

2018 Annual General Meeting

Presentation by CEO John Worth

26 September 2018



NZ Windfarms
POWERED BY NATURE

Disclaimer

This information is for the sole and exclusive use of the persons who receive it directly from NZ Windfarms Limited. The recipient of this information agrees that all of the information contained herein is of a confidential nature, and that they will not, directly, or indirectly, disclose or permit their agents or affiliates to disclose any such information without the prior written consent from NZ Windfarms Limited.

This information must not be copied, reproduced, distributed or passed to others at any time without the prior written consent of NZ Windfarms Limited.

This document does not propose to be all inclusive or to contain all of the information the recipient may require.

Neither NZ Windfarms Limited, nor the directors, executives or advisors of NZ Windfarms Limited make any representation or warranty, expressed or implied, as to the accuracy or completeness of any of the information contained herein, including any opinion, or of any other written or oral communication transmitted or made available. Each recipient of this information waives any and all claims or actions against the directors, officers of, or any advisors to, NZ Windfarms Limited relating to or resulting from the use of this information and any communications received by a recipient, or any of its affiliates, advisors or representatives.

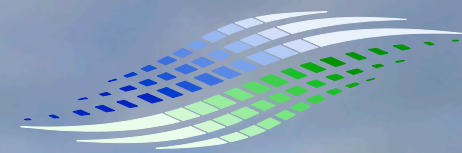
No representation or warranty is given as to the achievement or reasonableness of any future projections, estimates or statements about the future prospects of NZ Windfarms Limited that may be comprised within this information.

FY18 Highlights

EBITDA

\$4.0m

Zero recordable incidents



NZ Windfarms
POWERED BY NATURE

**Cost base down
by over \$2.0m
year on year**

**Turbine
availability
98.4%**

FY18 Health and Safety Performance – keeping everyone safe

Keeping everyone safe is our number one priority – and we are always seeking ways to improve our processes and work more safely:

- **Internal and external audits completed, no non-compliances.**
- **New industry benchmarks adopted – we have outperformed against all metrics**

The company has adopted the use of positive safety observations to identify possible opportunities for improvements that can enhance workplace health and safety.



Full year health and safety performance



Recordable incidents for FY18: **0**

Strategic initiatives scorecard

Secure control
of electrical
assets - DONE

Regulatory reforms,
achieved
dispensation
permitting
curtailment and offer
rules changed

Revenue baselining
through ASX hedging
– now hedge 20% to
40% of average
production out 12 to
18 months

Solve debate
around noise
emissions -
DONE

Fuel mix change
in 2018 –
remains in
progress

Cost-out
programme – \$2m
of year-on-year
costs removed

Moving to
international
best practice
in operations

**Strong progress made but
focus will remain.**

FY18 Electricity and hedge revenue



103GWh farm net production

Generation revenue \$7.165m

Hedge revenue \$0.450m

Total electricity revenue \$7.6m

FY18 Electricity and hedge revenue



Electricity price earned:

Pre-hedging gains, \$69.55/MWh

Post hedging gains, \$73.98/MWh

2018 Key initiatives:



- Continuing to build operating separation (between revenue and cost to run)
- Making consents durable and building social license to operate
- Bedding in the new lower cost base and optimizing operations
- Moving to more elaborate turbine management regimes

Building operating separation (profit):



Profit is maximized at the optimal balance of generation revenue and cost to run – driven by a complex interplay of factors.

The **AVERAGE** market short run marginal cost (effectively the run cost) for a full wind farm is around \$15/MWh to \$20/MWh.

However, for an individual turbine on a wind farm, the short run marginal cost can be as low as \$1/MWh in calm, laminar flow conditions, and as high as several hundred dollars per MWh in aggressive, high wear conditions.

The market rules, until recently, only permitted curtailment in extreme damage causing conditions. When the market price is below the short run marginal cost for a turbine, the turbine is loss-making.

