

Vestas[®]

Wind. It means the world to us.[™]

NEW OPPORTUNITIES
PETER COWLING

LESSONS FROM ACROSS THE DITCH...

Installing more than 4GW in a couple of years has not been easy. What learnings can be gained by NZ?

GRID

- Long term planning is critical.
- Backbone investment – timescale is traditional, we need this fast.
- Complexity of grid modelling and assessment...modelling blindfolded.
- Modelling a “moveable feast”.



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LOGISTICS

- Machines are getting really big – challenges at ports, exiting ports, transportation through towns and the “last mile”.
- Laydown areas need to be bigger...driving up civil costs and species offsets.



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CRANES

- Limited supply, even with imported resources.
- Limited numbers of skilled crew – and real issues of mobility.
- Size and mobilization challenges of big cranes...big civils
- New options – tower cranes, limited fleet.



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WORKFORCE GROWTH

- Critical need for a skilled and diverse sector. This includes the transfer of skills and training from complimentary industries.
- The current workforce must grow to meet the demand of new projects. Vestas' initiatives to support this include:
- Investment into Federation University's Asia Pacific Renewable Energy Tech Centre (APRETC) and Australia's first Wind Turbine Blade Repair Apprenticeship.
- Vestas' Renewable Energy Hub including a Hub & Drivetrain Assembly Warehouse in an unused Ford Factory and Vestas' Australian Service Training Facility (virtual and real-life training).
- Vestas is also a partner of the Canberra Institute of Technology (attendance by 200+ Vestas employees)

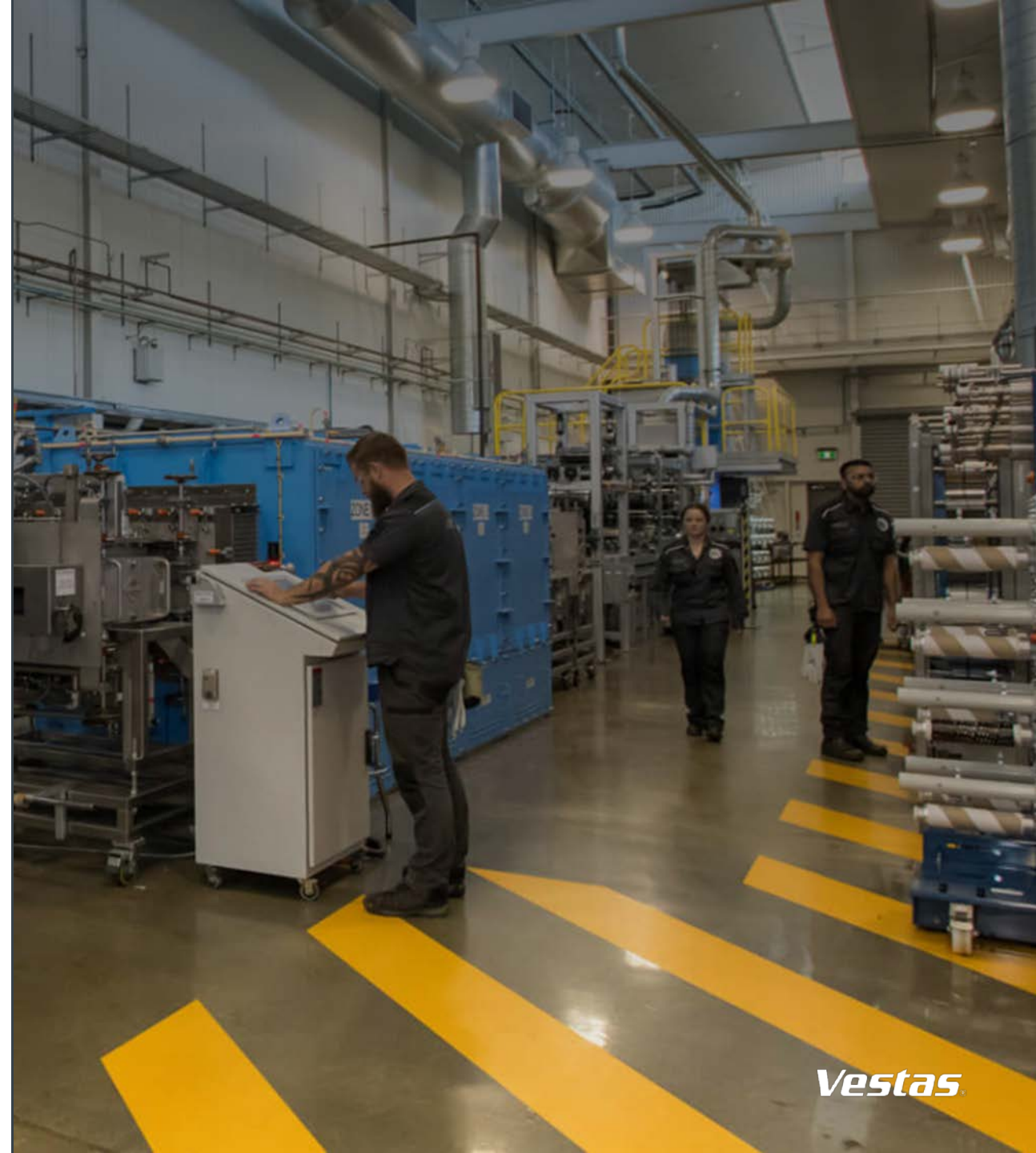


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PRODUCT DEVELOPMENT

- Component and material innovation is one area of wind turbine development.
- Vestas is a partner and investor of Deakin University's Carbon Nexus.
- This is globally unique carbon fibre/composite research facility which focusses on four key areas of development:
 1. Low-cost carbon fibre
 2. High performance carbon fibre
 3. Surface treatment and sizing of carbon fibre
 4. Rapid composite cure



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THANK YOU
