

16-Mar-2022

Charge Letter: LBNC March 2022 Review, March 28-30, 2022

The LBNC is charged by the Fermilab Director to review the scientific, technical, and managerial progress, plans and decisions associated with the Fermilab Long Baseline Neutrino Facility (LBNF) and the Deep Underground Neutrino Experiment (DUNE).

For the Spring 2022 meeting, the LBNC will again meet virtually to review status and progress of LBNF and DUNE. As with other meetings, the LBNC should construct a report in which it acknowledges, comments on, and where appropriate, makes recommendations following the presentations and discussions during the meeting.

The LBNC should hear about the general status of LBNF and DUNE. In addition to updates on major detector systems: Far Detector 1, Far Detector 2, and Near Detector, the LBNC should also receive updates on activities towards ProtoDUNE-II and LBNF Beamline. Along with technical progress, staffing and plans, presentations should report on issues and concerns related to supply chains and availability of components. Detector and beamline construction sequencing implies a particular approach to addressing the systematic uncertainties in the neutrino oscillation measurements. DUNE is asked to articulate their current strategy. The LBNC should comment on this approach.

As design and construction decisions are made by partners contributing to this effort, the LBNC should comment on scope, timeline, and physics performance of these changes. Where appropriate, the LBNC should also comment on overall coherence of the international effort.

In considering the presentations and material provided for the meeting, attention should be given to prior LBNC recommendations and actions that have been undertaken to address these recommendations. For the DUNE detectors and computing, we would like to continue our work toward uniform and regular reporting and tracking of major DUNE technical milestones.

Other specific areas of review for this meeting should include a) planned accelerator commissioning and beam intensity profile and b) a presentation on ProtoDUNE analysis and progress toward publications. And following its recent review of Far Detector 1, the Neutrino Cost Group should provide a brief report.

The LBNC should also review progress on computing and the Computing CDR, as well as other relevant documents that are under development.

The LBNC should develop a Closeout Report which it should deliver at 12:15 CST on March 30, 2022. Subsequently this should be refined into a LBNC Meeting report.