

NZWEA 2018 AGM

Welcome





Chair's Report

2018 AGM

Jared Wallace, Acting Chair, NZ Wind Energy Association
October 2018

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About NZWEA

- Established 1997
- An industry association
 - Promotes the development of wind as a reliable, sustainable, clean and commercially viable energy source
 - Policy & regulatory advocacy, public awareness and industry development
- Represents over 40 members:
 - Generators and developers
 - Turbine manufacturers, equipment suppliers, consultants
- Utility scale generation
 - Also supporting smaller scale and community wind initiatives

NZWEA Board



- Retiring member
 - Kevin Hart (GE)
- New member
 - John Worth (NZ Windfarms)
- Continued involvement of
 - Blair Walter (Aurecon)
 - Chris More (Meridian)
 - Jim Pearson (Tilt Renewables)
 - Rose Divjak (DNV GL)
 - Peter McCafferty (Beca)
 - Glenn Starr (Kaimai Wind Farm)
 - Jared Wallace (Individual)
 - Tony Webster (Vestas)



Strategic Focus

- 3 key strategies:
 - Leverage NZ's emission reduction target to raise awareness of the benefits of wind energy
 - Promote domestic emission mitigation options to increase demand for electricity and support new generation build activity through the electrification of industries that are high carbon emitters
 - Continue to raise the profile and improve the positioning of wind energy and ensure the regulatory environment supports wind farm development
- Significant progress across priority areas
 - Step change in Government focus on addressing climate change
 - Electricity sector key to lowering carbon emissions
 - Association active in engagement with positive results
- Ongoing focus on health and safety programme

Financial Performance

- Association faces challenging times
 - Major restructure to reduce costs in 2015
 - Surplus in 2016 but deficits in 2017 and 2018
- Reduced membership due to lack of wind activity
 - Resignations over 3 years of \$40k / new members of \$13k
- Deficit of \$35k in 2018 up from \$12k in 2017:
 - Resignation of 5 Associate members and transfer of one member from Corporate to Associate
 - Investment in strategy implementation - wind positioning, regulatory change, H&S and website refresh
- Outlook improved but remains challenging
 - Increased activity should underpin membership levels
 - External administration support costs reduced
 - Small deficit forecast for 2019 with potential for a surplus

