

Powering Onwards

Australia's Opportunity to Reinvigorate Manufacturing through Renewable Energy

Dan Nahum

Economist, Centre for Future Work

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www.futurework.org.au



@Dan_Nahum

@cntrfuturework

Manufacturing: what we need to do next

- The pandemic reminds us why we need a vibrant domestic manufacturing industry.
 - Access to essential medical equipment and supplies disrupted by export controls, etc.
 - Global supply chains disrupted by transportation blocks and health concerns.
- Manufacturing is strategically important; an economy needs to do more hands-on manufacturing to enhance economic and national security.
- **We can and should do it using renewables.**

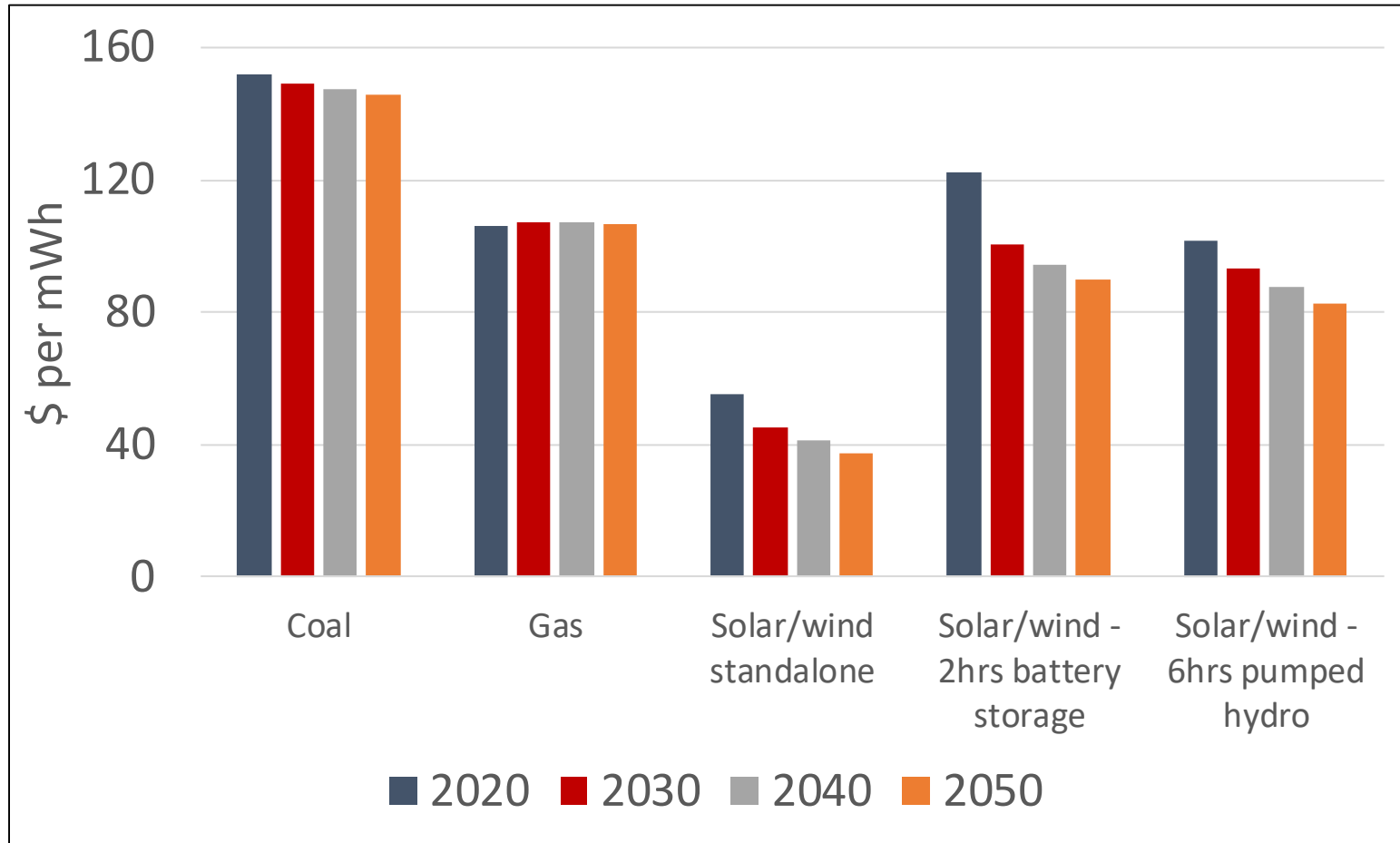
Why might renewables *not* work?

