

Turitea wind farm Community Liaison Group



4 August 2021

MARGARET KOUVELIS welcomed everyone to the meeting, and introduced Glenys Murphy, principal of Turitea School. She reminded attendees to sign in to the QR code at the school for Covid tracing purposes.

Margaret welcomed Simon Mori from Palmerston North City Council, who would be able to follow up on any questions arising in the meeting for the Council.

Attending from the project tonight:

From Mercury: Dennis Radich, John Campbell, Duncan Annandale, Mark Henry, Steph Kirk, Katy Scoullar

From Vestas: Kenn Wood and Willem Venter

From Downer: Hugh Leersnyder and Sarah Anderson

WHAT WE'LL TALK ABOUT TODAY



2 TODAY'S DISCUSSION



DENNIS:

The photo on the left shows the roading upgrade through the Reserve. The upgrade was designed to have minimal impact, following the alignment of the current road, with revegetation and offset planting as part of the Consent conditions.

The photo on the right shows the northern substation that has been built inside the Reserve and is now complete, energised and commissioned. The northern 33 turbines will feed power in to that substation then it travels down to the Linton Substation.

Tonight we'll talk about progress in the project and some milestones to celebrate.

Effective 9am on Tuesday, Mercury became the owner of all of Tilt Renewable's New Zealand wind farms. That means that looking up to the range above Palmerston North, Te Apiti wind farm remains with Meridian at the furthest north, then Tatarua wind farms 1 2 and 3 (now owned by Mercury) then NZ Windfarms, then the Turitea wind farm. Mercury is now one of New Zealand's biggest wind generating companies.

PROJECT UPDATE



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DENNIS:

This picture was taken from North Range Road looking across the Pahiatua Track on a frosty morning, where sets of blades are now proliferating. Landing in the plane when I flew in this morning, for the first time saw one of our turbines turning.

The first wind turbine was energized on Friday 30 July and four turbines are now switched on to some extent, saw two running together today. The Turitea Wind Farm has now officially generated energy to the grid.

Of the 33 turbines in the northern zone, 26 now have all blades installed. All the turbines that were constructed apart from their blades have now had their blades installed. Subsequent construction of the wind turbines will be from the ground up. There are 81 blades now on site (delivered using the blade manipulator crane).

Deliveries of component deliveries to Napier Port and the storage yard in Palmerston North are now complete, apart for those lost in the December ship fire, and they are expected to be arriving to port before the end of the year.

In the southern zone of the site work is ongoing with most of the main roading network earthworks inside southern section now commenced, continuing the upgrade of the road through the Reserve, and building hard stands and foundations upon which to install the turbines. Progress is pleasing given the conditions.

The route through North Range Road for delivery of blades is now very close to complete, subject to some minor works and the successful completion of blade trial runs. This will mean that our contractor no longer needs to use blade manipulator to take blades up via Pahiatua Track, as it takes away that bottleneck with the narrow, twisting road going up into the site.

