

A large, light gray silhouette of a wind turbine is positioned on the left side of the slide, extending from the bottom to the top. The name "Vestas" is visible on the side of the nacelle.

Wind Energy in Canada: Status and Challenges

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Wind Energy in Canada:

Current Status

- Slow but steady growth in installed capacity
 - 1998 - 22 MW / 2003 – 311 MW
 - Still < 0.5% of electricity production
- Momentum slowly building
 - Quebec RFP – 1,000 MW by 2012
 - Ontario GPS (proposed) – 1,500 MW by 2014
 - Alberta – 800 MW of proposals
 - Sask(156 MW); Man(100 MW); Nfld(25 MW); NB (100 MW); PEI (5MW); NS (100 GwH)

But....We are still far behind other countries

- **Current Installed Capacity**
 - Canada ranks 12th (behind Italy, Sweden, India, China)
 - Also behind California, Texas, Minnesota, Iowa
- **Growth Rates**
 - Germany (3300 MW – 2002); US (1500 MW – 2003); UK (6000 MW to 2010)
- **Contribution to Electricity Production**
 - Denmark (approx. 20%), Regions of Germany (40%)

And....We are falling far short of Canada's Wind Energy Potential

- Canada: 2nd largest land area, longest coastline – wind resource available in all regions of Canada
- 1993 NRCan study – 28,000 MW potential
- Industry Estimate – 100,000 MW potential
- CanWEA target – 10,000 MW by 2010 (approx. 5% of electricity production)
- Wind energy could account for 20% - 25% of Canada's electricity

Key Barriers to Wind Energy (1)

- Cost (2 - 2.5cents/kwh higher than competition in most jurisdictions)
 - Market does not value env'tal costs/benefits
 - Depreciated assets don't accurately reflect costs
- Transmission and Distribution Access
- Intermittency / Variability
- Permitting
- NIMBY - Viewscape Impacts

Key Barriers to Wind Energy (2)

- Canada's Policy Framework
 - Thinking small – “niche” power perception
 - Lack of central coordination at federal level means ad-hoc, uncoordinated, contradictory policy (e.g., links between WPPI, Procurement, Offsets, Mapping)
 - Range of independent provincial approaches limits synergies, increases costs

Action is Needed to.....

- Clearly define the size of the prize and make it a government priority to pursue it (like past energy developments)
- Take stronger short-term action to close the cost gap (expand and strengthen WPPI, RPS)
- Education (public and energy industry) to remove barriers to wind energy