

Sunnyside Replacement Equipment

Status Update Briefing— September 12, 2014

Boundless Energy



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(Incremental to Information provided August 29)

Project Dashboard

PM - Sunnyside Transformer Project

Joe Yurchesyn

Safety

Quality

Schedule

Cost

Progress & Schedule Summary

1. Factory Acceptance Testing – Issue identified during factory testing requiring material change and retesting.
2. ICM – Site work started - removing B1L03/B2T1/B1T1 Breakers, B1T1-1 Disconnect and preparing for new foundations.

Progress & Schedule Summary (cont'd)

3. Existing T1 Transformer prepared for off-site transport – planned September 12.
4. T1 transformer delivery on critical path, and Ready for Service date maintained end of November (December 1). (See attached schedule showing progress to date).
5. B1L03 230 kV Breaker delivered to site September 8.

Progress & Schedule Summary (cont'd)

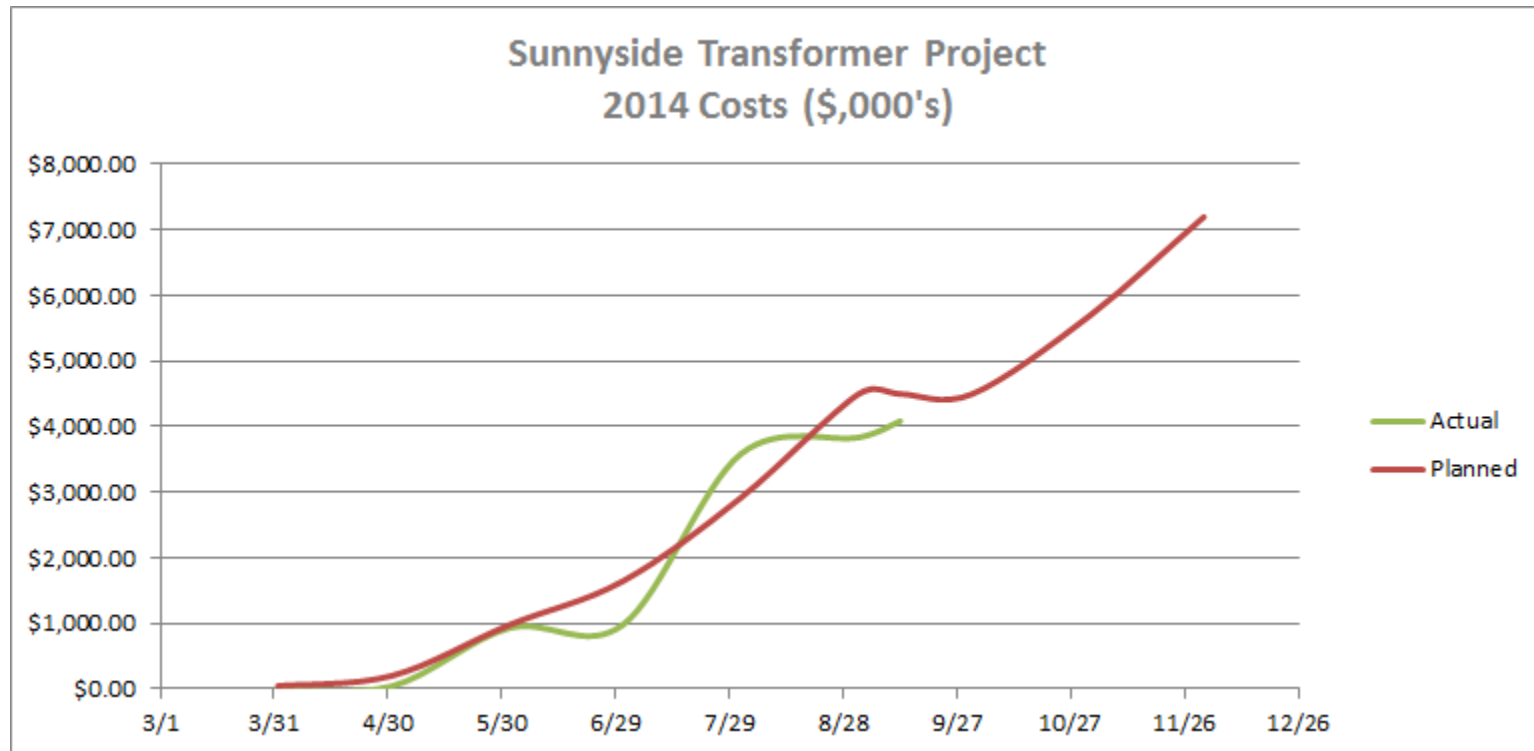
7. Overall the project continues to track with compliance to plan against Safety, Quality, Cost, and Delivery targets.