For the government's scepticism to be justified, renewables would have to be:

- expensive, relative to coal
- not available in sufficient quantities at the right times and locations
- less reliable than fossil fuel generation
- not suitable for certain industrial purposes

But none of the above statements are true.

Comparative electricity generation costs (LCOE)



Source: Author's calculations from CSIRO *GenCost*, 2018.

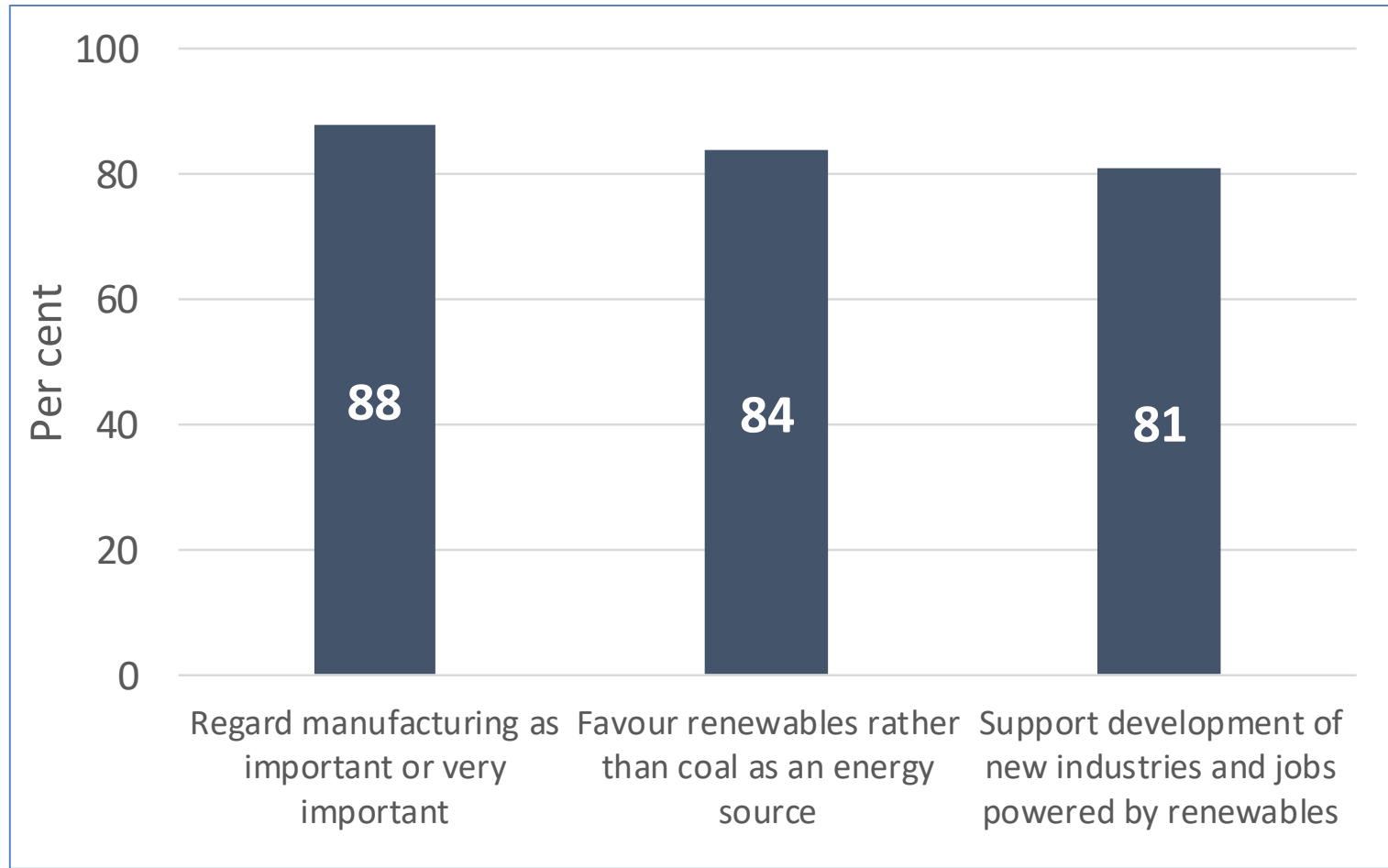
Potential cost savings to manufacturers of renewables

Using the LCOE and Australia's current energy mix as a basis, and supposing we replaced our current energy mix with renewables rather than simply replacing them...