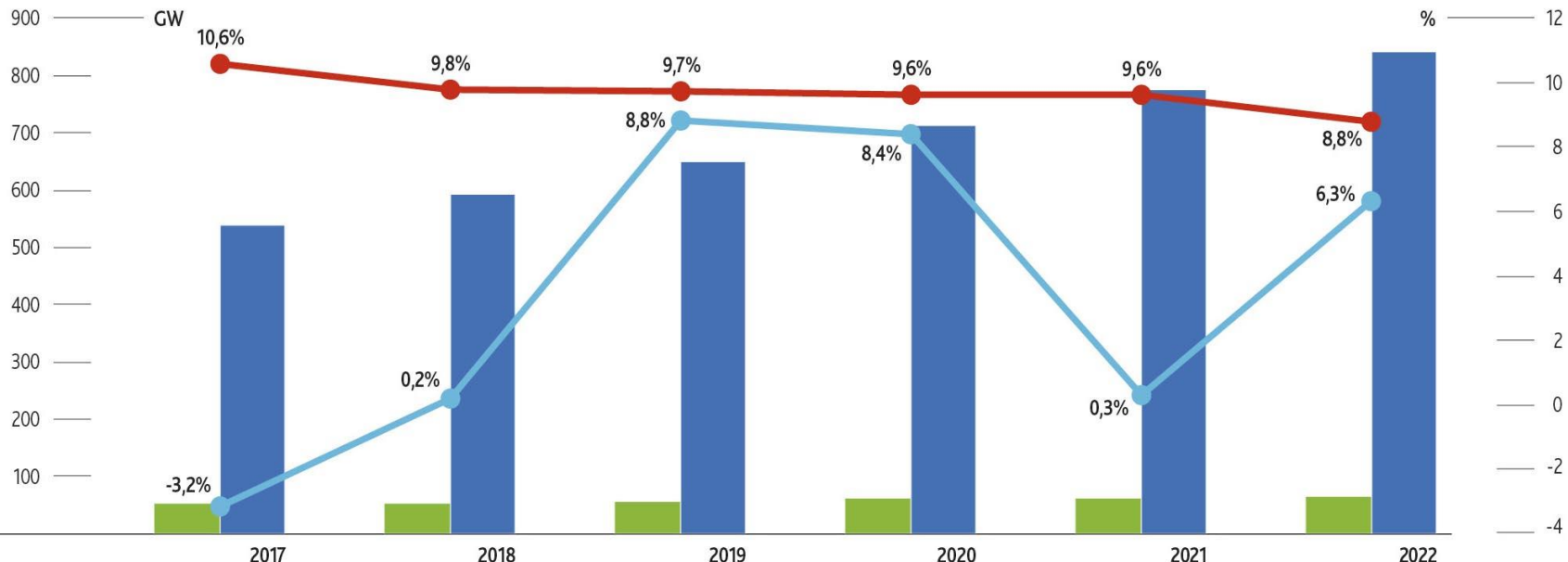
International Trends

- Outlook positive
 - Technology, price and need for emission reductions
 - Transforming from subsidies to a purely commercial model
 - Offshore wind price breakthrough
 - But... solar growth rate outstripping wind 29% (wind 11%)
- Cumulative capacity 539 GW rising to 841 GW by 2022
 - 53GW new capacity in 2017 (Solar 97GW)
 - Offshore 87% increase to 19 GW
 - Wind in over 100 countries
 - 9 with more than 10,000 MW
 - 5% global electricity demand
 - Wind supplied 44% of Denmark electricity demand in 2017 (19% in 2008)
- Growth led by Asia with China the key market

