

Renewable Energy - Puketiro Wind Farm

Greater Wellington Regional Council signed an agreement with RES New Zealand Ltd (RES) in December 2006 to develop and operate a wind farm on the Council's land to the east of Battle Hill Farm Forest Park, as part of its commitment to sustainable energy.

The proposed Puketiro Wind Farm will be sited on ridges in the Puketiro Forest and parts of the Akatarawa Forest. The land concerned was purchased by the Council for water supply catchment and mainly planted in *Pinus radiata* and other exotic species. An installed generating capacity of 80 to 120 MW is anticipated from turbines on Council land depending on the size and number of turbines. The wind farm may also include turbines and infrastructure on adjacent private land.



Wind Farm Access

Access to the wind farm via private property is preferred by Council and is an option that RES is pursuing. The Council is providing the option of access from Paekakariki Hill Road through Battle Hill Farm Forest Park to the eastern ridge with the Puketiro Forest largely following the route previously identified for a forestry road. A forestry road will be necessary across the park for removal of logs during logging of the Battle Hill forested eastern slopes and adjacent areas of the Puketiro Forest.

Should the Battle Hill Farm Forest Park option be chosen for wind farm access, it would be utilised by these logging vehicles. The route through the Park will avoid areas around existing buildings and be designed to minimise its impact on the Park.

The Council is also allowing vehicle access along the eastern boundary ridge with the Puketiro/Akatarawa Forests, particularly along existing forestry tracks. These tracks will be upgraded for wind farm access.

During construction of the wind farm, wind turbine parts, machinery, equipment and construction plant and materials will be transported in. Whilst the number of vehicle movements will vary during the construction period, up to 50 heavy vehicle return movements are estimated during days of intensive construction activity. Public access to the wind farm site and along the access route may be restricted at that time. Following construction, access is only expected to be required for operational and maintenance purposes and generally with a light vehicle.

Power and Communications

Power cables and communications cables between turbines and the switchyard will generally be buried beneath roadways. This includes the vehicle access along the eastern boundary ridgeline. There are two possibilities for power transmission from the wind farm. One option is within the Puketiro Forest and is preferred by Council. The alternate route requires an overhead power line to be constructed to Transpower's transmission line at the boundary between the Battle Hill farmland and forested slopes. The decision on which transmission route is adopted will be determined by Transpower's requirements.

Turbines

No turbines are allowed to be installed on Battle Hill land. However, turbine flyover will be allowed. This occurs in certain wind directions when a part of the blades on turbines installed on land relatively close to the Battle Hill boundary pass over Battle Hill land during their rotation.

More information on the wind farm development is contained on the Council's website www.gw.govt.nz and is available through windenergy@gw.govt.nz.