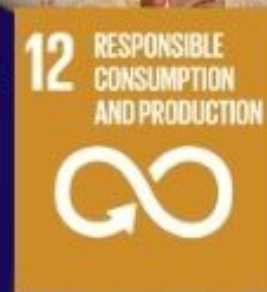


**SPEAKER - BRISBANE  
AUGUST 2**

*Nishtha Aggarwal*

**FINANCED EMISSIONS ANALYST**

**Climate Energy Finance**

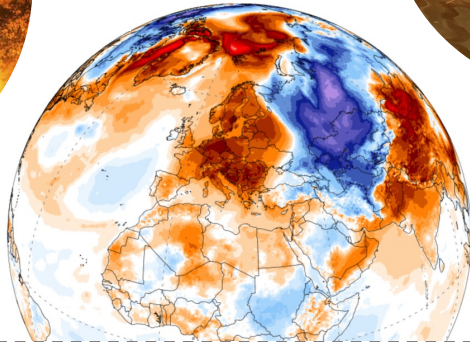


# The era of “global boiling” has arrived

*The 2015 Paris Agreement committed to....*

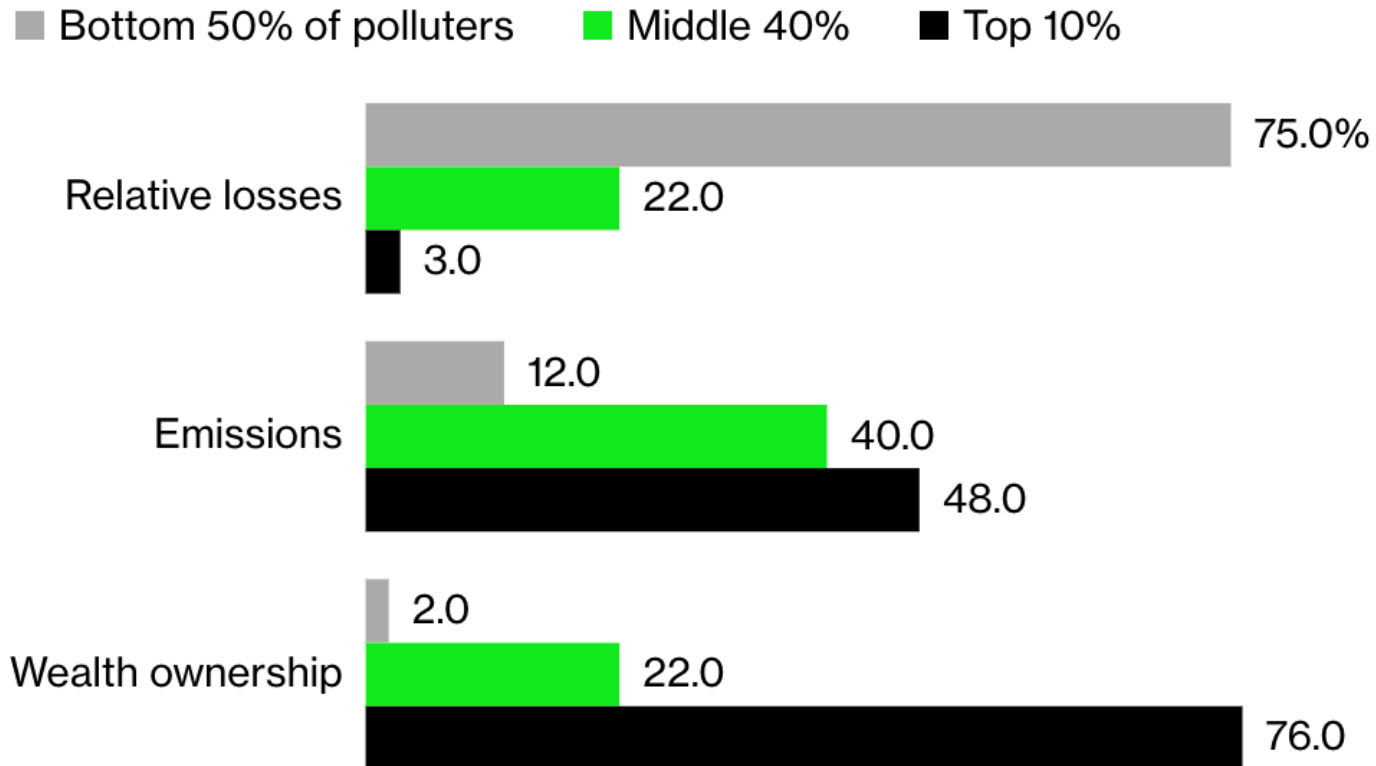
*Limit global warming to **well below 2°C** and to pursue **every effort** to limit the temperature increase to **1.5°C** above pre-industrial levels*

