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Statement of ITER Organization by Director General Pietro Barabaschi

On behalf of the ITER Organization, I would like to thank IAEA Director-General Rafael Grossi and the IAEA governors and delegations for this opportunity to address you regarding the global progress of fusion energy research and the status of the ITER project.

As you will recall, the IAEA has been a parent organization to the ITER Project. In recent years, our relationship has expanded to greater cooperation on educational activities, knowledge management, and public outreach. With the emergence of fusion energy start-ups and private sector investment, both the IAEA and ITER have developed programs for collaboration and engagement to support these efforts.

In particular, I would like to congratulate Director-General Grossi and his team on the launch of the World Fusion Energy Group, which will soon host its inaugural ministerial meeting in November in Rome, co-chaired by Italian Prime Minister Giorgia Meloni. By bringing leading scientific researchers together with leaders from government and the private sector, the World Fusion Energy Group promises to drive forward the narrative of fusion energy research and development.

At ITER, we are also developing new channels for technological engagement with private sector fusion initiatives. Building upon differences in public and private approaches, the global fusion R&D innovation program has much to gain from cross-sector collaboration. ITER has accumulated decades of specialized fusion knowledge and experience, and we are committed to making that knowledge available in support of this global effort. The private sector, by comparison, has greater flexibility to explore smaller, more experimental, and higher risk concepts, which also contribute meaningfully to the body of global knowledge.

Let me turn to a brief update on the ITER project status. The ITER tokamak is among the most complex scientific research experiments of all time, a First-of-a-Kind



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industrial scale fusion device. With all ITER Members—China, Europe, India, Japan, Korea, Russia, and the United States—contributing components to make a single machine, we add further complexity; but we also serve as a unique model of physical international collaboration.

In recent years, these unique challenges, combined with the negative impacts of the Covid-19 pandemic, have led to delays and increased costs. After extensive deliberation, in June we presented a new cost and schedule baseline to our oversight body, the ITER Council.

The new baseline prioritizes achieving the start of research operations (SRO) as rapidly as possible. By consolidating tokamak assembly stages, it will incorporate more components, enhance pre-assembly testing, and reduce machine risk, leading to a scientifically and technically robust initial phase of operations beginning in 2034. This SRO phase will include hydrogen and deuterium-deuterium (DD) plasmas, operating the tokamak in long pulses at full magnetic energy and plasma current. The achievement of these goals will enable progression to full fusion power in the deuterium-tritium (DT) phase, starting in 2039.

While delays and cost increases are never welcome, they are to be expected with a project of this size and unprecedented complexity. I am pleased to report that the ITER Members have so far been in support of this new approach. We feel confident that this is the right way to proceed, and that—working in conjunction with the fusion community globally—we can progress steadily toward overcoming the remaining science and engineering challenges to make nuclear fusion a source of energy for future generations.

Above all, the ITER Project is a tangible demonstration that multinational collaboration is possible at a practical level, with countries that may not always be aligned on all matters, but at ITER are working hand-in-hand toward a common goal: to leave a better energy legacy. This practical collaboration will be needed on many fronts as we work globally to confront the challenges of climate change; and it is truly a manifestation of Atoms for Peace and Development.

Thank you.