Positive Global Growth



MARKET FORECAST 2018-2022

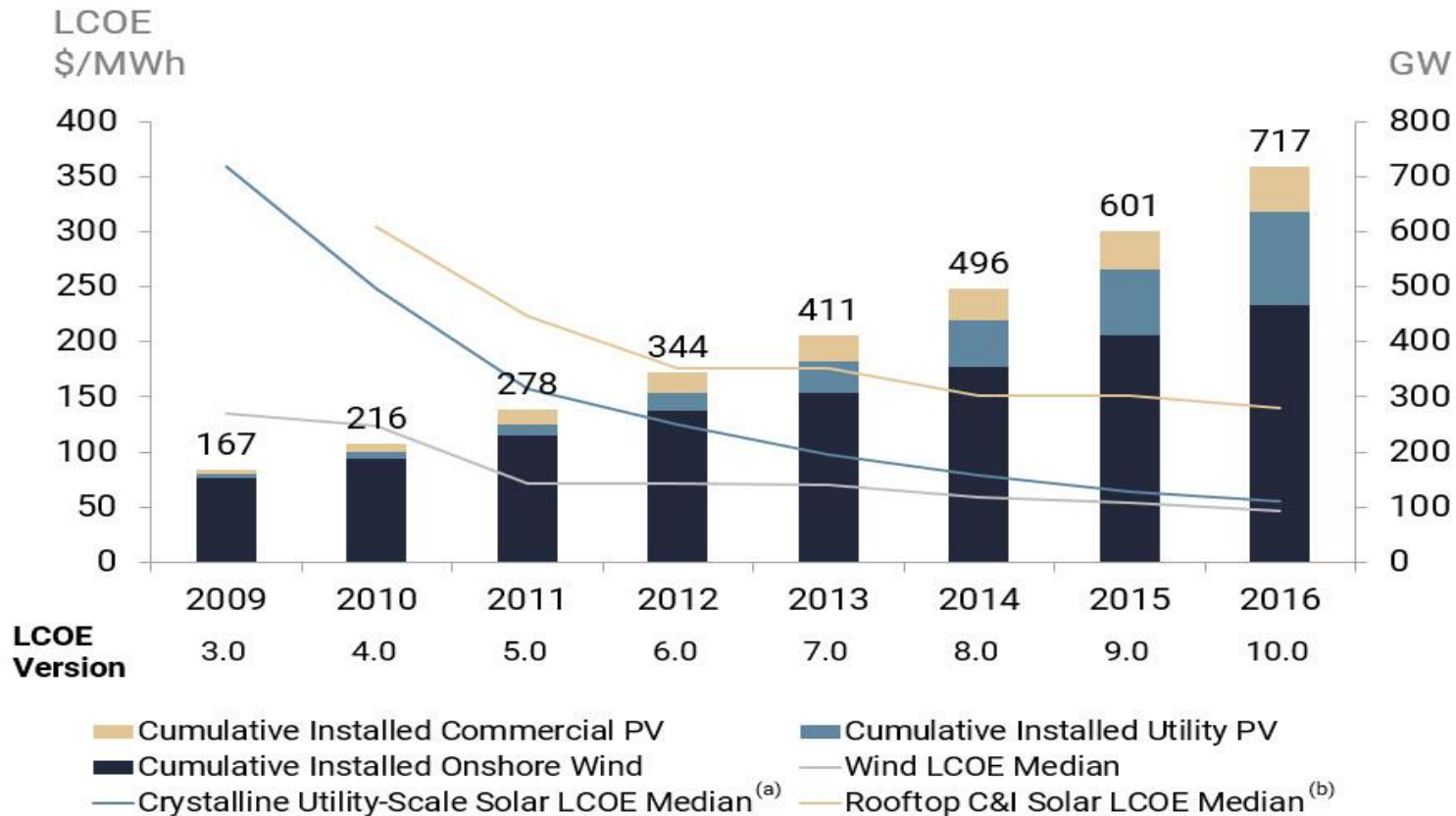


	Cumulative installed capacity	539.1 GW	592 GW	649.5 GW	711.8 GW	774.4 GW	840.9 GW
	Cumulative capacity growth rate	10.6%	9.8%	9.7%	9.6%	9.6%	8.8%
	Annual installed capacity	52.5 GW	52.9 GW	57.5 GW	62.4 GW	62.6 GW	66.5 GW
	Annual installed capacity growth rate	-3.2%	0.2%	8.8%	8.4%	0.3%	6.3%

Source: GWEC

- Increase of 53 GW in 2017 rising 67 GW in 2022
- Installed capacity increasing from 525 GW to 841 GW

The declining cost of renewables



Source: Lazard estimates and BNEF.

Note: LCOE medians represent average between low end and high end of LCOE range for each technology.