*This year.....*



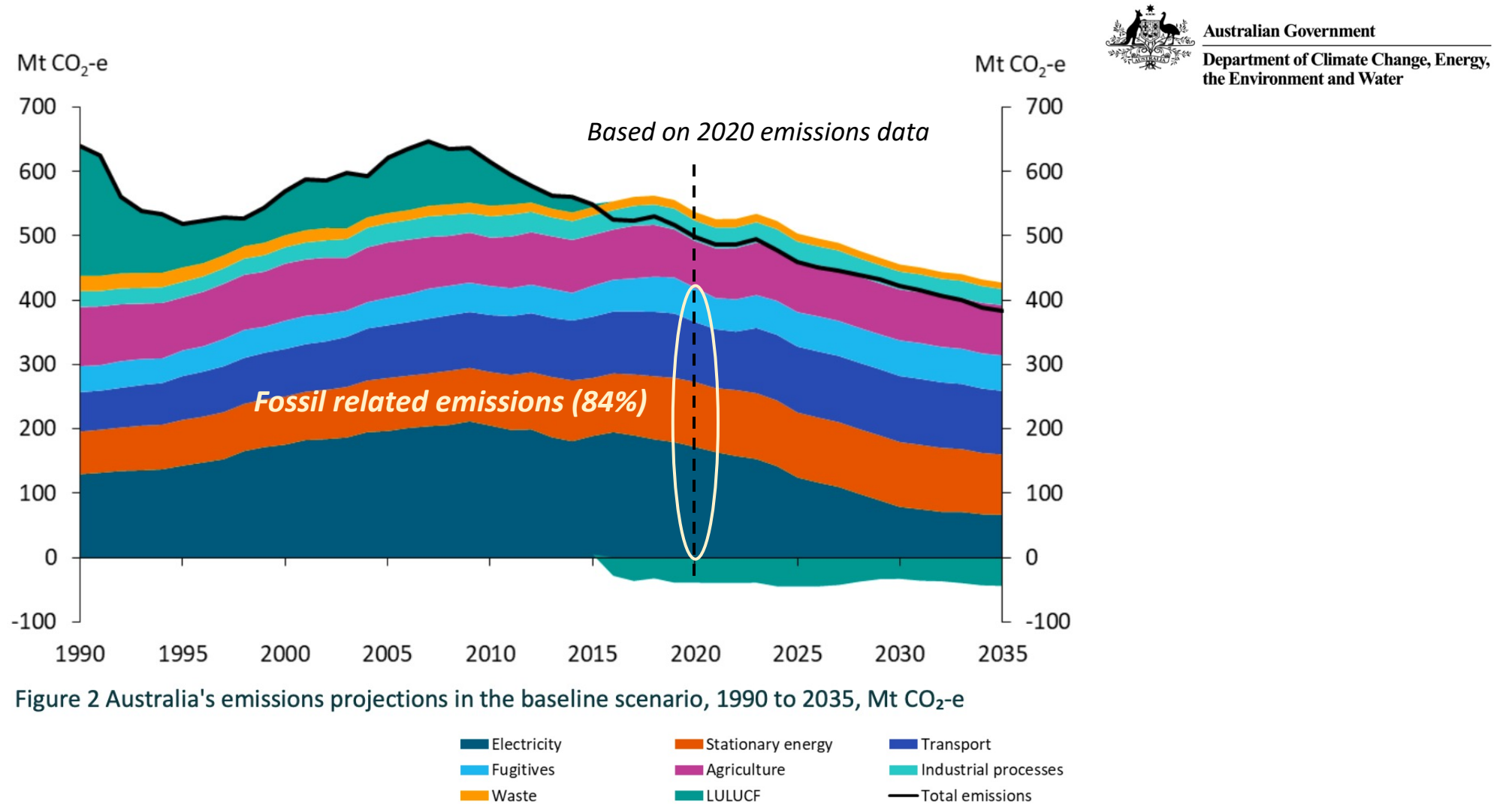
# Climate change disproportionately affects the poor

