

PIP-II

Project Director Report



March 2022

PROJECT HIGHLIGHTS

- Successful CD-3 IPR; ESAAB scheduled for April 18
- P2PEB #11 held March 15
- First HB650 cavity string completed
- Cryopant PDR1 completed

UPCOMING EVENTS

April TBD	P2LDC meeting
18 April	ESAAB meeting

ESAAB scheduled for April 18

The PIP-II CD-3 review, held March 1–3, was successful, with all seven sub-committees recommending the project to proceed to CD-3 and begin full-scale procurement and construction. The final step is to receive approval

from the DOE Energy Systems Acquisition Advisory Board (ESAAB). The ESAAB meeting is scheduled for April 18, and the project hopes to hear confirmation of official CD-3 approval shortly afterward.

P2PEB #11 held March 15

The 11th PIP-II Project Executive Board meeting (P2PEB) was held on March 15, 2022. Discussions included updates from international partners, updates from Fermilab team with

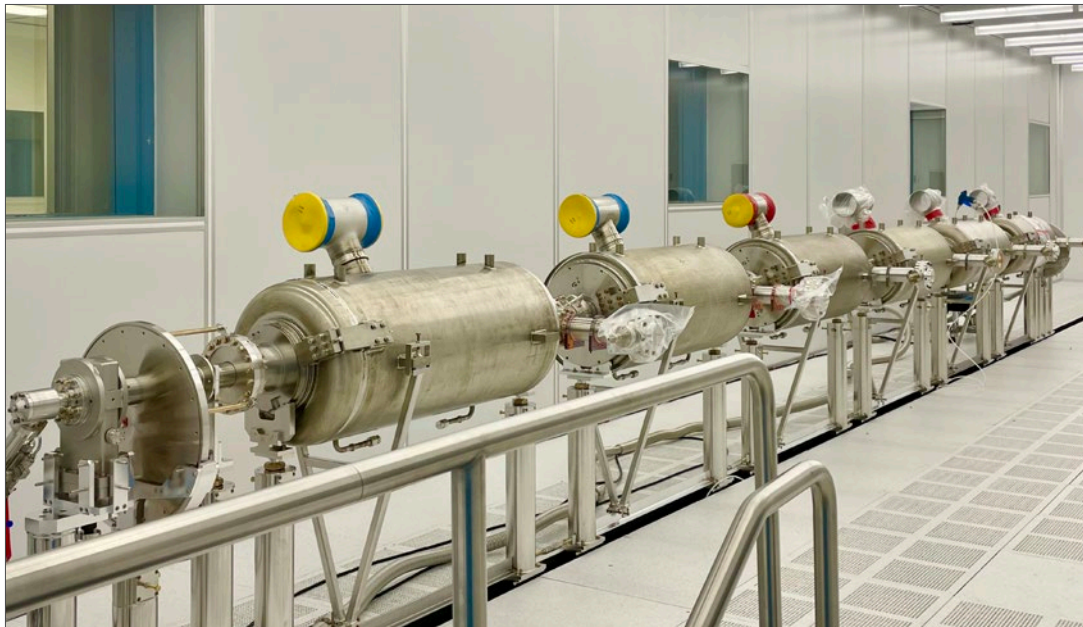
impacts on international partners, and review of CD-3 close-out recommendations and comments related to in-kind contributions partners' scopes.



First HB650 cavity string completed

On March 31, the very first PIP-II HB650 cavity string was completed at Fermilab. This string, consisting of three US-made and three India-made cavities (from RRCAT), will be assembled in the prototype HB650 cryomodule. The

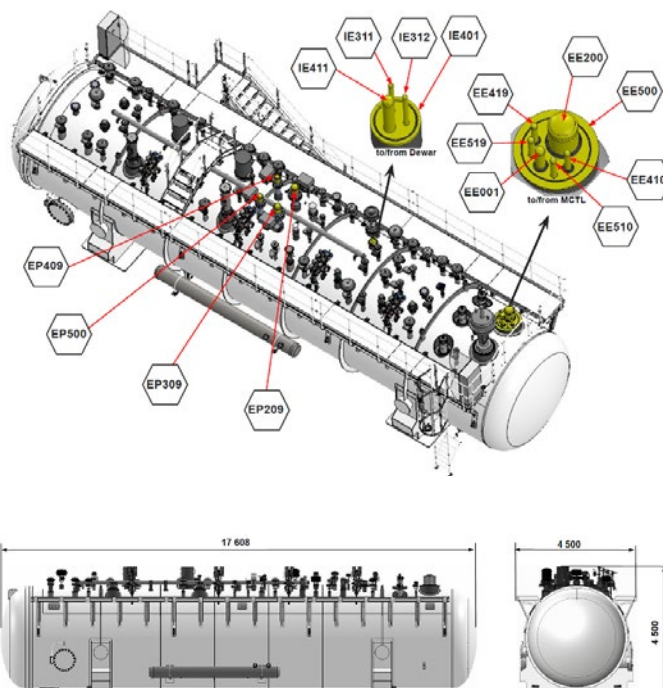
high-beta 650 MHz (HB650) elliptical cavity cryomodules make up the final stage of the PIP-II linear accelerator. They accelerate the proton beam from roughly 500 MeV to its full energy of 800 MeV.



Cryoplant PDR1 completed

The PIP-II cryoplant team, in collaboration with BARC, completed the Preliminary Design Review 1 (PDR1) with the cryoplant vendor, Air Liquide, March 28–31. In total, over 45 documents and deliverables were provided by Air Liquide, and reviewers generated over 150 comments.

The review provided a first look at 3D models of the coldbox and the process design being developed by Air Liquide. Successful completion of this review freezes the process design and allows ALAT to proceed with various long-lead procurements including heat exchangers, warm compressors, cold compressors, turbines and cryogenic valves. It also allows Air Liquide to proceed with the detailed design of the coldbox and the preliminary design of the warm compressor system. Procurement of the cryoplant by BARC constitutes the single largest in-kind contribution to the PIP-II project.



Top: Preliminary 3D model of the coldbox showing major interfaces. Bottom: Preliminary model of the coldbox showing primary dimensions.