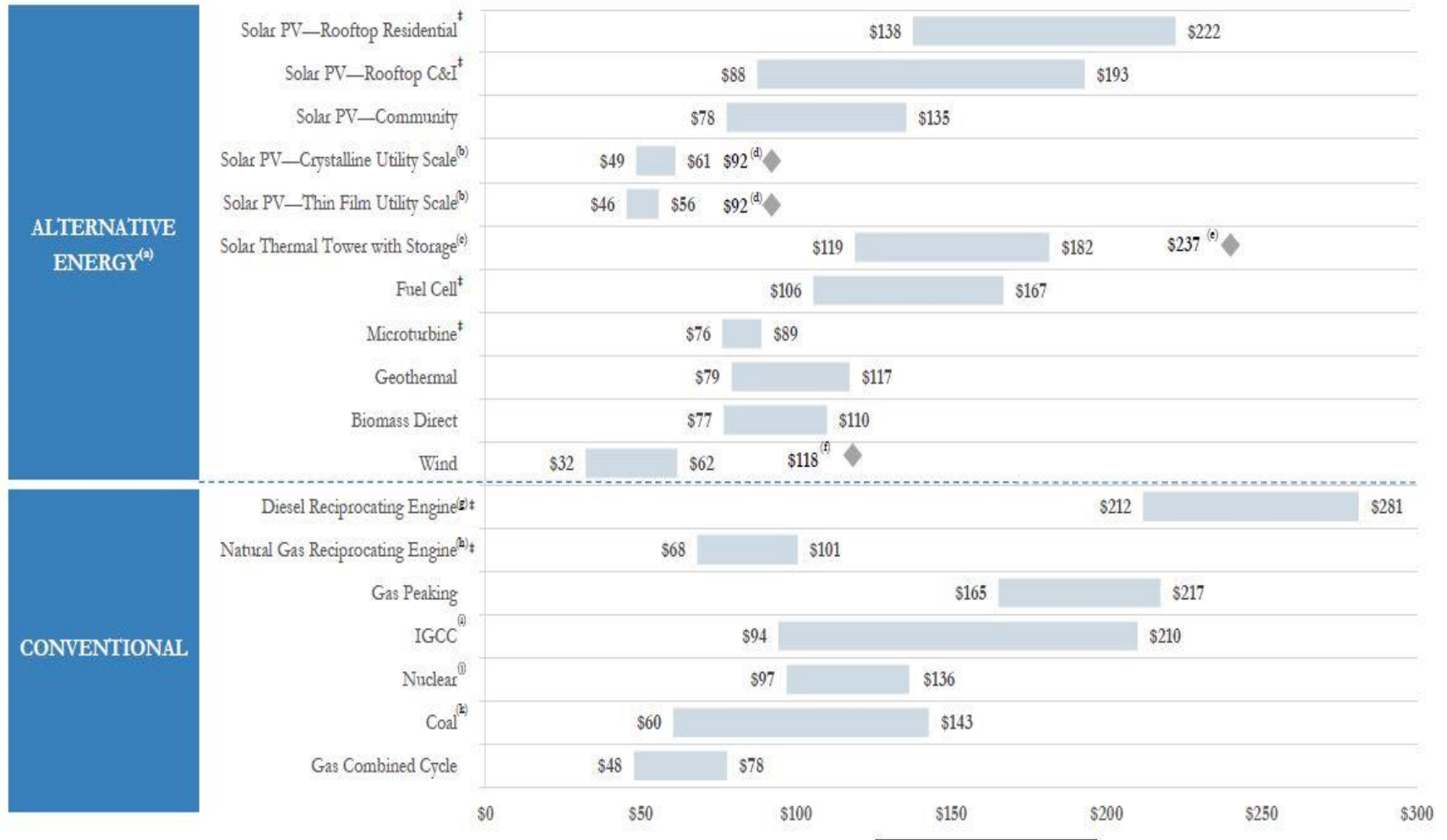
(a) Low end represents crystalline utility-scale solar with single-axis tracking in high insolation jurisdictions (e.g., Southwest U.S.), while high end represents crystalline utility-scale solar with fixed-tilt design.

(b) Lazard's LCOE initiated reporting of rooftop C&I solar in 2010.

