



Southwest Power Pool
TRANSMISSION WORKING GROUP MEETING
July 21, 2010
Teleconference

• M I N U T E S •

Agenda Item 1 – Administrative Items

TWG Chair Noman Williams called the meeting to order at 10:00 a.m. The following people were in attendance:

TWG Members

Noman Williams, Sunflower Electric Power Corp
Angela Easton, Calpine Energy Services
John Fulton, Southwestern Public Services
Joe Fultz, Grand River Dam Authority
Travis Hyde, Oklahoma Gas and Electric
Dan Lenihan, Omaha Public Power District
Jim McAvoy, Oklahoma Municipal Power Authority
Nathan McNeil, Midwest Energy
John Payne, Kansas Electric Power Coop
Jason Shook, GDS Associates for ETEC
Don Taylor, Westar Energy
Harold Wyble, Kansas City Power & Light

Other Stakeholders and Staff

Sayed Amad, FERC Staff
Dustin Betz, Nebraska Public Power District
Brian Brownlow, Nebraska Public Power District
Charles Cates, SPP Staff
Lloyd Cole, Golden Spread Electric Cooperative
Jared Hughes, Associated Electric Cooperative
Rachel Hulett, SPP Staff
Tim McGinnis, SPP Staff
Tim Miller, SPP Staff
Kirk Stradley, Lincoln Electric System
Jeff Tullis, Grand River Dam Authority
Keith Tynes, SPP Staff

Agenda Item 2 – ITP 20 - Economic Constraints

Tim Miller, SPP Staff, explained the ITP20 adjusted production cost analysis is dependent on the flowgates, also known as economic constraints. This is because generation is dispatched economically based on the economic constraints defined in the economic model, not every thermal line limit in the system. To determine which economic constraints should be used in the assessment staff has to identify potential future economic constraints. Tim shared the assumptions, methodology, sample results, and stakeholder interactions for the selection process to identify the future economic constraints (Att 1 – ITP20 Flowgate Introduction). Staff noted they will select constraints for each future scenario (i.e. different model being studied).



Staff will perform this economic constraint analysis once ESWG completes the generation siting for ITP20 (due at the end of July). As staff needs to complete the economic constraint selection by the end of August, they will provide the TWG the selection results in early August. Staff will plan a conference call in mid to late August for TWG review and endorsement the economic constraints.

Agenda Item 3 – August Agenda

The group quickly reviewed and revised the draft agenda for their upcoming August meeting. Staff asked for any changes to be submitted right away.

Agenda Item 4 – Adjournment

With no further business, Noman Williams adjourned the meeting at 11:15 a.m.

Respectfully Submitted,

Rachel Hulett
TWG Secretary



**Helping our members work together
to keep the lights on...
today & in the future**



ITP20 Flowgate Selection Introduction

Timothy Miller

July 21st, 2010 TWG Teleconference

Flowgate Simulation Impact

- **In the economic simulations flowgates are the only flow control mechanism**
 - Line limits are not heeded by default
 - Penalties associated with an overload provide control

- **Manage the economic dispatch**
 - Key to a reasonable economic solution

Selecting Reasonable Flowgates

- **Staff is developing flowgates based upon the ITP 20 Year Assessment Scope document**

- **Preferred outcomes**
 - Spreadsheet listing the flowgates
 - Charts summarizing the simulated data
 - Maps showing congestion

Flowgate Selection Criteria



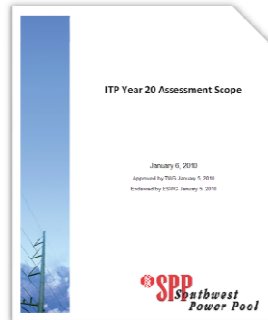
Flowgate Selection Criteria

- **Starting Point**
 - NERC Book of Flowgates
- **Additional criteria**
 - 345 kV Contingencies
 - 115+ kV Monitored Elements
 - Evaluate 8,760 hours



Flowgate Selection Criteria

- **Additional criteria**
 - SPP devices and tie-lines
 - 60 hour threshold
 - Rate A & Rate B unchanged
 - Three iterations



Unique Operational Flowgates



Unique Operational Flowgates

- SPP-SPS interfaces
 - Staff recommends redefining flowgate as individual OTDF flowgates due to extensive upgrades in place by 2030.



Unique Operational Flowgates

- GGS Stability Interface
 - Staff recommends continued use of this interface

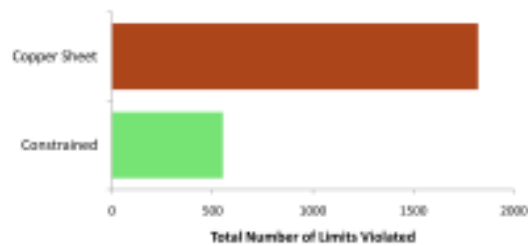


Example Flowgate Simulation Data

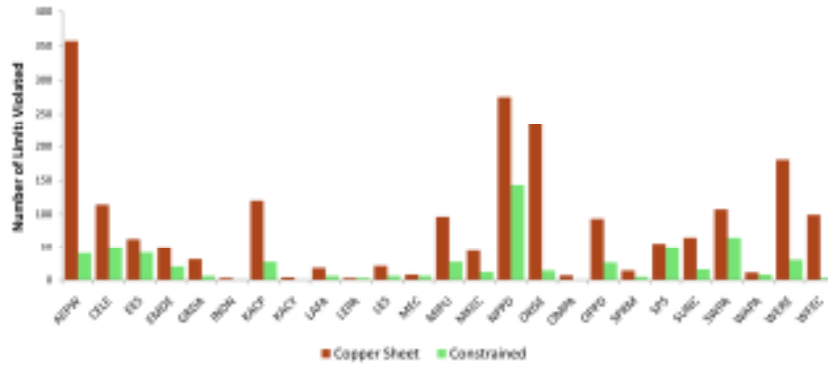


Flowgate Example Results

- **Violations avoided by flowgate definition**
 - **Before & After**
 - **By Area**
 - **By month**

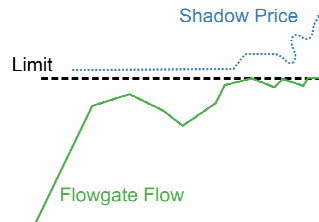


Effect of Adding Flowgates



Flowgate Example Results

- **Flowgate congestion**
 - Limit is respected
 - Prices change



Congestion by Shadow Price Impact



Next Steps

- **Staff to provide TWG draft results:**
 - Top 10 congested flowgate summary
 - Exhaustive flowgate spreadsheet
 - Hours Congested & Avg. Shadow Price
 - Results of contingency scans

- **Requesting TWG endorsement of flowgates in August teleconference**



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