Enhancing separation between revenue and cost to run – regulatory delta

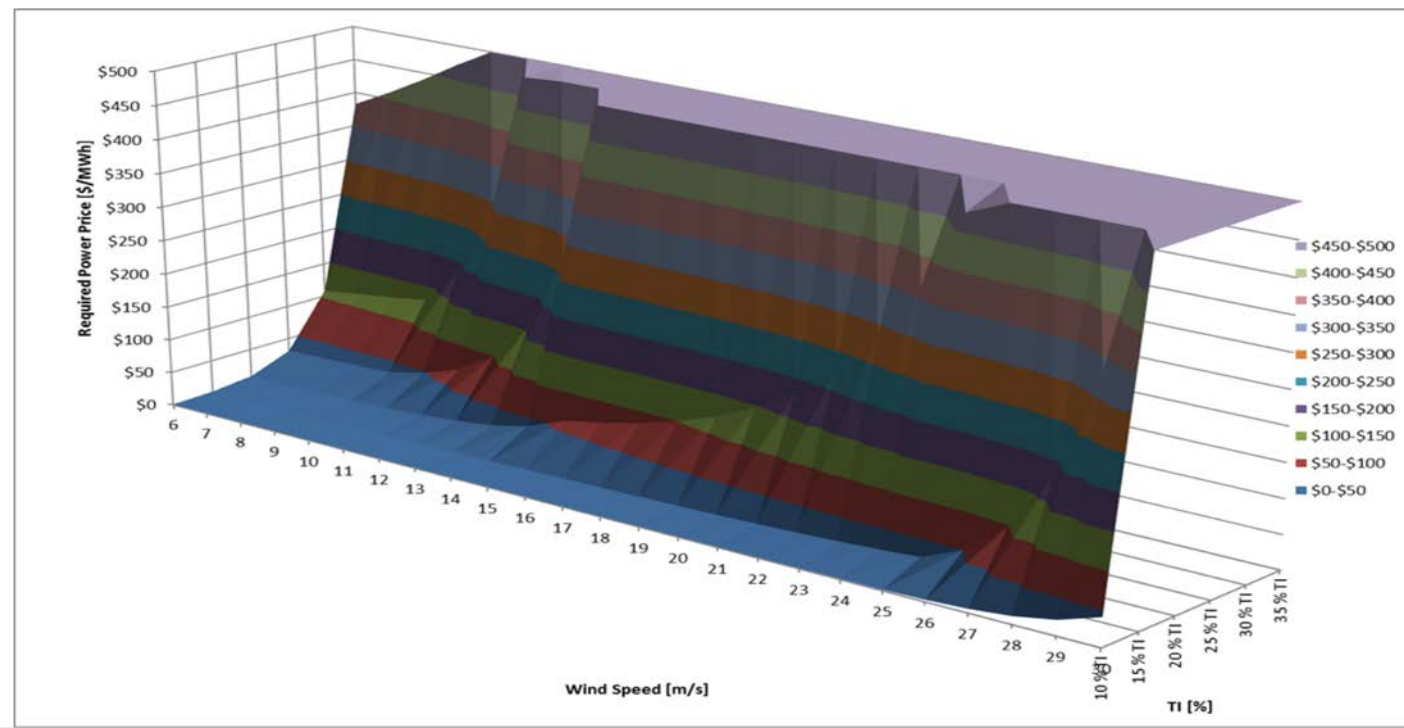
Rule change was imperative to improving the company's fortunes. Three key shifts have allowed us to capitalize:

- **The company played a pivotal role in lobbying for rule changes, which are now in place;**
- **While waiting for the System Operator (Transpower) to give effect to the rule changes, we have received interim operating relief permitting price curtailment, and**
- **We have successfully changed our control room provider (from a lines company to a generator-retailer) in readiness for the rule changes taking full effect**

The rules relief obtained allowed us to put three-axis curtailment into effect.

Enhancing separation between revenue and cost to run – three-axis curtailment

Three-axis curtailment is a regime designed in-house that assesses wind speed, turbulence intensity and price at each turbine, in real time. Each turbine makes a run/not run decision based on the breakeven market price (revenue) required to make turbine running profitable. High wear (high turbulence for example) conditions require a high price to justify turbine operations.



This plot shows how wind speed and turbulence intensity is resolved at each turbine into a price required to run.

Is it working?