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How costs compare



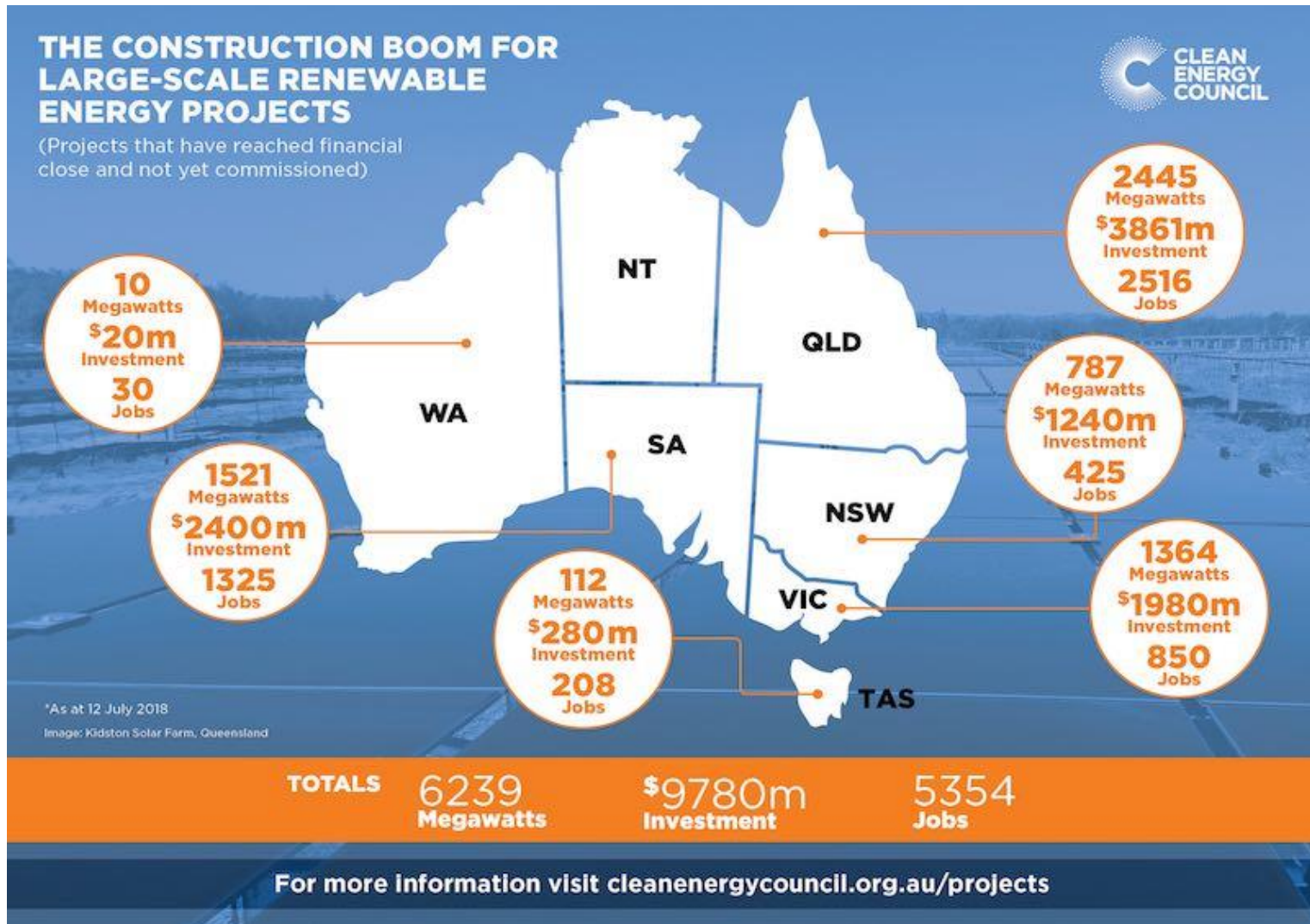
• Source: Lazard's levelized cost of energy analysis – version 10.0

Australian Update



- Increasing activity levels
 - 42 solar and wind projects in or about to start construction
 - Wind 3,300 MW / Solar 3,100 MW
 - Solar and wind going head to head
- Solar generation highly correlated
 - Need to shift generation to meet peak loads
 - Much interest in pumped storage hydro and batteries
- Large role for wind to play providing diversity
- Wind OEMs offering 30-year O&M agreements with fixed prices and availability guarantees = easy to finance
- Uncertainty on future direction
 - End of the large scale renewable energy target
 - National Energy Guarantee abandoned