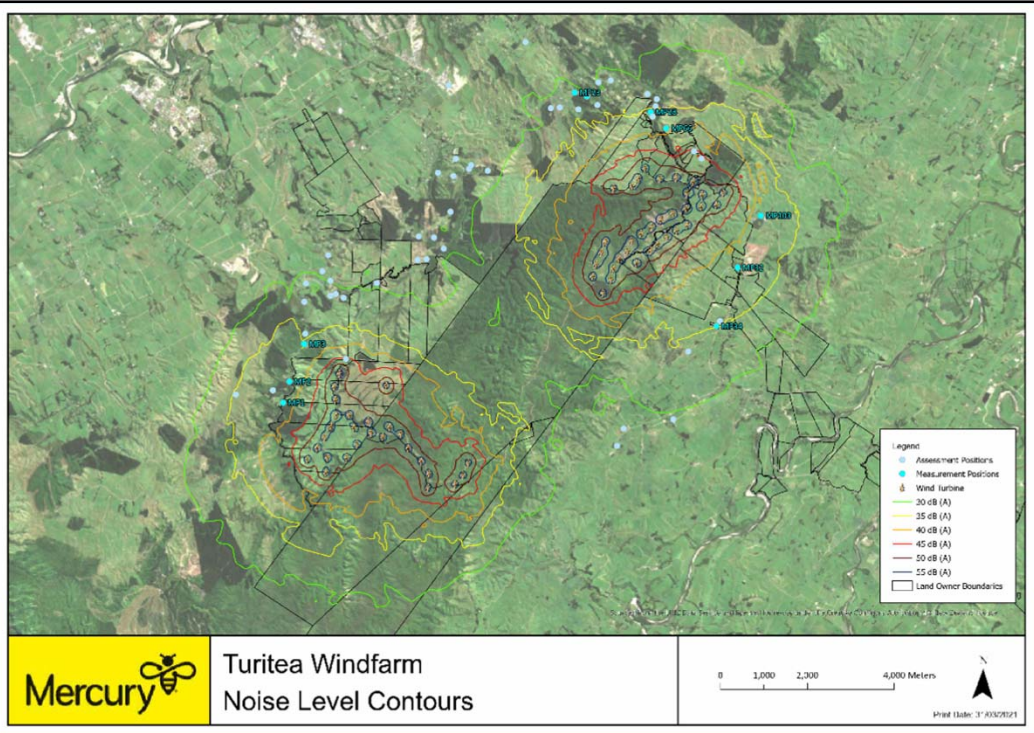
The Substation in the northern zone of the site has been constructed over the last few months and has been fully commissioned and able to export energy from the middle of July.

The alternative route for blade delivery through North Range Road, that we spoke about earlier this year before the

blade manipulator delivery option got ahead of it, will now be under way subject to civil works – a blade trial run will be undertaken tonight (Wednesday) and all going to plan, first blades shortly.

NOISE

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DENNIS:

This map shows models turbine noise, modelled and informed by background noise modelling that has been going on for some months. Hard copies are available if anyone would like to discuss this [please contact us at turiteawindfarm@mercury.co.nz if you would like to discuss this. The map is also available on our website here: <https://www.turiteawindfarm.co.nz/news-and-updates/noise-contour-map/>].

A monitoring mast can be seen from Pahiatua Track as you go up the hill, and this records wind speed and direction. This is monitored, recorded and calibrated against the three noise monitors in northern part of the site and used to check compliance with consents. The mast needed to be installed before the wind farm began to generate – and it just made it. This mast will remain for at least three years under the consents, in order to prove that the wind farm can operate without noise concerns from neighbours.

We don't don't expect systemic noise issues from the turbines once the wind farm is operating. There is potential for some houses in north where noise might approach the set limits, and this is where we are concentrating our monitoring. Our modelling shows very little risk of noise issues at houses in the south.

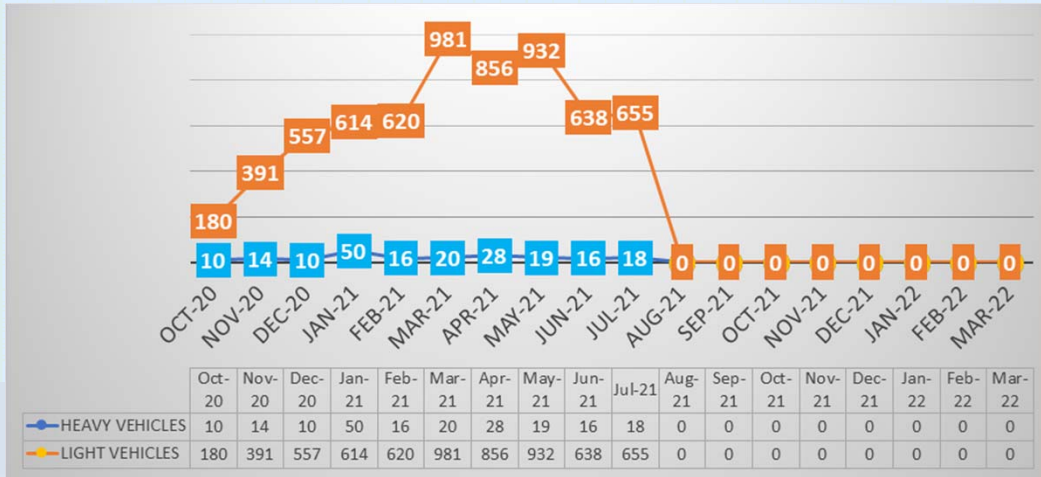
At the last meeting we were asked to confirm the frequency range on the noise monitoring on site. The monitors not only capture the audible range (typically described as 20-20,000 Hz), but also lower frequency sound (below human threshold, 6.3 – 20Hz), although there is some difficulty in discerning low frequency sound from any given source because of the low frequency sounds in the ambient environment.

