

# Wind Energy Institute of Canada

Wind Energy: Power for Canada

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Independent non-profit research institute that owns and operates:

- 10 MW commercial wind farm, 5 turbines (DeWind).

Directly connected synchronous generator with hydraulic coupling

- 109 kW solar PV array, mix of bifacial and monofacial panels (66% - 33%)
- 111 kVA / 223 kWh Tesla battery. Ability to run battery and solar array as an electrical island.

We gather all data, as fast as available (1 Hz or better):

- Data from wind turbines – nacelle, hub, tower, electrical, etc.

Substation – electrical at 1 Hz

PV inverters, battery inverters

- IEC compliant met masts for wind farm, solar array – wind speeds, irradiance, PV reference cells, precipitation etc
- Cameras to monitor sky conditions, ground snow cover and solar panel surface

