

**Report Outline and Reviewer Assignments**  
**For the**  
**Director's CD-1 Review of the CMS Detector Upgrade Project**  
**July 16-18, 2013**

Executive Summary	<u>Ken Stanfield</u>
<u>1.0 Introduction</u>	
2.0 Technical	<u>Dmitri Denisov*</u>
2.1 Hadron Calorimeter - HCAL	<u>Dmitri Denisov</u>
2.2 Silicon Pixel Detector - FPIX	<u>Dave Christian</u>
2.3 Level 1 Trigger	<u>Eric James</u>
3.0 Cost and Schedule	<u>Bob O'Sullivan*</u>
3.1 Cost	David Leeb
3.2 Schedule	
4.0 ESH&Q	<u>John Anderson*</u> <u>Kathy Zappia</u>
5.0 Management	<u>Ed Temple*</u> Marc Kaducak Mike Dinnon
6.0 Charge Questions	
6.1 Has the Project developed a quality resource loaded schedule that includes the entire project's scope of work and is it achievable?	<u>Bob O'Sullivan</u> All
6.2 Are the estimated cost and proposed schedule ranges realistic, consistent with the technical and budgetary objectives, and justified by the supporting documentation? Has all the work been appropriately identified, estimated and scheduled, including the work associated with performing the preliminary design, final design and value engineering activities?	<u>Bob O'Sullivan</u> All
6.3 Has the Project implemented a Risk Management Process by identifying risks, performing a risk assessment and started developing mitigation plans at an appropriate level for the CD-1 stage?	<u>Mike Dinnon</u> All
6.4 Is the Project Team adequately staffed and does it possess adequate experience to successfully carry out the Project?	<u>Ed Temple</u>
6.5 Is the current staffing level adequate to complete the work to achieve CD-2? If not, has the appropriate staffing level been identified in the schedule and has a staffing plan been developed to acquire the future staffing needs?	<u>Ed Temple</u> All
6.6 Are ESH&Q aspects being properly addressed given the project's current stage of development?	<u>John Anderson</u> <u>Kathy Zappia</u>

6.7 Are the draft Key Performance Parameters (KPPs) achievable based on the design, cost range and schedule range presented?	<u>Dmitri Denisov</u> All
6.8 Is the scope of work clearly defined between what is funded by DOE or NSF, and is this reflected in the cost, schedule and risk assessment presented to the committee?	<u>Dmitri Denisov</u> <u>Bob O'Sullivan</u>
6.9 Has the relationship been clearly defined between the LHC CMS Detector Upgrade Project and International CMS at CERN?	<u>Ed Temple</u> All
6.10 Has the project acceptably addressed the relative recommendations from the Director's Independent Conceptual Design conducted on May 14-16, 2013 and the Director's Cost and the Schedule Assessment performed on May 15-16, 2013?	<u>Dmitri Denisov</u> <u>Bob O'Sullivan</u>
6.11 Is the documentation required by DOE O 413.3B and Fermilab's Project Management System in order and is the Project ready for a DOE CD-1 review scheduled for August 26-27, 2013?	<u>Ken Stanfield</u> All

Note: \* Indicates Subcommittee Lead and integrator of write-ups  
Underlined names are the primary writer.