



August - 2010 Letter Re: Rules Proposed for Off-Shore Wind Turbines (to be sent to Ontario's Environmental Registry number 011-0089)

Our comments on the proposed 5-kilometer limit for offshore wind turbines follow:

1. As off-shore wind turbines have clear cost advantages over on-shore turbines (see A Thesis on "Off Shore Wind Farms in the Western Great Lakes" (http://www.mrec.org/Wind_Energy/Hingtgen%20Wind%20Thesis%2004.pdf)) such as:
 - a. The wind speed is greater at lower heights so towers can be shorter.
 - b. Winds over water are less turbulent.
 - c. Winds over water are on average about 20% higher.
 - d. Energy yields can be as much as 70% more than onshore turbines (Danish Energy Agency and IEA CADDET 2000)

Accordingly, we believe that the construction of offshore wind turbines should be encouraged, given adequate safety and environmental regulation.

2. However, it appears that current technology restricts the depth to 20 to 30 meters (although there are experimental installations planned for 50 meters) and the 5 kilometer restriction may limit the number of off-shore Ontario installations and unduly reduce Ontario's competitiveness with other jurisdictions.
3. There is a concern with the "why" for the five-kilometer limit. As aesthetic and property value concerns seem to be the greatest concern to citizens (see the study mentioned above), the proposed restrictions may be more than is required in all cases and there may be an opportunity for closer-to-shore, more economical installations in less populous areas.
4. In view of the above, we suggest that the limit could be relaxed to 3 meters (assuming the restriction of a one kilometer away from a water intake) allowing more potential sites and still maintaining adequate aesthetic values.