AD & I Meeting – 02 Feb, 2011

- **BAW Wrap-Up**
- **TDR Preparation meetings – 2011 / 2012**
  - e+ next week at Daresbury
- **ALCPG11**
- **Cost Engineer staff**

2010 Baseline Assessment: wrap-up

- **3rd and 4th TLCC proposals submitted to Project Director Barish 31 January, 2011**

EDMS links:

- **Reduced Parameter Set:**

http://ilc-edmsdirect.desy.de/ilc-edmsdirect/document.jsp?edmsid=*940545

- **Relocation of the Positron Source:**

http://ilc-edmsdirect.desy.de/ilc-edmsdirect/document.jsp?edmsid=*940575

Thanks to all !

TLCC Proposal – Reduced bunch number

- **post – BAW question: Does the KCS require an even number of klystrons?**

Table 1: Klystron complement for KCS. The main linacs are constructed from 22 such clusters, of which two have a slightly smaller klystron complement.

	RDR (9 mA)	TLCC (6 mA)
# RDR RF units per cluster	27	27
# Cavities per cluster	702	702
Klystron complement per cluster	33	23
Beam power	27	17
WG losses	2	2
LLRF control OH	2	2
Redundancy**	2	2

TLCC Proposal – Reduced bunch number (2)

- **post-BAW checks & changes: power, heat and cryo load definitions (updated presentations to be posted)**

Table 5: Conventional Facilities Requirements in MW

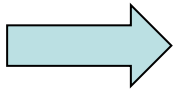
CF Req. (MW)	Area	RDR		Full # bunches	Reduced # bunches
Power	Main Linac	143	KCS	162	127
			DRFS	175	144
	Damping Ring	27.1			13.6
Heat Load	Main Linac	67.3	KCS	79.8	63.6
			DRFS	92.8	61.3
	Damping Ring	19.5			8.4
Cryo-plant power	Main Linac	42.9	KCS	44.2	41.2
			DRFS	44.2	47.2

2010 Baseline Assessment:

- **Barry is expected to convene 'Change Evaluation Panel'**
- **CEP should be ready for ALCPG11**
- **As with TLCC 1 and 2, should expect "with considerations"**

Preparation for writing the TDR

- **Begins at ALCPG11 Eugene, OR –**
  - 19-23 March, Saturday - Wednesday
  - (19 March 16:00-17:30 GDE Plenary)
- **TDR Planning Goal for ALCPG11:**
  - **Documentation plan**
  - **Draft schedule for 2011 – 2012 including:**
    1. **TDR Preparation Review Meetings**
    2. **Plenary Meetings (biannual GDE)**
  - **Milestones and target dates**
  - **to be done in parallel sessions**



TDR Prep Review Meeting Goals:

- **Review the *TDP R & D* and summarize progress and plans.**
- **Review the *system design***
  - **including a change control procedure so that key design changes can be discussed openly**
  - **The updated baseline will be used for the TDR plan and cost estimate.**
- **Review the *system cost***
  - **For SCRF and CFS, additional meetings, parallel sessions etc are also required.**
- **Review *system interface criteria*;**
  - **for example, requirements to CFS**
- **Review *supporting documents* for inclusion in the EDMS**

- **Discuss TDR preparation plans.**
  - **Upon the completion of the review, we should be able to publish a plan for producing that part of the TDR; resources, milestones, etc**
- **The review to be accessible to the community**

e+ source / EDMS meeting

- **10 – 11 February, 2011 Daresbury, UK**

1. **review the e+ source layout work**
   - Norbert Collomb
2. **begin organizing the design documentation into ILC-EDMS.**

- **e+ source will be an *example node* of the ILC-EDMS Document Breakdown Structure which will be presented at ALCPG11**

e+ source / EDMS meeting (2)

- **Daresbury Meeting 11-10th Feb: an example TDR Preparation Review Meeting**

Thursday 10th - System-wide review

- **review the layouts, parameters and existing source documentation**
- **review of CFS requirements and possibly costs (tbd).**
- **walk through the existing design documentation**
  - **reasonable and consistent**
- **identify what's missing, and to make sure that the state of CAD models is well documented into ILC-EDMS.**

