

**NEW ENGLAND TRANSMISSION UPDATE:  
SOUTHWEST CONNECTICUT 345 kV LOOP NOW COMPLETE**

*Northeast Utilities and United Illuminating announced today that the Middletown-Norwalk 345 kV transmission project is fully energized, ahead of schedule and under budget. The project eliminates one of the last major intra-Connecticut transmission bottlenecks, thus greatly reducing congestion risk in Southwest Connecticut.*

On December 18, 2008, Northeast Utilities (NU) and United Illuminated (UI) placed into service the second phase of the Southwest Connecticut (SWCT) Transmission Reliability Project. By substantially increasing the transfer capability across the SWCT interface, the project greatly reduces the congestion risk in the SWCT load pocket and essentially eliminates one of the last major intra-Connecticut transmission bottlenecks. As discussed in the December 2008 issue of ESAI's *Northeast Power Markets Energy Watch*, we expect little congestion across the CT load zone under normal operating conditions going forward. While overall congestion in CT should decrease, we expect an increase in the congested hours across the CT import interface, as SWCT constraints no longer mask the greater CT import constraint.

Known as the Middletown-Norwalk Project, the second phase of the 345 kV SWCT Transmission Reliability Project consists of a new 345 kV circuit from the new Beseck substation near Middletown via the new East Devon and Singer substations to the existing Norwalk substation. Together with the first phase of the project (a new 345 kV line between Norwalk and the Plumtree substation in Bethel), the new circuit completes a 345 kV transmission ring across SWCT, significantly strengthening the local transmission system.

ESAI's December 2008 *Northeast Power Markets Energy Watch* estimated completion of this project during the first quarter of 2009. However, as with the first phase of the SWCT project (completed in October 2006), NU and UI managed to complete the second phase ahead of schedule and under budget. ESAI's August 2008 *Transmission Watch* estimated the Middletown-Norwalk project cost at \$1.427 billion; NU and UI announced today that the project is expected to cost approximately \$1.27 billion.

**Significant LMP Impacts**

As discussed in the December 2008 *Energy Watch*, ESAI used summer (June-August) load profiles to exhibit the higher end of the LMP pricing impacts in the analysis of the SWCT Phase 2 transmission project. Figure 1 provides an overview of LMP price changes due to the Phase 2 upgrade (note that Phase 1 is already in place) using the November 2008 fuel price scenario with summer loads. Prices in the CT zone would drop by \$0.60 per MWh and the Mass Hub price would increase slightly by about \$0.20 per MWh.

When fuel prices are higher, congestion pricing can be much more pronounced in a constrained area such as CT. Figure 2 shows that the Phase 2 line will have significant influence on lowering CT LMPs under the high fuel scenario (July 2008). LMPs in CT would drop by over \$8.00 per MWh with very little change in the Mass Hub price. LMPs in the northern zones would increase by about \$1.00 per MWh.

In the summer 2009 high fuel case, the model results indicate a CT-Mass Hub spread of \$15.00 per MWh. With the SWCT Phase 2 line in place this spread drops \$8.00 to about \$7.00 per MWh. The actual July 2008 CT-Mass Hub spread was \$11.50 perMWh, in line with what the ESAI powerflow model would predict if a cooler than normal July load profile was used.

