

On March 16, 2017 information about an event on 2/18/2017 at the Independence Plant #2 500kV line was discussed and a one-line drawing of the Independence 500kV Switchyard was shared during a meeting with marketing function employees in attendance. The discussed event information is found below. The one-line diagram of the switchyard is tentatively considered Critical Energy Infrastructure Information and thus is not posted.

Standard Operations at Independence:

When ISES's Unit 2 trips offline, a generation protection relay opens B6126 and B6118 to take the unit off the grid. Standard practice allows the unit CROs two hours to close B6118 and B6126 and reestablish flow on the bus ring. Once operations had visually verified that all three arms on MOD B6191 are open, the control room closes B6118 and B6126.

Event Description:

On 2/18/17 at 05:23, Independence Plant #2 came offline per MISO dispatch schedule. When the plant came off, plant controlled 500kV breakers B6118 and B6126 were opened by Independence operations to isolate the generator from the transmission system. Independence personnel did not notify the Transmission Control Center the breakers would be opening prior to taking the action. 500kV breaker B6110 was already out of service at Independence due to an unplanned failure. With all three 500kV breakers opened, the ISES-Dell 500kV line was open ended creating high voltage in the immediate area. Independence unit personnel were contacted to request the 500kV breakers B6118 and B6126 be re-closed. The ISES-Dell 500kV line was open ended for approximately 45 minutes.

ISES Comments:

As a stop gap control, Independence has updated its shutdown procedure to include contacting the TCC before coming offline. While this will help for planned outage control, involuntary trips need to be considered by TCC for an effective solution. B6110 being down was a large part of this event. If a switchyard breaker goes down for any reason, TCC needs to consider the impact of unit trips on the BES as they relate the downed breaker.