

NEBRASKA STATEWIDE WIND INTEGRATION STUDY

Technical Review Committee Meeting #4

Wednesday, May 13, 2009 – 10:00 AM to 4:00 PM (Central Time)

Gallup Headquarters (Niobrara Room), 1001 Gallup Drive, Omaha, NE

If not able to come to Omaha, phone 1-800-860-4937 ID: 4956181

Preliminary Agenda

Central Time	Topic	Presenter
10:00 am	Welcome, introductions, check on phone pickup volume, general agenda review, protocols for the meeting; acceptance of TRC 3 Meeting Summary dated and distributed May 6, 2009 (after two revisions)	Clint Johannes-G&T
10:15 am	General progress report of accomplishments, review of agenda specifics and goals for the day	Bob Zavadil-EnerNex
10:30 am	<p>Update on EnerNex work, especially since TRC #3:</p> <ul style="list-style-type: none"> • Finalized wind generation scenarios by region (tables and maps), including: <ul style="list-style-type: none"> ○ Connections of the Nebraska wind sites into the transmission system (which buses) • Key findings from the wind/load data report, including: <ul style="list-style-type: none"> ○ Load/wind relationship ○ Wind site capacity factor ○ Wind site capacity value (SPP criteria) ○ Wind variability and forecast ○ Summary of the vector data results for reserves and forecasting errors for use in production modeling, and how used there • Status and summary of the assumptions/process document, including: <ul style="list-style-type: none"> ○ Revised methodology for estimating incremental spinning reserves ○ Definition, use, and example of the new proxy wind resource as compared to the previous definition 	<p>Bob Zavadil-EnerNex</p> <p>Tom Mousseau-EnerNex</p>

11:40 am	Western Nebraska (western interconnection) report status	Ron Steinbach-Tri-State Billy Cutsor-MEAN
12:00 pm	Lunch	
12:45 pm	PROMOD base case setup and program function, including: <ul style="list-style-type: none">• Modeling footprint• Generation/transmission/load development process, including DC ties and monitors on flowgates and lines in areas lacking sufficient transmission• Fuel prices and emissions development process• Market representation process, including hurdle/tariff rates• Incorporation process of EnerNex vectors as PROMOD vectors• Adjustments to model and summary of work activities since TRC3	Gary Moland-Ventyx Rick Hunt - Ventyx
1:15 pm	PROMOD findings and results to date, including: <ul style="list-style-type: none">• 10% penetration (2004 basis) base case, including:<ul style="list-style-type: none">○ Generation, transmission, total costs, integration cost, curtailment, ramping, LMPs, flowgate monitors (constraints), Neb transmission line monitors for estimating system requirements, emissions, interchange (where the wind generation goes), etc.• 20% penetration (2004 basis) base case<ul style="list-style-type: none">○ (same results list as for 10% case)• Differences from proxy run vs. actual wind run• Differences from 10% base to 20% base• Results of any other runs to date	Gary Moland-Ventyx Rick Hunt - Ventyx
2:30 pm	Break	

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| 2:45 pm | Questions and work outline discussion for the remainder of the study: | Bob Zavadil and Gary Moland |
| | <ul style="list-style-type: none">• Meeting plan (issue – last scheduled face-to-face meeting is July 1, which is only seven weeks away -- should we drop the July 1 date and use the following date of Aug 5 as face-to-face and give us twelve weeks to complete more work before meeting?)• Study scenario plan and tentative schedule for review of results by NPA and TRC, by email and phone calls• Process for making modeling decisions and communication plan with TRC for issues such as:<ul style="list-style-type: none">○ High CO2 price assumption (and zero)○ Flatter profile from demand side activities○ Extra sensitivity case definitions○ Alternative WAPA modeling case○ Pumped hydro modeling○ Nebraska hydro flexibility○ Etc. | |
| 3:45 pm | Wrap-up and Next Meeting (Confirmation of Date) | Clint Johannes |
| 4:00 pm | Adjourn | |