NOTICE DATE:  May 13, 2013

NOTICE TYPE:  SPP   Operations

SHORT DESCRIPTION: Welsh HVDC tie fifth harmonic filter and shunt reactor project update

INTENDED AUDIENCE:  SPP Market Participants

DAY AFFECTED:  May 13, 2013

LONG DESCRIPTION:  SPP is providing an update for projects planned by American Electric Power (AEP) and Oncor Electric Delivery Company LLC (Oncor) related to the availability of the Welsh HVDC tie line when limited generation output is available from the Monticello generating plant on the ERCOT System. These projects were originally described in the RMR final determination report for Monticello Units 1 and 2 issued on October 30, 2012 and available that this link: <https://mis.ercot.com/pps/tibco/mis/Pages/Grid+Information/Generation>.

AEP project:

The AEP project includes the installation of an additional fifth harmonic filter and a shunt reactor at the Welsh HVDC tie to allow the DC-Tie to operate independent of generation at Monticello. AEP has communicated that it will be upgrading the Welsh HVDC in several stages in order to improve its performance under system conditions with little or no local generation. AEP is taking immediate action to mitigate reliability issue resulting from limited generation output from the Monticello units. The first phase of the effort will be the installation of a 345 kV shunt reactor, which is slated for completion by the end October 2013. The reactor will lower voltages on the ERCOT bus of the HVDC and enable the parallel operation of two harmonic filters.

Additionally, AEP is installing the additional harmonic filter. When filters are operating in parallel, shared loading of the harmonic currents avoids overload of either filter, which has been the cause for HVDC trips. Analysis of potential interaction of the reactor with the HVDC is needed to ensure proper operation, and the findings may impact the installation schedule. The analysis is scheduled to be completed in August 2013.

Additional phases of the AEP effort to improve performance of the HVDC may include the installation of additional harmonic filters, and upgrades to the HVDC controls and station service.

Oncor projects:

Oncor’s projects include installation of tertiary reactors at Paris Switch (13TPIT0219) and Sulphur Springs (13TPIT0218); and installation of 100 Mvar bus reactors at Monticello (14TPIT0090) and Paris Switch (14TPIT0093). Oncor reports that the tertiary reactors at Paris Switch and Sulphur Springs are in-service. The in-service date for the 100 Mvar bus reactors at Monticello and Paris Switch has been accelerated to May 2014.

The earliest that the East DC Tie will be able to be operated without generation at Monticello is October 2013; however, it is possible, based on the results of the study expected to be completed in August 2013, that the East DC Tie will not be able to be operated without generation at Monticello until the additional AEP upgrades are completed in the 3rd quarter of 2014. SPP will provide an updated Market Notice once the August 2013 is complete.

ERCOT has posted a similar notice on its public website. You can find ERCOT’s posting here: [notice\_operations@lists.ercot.com](mailto:notice_operations@lists.ercot.com)

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