## Climate Change Hits the Poor Hardest





# Fossil fuels need to be replaced by clean energy



# Expanding coal, oil and gas supply is inconsistent with a 1.5°C pathway

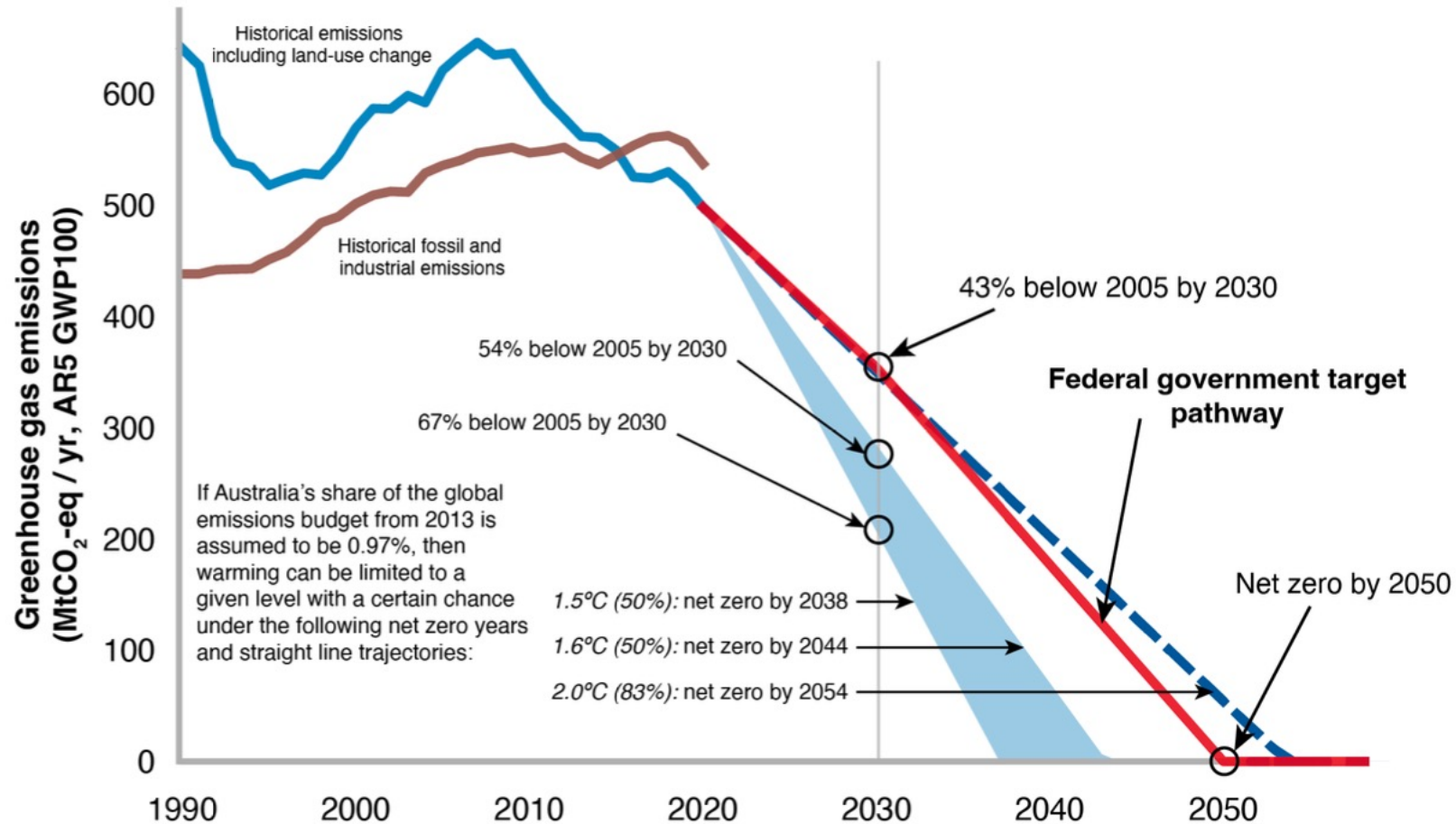


*The 2021 International Energy Agency Net Zero Roadmap called for:*

