

NCSX rebaseline reconciliation		FIRST PLASMA July 2009				
		<u>ECP-031</u>	<u>ECP-033 and 034</u>	<u>ECP-036</u>	Changes	Description
	111 - Limiters					
12 - Vacuum Vessel Systems						
	121 - Vacuum Vessel Assembly	8,681	8,720	8,548	(171)	-57.3 Field weld joint cancellation, -114 drawdown on undistributed budget (previous database entry error reflected in ecp31)
	122 - Vacuum Vessel Thermal Insulation	192	192	192	-	
	123 - Vacuum Vessel Heating and Cooling Distrib	536	536	536	-	
	124 - Vacuum Vessel Supports	106	106	106	-	
	125 - Vacuum Vessel Local I&C	18	18	18	-	
	subtotal	9,532	9,571	9,400	(171)	
13 - Conventional Coils						
	130 - Conventional Coil Design	837	837	837	-	
	131 - TF Coils	1,718	1,718	1,718	-	
	132 - PF Coils	1,885	1,885	1,885	-	
	133 - External Trim Coils	258	258	258	-	
	134 - Conventional Coil Local	92	92	92	-	
	subtotal	4,790	4,790	4,790		
14 - Modular Coils						
	141 - Modular Coil Winding Form	13,219	13,257	13,272	14	Addition of 4 holes in each casting for N ₂ cooling lines
	142 - Modular Coil Windings and Assembly	11,533	11,533	11,979	446	+305 TRC closeout, +28 task reassignment from wbs 144, +14 dimensional control lacing test, +13 TRC clamp increase. +86 mod coil local I&C from wbs 143
	143 - Modular Coil Local I&C	86	86	-	(86)	-86 mod coil .ocal I&S moved to wbs 142
	144 - Modular Coil Winding Facility & Fixtures	3,255	3,255	3,863	608	+230coil winding facility closeout, - 28 task reassignment to wbs 142,+406 coil test stand closeout
	subtotal	28,093	28,131	29,114	983	
15 - Structures						
	151 - Coil Support Structure	1,413	1,413	1,413	-	
16 - Coil Services						
	161 - LN2 Distribution	372	372	372	-	
	162 - Electrical Leads	682	682	682	-	
	163 - Coil Protection System	86	86	86	-	
	subtotal	1,140	1,140	1,140	-	
17 - Cryostat and Base Support Structure						
	171 -Cryostat	934	934	934	-	
	172 - Base Support Structure	427	427	427	-	
	173-Spacer manipulator	-	-	-	-	
	subtotal	1,361	1,361	1,361	-	
18 - Field Period Assembly						
	181 - Field Period Assembly Planning/Oversight	1,505	1,505	1,505	-	
	182 - TFTR Test Cell Area preparations	-	-	-	-	
	183 - Receive Inspect and Test Coils	-	-	-	-	
	184 - Receive Inspect and Test VV	-	-	-	-	
	185 - Assemble Field Periods	2,203	2,203	2,203	-	
	186 - Tooling Design and Fabrication	1,220	1,220	1,220	-	
	187 - Measurement Systems	502	502	502	-	
	subtotal	5,430	5,430	5,430	-	
19 - Stellarator Core Management and Integration						
	191 - Stellarator Core Management & Oversight	1,042	1,042	1,042	-	
	192 - Stellarator Core Integration & Analysis	1,710	1,710	1,696	-14	-14 reduced estimate for current center demo
	subtotal	2,752	2,752	2,738	(14)	
	SUBTOTAL WBS 1	54,511	54,588	55,385	797	
21 - Fueling Systems		87	87	87	-	
22 - Torus Vacuum Pumping Systems		413	413	413	-	
25 - Neutral Beam Injection System		284	284	284	-	
	SUBTOTAL WBS 2	783	783	783	-	
31 - Magnetic Diagnostics		426	426	426	-	
36 - Edge and Divertor Diagnostics		46	46	46	-	
38 - Electron Beam (EB) Mapping		310	310	310	-	
