

# NZWEA 2017 AGM

## Welcome





# Chair's Report

## *2017 AGM*

Blair Walter, Chair, NZ Wind Energy Association  
November 2017

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- About NZWEA
- Board Composition
- Financial Performance
- Strategy
- International Trends
- Summary





# 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

# NZWEA Board



- Retiring member
  - Fraser Jonker (Pioneer Energy)
- New member
  - Glenn Starr (Kaimai Wind Farm)
- Continued involvement of
  - Blair Walter (Aurecon)
  - Paul Botha (Meridian)
  - Stephanie Cook (Tilt Renewables)
  - Rose Divjak (DNV GL)
  - Kevin Hart (GE)
  - Peter McCafferty (Beca)
  - Jared Wallace (Individual)
  - Tony Webster (Vestas)



# Financial Performance

- Association has faced challenging times
  - Major restructure to reduce costs in 2015
  - Revenue of over \$1m reduced to \$155k
- Improved 2016 result with a surplus of \$38k
- Deficit of \$12k in 2017 due to:
  - Reduced membership and lower conference surplus
  - Investment in strategy implementation - wind positioning, regulatory change, H&S, training and website
- Forecast cash position \$100k in June 2018
  - Membership pressures due to current activity level
  - Assumes holding level of membership renewals and 2018 conference at current attendance level

# Strategic Focus



- 3 Key strategies:
  - Increase climate change understanding and 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.
- Ongoing focus on Health and safety programme

# International Trends



- Outlook positive
  - Technology, price and need for emission reductions
  - Offshore wind price breakthrough
- Cumulative capacity 487 GW rising to 817 GW by 2021
  - 55GW new capacity in 2016
  - Wind in 90 countries
  - 9 with more than 1,000 MW
  - Denmark 40% wind energy
- Growth led by Asia with China leading markets
- India setting records for new installations
- US 26 GW in development