- ***no new coal mines***
- ***no new oil and gas fields***



# This is the crucial decade to act

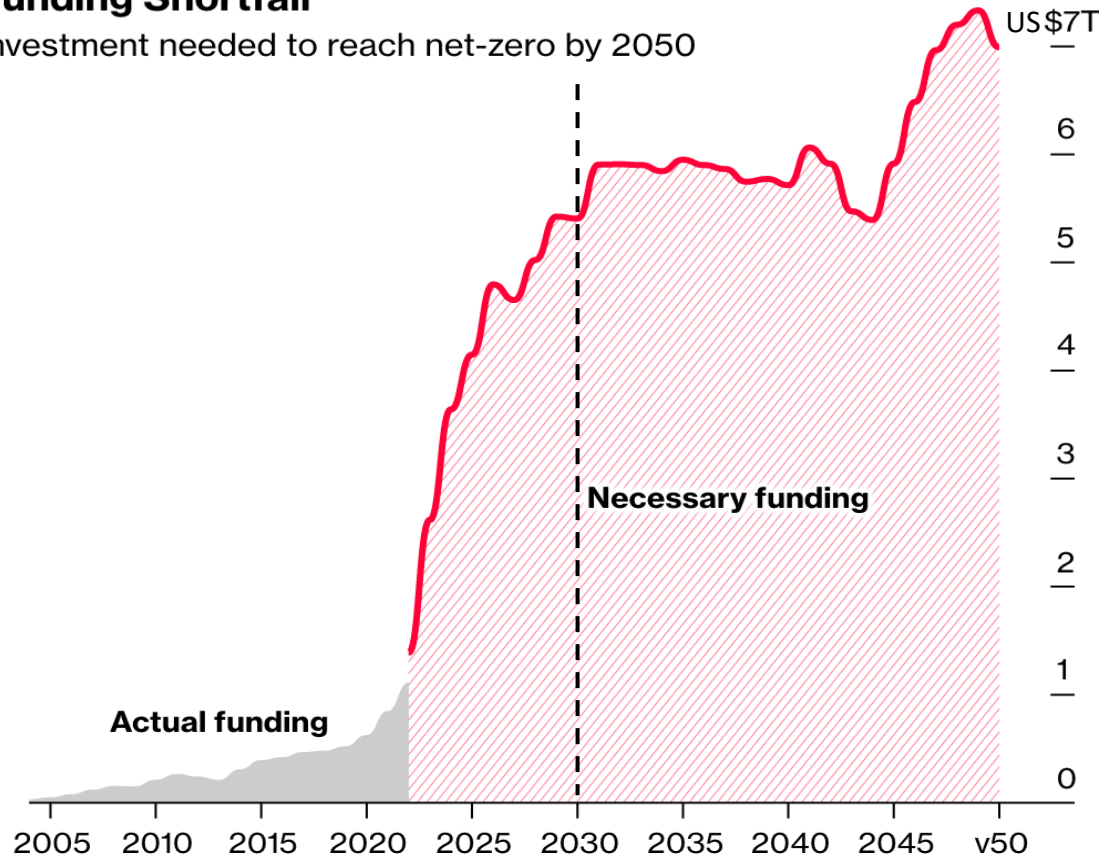


**Figure 1** Historical emissions and pathways in line with different emissions budgets.

