

# A 17-year-old's views on the Nuclear Energy Debate

William Shackel, Founder of Nuclear for Australia



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Australia is experiencing an **energy and climate crisis.**

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**Electricity prices to rise by up to 25 per cent in NSW, south-east Queensland, South Australia and Victoria**



**Australia has raised its climate targets and now needs to accelerate its clean energy transition, says new IEA review**







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# Solutions to Climate Change



# Solutions to Energy Issues



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**Solution to  
Climate Change**



**Solution to  
Energy Issues**

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# What are the benefits of going Nuclear?



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## Low Emissions



## Reliability



## Low impact





## Greenhouse gas emissions

Measured in emissions of CO<sub>2</sub>-equivalents per gigawatt-hour of electricity over the lifecycle of the power plant.  
1 gigawatt-hour is the annual electricity consumption of 150 people in the EU.

### Coal

36% of global electricity



### Oil

3% of global electricity



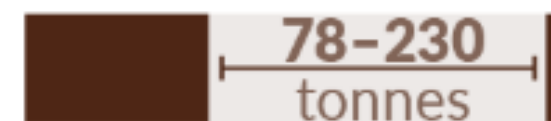
### Natural Gas

22% of global electricity



### Biomass

2% of global electricity



### Hydropower

12% of global electricity



### Wind

7% of global electricity



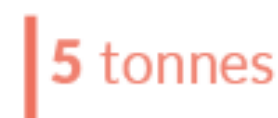
### Nuclear energy

10% of global electricity



### Solar

4% of global electricity

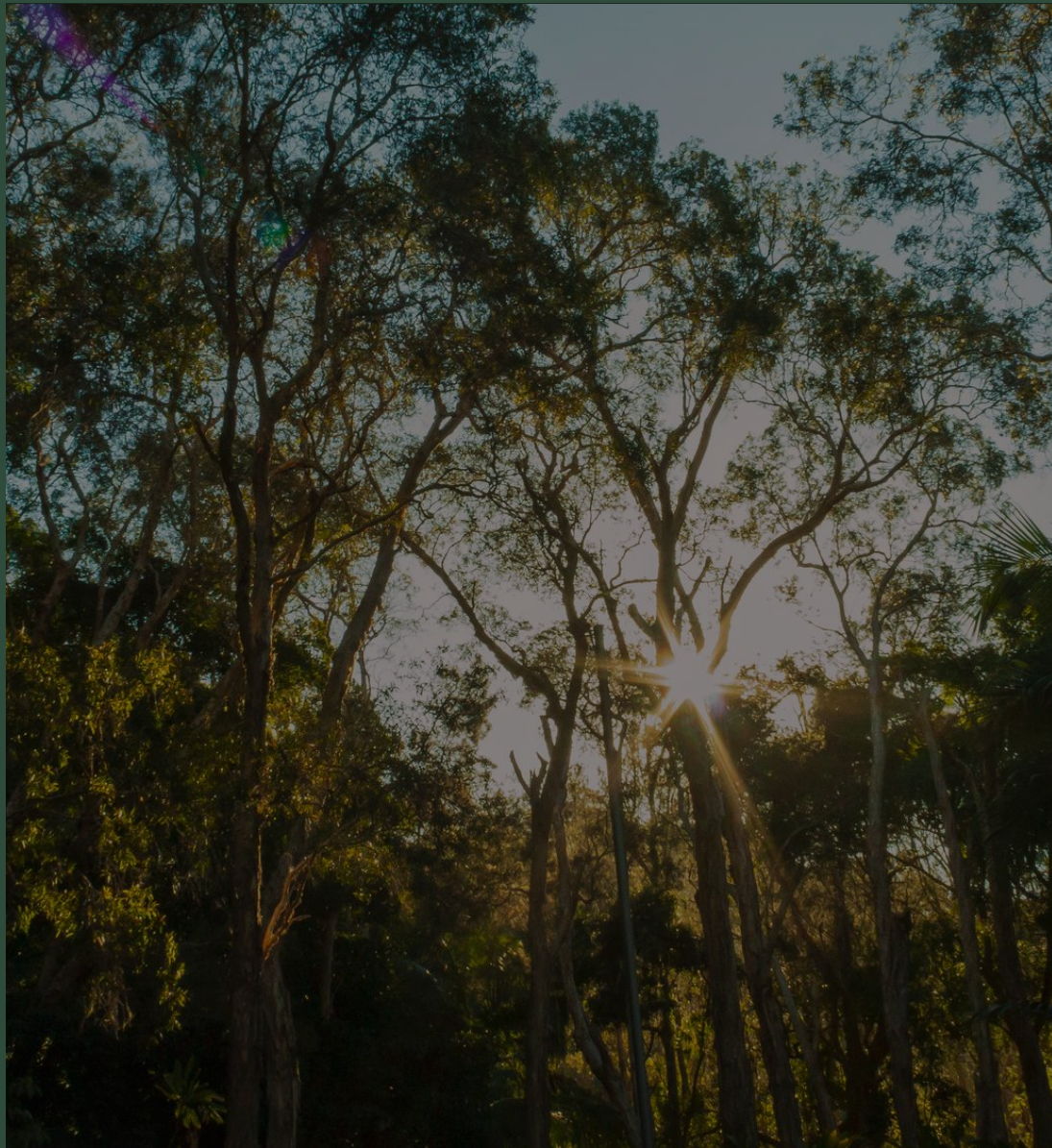


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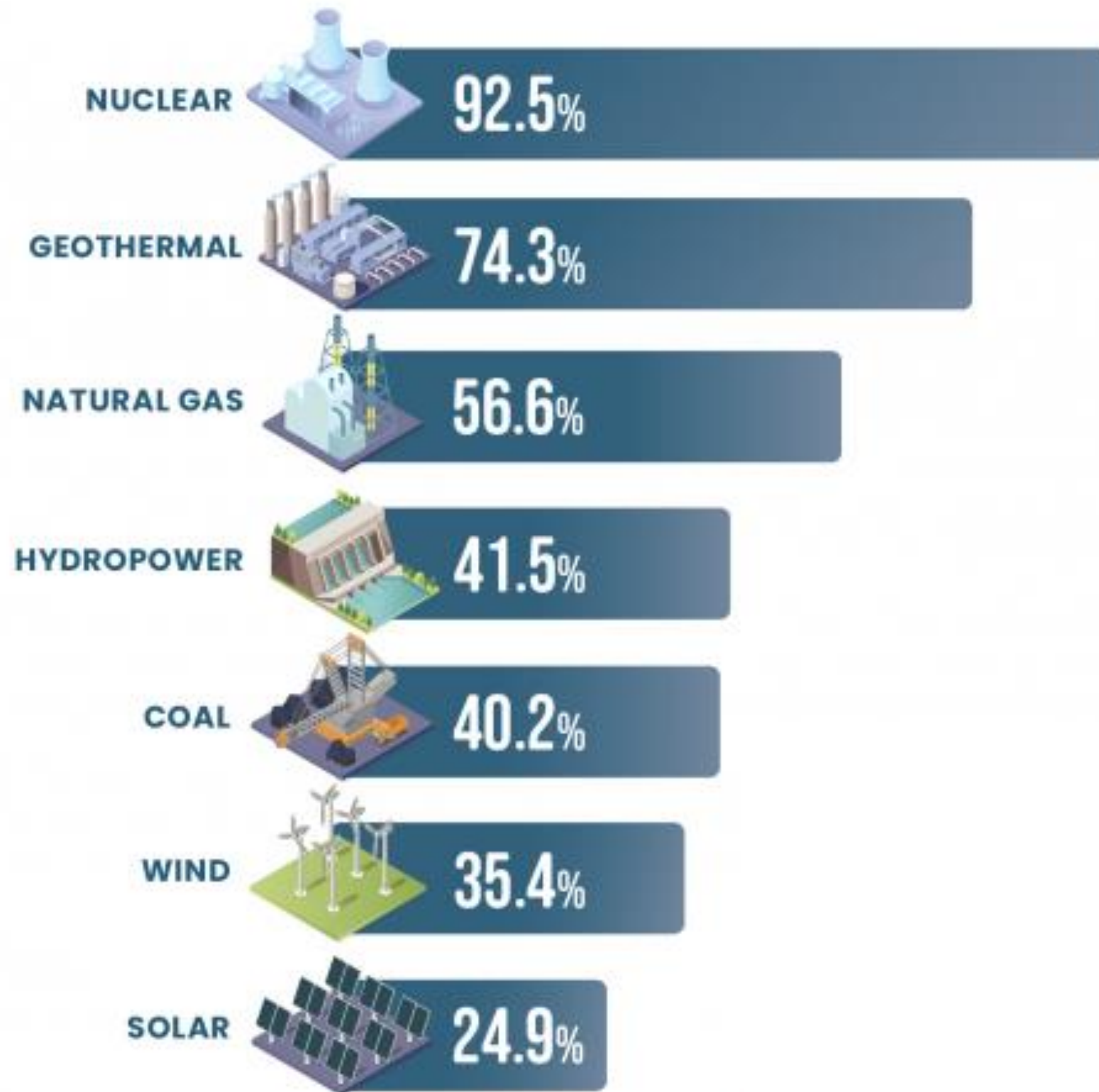
# Capacity Factor by Energy Source in 2020