- Savings at 2020 costs: 23 per cent, or \$1.6 billion per annum across the manufacturing sector
- Savings increase over time – as time goes on, renewables are more and more cost-competitive.
- But, the earlier we start investing, the sooner we'll enjoy savings.

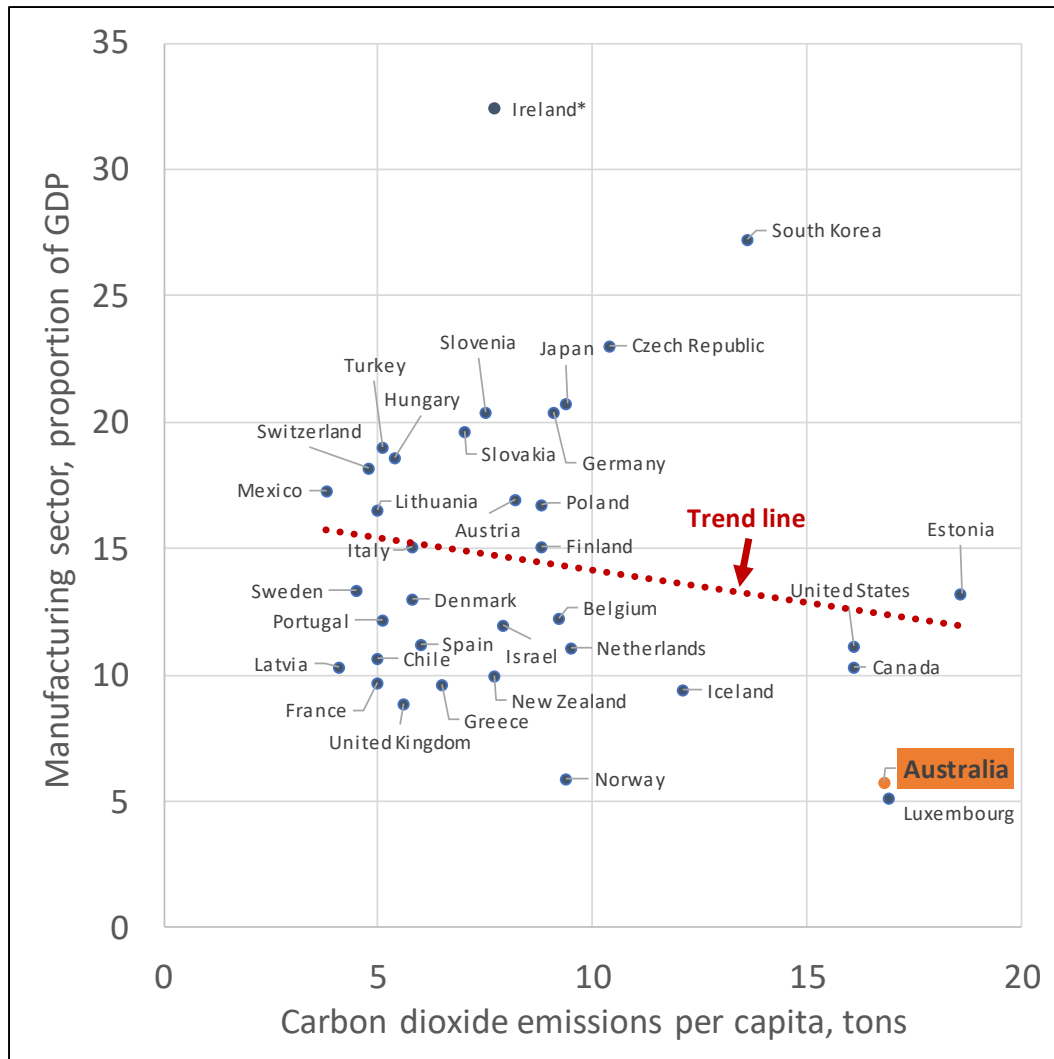
It's true that you can't flick a switch and do this overnight. The modelling is about: what sort of investment should we undertake when we do new capital spending?