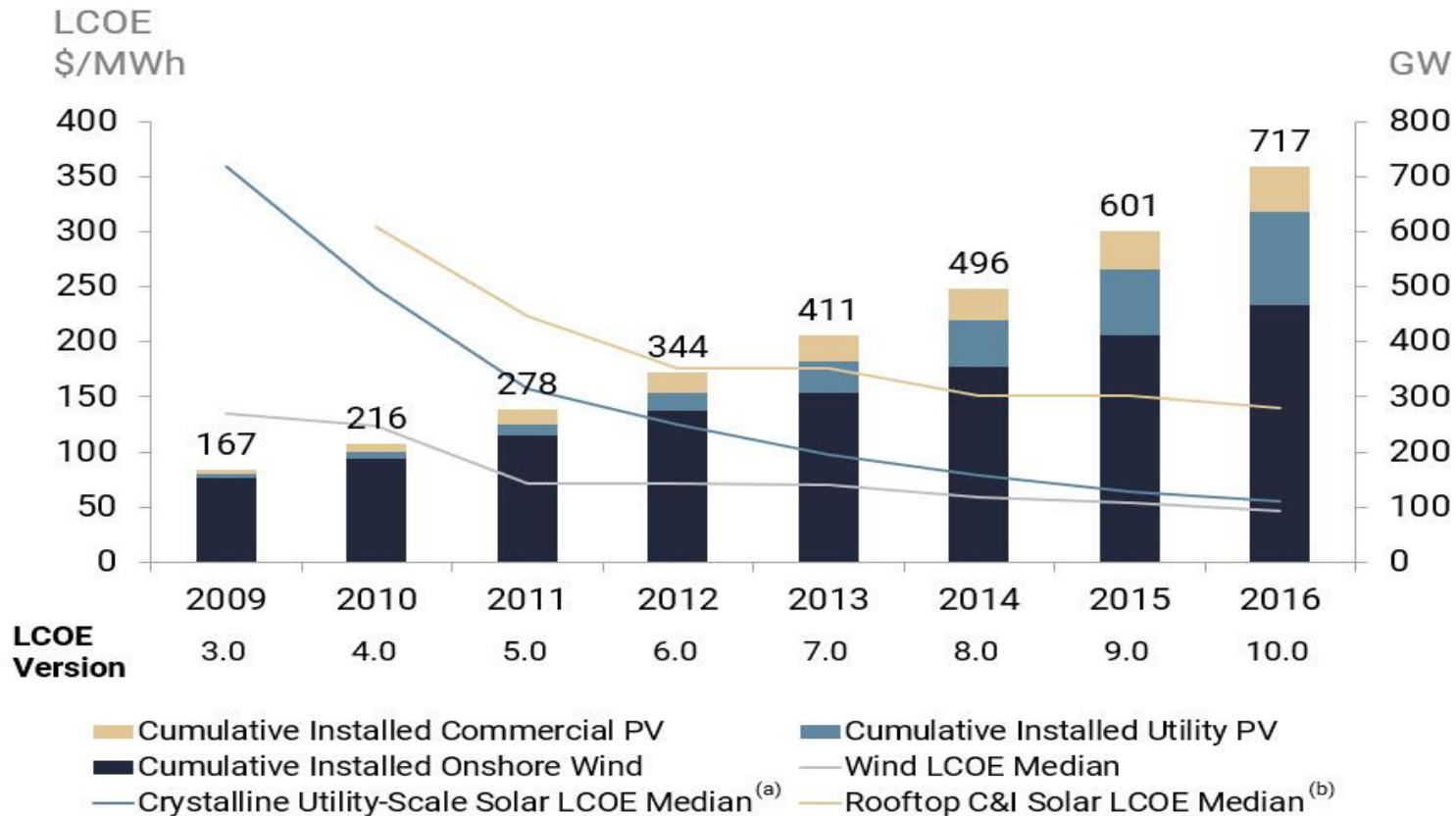


# Spectacular Global Growth



- Increase of 55 GW in 2017 rising 75 GW in 2021
- Installed capacity increasing from 487 GW to 817 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.

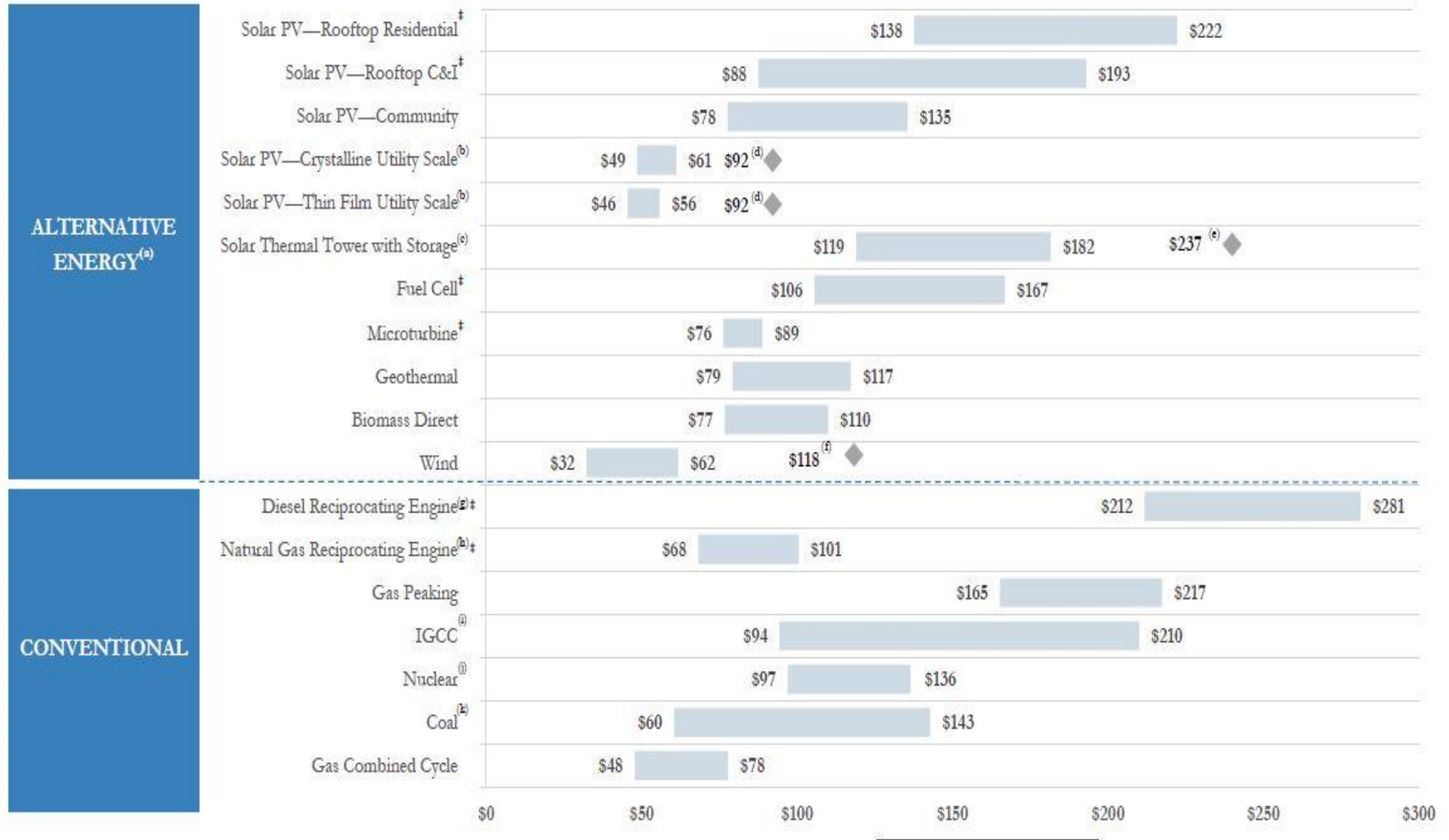
(a) Low end represents crystalline utility-scale solar with single-axis tracking in high insolation jurisdictions (e.g., Southwest U.S.), while high end represents crystalline utility-scale solar with fixed-tilt design.

