Dear Senators Feinstein and Alexander:

We are fusion scientists and engineers from institutions and facilities throughout the United States writing to express our concern about the language included in the Senate’s FY 2015 Energy and Water Appropriations bill and report that would not only cut the budget for the domestic fusion program and underfund U.S. contributions to ITER in FY 2015, but also order U.S. withdrawal from that project.

Both the domestic research and facilities program and ITER are important elements for the development of fusion energy in the United States. The domestic program – which funds many of the labs, universities, and programs for which we work – is crucial to developing the scientific basis for fusion energy, establishing the foundation for the next steps in the U.S. fusion program, and providing the scientific context and workforce from which to reap the benefits of U.S. investments in ITER. The ITER project itself is the largest international science collaboration in the world, with the scientific objective of understanding the burning plasma state in which the power from fusion reactions dominates the behavior of the plasma, and a mission of demonstrating the scientific and technological feasibility of fusion energy. U.S. involvement in ITER also has direct near-term economic benefits: as of March 2014, more than $616 million in ITER contracts have been awarded to U.S. manufacturers, universities, and DOE national laboratories in 40 states plus the District of Columbia, many of whom have been, or will be, able to leverage this gained expertise to win additional contracts from other ITER partners.

ITER is a challenging project. Indeed, harnessing fusion into a commercial energy source is one of the greater scientific and technical endeavors ever undertaken. ITER construction is made all the more challenging by the complexities inherent in implementing an international partnership of seven sovereign entities, each of whom is responsible for providing the timely delivery of its own contributions without having full control over the cost, schedule, and management of the overall project.

The deficiencies within the ITER Organization must be addressed in an effective and timely manner and we are pleased that the ITER Council has approved implementation of the management recommendations put forth by the Final Report of the 2013 ITER Management Assessment. We also welcome Congressional insistence that DOE ensure that these urgent
management reforms are implemented and support Congressional demands for a reliable project performance baseline.

We share the Committee’s frustration with the serious management problems of the international ITER project and the cost increases both international and domestic. We are also disappointed with the Administration’s pattern of funding U.S. contributions to the project through decreases to the domestic fusion program and the Administration’s proposal in FY 2015 to substantially reduce both programs from their FY 2014 appropriated levels. However, we believe that withdrawing from ITER would be a serious mistake for the United States and our energy future. When successful, ITER will be viewed as a landmark science and energy experiment of the 21st century. Participation in ITER and access for our scientists to the ITER research will yield great benefits toward U.S. progress in fusion. U.S. withdrawal from ITER would deprive our nation and the next generation of our scientists from crucial scientific participation and experience that will be available to others. It would also almost certainly undermine our nation’s reputation as a reliable partner in international science projects.

The ITER Organization is expected to complete an updated schedule by June 2015 that covers the full ITER construction phase. At that time, the effectiveness of the management reforms implemented by the Council should be assessed and further corrective measures taken if necessary. In the meantime, we respectfully encourage the Committee to fully fund the domestic research and facilities program and the ITER project at no less than the FY 2014 level, and allow the U.S. to continue to fulfill the full scope of its research, design, and fabrication obligations to ITER.

The following endorse this letter as individual scientists and engineers not formally representing their home institutions:

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