

# CFS-ADI Joint Meeting Agenda

---

University of Tokyo  
April 8-10, 2014

## Introduction

This meeting will examine the scope of the pre-project CFS work, the schedule, and necessary resources. The detector hall concept at the proposed site, and the impact of energy phasing will also be addressed. The pre-project CFS timeline will likely drive many aspects of the accelerator design work in the next few years thus it is important to understand these constraints. In order to derive a site dependent ILC design and address long lead-time CFS activities then we need to assess what design information needs to be available to the CFS group and when. The ILC technical design in the TDR relied on a generic site description which is inadequate to proceed much further in the site specific design.

There are 4 sessions per day and should last ~90 minutes each. Talks should be ~45 minutes (30 mins if 2 talks in that session) which leaves a similar amount of time for discussions. The Chairs will work with the speakers to ensure the talks address the topics. As we generally only have one named speaker per session it will be important that their presentations “provoke discussion”. One assumes this will be achieved by people presenting some minimum list of open issues and questions that we need to discuss. The session annotations hopefully give some sense of this.

Tuesday April 8<sup>th</sup>

Session 1, 9.00; Meeting Kick-off, Chair Akira Yamamoto

Goals – Mike Harrison,  
CFS Status – Atsushi Enomoto  
ADI Status – Nick Walker

*The first session will outline the meeting goals as well as the status of the CFS and ADI work to date.*

Session 2, 11.00; CFS pre-project activities, Chair – Vic Kuchler

Pre-project scope of work (long & medium term plan), Timeline, Required resources,  
Profile – Masanobu Miyahara  
Discussion

*The CFS pre-project work scope will determine the readiness for a construction project hence we need to understand the elements of the work scope and their individual schedules. Can any items be delayed with compromising the effort? Can the 5-year estimate for this work be shortened in any way? Since non trivial funding will be needed to complete this work then this implies some kind of budget before the anticipated GO-NOGO decision in 2016. How much money is needed and when, if we try and minimise a pre-project request*

Session 3 14.00; ADI Support of CFS, Chair – Nikolay Solyak

Issues pertaining to CFS for each system – Nick Walker  
Discussion

*There remains “loose ends” in several systems in regard to CFS requirements. Ascertaining these issues will help determine the systems groups work scope and remaining CFS uncertainty.*

Session 4, 16.00; Technology Support & CFS Impact, Chair – Hitoshi Hayano  
Cryomodule & Waveguide installation, LHe inventory control, Radiation shielding,  
Safety - Tomoyuki Sanuki & Masanobu Miyahara  
Discussion

*This session will examine issues related to the tunnel and access-tunnel X-sections and input penetration layout. Is the generic tunnel layout including accessibility and safety now stable ?*

Wednesday April 9<sup>th</sup>

Session 5, 9.00, MD(1), Chair – Ewan Paterson  
Detector Requirements both SiD and ILD minimum needs – Karsten Buesser  
Discussion

*Do we understand the Detector design well enough to determine the CFS Detector Hall requirements ? Is there risk that significant Detector changes could still remain ? Can we identify the major technical cost drivers arising from the Detectors in terms of the CFS, including comparisons of effects with vertical shaft and horizontal access?*

Session 6, 11.00; MDI (2), Chair – Yasuchika Yamamoto  
Interaction Region Solutions including Hybrid, Detector Hall impact on Overall  
Construction schedule – Yoshinobu Nishimoto  
ARUP Study Status – John Osborne  
Discussion

*Can we conclude the horizontal – vertical access debate ( at least conceptually) ? Hybrid model – positives/negatives. When do we need to resolve this ? What needs to be done in the near term to facilitate this decision ?*

Session 7 14.00; Energy Phasing, Chair – Nick Walker  
General Scheme, parameters, CFS impact – Benno List  
Discussion

*The proposal to implement the project in stages has implications for the CFS approach and scope. What are these features (transfer lines, cryogenics, installation, storage, test facilities .....)? There may be a request for energies in excess of 500 GeV as part of the project baseline. How do we approach this ?*

Session 8 16.00; Site Infrastructure, Chair Nobuhiro Terunuma  
Power Usage, Site requirements (water etc..) Vic Kuchler & Atsuchi Enomoto  
Energy Issues – Marc Ross (Alt., Ewan Paterson)  
Discussion

*Further information will be required soon on the outside-the-TDR site needs (power, water, roads etc....). How well do we know these requirements ? Are there any significant energy efficiency opportunities ? Power reduction on demand ?*

Thursday April 10<sup>th</sup>

Session 9, 09.00; CFS near term & Required ADI input, Chair – Atsushi Enomoto  
6-12 month activities, required ADI information - Masanobu Miyahara

#### Discussion

*The CFS pre-project work scope will need to have aspects of the accelerator design to be finalised at certain points in the timeline. We need to define when this ADI input is needed and what aspects needed to be defined. What near-term aspects of the CFS work will need to be addressed and what resources will be available.*

Session 10, 11.00; Wrap-Up, Chair – Brian Foster

#### What have we learned ?

*We will use this session to document the conclusions and map out a plan for the next few years: the LCC phase. We will also discuss how we may well prepare for the ALCW-14, to be held at Fermilab in May.*

14.00 CFS face-to-face

#### Planning

14.00 TB face-to-face meeting

KEK cost analysis status for MEXT – Akira  
Cryomodule strategy - Hitoshi  
Change Management - Nick  
ATF2 future plans – Nobuhiro  
ALCW14 planning - Mike