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**MEETING SUMMARY**  
**MINNESOTA CLIMATE ACTION PLAN TECHNICAL WORK GROUP**

Energy Supply TWG Meeting #11 Summary  
December 06, 2007, 10:00 am-12:00 pm  
*Prepared by Linda Lambeck and Bill Dougherty*

The meeting was called to order by Bill Dougherty a few minutes after 10:00 am.

**In attendance were the following TWG Members:**

- Ambrose, B. - GRE
- Bascom, D. - Global Green Energy, LLC
- Freese, B. - UCS
- Hamilton, J. Drake - FE
- Heaney, B. - IBEW
- Jagush, B. – MoraPU
- MacFarlane, C. – OTP (Draxter, B. attending)
- Marchessault, J. - Business Card
- McMillan, D. – AlleteMP (Cashin, M. attending)
- Olsen, E. – GRE (Roth, M.J. and Fujii, S. attending)
- Stone, D. – Excelsior Energy
- Turner, J - Xcel

**From MN state staff, the following were in attendance:**

- Marya White-DOC
- Linda Limback - DOC
- David Thornton - PCA
- Peter Ciborowski- PCA
- Anne Caflin - PCA

**From the Public, the following were in attendance:**

- Jerry Hinderman
- Carnival, D.
- Black, B - MMUA

**From CCS staff, the following were in attendance:**

- Bill Dougherty – Stockholm Environment Institute – US Center

**TWG members not in attendance were:**

- Anderson, L. - Wooddale Church

- Goodwald, G. – Gerdau Ameristeel
- Grant, B. - IWL
- Jones, B. - EJAM
- Polakys, S. – UofM
- Robertson, M. - Chamber
- Sparby, D. – Xcel – Jim Turnure
- Steger, W. – Ely
- Wachtler, J. – Barr Eng.

The background documents, used as the basis for the discussions, were posted on the website in advance of the meeting. Unless otherwise noted, this includes the following documents:

- [Meeting Notice and Agenda](#)
- [Summary of the 11/28/07 meeting](#)
- Powerpoint Presentation for meeting (note: same as posted for 11/28/07 meeting)
- Analysis spreadsheets for each of the priority options (note: not posted; these spreadsheets have been distributed to TWG members individually)

Bill Dougherty had the documents available in electronic format on site for those attending on the call to view. Bill Dougherty described the contents of the documents during his presentation so that the data was orally available to conference attendees without access to the documents.

The agenda for the meeting is as follows:

1. Call to order
2. Roll Call of TWG members and public
3. Review of draft meeting summary for TWG meeting #10 held on 28 November
4. Continuation of the discussion of the latest analytical results for the energy supply GHG forecast and mitigation options
5. Proposed agenda, time and date for NEXT meeting
6. Public input and announcements

Bill Dougherty called the meeting to order and took the roll call (as summarized above). The notes from meeting summary #10 were accepted with no changes. The main objective of the meeting was to continue the discussion from 11/28 with seven main points to touch on.

## **CONTINUED DISCUSSION OF THE LATEST ANALYTICAL RESULTS FOR THE ENERGY SUPPLY GHG FORECAST AND MITIGATION OPTIONS**

### **1. GHG mitigation analysis:**

- Based on the 12/05/07 MCCAG meeting and the fact that the state is not backing down coal, the TWG may need to look at both a consumption- and production-based approach. Given increased output, MN could actually start exporting power once renewable facilities come on-line.
- Company ownership is an issue that some are concerned that neither the State nor the Cap and Trade TWG have not adequately incorporated this.

- MISO dictates how to dispatch power generated and where. Generally agreed that MN-owned, out-of-states plants needed to meet MN electricity demand should be included in analysis. Without inclusion, current analysis may inadequately incorporate out-of-state power generated for MN consumption.
- TWG agreed to develop forecast under MISO constraints and which accounts for power generated over and above MN's plan.

## **2. Growth Rate**

- ES TWG brought results from 0.5%/yr growth (that is already built) to MCCAG after 11/18 discussion. There is disagreement over whether to keep this figure or change, CCS decides to stick with .5 noting that Ottertail, GRE and Mesaba do not agree.
- M. Cashin will check with Ottertail and decide if MN Power objects to forecast rate of .5%.

## **3. Official sales forecasts**

- Current forecasts are projected for sales in MN, not overall. Need utilities to provide the latest numbers possible and Bill still needs to include the MNUI numbers.

### *Fuel prices and avoided costs (Slide 66)*

- At least meeting, some took issue with the figures in the analysis lack of reliable data was cited as one contributing factor to this disagreement—in particular the cost of natural gas.
- TWG discussed which data sources to use to improve reliability of the forecast:
  - EIA accounts for growth and price mechanisms in its \$5-8 range.
  - Bob will consult with a group that does natural gas purchasing to get their projections.
  - TWG agrees to bring in coal data similar to natural gas since prices are increasing, in some places by as much as 80%. M. Cashin will ask MN Power staff; Dick Stone and Bob will also bring data to the table.

## **4. Gross Generation Mix (Slide 82)**

- Initially, gross generation from existing units was backed down relative to gross generation constraints; now numbers have been changed now that coal generation units are not being backed down.
- The TWGs position is that there are existing agreements on bulk purchases that remain. Whatever energy demand, in addition to existing is assumed to be generated in-state. Since the generation in-state will exceed demand, excess will be used to meet out-of-state needs. Analysis similarly assumes that the MISO dispatching system will dispatch excess coal generated power to somewhere in the region. This assumption enables tracking for both consumption approach and production for what is headed elsewhere
- TWG agrees to keep modeling two different paths, one with new coal and one without.

## 5. Heat Rate (Slide 92)

- The default assumption is that average heat rates observed for 2005 hold for the period 2006-2025 and the new coal is folded in at their estimated heat rates.
- Conventionally, a 10,230 btu/kWh heat rate is applied to wind power as a convention for tracking fuel displacement.
- Some concern about including biomass when it is uncertain whether we will have an emission rate assigned to biomass. For now, net biomass emissions are zero.

## 6. Generation mix associated with imported power (Slide 101)

- M. Cashin will cross check MN Energy Planning Report data with the Utility Environmental Disclosure that is likely more current. Once the TWG has those numbers and they have been compared with current figures, can establish a revised default for the start of our planning period.
- With revised default and inclusion of more renewable TWG can adjust the forecast accordingly. Already have a GWH amount from imports, but TWG needs to determine the relative share and apply different emissions factor for each type of fuel.

## 7. GPS Assumptions (Slide 123)

### *Planned additions*

- The TWG wanted to assume that GPS would have no effect meaning that Mesaba IGCC and Big Stone would be exempt making it difficult to identify emissions reductions.
- If we use .5% growth, MN will need many new MW and, essentially, the plants in the pipeline are the only ones this would affect under that growth rates.

### *Imports that are already in the pipeline*

- There was some debate about whether the GPS would affect plants in the pipeline. CA's GPS, for example, does not affect contracts. While assuming the MN GPS operates on all capacity – it eliminates all new coal contracts that exceed the threshold. Current analysis looks at new generation on aggregate level but not contracts because that's not available.

## SCHEDULE

- 1) The next TWG meeting is Friday, December 14, from 2:00pm to 4:00 pm.
- 2) The next MCCAG meeting is Jan 10 all day and Jan 24 all day

## PUBLIC COMMENTS:

The point was made that when resources are being compared, the capital cost is very important and has to be allocated over entire life and ES-TWG analysis extends to 2050. Is useful-life being considered in the model? TWG confirmed that it was.

**ANNOUNCEMENTS:** There were no announcements.