Popularity of renewable manufacturing



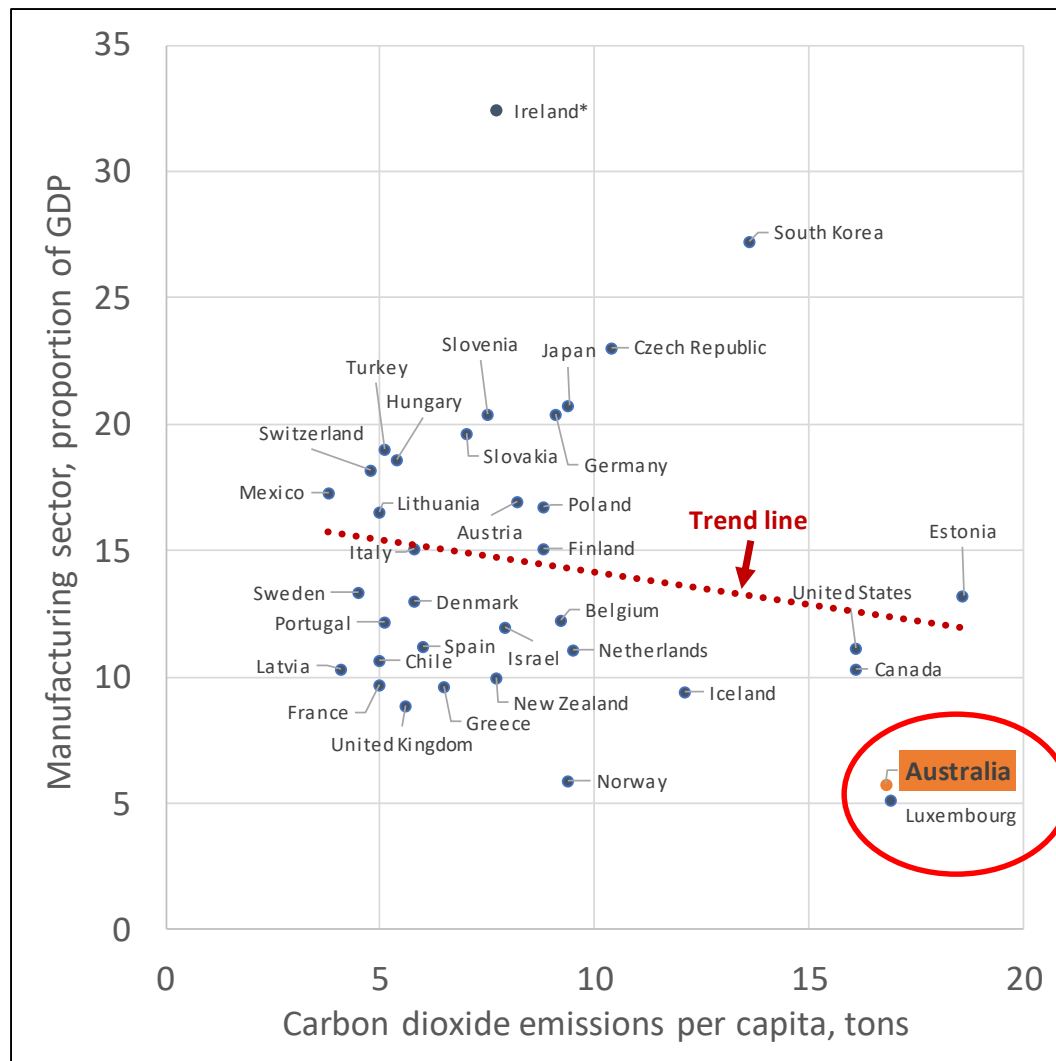
Source: Centre for Future Work, Lowy Institute, Essential Polling.

