

**NCSX Fabrication Project Cost and Schedule Estimating Form**  
**(Attachment 1c - FAB)**

**WBS: 55 NCSX Real Time Plasma & Power Supply Control**

Activity Title	Manhours	FY2002 \$\$	Labor Type	Start Date Month/Year	End Date Month/Year	Comments
<b><u>Labor</u></b>						
<b>Preliminary Design (Title I)</b>	80		ECEM	7/1/06	9/1/06	Baseline requirements, technology search
<b>Final Design (Title II)</b>	80		ECEM	9/1/06	10/1/06	Final Design Review
<b>Lab Fab/Assembly/Installation (Title III)</b>	480 1200		ECEM ECSM	10/1/06 10/1/06	4/1/07 4/1/07	Procurement, SW Design, test, troubleshoot, i Fab, test, troubleshoot, deployment
<b>Level of Effort</b>						
FY2003	24		ECEM			
FY2004	24		ECEM			
FY2005	24		ECEM			
FY2006						
FY2007						

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<b><u>M&amp;S Costs</u></b>						
<b>Manufacturing Development</b>						
Purchased Design Services						
Procured Hardware/Material						
<b>Procured Hardware/Material</b>		12		10/1/06	4/1/07	3 Systran Fiber Extreem FHG2
		4.6		10/1/06	4/1/07	4 VMIC VME Bus Repeaters
		3		10/1/06	4/1/07	FIMM module
		12.4		10/1/06	4/1/07	2 Merlin 9421 32 channel digitizers
		6		10/1/06	4/1/07	2 VME crate
		10		10/1/06	4/1/07	Signal conditioning chassis
		4.2		10/1/06	4/1/07	2 Clock receivers/2 FPFP breakouts, DAC/DI
		1.2		10/1/06	4/1/07	Apromag IP DIO/DAC
<b>Purchased Design Services</b>						
<b>Procured Installation/Assembly Costs</b>						
<b>Other Costs</b>						
Travel						
Allocations (WBS 81 only)						

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***Instructions for Completing Form***

- (1) One form for each 3 digit WBS element (e.g., 111, 121, 452, etc.) => if no 3 digit WBS, use 2 digit WBS (e.g., 81, 82, 84)
- (2) For Lab labor, provide estimate in manhours => provide estimate by specific labor type.
- (3) For M&S, provide estimate in FY2002 direct dollars if procured by PPPL, or in fully loaded dollars if procured by ORNL
- (4) Start and end date provided in month/year format => March/2003