

## Wind Power is Redundant

The article “Germany, a Case Study” shows the very high redundancy of the wind power implementation in Germany. How does Ontario compare? Table 1 shows a breakdown of total generation capacity that the OPA plans to have installed within Ontario in 2020, at which point the maximum projected wind capacity of 4,685 MW will be installed. This will put Ontario at the same level as Germany in terms of the percentage of wind electricity production to the total. As explained in “Limitations to Wind Penetration”, this is the maximum that the electricity system can withstand.

**Table 1 – 2020 Capacity Supply and Demand in Ontario**

	Without Wind (MW)	Including Wind (MW)
Domestic Supply	32,400	37,100
Less Reserve Requirements	5,700	5,700
Net	26,700	31,400
Demand (after Conservation)	25,000	25,000
Excess of Supply over Demand	1,700	6,400
Wind Capacity	0	4,700

This shows that, with the presence of wind, all the wind is in excess of requirements, the capital cost for which will be about \$10 billion and the funding over 20 years will be about \$25 billion.

Figure 1 graphically shows the redundancy that industrial-scale wind power represents. The difference between columns 1 (Demand) and 2 (Capacity No Wind) is the reserve requirements of 5,700 MW and the existing excess capacity of 1,700 MW. Column 3 (Capacity With Wind) shows that with wind present no other capacity has been displaced.

**Figure 1 – Ontario’s 2020 Domestic Capacity With and Without Wind**