Source: U.S. Energy Information Administration



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
NUCLEAR ENERGY

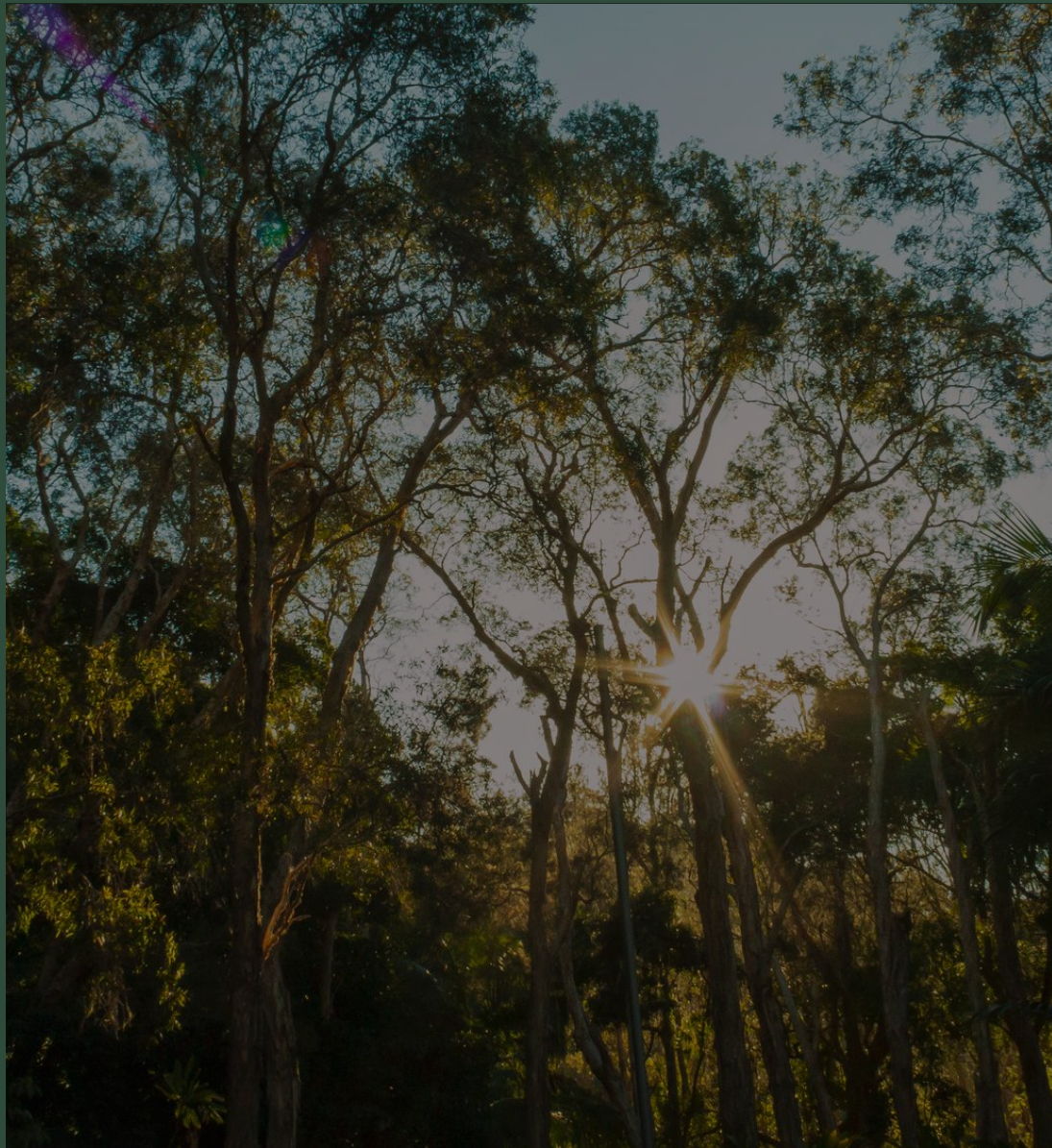


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# What are the benefits of going Nuclear?