# Global annual climate financing must reach A\$6tn by 2030 – A\$150tn cumulative to 2050

## Funding Shortfall

Investment needed to reach net-zero by 2050



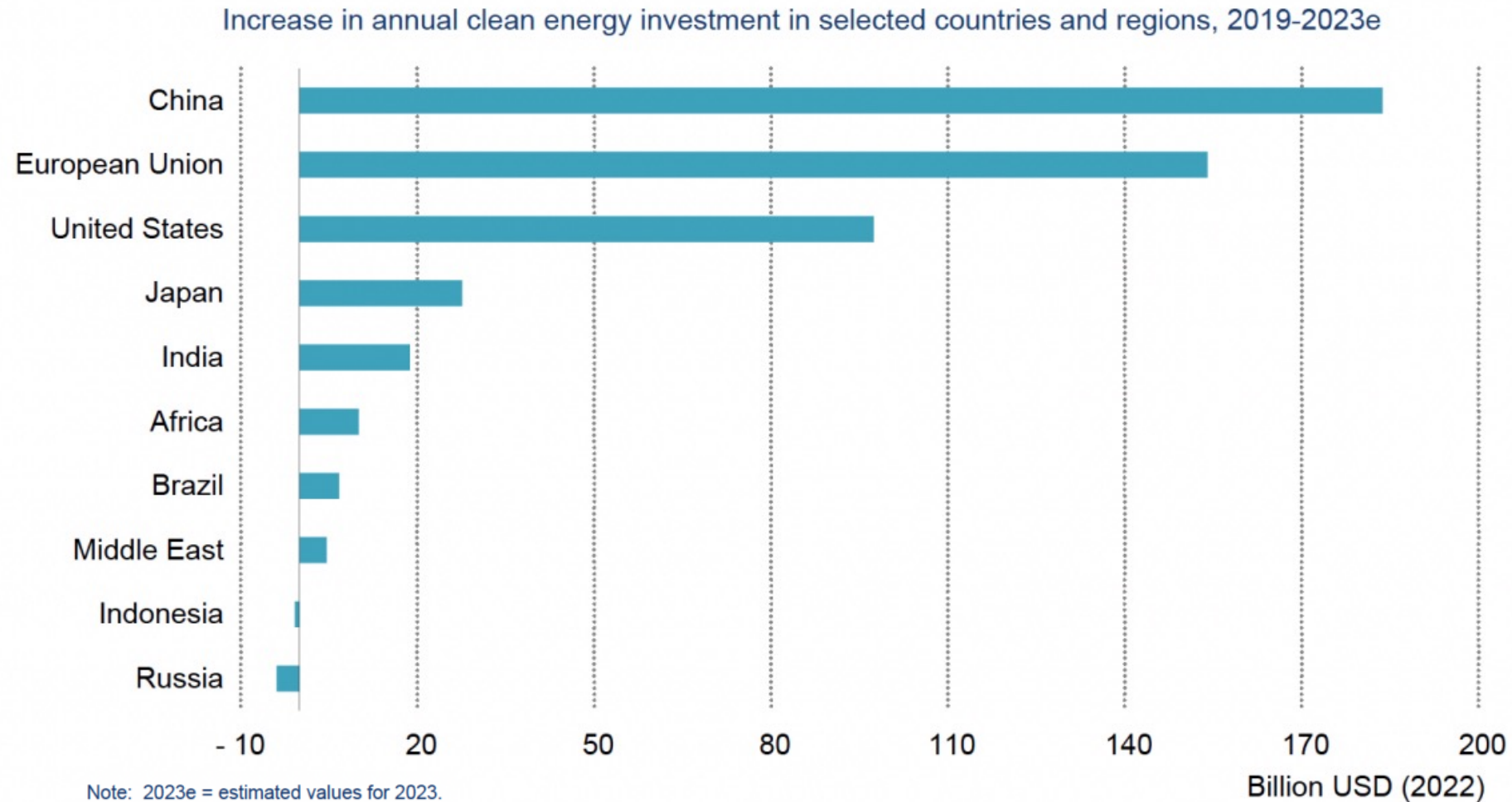
## BloombergNEF

Last year, investment in clean energy equalled fossil fuel investments.