Level 2 - Schedule Summary

Sunnyside Transformer					11-Sep-14																													
					Incremental SSD Level 2																													
#	Activity Name	Remaining Duration	Start	Finish	Comments	June 2014				July 2014				August 2014				September 2014				October 2014				November 2014				December 2014				
						01	08	15	22	29	06	13	20	27	03	10	17	24	31	07	14	21	28	05	12	19	26	02	09	16	23	30	07	14
1	Sunnyside Transformer	71	01-May-14A	01-Dec-14																														
2	PM Tasks	0	25-Jun-14A	19-Aug-14A																														
3	Sunnyside Transformer	71	01-May-14A	01-Dec-14																														
4	Engineering	48	16-Jun-14A	14-Nov-14																														
5	Procurement - Material	45	01-May-14A	31-Oct-14																														
6	230/138 kV Auto Transformer (T1)	45	01-May-14A	31-Oct-14																														
7	230 kV Breaker (B1L03)	0	01-May-14A	01-May-14A																														
8	230 kV Breaker (B1T1)	31	01-May-14A	22-Oct-14																														
9	138 kV Breaker (B2T1)	31	16-May-14A	22-Oct-14																														
10	230 kV Disconnect (B1T1-1)	4	24-Jun-14A	15-Sep-14																														
11	Station Post Insulators	25	16-Jun-14A	14-Oct-14																														
12	Station Service Transformer	19	30-Jun-14A	01-Oct-14																														
13	Station Service Transfer Switch	3	28-Jul-14A	12-Sep-14																														
14	HV Risers & Connectors	9	21-Jul-14A	22-Sep-14																														
15	Power & Control Cables	0	25-Jun-14A	22-Aug-14A																														
16	Transformer Protection Panel	0	21-Jul-14A	14-Aug-14A																														
17	Transformer Protection Relays	0	25-Jun-14A	22-Aug-14A																														
18	Procurement - Install	0	02-Jun-14A	12-Aug-14A																														
19	Construction - Equipment Removals	71	14-Aug-14A	01-Dec-14																														
20	Construction - Foundations Removals/Install	53	03-Sep-14A	10-Nov-14																														
21	Electrical Construction	51	18-Sep-14	15-Nov-14																														
22	ABB Schedule T1	10	31-Oct-14	11-Nov-14																														
23	230/138 kV Auto Transformer (T1)	6	10-Nov-14	15-Nov-14																														
24	230 kV Breaker (B1L03)	11	18-Sep-14	30-Sep-14																														
25	138 kV Breaker (B2T1)	8	22-Oct-14	31-Oct-14																														
26	230 kV Disconnect (B1T1-1)	6	25-Sep-14	01-Oct-14																														
27	Station Post Insulators	2	14-Oct-14	16-Oct-14																														
28	Station Service Transformer	1	08-Nov-14	08-Nov-14																														
29	Station Service Transfer Switch	10	26-Sep-14	08-Oct-14																														
30	Transformer Protection Panel & Relays	38	30-Sep-14	13-Nov-14																														
31	Elect/P&C/Comms. Commissioning	56	22-Sep-14	25-Nov-14																														
32	Breaker B1L03	9	22-Sep-14	01-Oct-14																														
33	230 kV Disconnect B1T1-1	2	02-Oct-14	03-Oct-14																														
34	Breaker B2T1	7	30-Oct-14	07-Nov-14																														
35	Transformer T1	13	11-Nov-14	25-Nov-14																														

Cost Summary - S Curve

(Preliminary – Project Accounting Reconciliation in process)



Note: Forecast Final Expenditures (FFE) tracking with compliance with original budget. Actual Costs reflects contractual commitments for major equipment and install contracts.

Risk Analysis

Third Party Facilitated Risk Workshop held July 23 and Actions Review August 7 (50+ risks and tasks identified).

Risk Register used to manage risk during Project Execution.

ABB Options and Contingency Plan Review - September 7. ABB status update every two days.

Risk Analysis – Example of Issues

- T1 Delivery – Timing, Logistics, Damage
 - ABB PD failure root cause assessment, contingency plan preparations.
- B1T1-1 230 kV Disconnect – September 15 delivery
 - Expedite and monitor.

Risk Analysis – Examples of Issues (cont'd)

- Long Lead Miscellaneous Items
 - Monitor ongoing status and expedite.
- Site hydrocarbon in foundations soil.
 - Inspections have showed that this is unlikely an issue, remove if required. None found in foundation digs so far.
- Outage requirements.
 - Coordinate outages with other projects.

Project Photos

Photo 1 – Assembled Transformer T1



Photo 2 – T1 Ready to Transport Off-Site (Planned for Sept 12)



Photo 3 – 230kV Breaker (B1L03) New Foundation Dig



Photo 4 – 230kV Breaker (B1L03) Delivered to Site



Photo 5 – 138kV Breaker (B2T1) Foundation Removal Preparation



Photo 6 – 230kV Disconnect B1T1-1 Foundation Removal

