December
2024
(updated)

Pahiatua Wind Farm
Frequently Asked Questions

YINSON Renewables

ABOUT YINSON RENEWABLES

Who is Yinson Renewables?

Yinson Renewables is a clean energy infrastructure developer and power producer.

In Aotearoa, we are strongly focussed on producing onshore wind energy. Around the world, we also develop and produce solar and wind energy infrastructure.

We are committed to working together to build local economies and local assets, over the long-term. We are present from "end-to-end" on all our projects. This begins with early-stage site investigation and continues through consenting, to offtake agreements, financing, constructing and ultimately delivering, managing, operating and sustainably decommissioning operational wind farms.

We invest in early, ongoing and transparent engagement with local communities and stakeholders. We believe our wind farms can offer a range of economic, employment, cultural, social and environmental benefits, both locally and nationally, while also supporting New Zealand to reduce climate change and transition to a net zero future.

Is Yinson still involved in carbon intensive industries?

In our global legacy business, we supply shipping and logistic services to industries including oil and gas. However, our key growth areas are an active transition towards renewable and clean-energy solutions. To underpin that we have set the following climate goals:

- to be carbon neutral by 2030
- and net zero by 2050.

In New Zealand, our focus is 100% renewable energy.

Yinson Renewables is investing millions of dollars in the local economy – employing local advisors, consultants and building energy infrastructure that will stay for the long-term and contribute to New Zealand's economic and environmental well-being.

ABOUT RENEWABLE ENERGY

What is renewable energy?

Renewable energy is naturally sourced energy that comes from sources such as wind, solar, geothermal and rivers (hydroelectricity).

Why does Aotearoa New Zealand need ***more*** renewable energy?

In Aotearoa, we need to increase our energy supply and transition to a low-carbon economy.

The demand for electricity is increasing. By 2050, the amount of energy we use in Aotearoa is likely to increase **by nearly 70%**. We don't generate enough power to supply this ever-growing demand.

New Zealand has set ambitious targets to reduce our carbon emissions and increase our renewable energy production.

By 2050, 100% of our energy must come from renewable sources.

100%
by 2050

Why more wind farms?

It's no surprise to anyone living in Aotearoa that we have excellent wind resources. Unlike many other countries, we also have land that is suitable for onshore wind infrastructure.

Wind energy is cost competitive against all other forms of new energy generation. In general, we need a diverse mix of generation to improve the resilience and security of our electricity system. The future will include a mixture of different renewable energy technologies.

Landowners across the country, including iwi, are also looking to change the way they use their land. Wind energy provides a sustainable and **low-impact** solution that has **many benefits for generations to come**.

WHY PAHIATUA?

Why is Yinson Renewables looking at Pahiatua (Ballance) to build a wind farm?

We are exploring Pahiatua as a potential wind farm site, because:

- The project site has a very good wind resource, confirmed through data from a meteorological mast installed in 2023.
- The project site has very few ecological concerns.
- The project site offers good access for construction and for connecting to the grid.

Why aren't wind farms being built in less populated places, like up on the Desert Road for example?

Not all locations are appropriate for wind farms. Coastal areas or exposed hill tops and ridgelines tend to have the highest average wind speeds. Areas with good wind conditions include the Waikato, Taranaki, Hawke's Bay, Manawatū, the Wellington region, Central Otago and Southland.

However, advances in wind turbine technology mean that sites with medium average wind speeds are becoming viable.

New Zealand needs a lot more energy generation and it's unlikely to come from hydropower, oil and gas or geothermal sources. Future energy is most likely to come from wind and solar. Because wind is such an important part of our future energy picture, a great many sites throughout New Zealand are currently being investigated. But there is a shortage of good sites. While a site may have good wind resource, other issues may mean it's not suitable for a wind farm (such as ecological concerns or distance from the grid). It's becoming harder to find appropriate sites. Yinson Renewables is one of many companies seeking to help establish the wind farm infrastructure our country needs.

We already have so many wind farms near Pahiatua – do we need another one?

The region has a number of wind farms because of how suitable it is for wind energy generation. The area is also well-serviced – it is a **local hub of expertise** for constructing and operating wind energy assets, which brings about local benefits to the area.

