



ELECTRIFY
bouddi

Electrify Bouddi Trivia Quiz

1. The sun is the most powerful source of energy in the universe, sending 430 quintillion Joules of energy to the Earth every hour. If it was possible, how long would it take to harness sufficient energy to power the Earth for an entire year.

- A. 1 minute
 - B. 5 minutes
 - C. 1 hour
 - D. 24 hours
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2. Is a dunkelflaute?

- A. The sound made by a wind generator
 - B. A German invention to generate power from waves at sea
 - C. A period of time in which little or no energy can be generated by wind and solar
 - D. An anti-nuclear protester
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3. Which US President was the first to speak publicly about the links between the use of fossil fuels and climate change? Was it:

- A. Barack Obama
 - B. Lyndon Johnson
 - C. Richard Nixon
 - D. John F Kennedy
-

4. What was the average contribution by renewable energy sources in 2023 to the Australian national grid?

Answer: 40%

5. The following article was published in the New York Times in which year?

Ever since the small electric runabouts were introduced, about ten years ago, they have always been popular with women. In the early days of motoring the little electrics were about the only kind of motor car a woman could handle easily, as the early gasoline cars required more strength to crank than most women possess. Another great advantage of the electric in years gone by was their quiet operation, as compared with gasoline cars, and this fact alone was responsible for their widespread use by women.

- A. 2020
 - B. 1960
 - C. 1930
 - D. 1911
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6. In the video on the EB website showing how to transition from off-peak water heating to using solar power; in addition to removing the wires for off-peak, what else does Neil, the electrician, install in the meter box?

- A. A surveillance camera
 - B. A timeclock**
 - C. A device to prevent theft of electricity
 - D. An alarm to deter vermin
-

7. Who said in 2017:

"..... it's climate change policy that's doing harm; climate change itself is probably doing good; or at least, more good than harm."

- A. Donald Trump
 - B. Boris Johnston
 - C. Elon Musk
 - D. Tony Abbott**
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8. In their report from the Paris Olympics, Roy and HG claim that Rugby League can solve many of Australia largest problems. However they admit that one of the following is beyond even the powers of Rugby League:

- A. Save the Great Barrier Reef
 - B. Save the Koala
 - C. Make Carbon Capture and Storage work**
 - D. Affordable Nuclear Power
-

9. Compared to the average fridge purchased in Australia 20 years ago, the current average fridge is:

- A. The energy consumption has decreased by 40%
 - B. The size has increased by 30%
 - C. The price has decreased by 60%
 - D. All of the above**
-

10. Under Peter Dutton's proposal for 7 nuclear reactors, which one is the one closest to us?

Answer: Lidell, near Singleton.

11. If all the unshaded rooftops in Bouddi had solar panels, what percentage of our annual electricity usage would this generate?

Answer: 100%

12. As humanity evolved over the past several hundred thousand years, the concentration of CO₂ in the atmosphere was between about 200 and 300 parts per million. The latest data in 2024 shows that the current CO₂ concentration in our atmosphere is approximately:

- A. 270 ppm
 - B. 350 ppm
 - C. 420 ppm
 - D. 490 ppm
-

Which country generates 100% of its electricity and heat from renewable sources?

- A. Norway
 - B. New Zealand
 - C. Iceland
 - D. Sweden
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13. Which of the following is NOT a unit of energy?

- A. Joule (J)
 - B. Watt (W)
 - C. Kilowatt-hour (kWh)
 - D. Calorie
-

14. In 2023, global electric car sales neared 14 million. Which country has the most sales of EVs as a share of their total annual car sales?

- A. China
 - B. Norway
 - C. Sweden
 - D. United States
-

15. The World Solar Challenge is an international event for solar powered cars driving through the Australian outback. It began in 1987 and has driven developments on electric vehicles globally. It is run between:

- A. Darwin and Adelaide
 - B. Sydney and Melbourne
 - C. Adelaide and Broken Hill
 - D. Brisbane and Darwin
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16. Our Electrify Bouddi Code of Conduct for solar rooftop and hot water installers does what?

- A. Ensures that EB Members are given priority over everyone else.
 - B. Provides EB members with a 5% discount
 - C. Ensures signatories abide by the highest legal and ethical standards
 - D. Requires signatories to use only recycled products
 - E. All of the above
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17. In 2007, the Australian government announced that it would phase-out most types of incandescent lamps. Since then, over 100 countries have effectively banned most incandescent lamps from sale in their country. Without the energy savings created by these policies, the world would have required how many new 500 MW power stations?