39 - Diagnostics Integration		361	361	361	-	
	SUBTOTAL WBS 3	1,143	1,143	1,143	-	
41 - AC Power						
	411 - Auxiliary AC Power Systems	382	382	382	-	
	412 - Experimental AC Power Systems	48	48	48	-	
43 - DC Systems						
	431 - C-Site DC Systems	454	454	454	-	
	432 - D-to-C Site DC Systems					
	433 - D-Site DC Systems	-	-	-	-	
44 - Control and protection Systems						
	441 - Electrical Interlocks	378	378	378	-	
	442 - Kirk Key Interlocks	82	82	82	-	
	443 - Real Time Control Systems	14	14	14	-	

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	444 - Instrument Systems	313	313	313		
	445 - Coil protection Systems	522	522	522		
	45 - Power System Design and Integration					
	451 - System Design and Interfaces	520	520	520		
	452 - Electrical Systems Support	262	262	262		
	453 - System Testing (PTP's)	325	325	325		
	46 - FCPC Building Modifications	1	1	1		
	SUBTOTAL WBS 4	3,301	3,301	3,301	-	
	51 - TCP/IP Infrastructure Systems	311	311	311		
	52 - Central Instrumentation & Control	611	611	611		
	53 - Data Acquisition & Facility Computing	351	351	351		
	54 - Facility Timing & Synchronization	221	221	221		
	55 - Real Time Plasma & Power Supply Control Sys	162	162	162		
	56 - Central Safety Interlock Systems	382	382	382		
	58 - Central I&C management and Integration	12	12	12		
	SUBTOTAL WBS 5	2,050	2,050	2,050	-	
	61 - Water Systems					
	611 - C-Site Cooling System	-	-	-		
	612 - NB Water Cooling Systems					
	613 - Vacuum Pumping System	95	95	95		
	614 - Bakeout Water System					
	62 - Cryogenic Systems					
	621 - LN2-LHe Supply System	233	233	233		
	622 - LN2 Coil Cooling Supply	-	-	-		
	623 - GN2 Cryostat Cooling System	230	230	230		
	63 - Utility Systems	109	109	109		
	65 - Facility Systems Integration					
	612 - NB Water Cooling Systems	9	9	9		
	650 - Facility Systems Integration	15	15	15		
	SUBTOTAL WBS 6	691	691	691	-	
	71 - Shield Wall Seismic Modifications	32	32	32		
	72 - Control Room Refurbishment	48	8	8		
	73 - Platform Design & Fabrication	164	164	164		
	74 - Machine Assembly Planning and Oversight					
	740 - Machine Assembly Planning and Oversight	153	153	153		
	741 - Planning Prior to Machine Assembly	313	313	313		
	742 - Construction Management	1,099	1,099	1,099		
	75 - Test Cell and Basement Assembly Operations					
	750 - Test Cell & Basement Assembly Operations	2,366	2,366	2,366		
	76 - Tooling Design & Fabrication	238	238	238		
	SUBTOTAL WBS 7	4,413	4,373	4,373	-	
	81 - Project Management and Control	4,509	4,509	4,509		
	82 - Project Engineering	4,885	4,885	4,885		
	84 - Project Physics	470	470	470		
	85 - Integrated Systems Testing	1,189	1,189	1,189		
	SUBTOTAL WBS 8	11,053	11,053	11,053	-	
	PPPL Allocations	1,577	1,577	1,577		
	Contingency	12,804	12,767	11,969	(797)	
	DCMA Support	75	75	75		
		92,401	92,401	92,401	(0)	
	TEC =	92.40				
	contingecny =	(12.80)				
	BCWP thru June =	(31.36)				
	BCWR from July 1 =	48.24				
	estimated BCWP for July =	(1.30)				
	BCWR est from 8/1/05	46.94				
	Remaining contingency after ECP35 =	11.97				
	Contingency balance =	25.50%				