

Allison Dever
EGEE 497
Dispatch

Tuesday, March 5th: Te Uku Wind Farm

After departing Raglan, we headed for Bridal Veil Falls for a scenic outlook before the Te Uku Wind farm. The wind farm is situated atop a hilly area and is located just outside of Raglan. Te Uku has an installed capacity of 64MW using a total of 28 turbines standing at 80 meters with 49.5m blades. The turbines generate energy at a minimum wind speed of about 19 km/hr with a maximum capacity of 2.3MW. The wind farm produces enough energy to generate power for about 30,000 homes. Each 318 ton turbine took specialty delivery to arrive via truck in multiple deliveries. The turbines took 2 – 3 days to construct in 3 segments with the help of four cranes. Each tower is topped with an 81 ton nacelle, hub and 3 blades.



The land consent was granted for the wind farm in May 2008 and construction officially began in 2010. Te Uku has been operational since March 2011 and is currently operated by Meridian from Wellington. Total construction costs are estimated to be around \$230M over the 200 hectare land area. After careful integration the nearby town does not mind the wind turbines, and there are currently no noise complaints. We were able to hear how noisy a turbine has the potential to be, especially directly under the blades.