

# The year in review - summary

## Membership year - 2019 / 2020



### 1. Introduction

In last year's review, we celebrated the restart of wind energy growth after a long period of hibernation. December 2019 concluded with construction having commenced on the Turitea and Waipipi wind farms and news that new wind farms were being progressed by MainPower and Meridian Energy.

In this review we summarise the outlook and NZWEA highlights and activities over the past year.

### 2. The Outlook for New Wind Activity in NZ

Wind energy is widely recognised as having the lowest long run marginal cost of new generation. Other factors which support a positive outlook for wind energy include:

- Forecast electricity demand growth.
- The climate change imperative and decarbonisation of the energy sector.
- An increasing carbon price.
- Reduced system security margins and the need for new generation.
- The profile of wind generation and ability to support New Zealand's peak winter demand.
- Aging thermal plant and gas price increases.

The longer-term outlook for the electricity sector is extremely positive however the impacts of the Covid-19 pandemic and potentially the shutdown of the NZ Aluminium Smelter does create shorter term uncertainty.

The role of renewable electricity generation and wind energy in particular in aiding the transformation is unquestioned. That New Zealand has access to a high-quality wind resource presents a significant opportunity for sector growth in support of future economic prosperity.

### 3. Global Trends

New wind installations worldwide increased by an estimated 52.8GW in 2019 with Europe and North America showed the biggest improvement over 2018, with the other regions largely standing still.

Global wind capacity topped the 600GW mark last year, finishing at 621GW, three quarters of which has been added in the past ten years.

### 4. NZWEA Strategic Direction

The Association's strategy was reviewed during the year and revised to focus on three key areas:

- Leveraging New Zealand's emissions reduction imperative to enable the energy transition to renewables, particularly wind energy.
- Optimising wind energy's position and ensure the regulatory environment supports wind farm development.
- Expanding the opportunity for wind energy development to enable community and industrial projects including wind's integration with other technologies.

The Association's vision of wind energy providing 20% of NZ's electricity requirements by 2035 is unchanged.

## 5. Highlights and NZWEA Activities

Government reviews and regulatory consultations on initiatives to address climate change and future proof the electricity sector have been a key feature of the year.

Highlights:

- Investment by Mercury and Tilt Renewables in new wind farms of over \$740 million with enough generation to power, on average, over 580,000 electric vehicles.
- MainPower starting pre-construction site works for its 93 MW Mt Cass Wind Farm and Meridian seeking potential contractors for its 160 MW Harapaki Wind Farm.
- Passing of the Zero Carbon Act including a target of net zero carbon emission by 2050.
- The Interim Climate Change Committee's Accelerated Electrification Report which confirmed the essential role of wind energy and forecast growth of 2,600MW of new wind.
- The implementation of new National Planning Standards which includes a mandatory adoption of NZ Standard 6808: Acoustics - wind farm noise.
- The Environment Committee recommending the Resource Management Act Amendment Bill include removing the statutory barriers to the consideration of the effects of activities on climate change under the RMA.
- New wind offer arrangements that enable wind generation to be offered into the spot market in up to five price bands.
- The Electricity Price Review recommending a number of initiatives which improve the outlook for renewables.
- The Major Electricity User Group's initiative to Fast-tracking new Renewable Development.
- A successful Wind Energy Conference with the theme of "Breaking New Ground" with over 130 attended the event.
- The Energy Efficiency and Conservation Authority reviewing local and community energy opportunity.
- Completion of an offshore wind study by University of Canterbury which highlighted a longer-term opportunity.

NZWEA was active in submitting on consultations in support of the development of wind energy and other renewables. Submissions included:

- Ministry of Business, Innovations and Employment’s Accelerating Renewable Energy and Energy Efficiency Consultation.
- Ministry for the Environment’s draft National Policy Statement - Indigenous Biodiversity, draft National Policy Statement - Freshwater Management, Reforming the Emissions Trading Scheme: Proposed Settings
- Electricity Authority’s hedge market enhancements, Transmission Pricing Methodology and Real Time Pricing (RTP) project
- Ministry of Transport’s consultation on a proposed new clean car standard and discount scheme.

Other activities included:

- Progressing development of a new industry wide training programme for wind farm technicians
- The Board met six times during 2019 with activities included reviewing the Association’s strategy and submissions. The Board also continued its programme of meeting with industry participants and key stakeholders to develop relationships and share information including with the Electricity Authority, University of Canterbury, Interim Climate Change Committee Boffa Miskell and EECA
- The Association’s AGM was held on 30 October 2019. Andrew Renton, Senior Principal Engineer at Transpower presented on climate change, demand, and wind.
- The NZWEA Health and Safety Group has met throughout the year with agenda items including member health and safety strategy briefing and a risk workshop.

## 6. Summary

Climate change and reducing carbon emission is now centre stage. The importance of electricity and new renewable generation to enable decarbonisation of the wider energy sector is recognised.

During the course of 2019 the key role wind energy plays has become clear from reviews such as the Productivity Commission’s Low-emissions Inquiry, Transpower’s Te Mauri Hiko White Paper and the Interim Climate Change Committee’s Accelerated Electrification Report.

The quantum of new renewable generation required is a challenge and the imperative to strengthen the RMA to recognise the national importance of renewable electricity generation and enable transmission is now well understood but remains urgent. Other important areas to progress include providing certainty on transmission and distribution pricing and the implementation of proposed ETS changes.

Three other challenges must also be addressed:

- How to improve wind positioning and the level of support for new wind farms.
- Ensuring the electricity industry is able to most efficiently support the variability of renewables by encouraging demand response (DR) and distributed energy resources (DER).
- How to ensure system reliability in dry years and at peak demand periods.

The completion of Turitea (North and South) and Waipipi will add 355MW of wind capacity with an annual generation of 1,295 GWh's, enough on average, to power 182,000 homes or over 580,000 electric vehicles and increase wind's share of total generation to around 8%.

There has been a lot of policy development work over the past year which is going to shape New Zealand's low carbon economy. Ambitious goals have been set but at present there is a lack of solid policy measures to ensure the goals are met.

Continued investment, particularly in the short term will depend on the impact of the Covid-19 pandemic, and its effect on electricity demand and capital markets, initiatives to electrify the wider energy sector and the NZ Aluminium Smelter's decision. 2020 is going to be a year that's hard to pick where we end up.

The Association would not exist without member support so above all thank you for your continued membership of NZWEA and sustaining our work programme. We hope you find value in all we do to promote wind energy in New Zealand.

Kind regards

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