ILC PROJECT

ENGINEERING DESIGN REPORT

CFS Europe – KICK OFF MEETINGS

CERN 3, 4, 5 September 2007

TECHNICAL TIME SCHEDULE FOR CFS

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TECHNICAL TIME SCHEDULE FOR CFS

SUMMARY

- 1. Presentation of Time Schedules
- 2. Adopted "Philosophy"
- 3. ILC technical Time Schedule for CFS
- 4. Zoom 1 : EDR Phase 1
- 5. Zoom 2 : EDR Phase 2
- 6. Some additional comments 1-2-3-4
- 7. Conclusions

1. Presentation of Time Schedule

- It covers all main tasks from now until second year after To.
- To is when the official green light is given to the project.
- It is tentative and based on European views (approved by the other Regions with some comments).
- It is a technical schedule : no delays or float is included for approval processes, political or financial negotiations.....
- However it is aimed at clarifying :
 - the logical sequence of main tasks
 - a clear splitting of what should be taken by ILC GDE and what will be in the hands of the bidders (if their offers include the provision of CFS works)

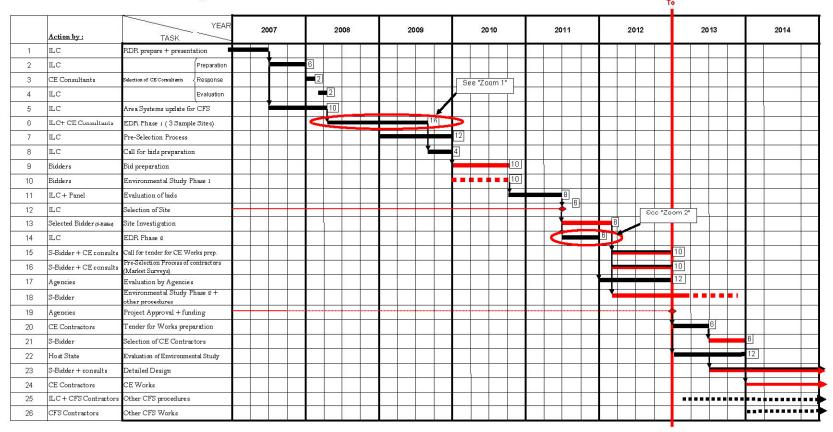
2. Adopted «Philosophy»

- Get the necessary information from the Area, technical and global systems as soon as possible (on critical path)
- Work as early as possible on an EDR phase 1 (3 sample sites)
- Use the EDR phase 1 to carry out the bidding selection process for the "final" selected site
- Use the selected site to carry out on EDR phase 2 (fully focused on this site)
- Use EDR phase 2 to seek and obtain the official green light for the project (To)
- Carry out the environmental studies as much as possible before
 To on the basis of EDR phase 1 (Bidder) and EDR phase 2
 (Bidder + GDE)



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3 - ILC TECHNICAL TIME SCHEDULE FOR CFS DESIGN AND WORKS



Notes: 1. The mentioned 'Actions by bidder(s)' assumes that the selected Host State manages and provides the financing for (at least) the CE Works in its bid to host. These Actions are highlighted in RED. 2. Line 11: Panel of internationally recognised experts will have to be set up to evaluate the bids, rank them and propose a "winner".

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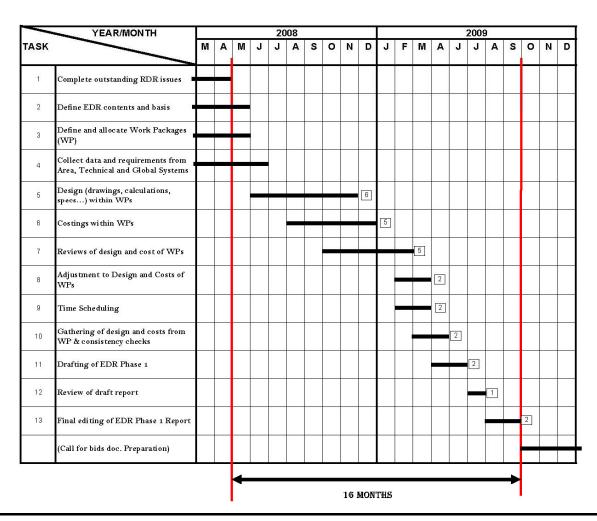
^{3.}Overall management by ILC-GDE-CFS teams which will be necessary at various levels is not systematically mentioned in the action column.