Australia at a Glance





CE Report

2017 AGM

Grenville Gaskell, Chief Executive, NZ Wind Energy Association
October 2018

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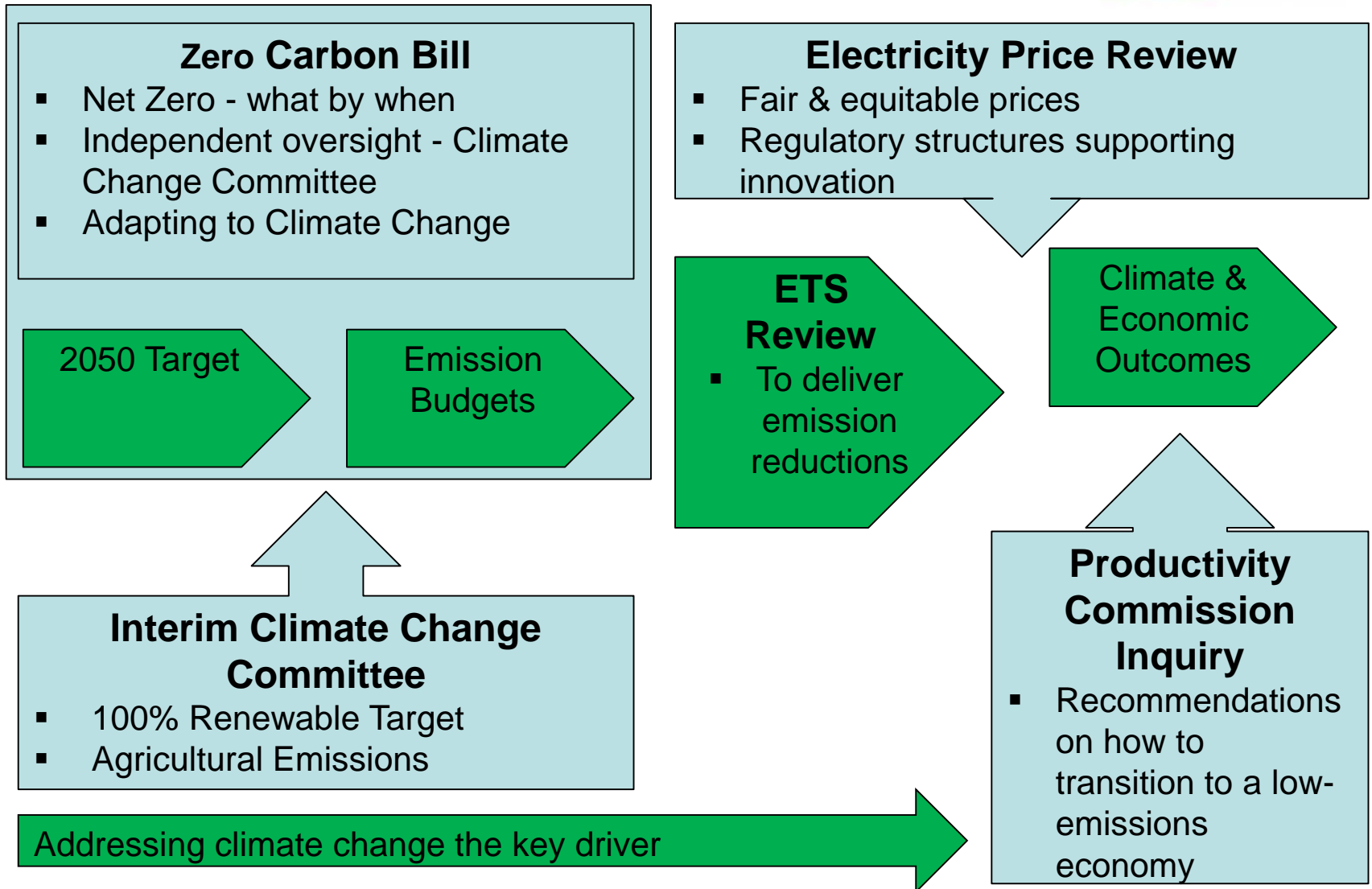
- NZ Context
- How it Fits together
- Highlights
- Wind Re-positioning
- Areas of Focus
- Summary



