



TOTF Webinar Summary

May 3, 2012, 10:00 AM Eastern Time

[Webinar Recording](#) Available

Objectives: Review progress on scenarios 1 & 3 load flow analysis

TOTF Members Attending:

Generation Owners: Michael Goggin

NGOs: Ed Pfeiffer, Matt Schuerger

Public Power/TDUs: Anie Philip, Dustin Betz

End Users: Fred Plett, Erin Hogan

States: John Stovall, Craig Taborsky, Marya White, Michael Wegner, Hisham Choueiki, Bob Pauley

Transmission Owners: Randell Johnson, Evan Wilcox

Canada: Rob Sinclair

EIPC Members: David Whiteley (Exec. Dir.), David Till (TOTF co-chair), Jeremy Bennett, Stan Doe, Flora Flygt, Zach Smith, Chuck Liebold, David Duebner

1. **Update on Scenario Load Flow Models and Transmission Buildout**, Jeremy Bennett (Southern Company)

Scenario 1, Pass 3 (Combined National Climate & Energy Policy):

- Reviewed the regional additions to the stakeholder specified infrastructure (SSI) needed to integrate new generation and deactivations before inter-regional transfers
- Reviewed the constraints identified in Pass 1 analysis, primarily due to wind-rich Midwest power trying to get eastward
- Reviewed the DC solutions proposed in Pass 2
- In Pass 3, Planning Authorities (PAs) added east to west lines in MAPP-Canada to allow transfers
- PAs added new tie lines between TVA and Southern Co and additional transmission in South to get power to Atlanta load center
- Not shown on Pass 3 map is an additional 765kv line from SPP to Entergy
- EIPC has completed analysis of lines below 365kv; working on remaining constraints to share proposed solutions by the TOTF meeting on May 15

Q&A

- Are there significant changes between block 1 and 13? Block 1 has become the more challenging case in terms of addressing constraints.
- MISO and SPP are connected in 3 locations, which is not reflected on the current map. Does that make it feasible to distribute the DC terminals further South to address concerns in Entergy and provide more diversity in the termination points in MISO? PAs tested several termination points and the results were similar, it still didn't address the problems in the South. One PA noted that about half of the power (20,000MW) wants to go to PJM, the rest wants to go to Entergy and SERC regions. Therefore moving the termination lines doesn't always make sense given the

specified generation dispatch prescribed by NEEM. PAs removed the HVDC from SPP to TVA. The alternative AC solution was accommodated by additional AC transmission in Entergy. PAs also attempted to remove some of the HVDC lines in MISO and substitute more AC solutions, but the case wouldn't solve. This validates the need for the 6 HVDC lines currently in Pass 3. PAs concluded that it takes significant amount of AC system to supplant the DC and the costs would be astronomical.

- PAs agree that the 6 DC lines are the best options so far, but clarified that the facilities are not approved projects that should be built – simply proposed additions needed to make the model work under the specified assumptions.
- PAs are looking at connecting 765 KV systems in PJM and MISO; may cause constraints elsewhere, but they are giving it further consideration.
- The PAs are still at N-1 reliability testing stage. After the next TOTF meeting, PAs will begin to build the contingency files to do more thorough reliability testing. They are also working toward transition from pseudo- generators to actual DC lines.
- PAs have not looked at the contingency implications of a DC line outage but noted that the AC system will be built to accommodate the loss of a pole of a DC line. Simulation of a DC outage is a stability analysis that is beyond the scope of this study. The biggest impact may be voltage problems.
- A stakeholder noted that a fault at the sending end of 765 may interrupt multiple facilities momentarily and might cause DC terminals to shut down because of voltage fluctuations. The PAs have not considered this possibility yet, but it may need further consideration at the next TOTF meeting.

Scenario 3 (BAU)

- All deactivations and additions are integrated and NEEM dispatches included in the load flow model. All constraints have been identified but have not been addressed.
- No transmission beyond the SSI was needed to integrate new generation.
- Results will be posted later today.

2. SPP wind update, David Whiteley, EIPC Executive Director

- At the SSC meeting in April, there was a question regarding the wind generation in Block 1 of Scenario 1, noting that it seems contrary to conventional wisdom that wind generation is lower during the hottest (peak) days. In an off-line call with Stan Hadley, Steve Gaw and CRA, it was confirmed that the wind profile data in 2006, which was used in NEEM analysis, happened to have a large amount of wind generation during EI on-peak hours.
- It was also noted that the peak period selected for the whole EI turned out to be a less-than-peak period in SPP where there were substantial wind resources.
- EIPC will share that information with SSC at their next webinar.

3. Schedule Update, David Whiteley

- TOTF meeting in May will review S1, Pass 4 and S3, Pass 2
- Need to discuss the need for additional TOTF/SSC meetings and webinars at that time

Other Webinar Attendees

Barry	Huddleston	Clean Line Energy
Terry	Black	NRDC
Stan	Hadley	ORNL
Pedro	Modia	FPL
Ben	D'Antonio	NESCOE
Ralph	Luciani	CRA
Emily	Fisher	LBNL
Ken	Wei	NYISO
John	Zarzycki	NJ BPU
Elana	Wills	AR PSC
Doug	Gotham	Purdue
Don	Gates	ISO-NE
Jim	Busbin	Southern Company
Bert	Finzer	AR PSC
Bruce	Tsuchida	CRA
Syed	Ahmad	FERC
Tu (Toby)	Hu	ISO-NE
George	Smith	
Paul	McCurley	NRECA
Ellen	Vancko	UCS
Wil	Burns	NGO
Jonathan	Forward	NY DPS
Garrett	Bissell	Couch White
Tyler	Ruthven	National Grid