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STEP - Cryogenics Engagement Workshop 7th April 2022

Putting fusion energy into peoples' homes will need creative scale-up of cryogenic refrigeration solutions. We are reaching out to the wider cryogenics community to get involved.

Based at UK Atomic Energy Authority, STEP (Spherical Tokamak for Energy Production) is an ambitious programme to deliver a prototype fusion energy plant, targeting 2040, and a path to commercial viability of fusion. It will develop and identify solutions to the challenges of delivering fusion energy and, as the programme progresses, UKAEA will work with a range of partners to deliver the prototype of a commercially viable fusion plant.

The STEP prototype will have the features of a fully operational power station, including infrastructure, and associated research and development facilities. It is likely to be a delivery project of comparable scale and value to a major operational power station. Work is currently ongoing to select the site of the prototype power plant, to be recommended to the Secretary of State by then end of 2022.

The STEP prototype and future commercial fusion power stations will require significant cryogenic cooling at a range of temperatures from 80K to 4K. UKAEA are inviting the wider cryogenics community to a workshop to engage with the STEP programme. The objective is to introduce the cryogenics community to STEP, explain the importance of the programme for future energy production and outline the challenges in terms of cryogenic refrigeration. The aim is to seek the collective wisdom to start outlining a roadmap to a cryogenic infrastructure for STEP and explore longer term engagement.

In the morning there will be a number of presentations. The afternoon will be an opportunity for discussion of the roadmap and longer-term opportunities.

Please join us, either in person or on the hybrid platform to hear more about the challenges of STEP and to have an input into the roadmap for resolving these challenges. The event is free, and refreshments will be served to those joining us at Culham, Oxfordshire, a further opportunity to network during the breaks.

To sign up for the event please go to <https://www.eventbrite.co.uk/e/step-cryogenics-industry-workshop-tickets-265852621347>