Without minimising community concerns, we also hear enthusiam about the region becoming known around the world as a leader in onshore wind energy. Newcomers to the area understand that wind is a part of the community.

We appreciate not everyone is supportive of another wind farm in the area. However, we believe that wind farms are increasingly part of the local landscape and identity and are an important part of New Zealand meeting its targets. Our proposed wind farm is a relatively small addition to the existing infrastructure.

As well as following all New Zealand standards and rregulations for new infrastructure we are also engaging with the affected community. As much as possible we want to work with you to minimise impacts and maximise benefits.

What would the capacity of the Yinson Renewables wind farm be?

We estimate that the likely capacity of the wind farm would be from 32 MW to 56 MW.

THE CONSENT PROCESS

What consenting pathway is Yinson Renewables choosing for the Pahiatua wind farm?

Yinson Renewables **has recently decided to pursue the Fast-track consenting process** available under the Natural and Built Environment Act 2023.

This pathway was confirmed as available in December 2023, following the change of government. It is designed to make it more efficient to build the renewable energy infrastructure we need to meet future renewable energy demands.

Pahiatua Wind Limited (a company owned by Yinson Holdings Berhad) applied to the Environmental Protection Authority (EPA) for the proposed Pahiatua Wind Farm to be referred to the fast-track consenting process under the Natural and Built Environment Act 2023.

Our application to use the fast-track consenting process for the proposed wind farm was accepted by the Minister for the Environment in November 2024, meaning the fast-track consenting process can be used for this Project.

Pahiatua Wind Limited is now proceeding with a substantive application for resource consent for the Project, which we expect to lodge with the EPA in early 2025.

Does the Natural and Built Environment Act (NBEA) Fast Track process reduce my say on the project?

If our application proceeds to the Expert Consenting Panel convened by the EPA, the Panel will invite submissions from the people and groups most impacted by the project. The panel **must** invite submissions from:

- owners and occupiers of the project site land and the land adjacent (direct neighbours)
- relevant councils, iwi authorities and Treaty settlement entities
- other key stakeholders such as relevant Ministers and the Department of Conservation
- any people or groups specified by the Environment Minister if they accept the Fast-track referral application.

The Panel may also invite submissions from any other person or group who the Panel considers represents a relevant aspect of the public interest, or to whom the Panel considers the activity is relevant, after taking into account specific matters set out in the Fast-track law. The feedback you have already provided has influenced our current project design and will be reflected in our consent application.

We continue to fully engage with iwi, councils, key stakeholders and the wider community as part of the consenting process and the development of the resource consent application to follow.

We appreciate that not everyone may be supportive of the wind farm, and these conversations need to continue. Our final consent application will reflect this engagement and your ongoing feedback.

You can contact us with your concerns at:

- Our project email: ***pahiatuawind@aurecongroup.com***
- Our project phone number: ***+64 027 395 9352***

What are the "bottom lines" in the NBEA Fast-track pathway?

Resource Management Act (RMA) rules and standards still apply to our proposed wind farm. This means we must meet the same standards (for example, around noise, visual effects, or ecological impacts) that we would have to meet if we were submitting a standard resource consent application to a council.

Have our rights of appeal to the Environmental Court been removed by the decision to go to Fast-track?

The decision of the Expert Consenting Panel can be appealed to the High Court, but only on questions of law. An appeal cannot be made on the merits of the decision.

Why have you decided to use the Fast-track pathway?

The Fast-track pathway is a faster and more efficient way to seek a resource consent for a renewable energy project. Under the NBEA Fast-track process, there are still full and proper processes under the law, to ensure stakeholders and affected parties can influence and are considered in the final outcome.

Who is responsible for monitoring and enforcing consent conditions (for example, relating to noise or shadow flicker)?

Under the Resource Management Act 1991, councils are required to undertake compliance monitoring and enforcement on resource consents. This includes following up on public complaints in regard to compliance with consent conditions.

What timeframe is the consent being prepared within?

We lodged the Fast-track referral application in April 2024 and our application was accepted in November 2024. We will lodge the substantive application in early 2025.

LIKELY LIFE CYCLE OF THE PAHIATUA WIND FARM

Construction

How long would the wind farm take to build, and when would construction start?

