

Status of the preTDR

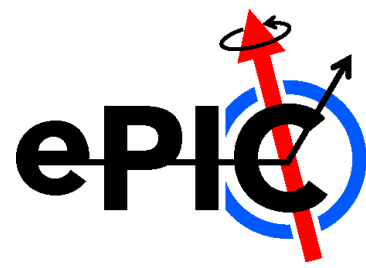
John Haggerty

BNL

Current status of the preTDR

- Version 2.1 changes were due July 11
 - Tagged versions 2.1.x
- Many changes submitted in the past month
 - Plot metadata only present in 5 subsections—needed for defensibility and to keep track
 - Missing subsections and placeholders remain in the text
 - Version in Overleaf builds now (thanks to help from Dave Morrison)
- Some contributions promised by the end of July, so we will work on a version tagged on or about August 1
- Editorial Board appointed in the past few weeks is chaired by Silvia and me
 - Invitations to board members have gone out to seasoned collaborators who will help smooth out the rough edges and produce a very polished version for use in future reviews
 - Silvia has discussed the makeup of the Editorial Board

General comments on the TDR

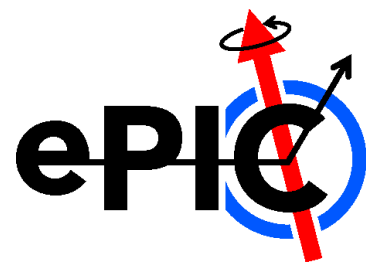


- The TDR is useful to the collaboration as the first handbook describing everything in one place
- It's nice if it is stylistically elegant and cohesive, but it's more important that it contains the design details
- It should be technical document with as little politics, history, management, manpower, cost and schedule as possible
 - Those things are all covered by other documentation (if at all) and including them in the TDR just makes it necessary to keep them consistent
- An overview of the entire detector (executive summary, introduction) that explains the detector and the rationale is important
- There is a lot of work left to do on finalizing figures, plot metadata, and summary tables
- A glossary of acronyms would be a courtesy, there may be other conveniences to make the document more accessible to reviewers
- If you break the build—fix the build!
 - If you can't fix the build, email me (haggerty@bnl.gov) with details of what's broken and when you noticed it

How we envision the editorial process

- The TDR is not going to be rewritten by the Editorial Board—the detector leads must be the authors and completely behind everything in the TDR
- Hopefully, we can help by anticipating reviewers' questions, clarifying the language and organizing the text to most clearly describe the detector
- We expect to meet (at least) weekly to go over one or two detector sections
 - We'll try to have a proposed schedule soon
 - It's important that the Board and the authors be prepared to discuss their sections
 - One way I have found useful to do this kind of review is for all attendees to take notes and send them to a designated chair who compiles them verbatim, and then synthesizes them into findings, comments, recommendations
 - These subsection sessions can serve as a practice for future reviews

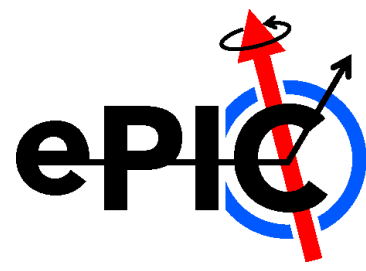
How to comment



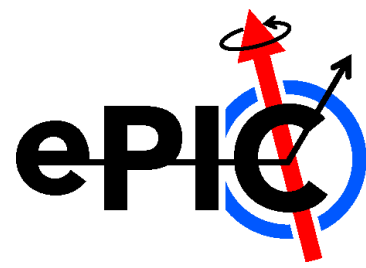
- We want your comments!
- We want your revisions even more (via the subsection authors)
- Smaller comments by line number in the frozen text, larger comments by section or chapter
- Google Form unless someone has a better tool

A screenshot of a Google Form titled "ePIC PreTDR Comments". The form is displayed in a web browser window. The title is "ePIC PreTDR Comments" and the subtitle is "Comments on the Jul 11, 2025 draft of the ePIC preTDR Version 2.1". The form includes a "Switch account" link for the user "jshaggerty@gmail.com". There are three required fields: "Email", "Line number" (with a subtext "Line number in document (anything non-numeric for general remarks)"), and "Comment". Each field has a red asterisk indicating it is required. Below the fields are "Submit" and "Clear form" buttons. At the bottom, there is a disclaimer: "Never submit passwords through Google Forms. This content is neither created nor endorsed by Google. - Contact form owner - Terms of Service - Privacy Policy. Does this form look suspicious? Report". The Google Forms logo is at the bottom right.

