

Wind Power Forecasting Pilot Project Final Workshop

June 12, 2008

Calgary, Alberta

Reliable **Power**

Reliable **Markets**

Reliable **People**





Wind: *Canada's infinite source of clean energy*

**Work Group Opening Remarks
Paula McGarrigle, Shell Wind**



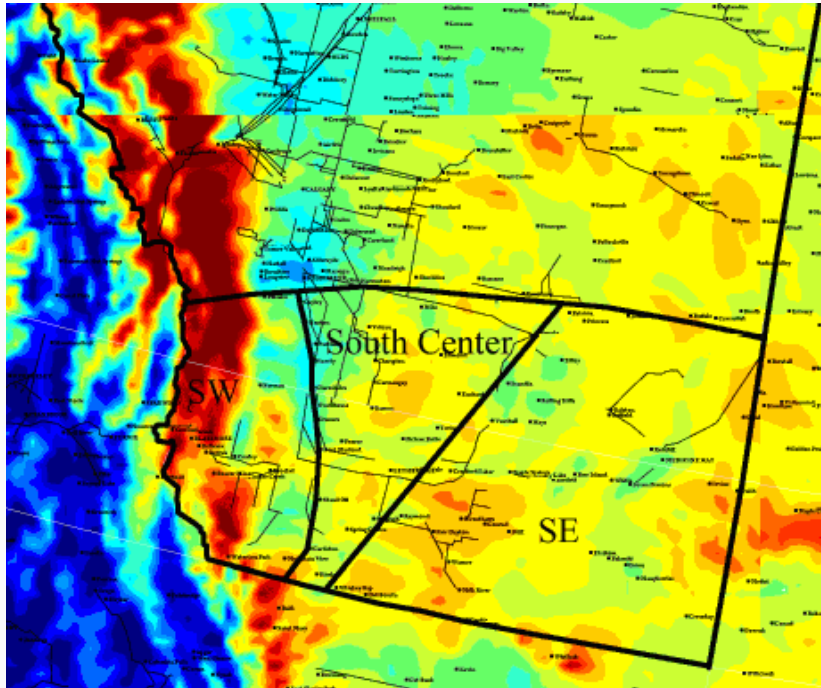
Why do a Pilot Project?

- Garrad Hasson study for CanWEA, 2 May 2006, “Short-Term Wind Energy Forecasting: Technology and Policy”, stated:
 - “Geographical location: a model that performs well in one geographic region may not necessarily perform well elsewhere.”
 - “Experience elsewhere suggests that a period of forecast service experimentation may be helpful, in order to gain an understanding of achievable accuracy in the Alberta context.”
- The AESO decided to create an Industry Work Group and do a pilot project

Wind Power Forecasting Terms of Reference

- The project purpose:
 - Trial wind power forecasting methods and providers
 - Identify the most effective methods to forecast wind power in Alberta
 - To identify the most effective providers of wind power forecasts
 - Educate industry on capabilities of wind power forecasting in Alberta
- The project scope does not include:
 - Development of recommendations on operational or market policies
 - Combination of forecasting with other mitigating measures including regulating reserves and/or wind power curtailment
 - Discussion of the allocation of forecasting costs

Wind Power Forecasting Pilot Project Design



Funded by
Alberta Electric System Operator
Alberta Energy Research Institute
Alberta Department Of Energy

- Trial three very different forecasting methods over a one year period:
 - AWS Truewind (US)
 - WEPROG (Denmark)
 - Energy and Meteo (Germany)
- 4 different geographic terrains / wind regimes in Alberta
- T-1 to T-48 hrs forecasted refreshed hourly (w/s, MWs, ramp rate)
- 7 existing and 5 future facilities to represent geographic diversity and future expansion
- On-site Met Data Collection by GENIVAR
- Independent analytical analysis from ORTECH Power

Wind Power Forecasting Pilot Project Schedule

- Feb 2007 - April 2007
 - Data Collection, model training (using historical data)
- May 2007
 - Forecast Delivery Begins
- May 2008
 - Final Reports (ORTECH and Forecasters)
- End June 2008
 - Work Group Recommendation

Agenda

- GENIVAR
- ORTECH POWER
- WEPROG
- AWS Truewind
- Energy & Meteo Systems
- Environment Canada
- Work Group Closing Remarks
- AESO Closing Remarks