If our Pahiatua wind farm receives resource consent via the Fast-track process, we expect construction to begin in 2026. Construction would likely take around 12 to 18 months. We would expect the wind farm to be operational in 2028.

Would there be limits on construction timing and noise?

New Zealand has construction noise standards which Yinson Renewables would be required to meet. The standards differ depending on the time of day and week (for example, evenings and weekends). Some construction activities are also dependent on timing, weather, wind speeds, and council and road authority requirements.

Conditions around the possible hours for construction would be set out in the resource consent itself.

Construction activities will comply with the provisions of NZS6803:1999. We would prepare a construction noise management plan to ensure compliance.

Will the turbine components be transported during the night?

The transportation of over-sized turbine components is subject to permits from NZTA. Typically, these are moved at night, as this offers the least disruption to the most people. Other factors such as school traffic are often taken into account. There are noise limits that must be adhered to during night time hours, these would be outlined in the consent conditions and a construction management plan, as well as in a construction traffic management plan.

How would construction be managed to minimise impacts?

We would establish a construction management plan, as well as a construction traffic management plan, in line with our consent conditions. This plan would set out the approach to managing all aspects of construction including working hours, safety and security, water and dust management, noise and traffic.

Transformer and Transmission Lines

Would approvals be required from landowners where transmission lines are located?

Yes, approvals from landowners are required for transmission lines to be established on their properties.

Where will the transmission lines be located?

We are still in the design and negotiation phase for this decision. We are considering options and beginning to speak with the landowners of the possible locations.

Where is the transformer going to be located?

It's most likely we will connect via the 33kV transmission lines and the existing Powerco substation, in which case there would be no requirement for a main transformer.

Where will the access road or roads be?

We are currently investigating two access road options, but it's likely that only one access option would be constructed. The upgrade works required are subject to detailed design, in consultation with the Tararua District Council. The works are likely to include, but are not limited to:

- road widening
- extension or remediation work to culverts
- vegetation removal
- road relevelling.

Will the wind farm connect to the national grid or a private consumer?

Ultimately, if we select the 33kV option as we intend to, we will connect to the national grid via Powerco. Yinson Renewables remains open to working directly with large energy consumers.

Operation

Would farming activities continue when the wind farm is in operation?

Yes, the landowners have indicated they want to continue to run their farming activities, while the wind farm is operational. The wind farm's footprint would be around 2% of this farmland, with the rest remaining viable for active farming.

How long would the wind farm be operational for?

Well-maintained wind farms can operate for 25–30 years before significant equipment overhaul or replacement is required. When it comes time to evaluate the wind farm's future, several options will be investigated, which can include replacing the turbines or equipment that is at the end of its useful life or decommissioning the wind farm.

It is likely that we would need to re-visit our operating consent at this time, which would give the local community another opportunity to have their say on the future of the wind farm.

Decommissioning

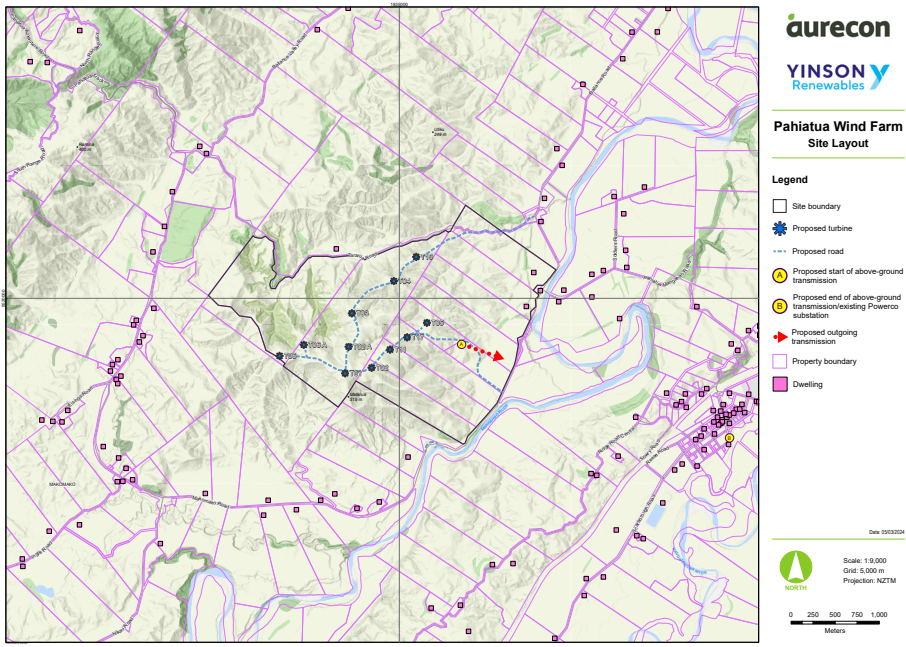
What do you do with the turbines at the end of life?