Reaching net zero by 2050 means achieving a ratio of clean energy to fossil fuel investment that is 4:1 this year, 6:1 in the next decade and 10:1 in the 2040s.



# China leads the world in clean energy investment





# 2022 was a pivot point for climate action

## EXAMPLES ARE NON-EXHAUSTIVE

### Federal commitments

#### Targets

- 43% emissions reduction target by 2030
- 82% renewables electricity by 2030

#### Policy

- Safeguard mechanism – carbon price
- \$40bn investment into clean energy and net zero industries, jobs and communities

#### Structural support

- Climate-related financial disclosures
- National Net Zero Authority

### Queensland commitments

#### Targets

- 30% emissions reduction target by 2030
- 70% renewable energy by 2032

#### Policy

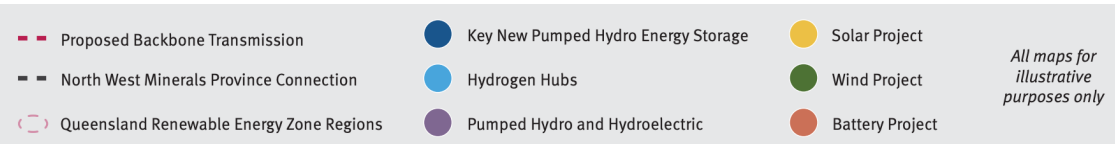
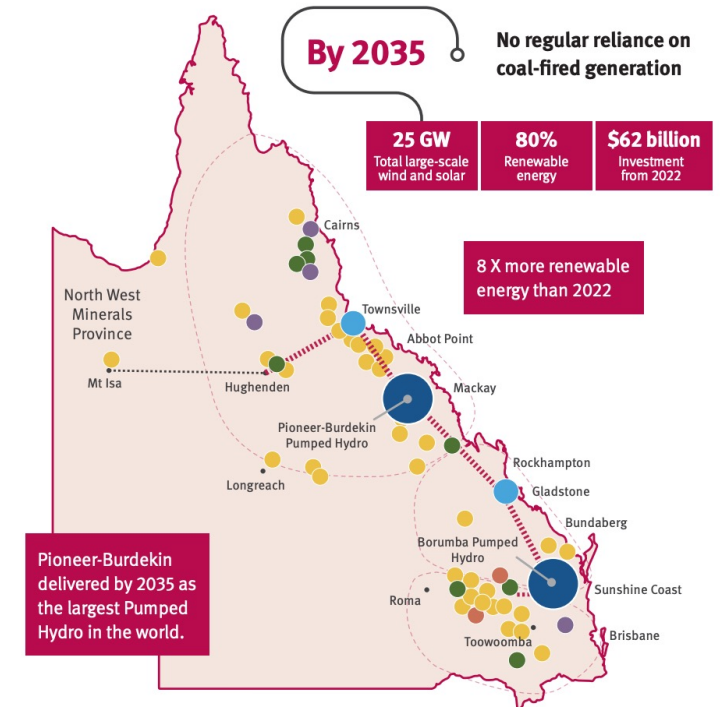
- \$62 billion Queensland SuperGrid
- \$100 million Australian-Made Battery Precinct in Queensland