We are acutely aware of the issue of noise from some of the transmission infrastructure. Following noise monitoring and measurement over a number of weeks, we now have a report indicating that transmission poles near Greens Rd are the likely source of the noise.

We are currently working with Electrix (who designed and installed the transmission infrastructure) to find a solution to the noise, which may include removing climbing hardware on the pole and or cross arms, and/or capping openings in the poles that can funnel wind in the same way as blowing across a bottle. It will be a balance between retaining the required safe climbing access for maintenance and repair, and functionality of the structure.

Question: as the turbines are brought online, will the position of the monitors be changed? MARK HENRY confirmed that they are permanent monitors but will be moved around and correlated against the closest wind masts.

CONSTRUCTION TRAFFIC – GREENS ROAD



DENNIS:

There was an action from last meeting to report against traffic movements from Greens Road. This graph tracks that on a daily basis. Willem Venter, Environment Professional at Vestas, sends this graph to the Council each month. Orange numbers tracks light vehicle movements, and blue numbers show heavy vehicle movements. The blue (heavy vehicle) numbers have been steadily low for some time, but we expect this to ramp up in spring as civil work continues on the site.

There are nearly 4,000 truck movements available to be used on this road, with around 1850 used so far.

CONSTRUCTION TRAFFIC



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DENNIS:

We talked at the last meeting about the idea of addressing a tight access constraint in the south of the site. Nothing is decided yet, and we are not progressing anything without consultation with people who would be affected.

The quarry on Kendalls Line is the source for aggregate and materials that will be used on site. If the existing routes are used to transport these materials, once available (consented) traffic movements through Kahuterawa Road and Greens Road are exhausted, a 20km route through the north site entrance will be required, that has its own implications for traffic.

We are considering an offroad route over farm land from the Quarry to the bottom of Greens Road. Hugh Leersnyder and Sarah Anderson from Downer are looking at the planning/consenting aspects of this option. It does provide a manageable outcome, but we are very conscious of the history of the consent conditions in place now around truck movements.

If you think you'll be affected by this, then we will be talking to you. We are happy to field questions, and Hugh and Sarah invited were invited to the meeting for that purpose.

To be clear, the route options being considered are not for importing turbine components, that will be brought in through the north of the site, along the Reserve Road that is being upgraded for that purpose.

ENVIRONMENTAL MONITORING



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DENNIS

The picture shows Stephanie Kirk (Mercury) and Phil Smith (from Totara Glen nursery) checking out some of the 40,000 revegetation seedling. This programme is in good shape, and we are well prepared for when we start the revegetation.

Winter works continue (minor restrictions around safety and environmental protection). The winter works have particular conditions on them, and approvals are needed on a weekly basis to maintain our 'licence to operate'. We did a good job last winter at keeping works going through challenging weather. Weekly inspections from Horizons Council (on behalf of the three Councils involved) continue right through winter in the northern and southern parts of site, monitoring against their environmental standards and our consent conditions. We have had consistently positive results, a credit to Willem Venter (Vestas Environmental professional) and the teams on site.

In June after heavy rainfall, a slip occurred in the northern part of the site. Below the hardstand of Turbine 2 a bank gave way and slipped through the boundary and into the Reserve. This was notified to Councils and our contractor were onto it straight away. Immediate monitoring of the nearby stream shown minimal impact so far. We are watching the area closely, via contractors, Tonkin and Taylor. As soon as the weather allows remediation works, we will be working with the Council to consider next steps.

There has been a noticeable increase in animal pest numbers on and around the site. In 2019, private hunting permits were suspended by Palmerston North City Council in order to allow safe working for the construction crews on site, particularly those walking in to the Reserve area to build transmission infrastructure there. As a result of this, deer and rabbit numbers in the area have increased. Mercury is funding some additional animal pest control in the southern zone to assist with the success of our mitigation planting operations at Browns Flat next year (so that the seedlings are less likely to be eaten). This mitigation planting around Browns Flat was to have taken place this winter, but has been delayed a year in order to have slightly larger plants and have time to address the increased pest numbers.