These days, most wind turbine components can be recycled. Around the world, more effort is being put into recycling opportunities for wind turbine blades, as the number of turbines being re-powered increases. We will consider sustainability issues in the life cycle assessment we are preparing for our consent application.

How do you restore the land if the turbines are taken down?

Ideally, we would hope that the wind farm is upgraded rather than decommissioned at the end of its current life span. However, if the wind farm was to stop operating, we would expect to remove all turbines and above-ground structures and restore the land.

SITE LAYOUT MAP



Please note that this site layout map is not final and may be subject to changes/refinements, throughout the consenting process.

IMPACTS ON THE PAHIATUA COMMUNITY

How do you know what the real-world impacts of this wind farm would be?

We've learned – and continue to learn – about the real-world impacts of this potential wind farm through:

- Landowner, neighbour, community and stakeholder engagement
- Commissioning a wide range of expert reports.

What impacts have you investigated?

We are undertaking detailed specialist assessments of the following impacts:

Cultural	Carbon lifecycle	Geotechnical
Social	Landscape and visual	Civil
Archaeological	Shadow flicker	Telecoms
Ecological	Noise	Aviation
Erosion & sediment	Traffic	

When will you share these specialist reports?

All specialist reports will be made public when we lodge the full consent application. This is likely to be in August 2024. We will let you know, via our community newsletter, when this has happened, and where to find the reports.

Why wait until you have lodged your application to release the specialist reports?

The reports are all currently in draft form. We are assessing them against community and stakeholder feedback, as well as against more recent design decisions, to make sure they are as robust and as realistic as possible.

Are your specialists independent?

Yes. Our approach is to engage independent specialists early in our wind farm projects, to understand our sites and consider any potential issues, so we can make good decisions in site development. Professional consultants are bound by their respective professional code of ethics and must promote the highest standards of investigation and advice. Assessments produced by specialists and forming part of the consent application will be subject to peer review as part of the consenting process.

Design

What are the set-back rules for our district?

- Set-back rules are established by district councils, and vary from council to council. Some councils in New Zealand, including Palmerston North District Council, have rules requiring houses to be set back 1,500m from turbines.
- Our proposed wind farm falls within the boundaries of Tararua District Council, which currently doesn't have minimum set-back rules, with appropriate set-backs determined by acceptable visual, noise and other effects. Nevertheless, we're working hard to design a turbine layout that minimises noise and visual impacts.

Has community feedback had an impact on the design?

Yes. Feedback from direct neighbours and others in the community has contributed to design changes, including repositioning two turbines away from Makomako Road.

Engagement

What engagement has been done so far?

We began proactive engagement in the earliest stages of this project. To date, our engagement with the local community has included:

- Active, face-to-face engagement with direct (adjacent) neighbours and with iwi
- Two mail-outs and one letter drop
- Two community events (and an early event at the project site, with mana whenua the Mayor and Councillors, prior to putting up the wind mast)
- Newsletter and email updates prior to distribution
- Social media and working with local and national media
- An open phoneline and email address. These are active communication channels and we respond as quickly as we can, aiming to respond on a weekly basis.

Regular updates

In January 2024, we established a regular email newsletter. If you wish to receive this and haven't yet, please email us at: ***pahiatuawind@aurecongroup.com.***

Because our approach has been to engage very early, we accept that some local residents weren't made aware of the project at the same time as others.

In our community events, we have tried to target and encourage the closest residents to the proposed wind farm to attend. Our strategy

around advertising and letter drops has all been to support this goal. We have also been working with media, providing open and transparent communications, to share the information we have as we have it.

Social impact assessment

We have commissioned a Social Impact Assessment to accompany our consent application.