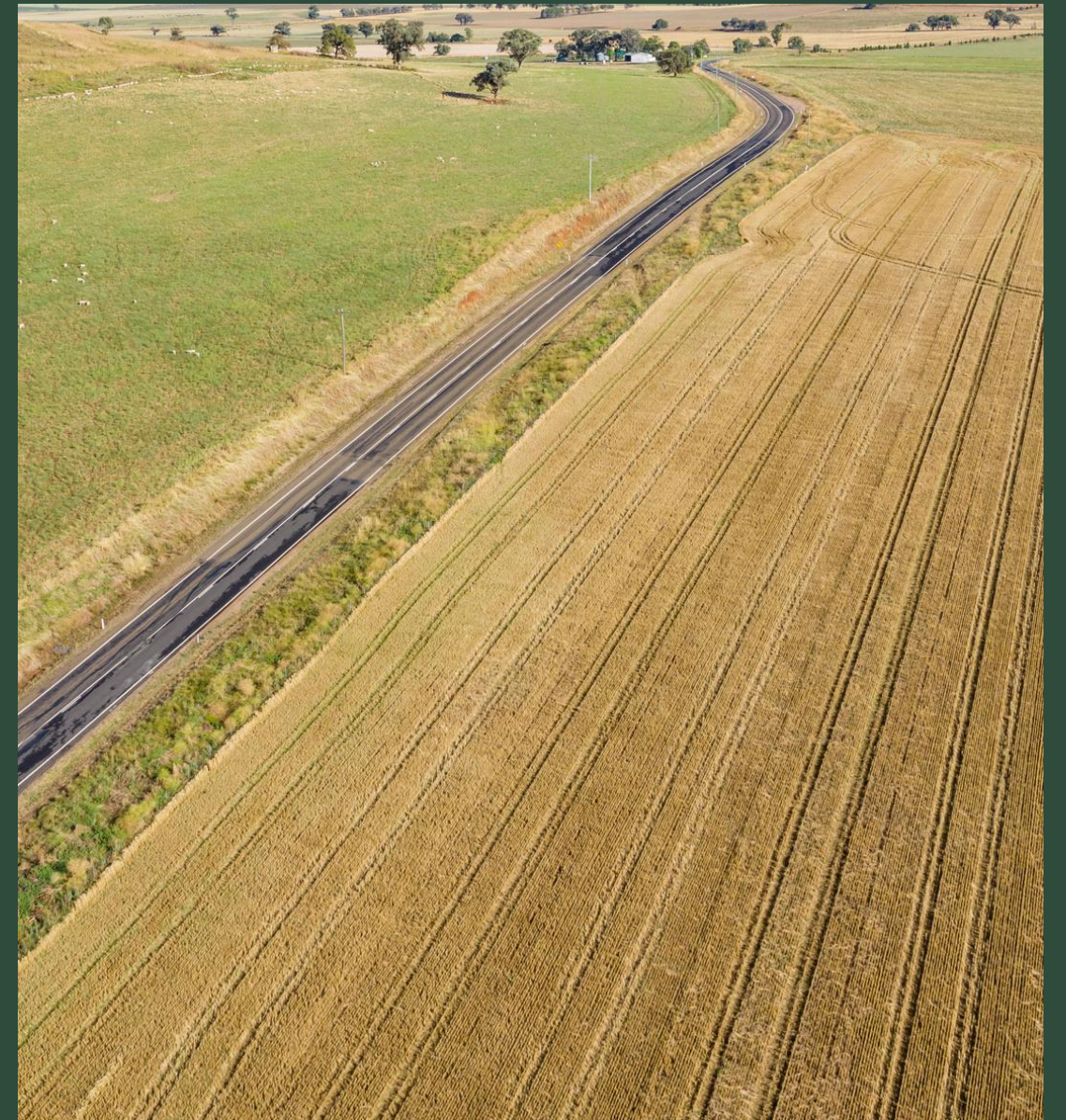
Low Emissions



Reliability



Low impact

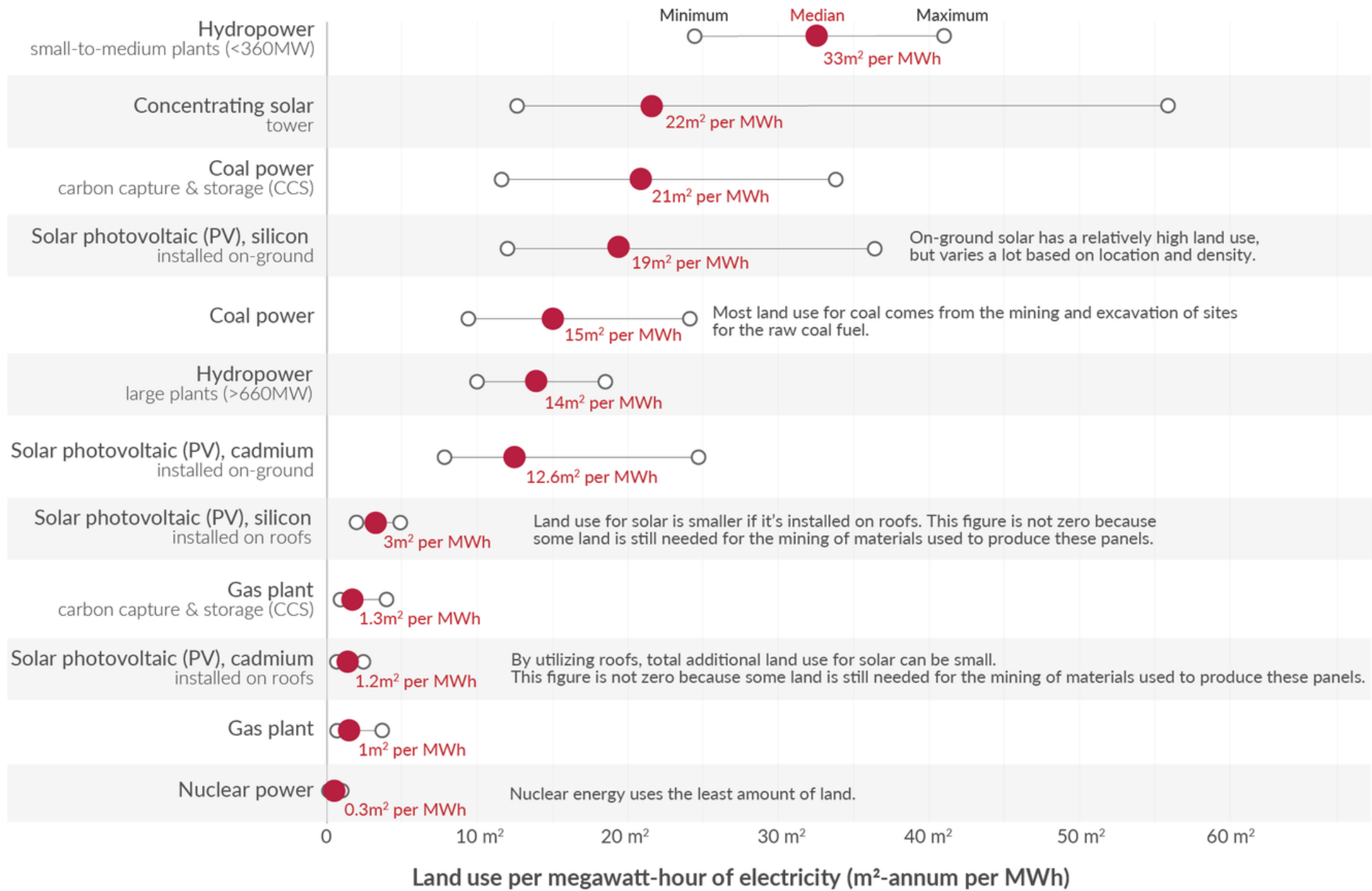




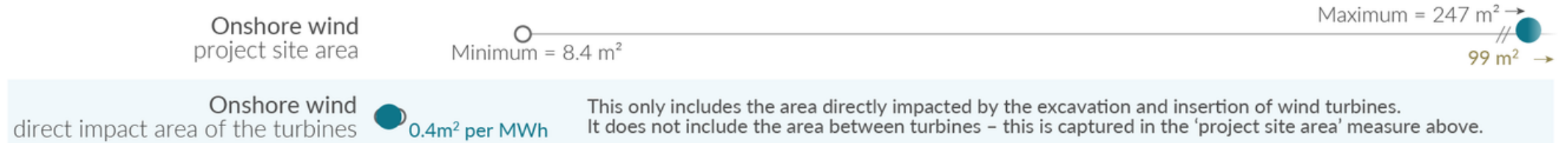
# Land use of energy sources per unit of electricity

Our World  
in Data

Land use is based on life-cycle assessment; this means it does not only account for the land of the energy plant itself but also land used for the mining of materials used for its construction, fuel inputs, decommissioning, and the handling of waste.



The land use of onshore wind can be measured in several ways, and is distinctly different from land use of other energy technologies. Land between wind turbines can be used for other purposes (such as farming), which is not the case for other energy sources. The spacing of turbines, and the context of the site means land use is highly variable.





**WE SHOULD HAVE ALL OPTIONS  
ON THE TABLE**

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**WE CAN'T DO ANYTHING UNTIL THE  
BAN IS LIFTED**

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# THE BAN ON NUCLEAR ENERGY IS UNTENABLE







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# AUSTRALIA IS THE ONLY MEMBER OF THE G20 WITH A BAN ON NUCLEAR ENERGY

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# ALL COUNTRIES WITH NUCLEAR SUBMARINES HAVE CIVIL NUCLEAR POWER REACTORS

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# **AUSTRALIA IS A WORLD LEADER IN NUCLEAR SCIENCE**

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#Q&A



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# Should Australia drop its ban on nuclear energy?

**A MAJORITY OF AUSTRALIAN SUPPORT**

Yes



No



**LIFTING THE BAN**

Unsure







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# THE ROAD AHEAD

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# THANK YOU

William Shackel, Founder of Nuclear for Australia

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