Tonight we are formally saying farewell to our Environment champion, Stephanie Kirk, who has been a shining light in these meetings and on the project, where she has worked incredibly hard on the environmental monitoring and planning. She's moving on to what she describes as her "dream job" working on a highway build near Tauranga, and we are incredibly sad to see her go. Last month she was in this school hall, talking to the children (who are some of our

nearest neighbours) about the work we are doing. We will miss her.

QUESTIONS?



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It was noted by a community member that the proliferation of rabbits in particular were due to the Council's previous successful efforts to eradicate mustelids, leaving no natural predators in the Reserve. Was Mercury planning to do anything about the rabbits? Steph Kirk confirmed that there was funding for targeted pest control including rabbits, hares and deer.

A community member asked whether goats were present, and Steph said that no goats had been noticed by hunters.

A community member asked for more details on the plan for planting at Browns Flat. Steph said that this would take place in the next winter planting season. With the current pest numbers, pest control now would mean that the planting had a better chance of survival next year. Seedlings were being raised at Totara Glen nursery by a local planting contractor, Phil Smith, and all the seed had been sourced from within the Reserve so it was genetically predisposed to survive in that environment. The seedlings were being grown outside in a way that hardens them properly to the weather.

A community member said that a truck with a digger on the back had come down the road at a restricted time, around 3pm. Do they need pilots on that road? Are there rules? Kenn Wood (Vestas) said that the load being carried would determine whether front/rear pilot vehicles were required. If anyone saw something that didn't look right, please let Vestas know as soon as possible, ideally a photograph with a number plate, so that they can reiterate the rules around use of the road to contractors. Dennis suggested using the 0800 number on the signage to quickly notify the contractors, and Steph confirmed that the teams will be held to account.

A member of the community asked whether truck and light vehicles movements are counted to the office, or to the site, as many vehicles part at the bottom of Greens Road. Dennis confirmed that the count is at the site. Kenn said that vehicles are parked at the bottom of the hill and vans used to move teams up to the project to avoid using traffic movements and take traffic off that part of the road. Mark said that the consent conditions relate to Kahuterawa Road and Greens Road, and if the traffic count is happening further up, we'll consider how car pooling from the compound might impact it.

A member of the community reported that helicopters had been taking off from the car park [on Greens Road] since last

meeting. John Campbell (Mercury's Project Manager) said that Electrix had used helicopters to retrieve waste from the site now that their work there is done. There will be no more helicopters on the site.

A member of the community asked whether there were restrictions on when logging trucks can use the road. Simon Mori (Palmerston North City Council) agreed to check and respond to this question.

A member of the community asked whether an option for facilitating access to the south, a new haul road, was an alternative to using Kahuterawa Road more often? Dennis said that it was still under consideration. No matter which route is used, Greens Road will need to be part of the route, and we are focused on that as a critical issue. Kahuterawa Road is narrow and windy, and could be more challenging to use and to be allowed to use it. The beauty of the proposal to create a haul road is that it is on private farmland, doesn't impact other road users, and is the shortest distance for the aggregate to travel.

A community member said that if the haul road is built, they wouldn't get an upgrade to Kahuterawa Road. Could a haul road be used as a public bike track for example? Dennis said that the current proposal is for a temporary haul road. But we are open to suggestions from the affected community to see how we end up with a solution that was net beneficial to everybody. Please let us know any suggestions that you've got, but we know it will be hard to keep everybody happy!



FOR FURTHER INFORMATION > TURITEAWINDFARM@MERCURY.CO.NZ

MARGARET:

Margaret thanked the people in the community for asking questions at this meeting. She was looking forward to a trip up the hill to the wind farm one day, and an opportunity for people to access the site would be an opportunity for Mercury to educate the community.

A community member suggested that Mercury could invite people to participate in the planting next year.

Dennis confirmed that Mercury was looking forward to inviting people to get closer to the wind farm at some stage, and would be planning community engagement.

Date and time of next meeting: 5.15pm, 3 November at Turitea School hall