

	A	B	C	D	E	F	G	K
1	NSTX Upgrade Preliminary ETC Results							
2	WBS[2]						At Completion	
3	OBS[3]	ACWP thru May 2011	ETC from 6/1	EAC	BAC	VAC	Reconciliation	% increase in EAC
4	1.1 Torus Systems	1.1 Torus S	1.1 Torus Systems					
5	1000 CSU Analytical Support (Titus)	117	670	788	385	403	Underrun to date but anticipated increase in title III	105%
6	1001 CS Plasma Facing Components (Tresem)	597	1,332	1,929	2,169	-240	Underrun to date and using ATJ instead of 2D PFC's	-11%
7	1002 Passive Plate Analysis & Upgrade (Titus)	224	47	272	251	21		8%
8	1200 Structures & Supports (Smith)	2,189	1,722	3,910	3,554	356	PF supports,Umbrella structure, title III post FDR	10%
9	1300 Center Stack (Chrzanowski)	276	718	994	1,063	-69		-6%
10	1301 Outer TF Coils (Chrzanowski)	20	310	330	338	-8		-2%
11	1302 Center Stack Assembly (Chrzanowski)	10	984	994	990	4		0%
12	1303 TF Joint Test Stand & Test (Kozub)	187	4	191	353	-161	Underrun to date work scope nearly complete	-46%
13	1304 Inner TF Bundle (Chrzanowski)	536	1,967	2,503	2,595	-92		-4%
14	1305 Ohmic Heating Coil (Chrzanowski)	1,664	3,178	4,842	4,556	286	Overrun to date plus Fabr oversight (enrg instead of tech)	6%
15	1306 Inner PF Coils (Chrzanowski)	196	519	715	669	47		7%
16	1307 CS Casing Assembly (Chrzanowski)	232	726	958	904	54		6%
17	1310 CSU Magnets Systems (Chrzanowski)	442	-	442	442	0		
18	13xx Sensors							
19	WBS[2] Totals:	6,691	12,177	18,868	18,268	600		3%
20	1.2 Plasma Heating and Current Drive System	1.2 Plasma	1.2 Plasma	1.2 Plasma Heating and Current Drive Systems				
21	2300 ECH Analysis (Titus)	29	15	44	84	-40		-48%
22	2420 2nd NBI Sources (Cropper)	-	1,072	1,072	1,094	-23		-2%
23	2425 BL Relocation (Denault)	50	2,110	2,159	1,860	300	Metrology and increased field activity labor	16%
24	2430 2nd NBI Decontamination (Stevenson)	2,070	-	2,070	2,057	13		1%
25	2440 2nd NBI Beamline (Denault)	141	2,330	2,471	2,590	-119	Cost underrun to date. Future unchanged.	-5%
26	2450 2nd NBI Services (Denault)	326	4,295	4,621	4,516	105	Legs penetrations	2%
27	2460 2nd NBI Armor (Tresem)	357	344	700	700	0		0%
28	2470 2nd NBI Power (Raki)	248	3,321	3,568	3,335	234	Cable procurement and installation	7%
29	2475 2nd NBI Controls (Cropper)	55	1,958	2,012	2,089	-76		-4%
30	2480 2nd NBI/TVPS Duct (Denault)	423	1,785	2,208	2,260	-52		-2%
31	2485 Vacuum Pumping System (Blanchard)	106	296	402	388	15		4%
32	2490 NTC Equipment Relocations (Perry)	278	3,303	3,581	3,618	-37		-1%
33	WBS[2] Totals:	4,083	20,827	24,910	24,591	319		1%
34	1.3 Auxiliary Systems	1.3 Auxillar	1.3 Auxiliary Systems					
35	3200 Water Cooling System Mods (Denault)	20	152	172	195	-23		-12%
36	3300 Bakeout System Mods CSU (Raki)	-	73	73	79	-6		-8%
37	3400 Gas Delivery System Mods (Blanchard)	5	67	71	102	-31		-30%
38	WBS[2] Totals:	25	292	317	377	-60		-16%
39	1.4 Plasma Diagnostics	1.4 Plasma	1.4 Plasma Diagnostics					
40	4100 Center Stack Diagnostics (Kaita)	130	677	807	836	-28		-3%
41	4500 MPTS VV Modification (Labik)	493	579	1,071	949	122	Cost overrun run on non vsI interface. Future unchanged	13%
42	WBS[2] Totals:	622	1,256	1,878	1,785	94		5%
43	1.5 Power Systems	1.5 Power S	1.5 Power Systems					
44	5000 CSU Power Systems (Raki)	1,260	4,670	5,930	5,735	194	Cable procurement and installation	3%
45	5200 DCPS (Hatcher)	278	2,106	2,384	2,493	-110	Cost underrun to date. Future unchanged.	-4%
46	5501 Coil Bus Runs (Smith)	305	1,159	1,464	1,131	332	Increase for field running of bus (previously in CA 8200	29%
47	WBS[2] Totals:	1,843	7,934	9,777	9,360	417		4%
48	1.6 Central Instrumentation & Control	1.6 Central	1.6 Central Instrumentation & Control					
49	6100 Control Sys Data Acquisition (Sichta)	91	816	907	918	-11		-1%
50	WBS[2] Totals:	91	816	907	918	-11		-1%
51	1.7 Project Support & Integration	1.7 Project	1.7 Project Support & Integration					
52	7200 Center Stack Management (Dudek)	449	1,116	1,565	1,539	26		2%
53	7300 NB2 Management (Stevenson)	291	1,091	1,382	1,450	-68		-5%
54	7400 Health Physics Support (Stevenson)	457	1,788	2,245	2,507	-262	Cost underrun to date. Future unchanged.	-10%
55	7100 Project Management & Integration (Stryke)	1,895	3,822	5,718	5,812	-94		-2%
56	7710 NSTX-U HP and Other Allocations (Stryke)	1,344	1,559	2,904	2,985	-81		-3%
57	7900 Integrated System (Gentile)	4	57	61	78	-17		-22%
58	WBS[2] Totals:	4,440	9,433	13,874	14,371	-497		-3%
59	1.8 Site Preparation and Torus Assembly	1.8 Site Pre	1.8 Site Preparation and Torus Assembly					
60	8200 CS & Coil Sprt Structure Install (Viola)	74	9,545	9,619	6,474	3,145	Additional removals, difficulty of access, PP addition (retired risk) oversight.	49%
61	8250 Remove/Install Centerstack (Perry)	-	1,125	1,125	1,174	-48		-4%
62	WBS[2] Totals:	74	10,670	10,744	7,648	3,097		40%
63	Schedule contingency risk							
64	Sub Total	17,869	63,407	81,275	77,317	3,958		5%
65	Remaining Contingency =		13,042	21% on etc				
66	TPC =		94,317					