Deltas in major component failures

Key component failure rates continue to drop, and we believe the curtailment initiatives put in place over the last 18 months have made a major contribution:

Table 1: Key component failure rates comparison

Key component	FY16	FY17	FY18
Gearboxes	15	10	5
Pitch bearings	36	20	28
Generators	0	6	0
Torque limiting pumps	61	56	24

Making consents durable and building social license to operate

For the last 18 months, the company has been engaged in a deliberate and genuine process of building social license to operate.

The first part of this was to end noise litigation. This commenced with voluntary noise curtailment in July 2017 in advance of the s128 process later that year. The voluntary regime has been improved twice, and through the s128 process the company agreed to new operating controls on three turbines, which are all in place.

The process of solving noise issues has given us an opportunity to engage meaningfully with our community and to build their trust in us that we can manage effects well. We're not done yet, but we have come a very long way.

The company is also active in supporting a range of community initiatives. We host a number of sports events on our site, we're engaged with local schools and groups and we have recently launched a community engagement programme.

Social license to operate – an imperative

We see a commitment to strong social behaviours as an imperative for a major infrastructure owner; we work with the local environment, local companies and local people to generate renewable energy, and we must manage all impacts of our operations to the best of our ability.

The wind resource on the Tararua Range is exceptional and makes a major contribution to New Zealand's renewable electricity supply. Every wind farmer has a role to play in sensitively capturing this resource. Making wind farming deeply sustainable is in everyone's best interests.

We're deeply committed to being a great corporate social citizen – and through our work and specific initiatives we're building an improved social license to operate.

The underlying cost base – bedding in and locking down operational performance

Key cost-out achievements for FY18:

- Electrical reticulation assets purchase saved c\$500k
- Headcount down from 16 in FY17 to 11 today
- Mechanical parts costs down significantly
- Noise litigation costs (capitalised) now eliminated

Note that many FY18 initiatives have only partially borne fruit in FY18.

Turbine availability

In a lower-cost environment, turbine availability would be expected to suffer:



FY17

96.1%

FY18

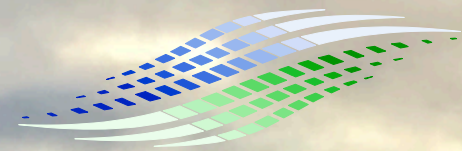
98.4%

The FY18 result reflects exceptional teamwork on site.

Total cost savings

FY17 to FY18:

36% reduction in cost base



NZ Windfarms
POWERED BY NATURE

Over **\$2m** year on year savings

Further development of operational initiatives

The building blocks of further operational refinement have recently been completed:

- Computational fluid dynamics modelling of the site, and
- Drive train load analysis

The next step is to do further analysis to assess what can be achieved by potentially evolving the current three axis curtailment regime into a five or six axis strategy.

This will form a large component of our FY19 work programme.



Financial result:



FY18 profit before tax \$0.78m

FY18 EBITDA:

\$4.0m

Outlook

With the initiatives put in place in FY18, the business is sustainably profitable on an operating basis.

We are currently assessing a range of options to move the company beyond being a simple price-taking merchant generator. Recent government policy announcements add complexity and risk for all market participants, such that we must proceed with caution.

We continue to see the wholesale market and offtake options developing, and we will be at the forefront of these developments where we can extract value.

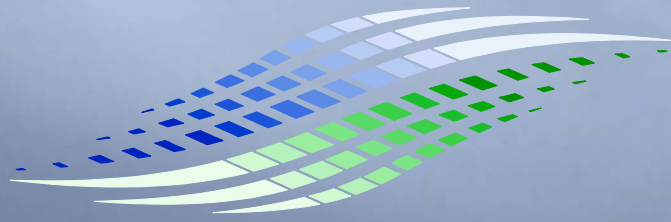
**Stuart Bauld
Chairman**



CONTACTS:

John Worth
Chief Executive Officer
NZ Windfarms Ltd
Telephone: + 64 (6) 280 2773 (Ext 1554)
Mobile: + 64 21 800 310
Email: john@nzwindfarms.co.nz

Stuart Bauld
Chairman
Board of Directors
NZ Windfarms Ltd
Email: stuart.bauld@ekc.co.nz



NZ Windfarms

POWERED BY NATURE