NZ Context

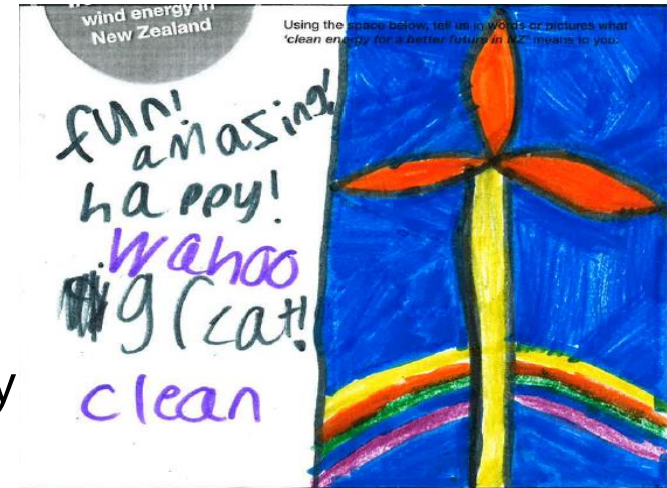
- More positive growth outlook for wind
 - Reducing reserve margins & future demand growth
 - Productivity Commission low-emissions inquiry
 - Transpower Energy Futures White Paper
- Confidence around news builds
 - Waverley – Tilt / Genesis
 - NZAS 4th pot line re-opening – contracted to 2022
- Reviews and Inquiries everywhere
 - Zero Carbon Bill
 - Improvements to the ETS
 - Electricity Price Review
 - Draft National Planning Standards
 - Refresh of NZ Energy Efficiency and Conservation Strategy
 - But...seems to be leading to agreeing an emissions target and transition plan for a low carbon economy

How it's fitting together...



What they are saying

- Zero Carbon Bill
 - 91% net zero all gases by 2050
 - 96% yes to CC Commission
 - 92% include adaption
- Productivity Commission
 - Stop using fossil fuels & switch to electricity
 - Reform RMA – NPS-REG & NPS-ET
 - Undertake afforestation & change agricultural production
- ETS
 - Lift price ceiling and limit international units
- Electricity Price Review
 - Change electricity price structures
 - Finalise transmission pricing
 - Consistency of regulatory positioning



Some highlights...

- Conference 2018 – clear focus and well received
- Health and Safety - a shared priority
- Price of carbon increasing
- Positive responses to NZWEA submissions
- Draft National Planning Standards
 - Standard format for statutory planning documents
 - Includes mandatory adoption of NZ Wind Noise Standard NZS6808
- Prospect of Waverly Wind Farm development
- PNCC Plan changes (22C) agreed
- Wind farm technician qualification in development
- Acceptance of the need for RMA reform
- Recognition of wind energy as key to low carbon

Wind Re-positioning

- Energy that powers the hearts of NZ
 - Inspire around the power of renewables - Designworks
- From what we do (the how) to why we do it
- From pictures of turbines to capturing what wind means to people
 - Freedom, freshness and sustainability
 - Enhancing wellbeing
 - Generators to enablers



Areas of Focus...



- H&S including benchmarking & wind qualification
- Regulatory reform
 - Timely introduction of ETS improvements
 - Ensuring NPS for noise standards implemented
 - Strengthening of NPS-REG and NPS-ET
 - New National Environmental Standard for small renewable developments
 - Retail price structure changes
 - Completing transmission and distribution pricing reviews
 - EA objective changed to includes carbon emissions
 - Establishing clear emissions reduction target and plans
- Wind positioning and NZWEA membership
- Support members including with consents...

Summary

- Improving outlook
 - Reducing reserve margins and demand growth
 - Impacts of climate change and the need to transition to a low carbon economy now widely recognised
 - Number of consented options (albeit with consent timing and condition challenges)
 - Scale and reducing technology costs enhancing viability
 - Potential for regulatory / RMA reform
- Number of risks to manage
 - Regulatory uncertainty and mismatch with industry innovation
 - Sustaining health and safety performance
 - Ensuring technical skills to support growth
- International growth positive – NZ's second wave
- Thank members for continued support



Thank you