The main author for the assessment, Murray Ellis, attended the March community meeting, so that he could listen to the community concerns.

The assessors are now engaging with local residents in order to prepare the Social Impact Assessment. If you wish to speak with them, please email Murray Ellis: ***murray@dialogue.co.nz***

Visual

What would the wind farm look like? How many turbines and how big would they be?

We will seek consent for 11 turbines with a tip height of up to 200m. The turbines would have three blades and a similar appearance to existing turbines in the area.

However, if we are successful with our consent application, the project would enter a phase of further design and layout, before a final layout would be determined for construction (within the consent conditions).

We haven't made any final decisions on turbine height or turbine specs.

What height turbines have been used in the visual simulations?

The turbines simulated are 200m tall.

What is the height of the wind mast you currently have on site?

The wind mast (or "met mast") is 60m tall.

Why don't you take photos on blue sky days?

In this case, the visualisation expert visited the site area on five separate occasions. Their goal is always to photograph project sites and locations on blue-sky days.

Visual specialists do their best to take photos when the weather is great, but unfortunately they can't always get it perfect. In the end, visualisations aren't designed to show exactly what a proposal looks like, but rather to help people understand where turbines might be located in the context of existing landscape features, and what scale they will be. The light conditions and how the turbines reflect light will change during the day and seasons, so it's important the visualisations are used as a guide only.

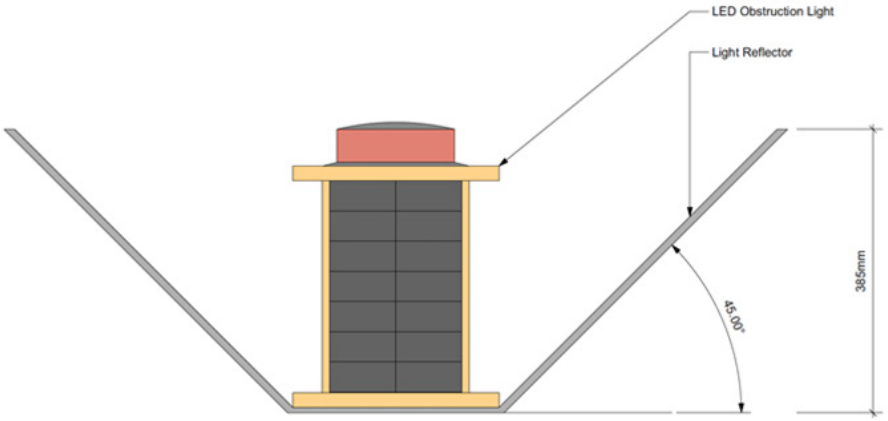
Why don't you prepare more visualisations?

There is no way visual specialists can capture every location in a landscape and depict the view in a visualisation – so even if they prepared more visualisations, they still wouldn't cover everywhere. They select representative locations from places that people know or can easily visit, and the visualisations are prepared to a scale where they can be taken outside and used to help imagine the proposal.

There are lights on Turitea and they reflect off the clouds. Will there be lights on this wind farm?

Yes, the wind turbines would be lit with appropriate obstacle lights, in accordance with a CAA-agreed lighting plan, meeting the applicable aspects of the CAA Lighting and Marking of Wind Farm Turbines Policy.

As an ideal early method to reduce the impact of these lights, we'd shield the lights from the ground, as shown in this image (we depict here a standard aviation light fitting, this would need to be confirmed):



Consent conditions often, but not always, require this kind of shielding. Our intention is to fit shielding.

Noise

How much noise would the wind farm make?

An independent noise specialist has modelled the noise produced by our wind farm. A "noise contour" map shows you the potential noise levels produced by our wind farm.

The detailed noise assessment is also investigating the cumulative effects of surrounding wind farms in relation to our proposed wind farm. This assessment will be made public when we first lodge our application with the EPA.

New Zealand has a standard (NZS6808) which requires wind farm noise levels to be below 40dB, or 35dB in particular conditions. This means the noise level is low enough to avoid interfering with your sleep, quality of life, normal activities, or health. Our proposed wind farm must comply with these legal standards.

To put the sound levels for windfarms into context, 40dB is typical of a quiet residential area with only light traffic and natural sounds, such as the wind in the trees. In contrast, sound levels alongside an urban road would be around 60dB to 70dB during the day and about 50 to 60dB at night.

