

CHECK LIST

Net Zero Emissions by 2050

The following requirements for Net Zero Emissions by 2050 have come from an essay by Kenneth Schultz; check list by G M Derrick

<https://wattsupwiththat.com/2021/07/10/logistics-and-costs-for-australia-to-achieve-net-zero-carbon-dioxide-emissions-by-2050/>

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|----------|---|----------------|
| 1 | Decommission an amount of fossil fuel-burning generators, vehicles and equipment that collectively consume 1,085,000 gigawatt hours of fossil fuel annually and replace with zero emission equipment. | Date completed |
| 2 | Install 119,000 wind turbines over an area of 60,000 square kilometres, an area as large as the area of 3 million MCG stadiums. Construction and installation of the turbines will consume 36 million tonnes of steel and 145 million tonnes of concrete. | Date completed |
| 3 | Install 6 million rooftop solar systems.
Build 22,000 solar farms. | Date completed |
| 4 | Build 6 nuclear power stations at a cost of \$92 billion | Date completed |
| 5 | Emit 670 million tonnes of carbon dioxide during the manufacture and construction of the infrastructure | Date completed |
| 6 | If construction started on 1 st January 2022, a total of 354 wind turbines would need to be installed every month, or 11.8 every day, until 2050, at a total cost of \$476 billion. | Date completed |
| 7 | From 1st January 2022, 18,000 solar rooftop systems would need to be installed every month together with 67 solar farms at a total cost of \$326 billion. | Date completed |

Note 1: Carbon, Capture and Storage has been researched for 20 years, and operation at any commercial scale remains difficult and uneconomic

Note 2: Hydrogen is a difficult element to deal with; the power used to create the hydrogen exceeds the power derived from the hydrogen.

Note 3: Battery storage is expensive and short-lived, requires huge amounts of as yet undiscovered Co, Ni and Li, and production emissions are high.

Note 4: Pumped Hydro storage is expensive and requires dam building in a country of scarce water and an intolerant Green movement