



Chair's Report

2016 AGM

Blair Walter, Chair, NZ Wind Energy Association
November 2016

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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 around 40 companies:
 - Generators and developers
 - Turbine manufacturers, equipment suppliers, consultants
- Utility scale generation

NZWEA Board

- Retiring members
 - Jon Olson (Siemens), Philip Wong-Too (Trustpower) and Al Yates (NZ Wind Farm Group/Ecotricity)
 - CE Eric Pyle
- New members
 - Stephanie Cook (Tilt Renewables)
 - Kevin Hart (GE)
- Continued involvement of
 - Paul Botha (Meridian)
 - Fraser Jonker (Pioneer Energy)
 - Avi Kumar (DNV GL)
 - Peter McCafferty (Beca)
 - Jared Wallace (Individual)
 - Tony Webster (Vestas)



Financial Performance

- Association has faced challenging times
- Major restructure to reduce costs
- Improved financial performance
 - Deficit \$14k in 2015
 - Surplus \$38k 2016
- Forecast cash position positive
 - June 2017 \$100k +
- Ongoing membership pressures from low levels of industry activity
- Forecast subject to level of membership renewals and success of 2017 conference

Clear Strategy

- Contact programme to promote wind energy
- Leverage emissions reduction targets
 - Domestic mitigation options
- Target reviews of NEECS and NPSREG
- Showcase technology changes
- Enhance wind's role in NZEM
- Position wind as the future for new generation
- Website development
- Focus on risks and issues
 - Health and safety programme
 - District plan changes

International Trends



- Wind is the fastest growing source of electricity generation
 - 63GW new capacity in 2015
 - Capacity doubling every 3 years
- China now accounts 50% new of installations
 - New capacity equals a coal plant every 1-2 weeks
- Wind 11% of EU's generation
 - 44% new EU generation was wind power
- Coal use in the US is the lowest since 1983
- Wind energy on track to supply 20% of US electricity by 2030

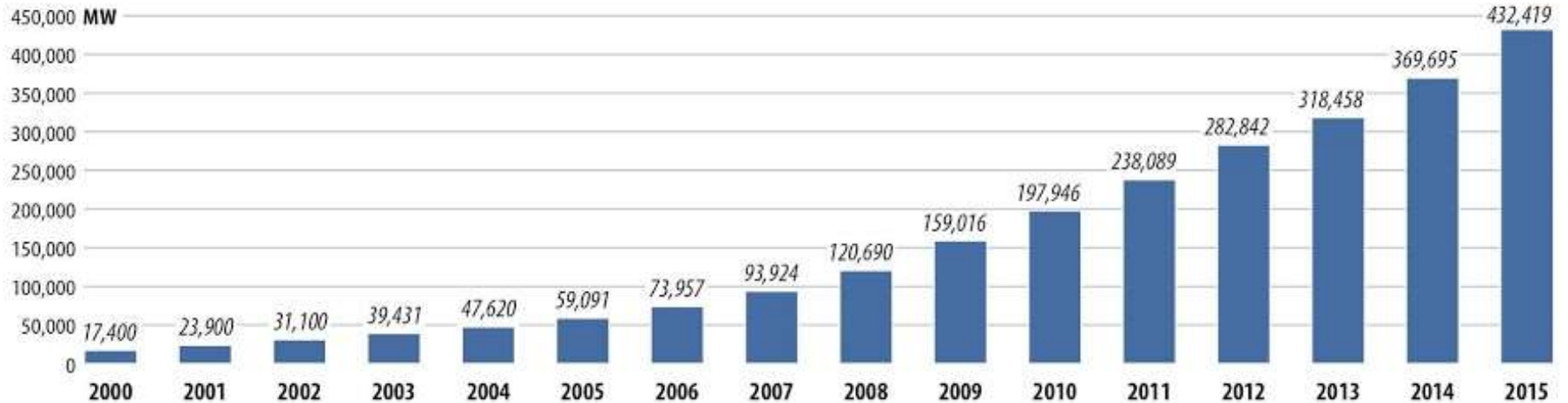
International Trends



- Australian market finally starting to move following bipartisan support of a reduced renewables target mid-2015
- Time running out to commission sufficient projects to meet the mandated volumes
- Solar PV has got cheap very fast and now signing PPAs under A\$100/MWh, may take 25% to 50% of the RET volumes
- But wind is still getting cheaper and expected to be a major player in the Aus market
 - Coonooer Bridge A\$81.50/MWh fixed (\$65/MWh)
- Spillover to NZ market?

Spectacular Global Growth

GLOBAL CUMULATIVE INSTALLED WIND CAPACITY 2000-2015



Source: GWEC

- Increase of 63 GW
- Total of 432 GW installed by the end of 2015
- 432GW = 50 x NZ's total installed generation

Technology

- Bigger, higher and longer blades
- Confidence in technology continues to build
- Improved efficiency
- Batteries now being discussed in the industry



Summary

- Difficult period
- Improved outlook
 - Demand growth
 - Increased confidence
 - Number of consented options
 - Scale and technology costs improving commercial viability
- Number of risks to manage
 - District plan changes / consenting
 - Rates increases
- International growth outstanding
- Thank members for continued support



CE Report

2016 AGM

Grenville Gaskell, Chief Executive, NZ Wind Energy Association
November 2016

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NZ Context

- Increasing % of renewable generation
- Forecast peak and total demand growth (EDGS)
- ETS starting to work
- New Energy sector targets
 - Energy productivity
 - Proportion of primary energy supply that is renewable
 - Proportion of electricity generation that is renewable
- NEECS refresh
- Increased talk of new builds
- Continued uncertainty
 - Huntly
 - NZAS

Some highlights

- Conference 2016 and strategy session
- Brooklyn turbine repowering
- ETS - increase in carbon price
- Paris Agreement and focus on emissions
- “Yes we can” programme
- Electricity Authority – gate closure time changes
- Waverly wind farm consent application
- Blueskin Bay wind farm



Areas of Focus



- TPM / DGPP
- Supporting member consent submissions
- District Plan changes
 - Palmerston North City Council 15B appeals
- Health and safety
- Market and rules
- Energy sector targets
- National environmental standard for NZS6808
- Review of NPSREG
- Levering carbon reduction targets
- Conference 2017 planning

Climate Change



- NZ's gross emissions in 2014 were 81 Mt CO₂-e
 - Agriculture 40 Mt (49%)
 - Energy 32 Mt (40%)
 - IPPU / Waste 9 Mt (11%)
- Energy
 - Transport 14 Mt
 - Electricity generation 5 Mt
 - Manufacturing 5 Mt
- Targets
 - 5% below 1990 by 2020 = minimum of 19 Mt
 - 30% below 2005 by 2030 = minimum of 22.5 Mt
- Focus on electricity, transport & heat emissions

Overall the market is looking more promising...

- Lower thermal generation / capacity factors
- Continued retirement of existing thermal generation capacity
- Ability to build wind in small increments
- Wind generation (LRMC) continues to reduce
- Growth in electricity demand
- Improved MBIE EDGS wind growth forecasts
- Upside from implementation of carbon reduction strategies
- The NZ market for wind is improving
 - Increasingly it's "when" not "if"



Thank you!