What type of noise would the wind farm make?

Good design and modern equipment are reducing the noise produced by wind farms.

Wind turbines can create whooshing or swishing sounds under certain conditions. The type and intensity of noise you hear depends on:

- how far you are from the turbines
- the lay of the land
- the speed and direction of the wind.

New generation turbines are designed for quieter and more efficient operations. While older turbines produce mechanical noise, improvements in turbine design have reduced this.

Research to date concludes that modern wind turbines don't generate enough infrasound to affect physical or mental health.

What are the cumulative noise effects of the existing wind farms plus your proposed wind farm?

As above, New Zealand has an established standard (NZS6808) which requires wind farm noise levels to be below 40dB, or 35dB in particular conditions. These levels are assessed in "worst-case scenarios". This means we assess the noise with the assumption that surrounding wind farms are producing the maximum amount of noise they can produce.

The same goes for monitoring and compliance. There is no need to distinguish between the sources of the noise. If the noise levels are above 40dB (or 35dB in particular conditions), the proposed wind farm would not be meeting the legal standards and this would need to be addressed.

The noise assessment is also conservative. In general, actual readings are 2-3 dB quieter than predicted (because assessments are based on the worst case).

Vibrations and infrasound

Research to date concludes that modern wind turbines don't generate enough infrasound to affect physical or mental health.

A range of peer-reviewed research demonstrates that infrasound has no impact on human health. However, research also suggests that anxiety and fear about wind turbines can cause some people to get the symptoms described to them by anti-wind farm campaigners.

More information is available at: ***https://www.windenergy.org.nz/sound-health-effects***

Ecology

How would local ecology (flora, fauna, land and water) be impacted? How will you make sure the environment is protected?

Initial independent expert assessments suggest that the ecological impacts of a wind farm on the site would be manageable. Yinson Renewables would develop an approach to minimise any impacts, implementing measures to mitigate, restore and offset those impacts as much as possible.

In the hierarchy of effects management, avoidance of effects is the best choice, ecologically. We therefore recommended that the proposed works avoid these habitats. And the client chose to remove these proposed turbines and/or roads from their design.

BENEFITS FOR THE PAHIATUA COMMUNITY

Would there be a community fund, and what would it do?

Yinson Renewables is looking at ways to support the local community throughout the life of the wind farm. We are committed to establishing a community fund to enable community projects and initiatives.

We are interested in your views on this fund as it develops. Please send your comments and ideas to: ***pahiatuawind@aurecongroup.com***

Would the wind farm create local job opportunities?

Windfarms require a variety of jobs and skills. Most of these jobs will occur in the construction stage of the project. On other projects in New Zealand, wind farm construction has required about 0.8 full-time equivalent (FTE) jobs per MW installed. This would imply approximately 32-40 jobs during construction of the proposed Pahiatua wind farm.

How can you guarantee that jobs will go to locals?

Our intention is to employ local contractors where possible. Manawatū has many competent and experienced wind farm contractors – an attraction of building in the area.

Who pays for the impacts on the local government infrastructure, such as roads?

Yinson Renewables is responsible for any roading upgrades required. Often, communities find that local roading infrastructure is improved through the establishment of a wind farm in the area.

Are there any other likely benefits for our community?

As well as jobs, our economic assessment suggests there will be community benefits. The project would likely have indirect economic benefits for Pahiatua local business and service industry. The economic assessment report will be made available when we lodge our complete application with the EPA.

STAYING IN TOUCH AND HAVING A SAY

I haven't had a say about the wind farm yet. How can I do that?

We remain committed to engaging with the Pahiatua community throughout the life of the wind farm. We will continue to engage with local council, landowners, mana whenua, neighbours, and local communities to make sure we are keeping people informed and involved in planning and development.

How can I stay up to date?

We share progress and announcements about the wind farm via our regular newsletter update. Make sure you are on our mailing list, by sending your email address to:
pahiatuawind@aurecongroup.com

I'd prefer to speak directly with you about my concerns.

We are more than happy to speak with you. Please contact us via the email or phone below and our project leads will be in touch.

- Our project email:
  pahiatuawind@aurecongroup.com
- Our project phone number:
  +64 027 395 9352

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