International comparisons



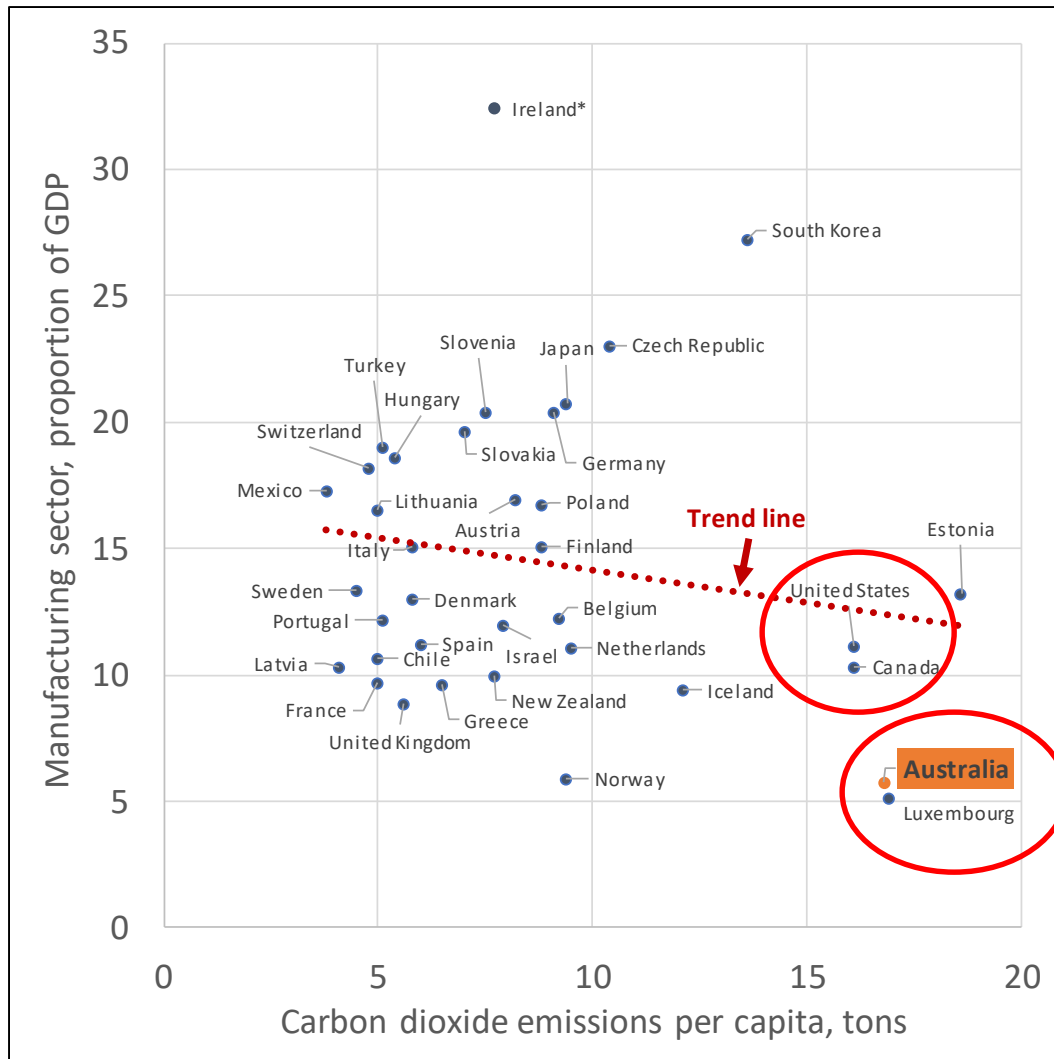
Source: World Bank, 2019.

International comparisons



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Recommendations

1. Clarity and stability in energy policy
2. A price on carbon
3. Government partnering with renewable energy and manufacturing firms to develop sustainable manufacturing potential
4. Sector-specific renewable industry strategies
5. Upgrading of transmission to cope with decentralised power generation

Recommendations

6. Full commitment to fair employment practices, consultation and involvement of Traditional Owners, and environmental standards
7. Independent statutory authority to design and consult on economically and socially rewarding labour market transitions for affected workers
8. Activist institutional investment
9. Hydrogen based on renewables, not hydrocarbons