

## Wind Power Perception vs. Reality

Perception	Reality
Wind power will be able to replace coal and nuclear power.	Due to the intermittent nature of wind power it can only supplement, not replace traditional electrical generation. Hydroelectric, nuclear, natural gas and for the time being coal produce what is called "baseload power". This power is completely under our control and is there when we need it. Wind power is only generated when the wind is blowing within the correct speed range.
A 100 MW wind plant will contribute 100 MW of power to the grid.	The installed capacity and the actual power output of a wind plant are two very different things. The wind plant is only generating at its installed or nameplate capacity at a small range of wind speeds. It is often touted that wind turbines produce some power 80% of the time. However, because the wind doesn't blow all the time and when it does, the speeds vary, the overall average amount of power that the turbines will contribute to the grid is about 33% of their installed capacity. This is the capacity factor. The former proposed 49.5 MW Blue Highlands plant will only contribute about 17 MW to the grid over the course of a year. Last year (2005) our peak demand was 26,160 MW.
Wind power is free	While the fuel (wind) is free, the electricity generated is not. Wind power is highly subsidized with your tax dollars and currently costs almost double what the OPA is paying for conventionally generated electricity.
Wind power will have a significant impact on the air we breath	The amount of CO <sub>2</sub> that a wind turbine has the potential to offset depends on how much fossil fuel is burned in the generation of electricity supplied to the grid. Currently this is from coal and natural gas facilities. This also assumes the fossil fuel plants will be turned off as wind power is generated. In many cases, the coal plants have to be

	<p>kept in “spinning reserve” to allow for a quick restart when the wind subsides. The provincial government is replacing the coal plants with natural gas plants – better, but still a fossil fuel. In the UK it was determined that all of the potential daily CO2 reduction from a proposed 200+ turbine installation on the Isle of Lewis could be eliminated by a single transatlantic airline flight.</p>
<p>Wind power will help reduce our dependency on foreign oil</p>	<p>Our dependency on foreign oil stems from our use of the automobile, not our electrical generation methods. We produce power mainly from hydroelectric dams, nuclear power plants and for the time being, coal plants. None requires foreign oil.</p>
<p>Wind power plants are benign installations that do not affect the local environment.</p>	<p>Wind power plants, regardless of how “green” they are perceived to be, are large-scale industrial installations that have many effects on the local environment. These can include noise, shadow flicker, visual impact and nuisances, ice throw, detrimental effects on property value, bird and bat kills.</p>
<p>A wind plant will benefit the local economy.</p>	<p>This may be true during construction, if local contractors are used. Often times, they are not. After construction, few workers remain. The wind industry usually claims about 1 worker per 10MW of installed capacity. What is not addressed by the wind industry are the potential negative impacts to other industries in the area. In Grey Highlands it would be the tourism industry.</p>
<p>A large scale wind power plant will primarily supply power to the local community.</p>	<p>Power produced at a wind plant is sent into the provincial grid. It is then distributed wherever needed at the time of generation. That could be locally, Toronto or even the USA. Small SOP plants 10MW may be tied into the local distribution system.</p>