



November 19, 2021

## **Charge for the HL-LHC US ATLAS Upgrade Project Director's Review**

Virtual, December 13-15, 2021

DOE Office of High Energy Physics is planning Independent Project Review (IPR) of the US ATLAS HL-LHC project for second half of January 2022. To evaluate status and readiness of the project for the review, the review committee should provide in depth review of the project concentrating on the areas where the project can improve for the coming DOE review. Pandemic created major challenges with the execution of the project, including impacts on cost and schedule. Your feedback on these impacts and proposed by the project mitigation strategies will be extremely valuable.

As part of assessing the project's progress and plans, the committee should focus on the following questions:

1. Is progress on development of the proposed technical design adequate to meet the project's milestone for completion by the proposed CD-2/3 timeframe? Is it likely to meet the performance requirements?
2. Is the project making adequate progress on the resource-loaded schedule, risk assessment and contingency estimate to meet the project's milestone for CD-2/3?
3. Does the project team have adequate management experience, design skills, and laboratory support to produce a credible technical, cost, and schedule baseline?
4. Does the project team understand the dependencies on outside resources such as participation by researchers with other funding sources and funding from other agencies or international collaborators?
5. Does the project use the human and technical resources available to it at the participating national labs and universities when they are the most efficient choice? Are qualified vendors being sought out where they are the most cost-effective option?
6. Are the long-lead procurements being managed successfully?
7. Are the ES&H aspects being addressed properly and is the planning sufficient for this stage of the project?
8. Has the project responded satisfactorily to the recommendations from previous independent project reviews?
9. Are there any other significant issues that require management attention?

I appreciate the committee time and efforts to help with conducting this review. The review summary will be most effective if delivered by December 17, 2021.

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