Friday 11th - ILC-EDMS

- **consolidate design documents into a structure in ILC-EDMS**
- **structure will be developed, keywords established and mandatory document list developed**

TDR Preparation Review Meeting Scheme

- **each meeting to include document discussion and sign-off**
  - **drawings, specifications and spreadsheets with parameters and costs**
  - **relatively small, compared to BAW**
  - **each key participant can understand their immediate tasks and responsibilities.**

- **the meeting to also include more general summary wrap-up talks, as needed.**

TDR Preparation Review Meeting Scheme (2)

- **meet with TAG's, group by group.**
- **5 to 6 meetings in the next 12 to 15 months.**
- **start with the Accelerator Systems –**
  - Source
  - DR
  - BDS
- **Work on the AS systems:**
  - scope is understood,
  - but there will be questions and changes
- **remaining resources are directed toward completion of specific tests –**
  - CesrTA, ATF2 and source technology development.

Schedule constraints and concerns:

- Each review should last two days
- Comprehensive costing for only SCRF and CFS TAG's
- SCRF industrialization study to be launched this month; expected ~ 1 year
- CFS contracts and HLRF (DRFS) costing work is expected to be ready in late 2011.

- Limit the total number of reviews to six, to take place between mid 2011 and early 2012.
- Try to achieve regional balance and etc

TDR Preparation Review Meeting Scheme - participation

- **CFS representatives to participate in every one of the AS meetings.**
- **costing engineers also.**
- **(SCRF group leaders are not required to participate)**
- **Physics and Detector representatives required for MDI-related meetings; welcome at others**
- **SCRF and CFS meetings toward the end of 2011 or in early 2012**
  - consistent with our schedule
- **reasonable and necessary set of meetings. required to close-out the TDP.**

Topics for System Design Review

- **Review the *TDP R & D* and summarize progress and plans.**
- **Review the *system design***
  - **including a change control procedure so that key design changes can be discussed openly**

Example topics:

1. **Cavity pairing – Power Distribution System.**
2. **Marx modulator**
3. **RDR HLRF fallback**
4. **RTML RF design and civil design.**
5. **Tunnel diameters**
6. **Power dissipation in the tunnel**
7. **DRFS components**
8. **Optimization of Positron production parameters:**
   1. undulator length and field;
   2. polarization collimator space

ALCPG11 WG Charge

- **1) Review and discuss ongoing R&D to understand how it is to be included in the TDR. Special focus should be given to those changes which could substantially impact system interfaces and/or project cost.**

- **2) Evaluate the potential of R&D on alternates and upgrades to be carried out after the TD phase. This fits well with the emphasis on the 1 TeV upgrade and cost containment.**

- **3) Develop a schedule for the next 12 months that leads to the start of the actual writing and editing of the TDR and allows the collection of key supporting documents.**

Upcoming GDE Plenary meetings

- **For the next two years we foresee that one of the two annual GDE plenary meetings will be a joint meeting with the CLIC Study and the other (e.g. this meeting, ALCPG11), will be for the GDE.**
- **Because of this, we should emphasize ILC-specific aspects of linear collider design, especially superconducting RF technology, at the latter. – at the meetings which are NOT joint with the CLIC study**

- **The next GDE plenary meeting, LCWS11, to be held jointly with the CLIC Study annual meeting, will be in late September 2011 in Granada, Spain.**

Reassignment of Peter G. – *adding to the challenge of Costing for the TDR* –

Fermilab Today 'Director's Corner', 18 Jan, 2011

Pier Oddone:

- **"Office of Program and Project Support (OPPS). …. OPPS … strategic planning, project and program planning from …, human resources planning, integration …development plan with the strategic plan, and … "**

- **"We are very fortunate that Peter Garbincius has agreed to head the new OPPS."**

- **Peter is to make this transition fairly quickly**

Costing for the TDR (2)

- **Search for replacement 'Americas' cost engineer underway**
- **Tetsuo and Wilhelm: Asia and EU cost engineer**

- **Peter will be accessible**

Director's wisdom

(FALC meeting report)

- **“An important item of discussion was establishing what should follow the ILC Global Design Effort when the Technical Design Report for the ILC is finished in 2012.”**
- **"It is likely that the case for the ILC will take longer to be established, certainly if the case were in the affirmative."**