Schedule for baseline release

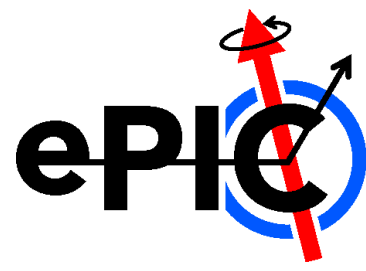


- Possible course corrections
 - August sub-project strategy review
 - November
- Complete by Dec 10, 2025
 - There are about 20 weeks between now and then, so we may need two meetings some weeks because although I've concentrated on the detector description, we need to review simulation results as well
 - Post-completion final polishing to finish before Christmas

Table 2.2 CD-2 Requirements¹

| Prior to CD-2 | Approval Authority ² |
|---|-------------------------------------|
| Approve an updated Acquisition Strategy, if there are any major changes to the acquisition approach. Obtain endorsement from OEMC for Major System Projects. (Refer to DOE G 413.3-13.) | PSO |
| Establish a Performance Baseline, reflective of identified and assessed risks and uncertainties, to include TPC, CD-4 date, and minimum KPPs. The key project milestones and completion dates shall be stated no less specific than month and year. The scope will be stated in quantity, size and other parameters that give shape and form to the project. The funding assumptions upon which the PB is predicated will be clearly documented and approved. (Refer to DOE G 413.3-5.) | FPD |
| Approve updated Project Execution Plan. (Refer to DOE G 413.3-15.) | SAE or AE |
| <ul style="list-style-type: none"> Prepare a Funding Profile to support the execution of the PB and reflect in the budget document. AE must consider fully funding projects (excluding MIE) with a TPC less than \$50M. The funding profile may be included in the PEP. | SAE or AE |
| <ul style="list-style-type: none"> Approve Long-Lead Item Procurements, if necessary. Approval may be concurrent with (or prior to) CD-2 approval. (Long-lead item procurement approval will be designated as CD-3A.) | SAE or AE |
| Develop a Project Management Plan, if applicable. (Refer to Attachment 1.) | |
| Complete a Preliminary Design. | |
| <ul style="list-style-type: none"> Incorporate the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings per EO 13423, Section 2(f), EO 13514, Section 2, and Sustainable Environmental Stewardship considerations per DOE O 450.1A into the preliminary design and design review. (Refer to DOE G 413.3-6 and DOE O 430.2B.) | |
| <ul style="list-style-type: none"> Conduct a Design Review of the preliminary design. | |
| <ul style="list-style-type: none"> <i>For nuclear facilities, design reviews should include a focus on safety and security systems. Additionally, the Code of Record shall be placed under configuration control during preliminary design.</i> | |
| <ul style="list-style-type: none"> Complete a Preliminary Design Report. | |
| <p>Perform a Performance Baseline External Independent Review (EIR) or an Independent Project Review (IPR). OEMC will conduct EIRs to validate the PB for projects with a TPC \geq \$100M. OEMC must issue a Performance Baseline Validation Letter to the PSO that describes the cost, schedule, and scope being validated. PMSO will conduct IPRs to validate the PB for projects with a TPC < \$100M. (Refer to DOE G 413.3-9)</p> <p>For projects with a TPC \geq \$100M, OEMC will develop an Independent Cost Estimate (ICE). The ICE will support validation of the PB.</p> | OECM \geq \$100M PMSO < \$100M |

Summary



- A frozen preTDR will have a general release about August 1
- An Editorial Board has been formed to review the document
- We plan to finish a release candidate for baseline review by the end of CY2025