(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
  - 20+ renewable energy projects
  - More than 2,250 MW under development in 2017
  - Solar and wind going head to head
- Solar generation highly correlated, need to shift generation to meet peak loads so 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

# Australia update

- RET obligations of gentailers largely contracted now so PPA market focus has shifted to industrial and commercial loads
- Significant grid upgrades required: Victoria RIT-T; NSW and QLD renewables hubs; Network owners responding to hundreds of connection enquiries
- Energy market is very political
- National Energy Guarantee just released, aiming for reliable supply and emissions reductions but details lacking; departure from Finkel recommendations



# Summary

- Improving outlook
  - Reducing reserve margins and demand growth
  - Transition to a low carbon economy
  - Number of consented options
  - Scale and technology costs enhancing viability
- Number of risks to manage
  - District plan changes that disadvantage wind
  - Regulatory reform mismatch with industry innovation
  - Sustaining health and safety performance
  - Ensuring technical skills to support growth
- International growth strong - NZ's time is coming
- Thank members for continued support



# CE Report

*2017 AGM*

Grenville Gaskell, Chief Executive, NZ Wind Energy Association  
November 2017

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- NZ Context
- Highlights
- Climate Change
- Wind Re-positioning
- Areas of Focus



# NZ Context



- Increasing % of renewable generation
- Forecast peak and total demand growth (EDGS)
- Increased confidence in NZAS viability?
- ETS delivering a higher carbon price
- Stronger focus on climate change and reducing emissions
- RMA reforms – national planning standards
- Government policy changes providing additional supporting for renewables
  - Climate Change Act - targets and a Commission
  - Plan for 100% renewable generation by 2035
  - Zero emissions by 2050

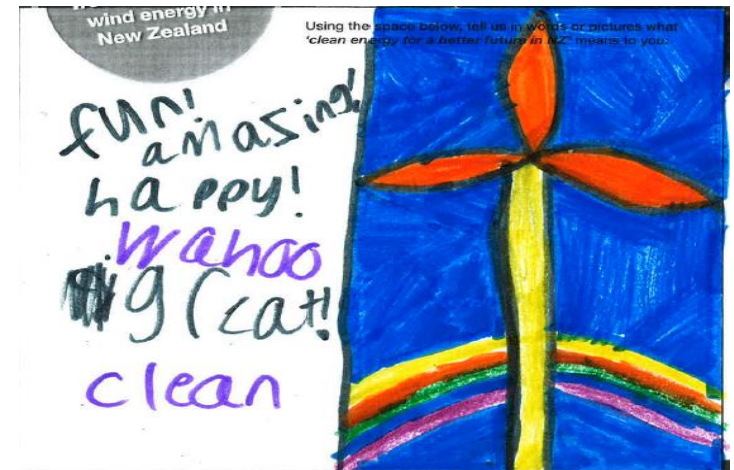
## Some highlights...

- Conference 2017 - increased attendance
- Health and Safety - a shared priority
- ETS - increase in the price of carbon
- Increased focus on a low carbon future
- Waverly Wind Farm consent approval
- PNCC Plan changes agreed
- NEECS refresh - greater support for renewables
- Wind farm technician qualification in development
- Productivity Commission Inquiry
- NZ Wind Day competition
- ...but the Blueskin Bay wind turbine decision



# NZ Wind Day

- Focus on NZ
- School competition
  - Tell us in words or pictures what clean energy for a better future means to you
- Climate Change and renewable Energy supporting material
  - Student fact sheet
  - Teachers plan
  - 28,000 teachers
- Winner - Brooklyn School
- Options for 2018 event



# Climate Change



- Greenhouse gases 45% above pre-industrial level
- NZ Greenhouse gas emissions
  - Gross emissions in 2015 were 80 Mt CO<sub>2</sub>-e an increase of 24% since 1990
  - Agriculture(48%), Energy (40%)
  - Net emissions 56 Mt CO<sub>2</sub>-e (increased 64% since 1990)
- Targets
  - 30% below 2005 by 2030 = minimum of 20+ Mt
  - NZ in a unique position
- Domestic mitigation v international carbon offsets
- Low carbon transition positive for renewables
- A \$10b or \$20b opportunity?

# 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
- Climate change awareness and wind positioning
- Regulatory reform
  - RMA - introduction of national planning standards / strengthen NPS Renewable Energy Generation
  - EA objective changed to includes carbon emissions
  - Electricity distribution pricing reforms
  - Improve effectiveness of ETS
- NZ Certificate in Wind Farm Maintenance
- Productivity Commission Inquiry - transition pathway to a low carbon economy
- Support members including with new consents...





# Thank you