- A. 2
 - B. 20
 - C. 200
 - D. 2000
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18. In the 2021-22 year, what percentage of coal mined in Australia was exported? Was it approximately:

- A. 25%
 - B. 50%
 - C. 75%
 - D. 90%
-

19. In the 2021-22 year, what percentage of gas produced in Australia was exported? Was it approximately:

- A. 25%
 - B. 50%
 - C. 75%
 - D. 90%
-

20. The invention that Nikola Tesla is most well-known for:

- A. The electric car
 - B. The electric light bulb
 - C. The alternating current (AC) electricity supply system
 - D. The telegraph
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21. Who is credited with the invention of the first modern filament light bulb in 1880? (maybe add picture of light bulb)

Answer: Thomas Edison (Note: he also said: "Genius is one percent inspiration and ninety-nine percent perspiration".)

22. These light bulbs, called General Service Lamps or GLS, have remained almost completely unchanged for 100 years, until the development of compact fluorescent lamps and more recently, LEDs. What proportion of the energy consumed by a GLS lamp produces useful light?

- A. 5%
 - B. 20%
 - C. 50%
 - D. 100%
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23. Under Snowy Hydro 2.0, water will be pumped to the upper dam using surplus renewable energy and then released back to the lower dam to generate energy when electricity demand is high. The energy storage will be enough to power how many homes for a week?

- A. 100,000
 - B. 250,000
 - C. 1 million
 - D. 3 million
-

24. On average how many coal-fired plant does China build per year?

- A. 10 per year
 - B. 20 per year
 - C. 50 per year
 - D. 100 per year
-

True or False

Since 1950, every decade has been warmer in Australia than the decade before. Both day and night-time temperatures have increased.

True

Australia emits more greenhouse gases now than in 2005.

False (24% lower)

Cutting methane emissions is vital to reducing climate change speedily. One of the most significant sources of methane emissions relating to human activity are burping and farting cows.

True

The share of households in Bouddi with rooftop solar panels is greater than the national average.

False (19% compared to 40%)

In an average Bouddi home, we spend around 30% of our fuel bills on heating water for showers and washing.

True

At the end of 2023, the wholesale price of electricity dropped to zero around 20% of the time, due to low-cost solar energy in the system?

True

The cover of the debut album of Australian rock band AC/DC featured a picture of a dog cocking its leg against an electricity substation.

True

Bonus question: Can anyone name the Album
(Answer: High Voltage)

Electrify Bouddi aims to mandate solar panels and electric vehicles for all households.

False

Australians, on a per capita basis, produce more carbon emissions than the UK.

True. (United Kingdom: 6; Australia: 15)

Australians, on a per capita basis, produce more carbon emissions than China.

True. (China 8)

It takes several years for the energy used to manufacture a solar panel to be to be offset by the energy generated by that solar panel.

False (true answer: 4-8 months)

In 2023, China built new solar power stations with an output the same as the entire world did in 2022.

True

Using electricity from the grid at night is one way to reduce greenhouse gas emissions.

False

According to Oxfam, the richest 1% of the world's population produced as much carbon pollution in 2019 as the 5 billion poorest.

True

In the middle ages, patients with ailments such as gout or headache were directed to touch electric fish in the hope that the powerful jolt might cure them.

True

Most lamps now available for purchase are based on LED technology and are called LEDs. LED stands for Low Energy Discharge.

False. (Light Emitting Diode)

The song "Turn Off the Lights" by crooner Teddy Pendergrass, released in 1979, was an exhortation to save energy written in response to the oil crisis in the 1970's.

False (The lines: 'Turn off the lights and light a candle' and 'Let's take a shower, said a shower together' suggest more romantic intentions)

Our electricity come from the grid via a distribution transformer in Woy Woy.

False (Empire Bay)

In 2023, 95% of the worlds coal power construction was in China.

True

It takes 16 Australians to change a light bulb.

True (One to change the bulb and fifteen to stand around and say "Good on yer, mate!")

Demand for silver for solar panels consumes around 50% of global silver production.

False (correct answer is 14-15%)

A 'DinoTail' is the term used to describe the rubbish left behind an open-cut coal mine.

False (It is a device installed on the blades of wind turbines to reduce the noise they produce – it is serrated like a dinosaur tail.)

Pacemakers are now being constructed that use the body's heat and vibrations to provide power without the need for batteries.

True (This means that intrusive surgery to replace batteries can be avoided)

The world record for the most efficient solar cells in converting sunlight to electricity has been held by an Australian University for 30 of the past 34 years.

True (Cells with an efficiency of 20% were first produced by Martin Green, Director of the Australian Centre for Advanced Photovoltaics at UNSW, often called the 'father of photovoltaics. In 2014, his team developed cells with 40% efficiency, another world first)

The song 'Walking on Sunshine' was first performed by Dolly Parton in 1996.

False (I was written by Kimberley Rew for British rock band Katrina and the Waves in 1983)
