

# 12 GeV Upgrade VARIANCE ANALYSIS REPORT

WBS: 1.3.2.1.1 Construction – Power Systems RF Power

**Control Account Manager: Bill Merz** 

For Period Ending: Aug 13

12 GeV 1.3.2.1.1	SCHEDULE FLAG				COST FLAG				
Values are in \$K Dollars (other than SPI & CPI)	(A)	(B)	(B-A)	(B/A)	(C)	(D)	(C-D)	(C/D)	
	Planned Value	Earned Value	Schedule Variance	Schedule Perform Index	Earned Value	Actual Cost	Cost Variance	Cost Perform Index	
	BCWS	BCWP	sv	SPI	BCWP	ACWP	CV	CPI	
Month of Aug-13	2	11	9	4.67	11	29	-19	0.37	
Cumulative	9458	9457	-1	1.00	9457	8833	624	1.07	

Yellow Flag: Index <.9 / >1.1 OR Variance > \$25K Red Flag: Index <.8 / >1.2 AND Variance > \$50K

## 1. Cause (Address Variances Individually)

CV: With the completion of the circulator repairs and reinstallation imminent, all construction work in this level 5 WBS will be complete at the end of September. The historical reasons for the positive cost variance remain unchanged. The large CV in this WBS is primarily from cost savings on procurements of the waveguide hardware. Over ninety-five percent of the positive CV is in WBS 1.3.2.1.1.3. The majority of the procurement savings came from two areas. First, the actual cost for waveguide components initial purchase (couplers, transitions, tuners, flexes and bends) came in under the estimate due to the size of the order. The volume procurement cost was below the prices of the individual elements used for the baseline estimate. The second cost saving is due to the change in quantity of HOM filters eventually purchased. The base line estimate was for 40 units. After the higher order modes of the cavities and klystrons were demonstrated during testing, the procurement order was reduced to 26 units. We do not need to procure the remaining units.

### 2. Proposed Solutions (Corrective Actions)

CV: NA

Estimated Resolution By (Date): NA

### 3. Impact on Project Cost/ Schedules:

		Cost Variance Projection							
	CVcum (K)	Sep	Oct	Nov	Dec	Jan	Feb		
Recoverable	\$								
Unrecoverable	\$624K	\$624K							
Error	\$								

A positive cost variance will remain through the end of the project. The positive variance will be approximately \$620.

### 4. Comments: All work on this WBS will be complete at the end of September

Control Account Manager:	Project Manager:
William Merz	Leigh Harwood
	D. Miner for C. Rode

Aug	Planned Value	Earned Value	Schedule Variance	Schedule Perform Index	Earned Value	Actual Cost	Cost Variance	Cost Perform Index
	BCWS	BCWP	SV	SPI	BCWP	ACWP	CV	CPI
12 GeV 1.3.2.1.1.1								
Month of Aug-13	2	2	0	1.00	2	7	-5	0.34
Cumulative	4092	4092	0	1.00	4092	4046	47	1.01
12 GeV 1.3.2.1.1.2								
Month of Aug-13	0	2	2	No PV	2	7	-6	0.20
Cumulative	3047	3047	0	1.00	3047	3084	-37	0.99
12 GeV 1.3.2.1.1.2.1								
Month of Aug-13	0	0	0	No PV	0	0	0	0.00
Cumulative	1160	1160	0	1.00	1160	1222	-62	0.95
12 GeV 1.3.2.1.1.2.2								
Month of Aug-13	0	2	2	No PV	2	7	-6	0.20
Cumulative	1887	1887	0	1.00	1887	1863	25	1.01
12 GeV 1.3.2.1.1.3								
Month of Aug-13	0	7	7	No PV	7	15	-8	0.46
Cumulative	2319	2318	-1	1.00	2318	1703	614	1.36