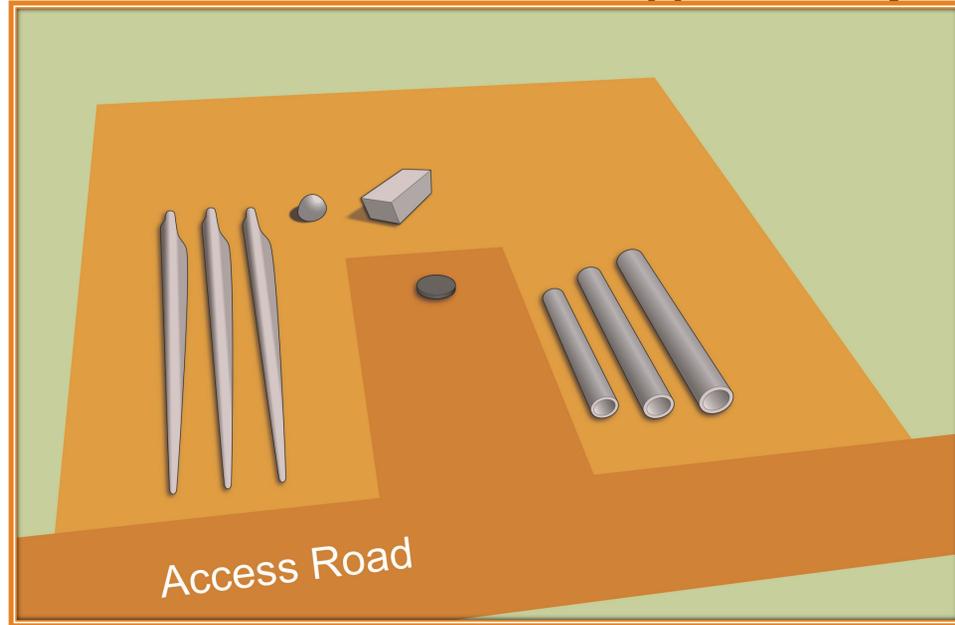


# CONSTRUCTION & OPERATION

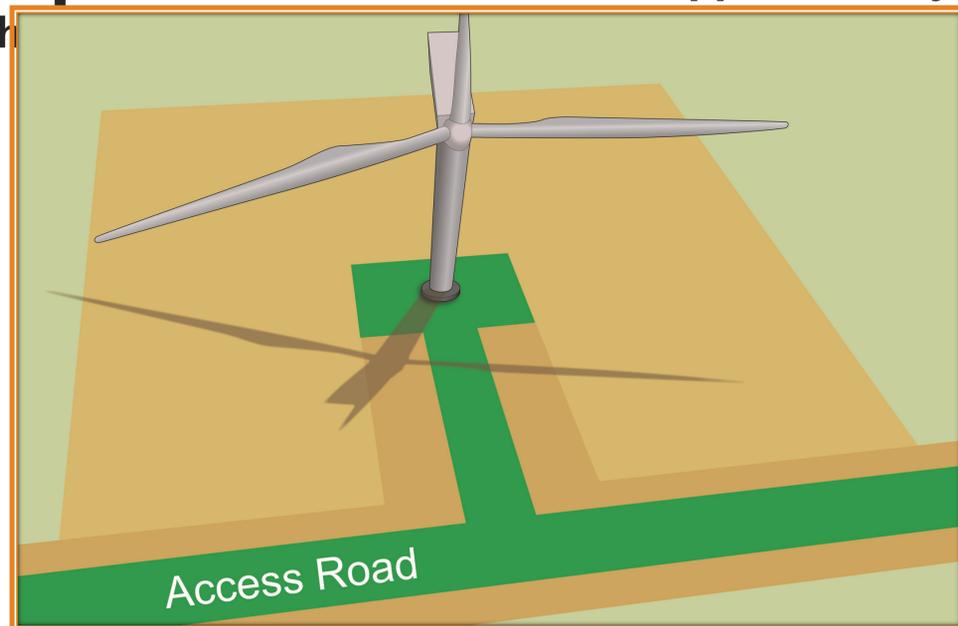
# Access Road & Turbine Pad

## Construction Phase – approximately 2.5 acres / turbine (1



A temporary turbine pad area of about 100 metres by 100 metres will be created at each turbine location, in order to deliver all the required turbine components to each turbine pad.

## Operational Phase – approximately 0.11 acres / turbine (0.05



After construction, the access road width and the turbine pad will be reduced to limit impacts for agricultural use.



Turbine pad after construction

Access road and turbine pad during operations

# Turbine Foundation & Electrical System Construction

- **The turbines will be installed on top of a buried, cast-in-place reinforced concrete foundation.**



Foundation excavation. Diameter approx. 20 metres (m)



Reinforcing steel installation. Between 40-50 tons of rebar



Each foundation requires approx. 400-600 m<sup>3</sup> of concrete

- **The electrical system will consist of underground cables and a project substation. The cabling will be buried at a depth that will not interfere with normal agricultural practices.**

Buried collection system



Substation connecting a project to a transmission line



# Turbine Assembly



## Transportation of turbine components

**Approximately 12 trucks are required for the delivery of a complete turbine**



**Tower assembly**  
**Up to 6 tower sections.**



**Nacelle installation**  
**The nacelle weighs about 59 tonnes.**



**Blade assembly**  
**The blades will be attached to the hub on the ground or lifted one at a time onto the hub.**

# Operation and Maintenance Building & Permanent Meteorological Towers



- An operation and maintenance (O&M) building will be built or rented to allow operators to maintain the turbines and keep spare parts.
- Wind speed, wind direction, temperature and humidity will be measured by the permanent meteorological towers. We have permitted seven locations but will install up to three permanent meteorological towers during project operations.



# Decommissioning & Reclamation

- The project is expected to be operational for up to 30 years
- At the end of the project's life, we will evaluate whether the project should be decommissioned or repowered
- Decommissioning:
  - The project is de-energized. Turbines and all other above-ground infrastructure is removed and the land is restored to its original or equivalent land use.
  - Construction equipment will be utilized to remove infrastructure.
  - Underground infrastructure including electrical collector lines will be removed to a depth of 1 metre, or an agreed upon depth at the time of decommissioning.
  - Decommissioning and reclamation will be completed based on the *Conservation and Reclamation Directive For Renewable Energy Operations* and any updates at the time.
  - A decommissioning fund along with the salvage value of the equipment will cover the decommissioning and reclamation costs providing peace of mind for landowners and local government.
- Repowering:
  - Turbines and/or other infrastructure is upgraded to extend the project's life.
  - This is often attractive to developers since there will be many years of historical wind resource data and production.
- Waste and debris generated during decommissioning activities will be collected and disposed at an approved facility.