertake a burning plasma experiment. The NRC endorsed the ITER effort as a necessary next step in the U.S. fusion energy research program.

These reviews informed President Bush's decision to enter the ITER negotiations, which he announced with these words on January 30, 2003:

The results of ITER will advance the effort to produce clean, safe, renewable, and commercially available energy by the middle of this century. Commercialization of fusion has the potential to dramatically improve America's energy security while significantly reducing air pollution and emissions of greenhouse gases.... We welcome the opportunity to work with our [ITER] partners to make fusion energy a reality.

The importance of ITER has also been recognized by the U.S. House and Senate, which are considering the Energy Bill containing language authorizing U.S. participation in ITER.

ITER will allow scientists to explore the physics of a burning plasma, the critical next step in our attempts to harness fusion energy to produce and deliver commercially viable electricity to the grid.

Another benefit of fusion energy is that it can produce emission-free hydrogen. Thus, ITER can contribute to a hydrogen-based economy of the future.

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In November 2003, 10 months after the United States entered these negotiations, then-U.S. Secretary of Energy Spencer Abraham went to the National Press Club in Washington, DC to deliver a major speech and release an historic roadmap for future scientific facilities to support the Department's basic science and research missions.

In a recent publication called, *Facilities for the Future of Science: A Twenty-Year Outlook*, the Department of Energy proposed a portfolio of 28 prioritized new scientific facilities and upgrades of current facilities spanning the scientific disciplines to ensure the U.S. retains its primacy in critical areas of science and technology well into this century. This DOE roadmap identified ITER as priority one. As Energy Secretary Abraham said,

First on our list is fusion. The prospect of a limitless source of clean energy for the world leads with our commitment to join the international fusion energy experiment known as ITER. This is a Presidential priority with enormous potential. Successful negotiations among the international partners will lead to the first-ever fusion science experiment capable of producing a self-sustaining fusion reaction. If we reach agreement, ITER will be our top facility.

Eight months later, the Department of Energy made another announcement that clearly indicates the United States takes ITER – and our role in ITER – very seriously. In July 2004, we announced that, after a national competition and careful review, the Princeton Plasma Physics Laboratory and Oak Ridge National Laboratory were selected to run the U.S. ITER Project Office at PPPL in New Jersey.

The Department of Energy's commitment to its facilities roadmap – and to ITER – has been reinforced by Secretary Bodman.

Soon after he was sworn in, Secretary Bodman testified before the House Science Committee this past February:

The priorities we have set are clear. ...[W]e will complete ... on time and within budget ... unique scientific facilities that will maintain and enhance research in areas we believe offer the greatest potential for broad advances in future energy technologies. These scientific facilities were prioritized in our 20-year facilities outlook, announced in November 2003.

... We are ... carrying forward with U.S. participation in the International Thermonuclear Experimental Reactor to pursue the potential of energy from nuclear fusion.

As President Bush has said, ITER is "an incredibly important project," and the United States is intent on working with our ITER partners "to build a fusion test facility and create the largest and most advanced fusion experiment in the world."

This critically important experiment represents a crucial step to harnessing the potential of fusion energy as a viable source of electricity and hydrogen.

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Today we celebrate an important agreement determining where ITER will be built. In months to come, the Parties to the ITER negotiations still must resolve many difficult issues. Fusion energy holds out the promise of playing a key role in U.S. long-term energy plans and independence because it offers the potential for plentiful, safe and environmentally benign energy.

Fulfilling this promise will require continued international collaboration and cooperation such as that demonstrated by the six Parties to the ITER talks in arriving at today's agreement. The United States remains committed to this promise. Thank you very much.

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