^{4.} Provided that the overall time span of 7 years from To for construction works and installation is confirmed, this schedule implies start of commissioning at the end of 2019.



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ZOOM 1 - EDR PHASE 1 (3 SAMPLE SITES) - 16 MONTHS

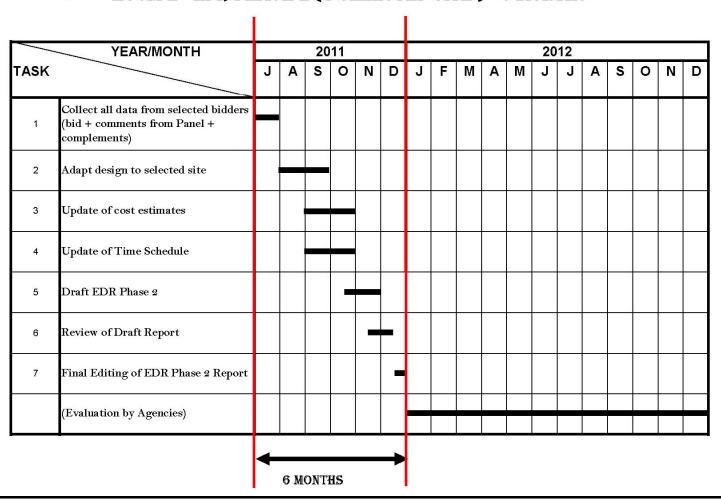




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5 - ZOOM 2 - EDR PHASE 2 (1 SELECTED SITE) - 6 MONTHS



6. Some additional comments (1)

Selection, updates, environment

- Selection of consultants for CE (as well as for other CFS systems) to be carried out by GDE-CFS. One consultant for each region (likely)
- Selection of contractors for CE (possibly other CFS systems) to be carried out by the selected bidder if included in his offer
- Area system updates : a number of iterations to be implemented with each CFS concerned system with a constant view on "value engineering"
- EDR phases 1 and 2 : see presentation on CFS Work Packages
- Environmental study phase 1 will be done by bidders with the aim of showing feasibility and assets of the proposed site
- Environmental Study phase 2 will be the final one, done in close collaboration between GDE and selected bidder with the aim of obtaining the green lights from Host State / local authorities

6. Some additional comments (2)

Selection of ILC Site

- Pre-selection process: after world-wide "advertising" getting the number of potential bidders to (say) a maximum of 8, with a first assessment of their capability to build up a "serious" bid
- For pre-selection process, assistance to call for bids preparations, and evaluation of bids : necessity of a "top level" Panel of Experts (with prior information to all bidders)
- Composition of the panel could be : three internationally recognised external experts (one from each Region) plus two members of the GDE Management
- They would use a system of key parameters with weightings to set up a comparison matrix, and build up a solid selection proposal.



6. Some additional comments (3) Costs

- Among the most difficult questions to solve is the one of the supply of resources (manpower, cash, in kind) for tasks on the Time Schedule, before To on GDE side
- In other words : will all Work Packages be distributed and resourced in accordance with the time Schedule ?
- The costs of the bids to host is likely to be high.

 Any indemnities foreseen from GDE to non-selected bidders?
- The cost of works proposed to be carried out by the bidders will not necessarily be the same as the one in the EDR cost estimate. How to compare the bids? How to assess their level of contribution to the project?

6. Some additional comments (4)

- The CFS EDR Phase 1 Chapters will be put together from the EDR submissions from each one of the CFS Work Packages
- A CFS committee will be set in place to check consistency of the document. It will work in collaboration with the overall EDR committee.
- For phase 2
 - The site dependent chapters will be built up from the same ones in EDR Phase 1 (GDE + selected bidder) if one of the sample sites is selected
 - The site dependent chapters will be « written new » from the selected bid if this not the case
 - The site independent chapters will be refined from the same ones in EDR Phase 1, with the input of the selected site features.

7. Conclusions

- The overall technical Time Schedule and zooms 1 and 2 will be useful tools:
 - To set methodology and sequence of tasks to be carried out until start of works
 - To better understand who will do what ?
 - To be used as an inter regional and inter system reference
 - To get a precise idea of the minimum necessary time spent from now to start of works (technically speaking!)
- Quite a few tough problems on the way (allocation of WP, resources, bidding process...)
- A very challenging process indeed!
- Comments are of course welcome.