#### Structural support

- Gladstone Economic Transition Roadmap
- QLD Renewable Energy Zones

### What is the Queensland SuperGrid?

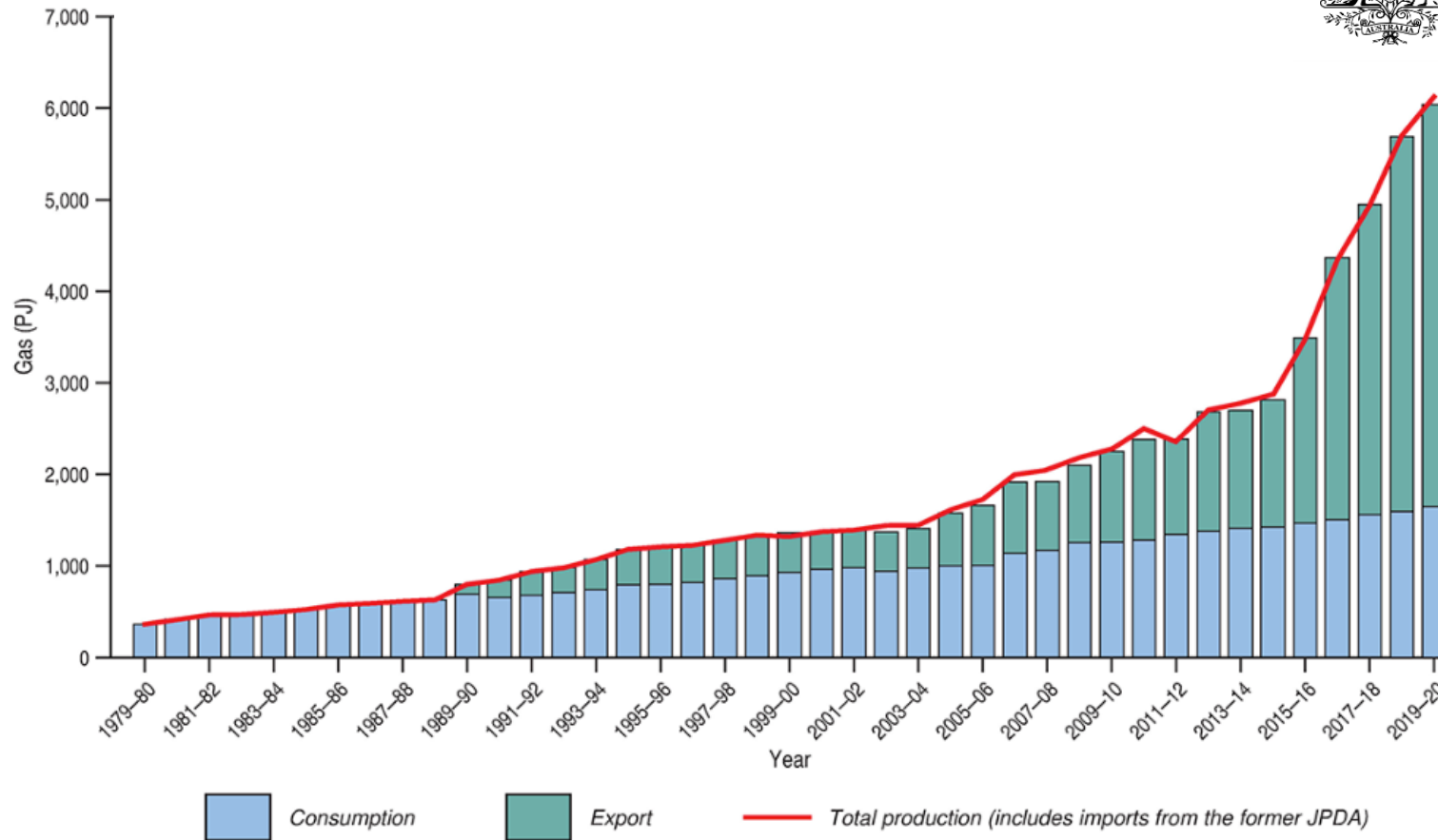
The SuperGrid is all of the elements in the electricity system, including the poles, wires, solar, wind and storage that will provide Queenslanders with clean, reliable and affordable power for generations.



# Australia is a petrostate – 3<sup>rd</sup> to Russia & Saudi Arabia



Australian Government  
Geoscience Australia

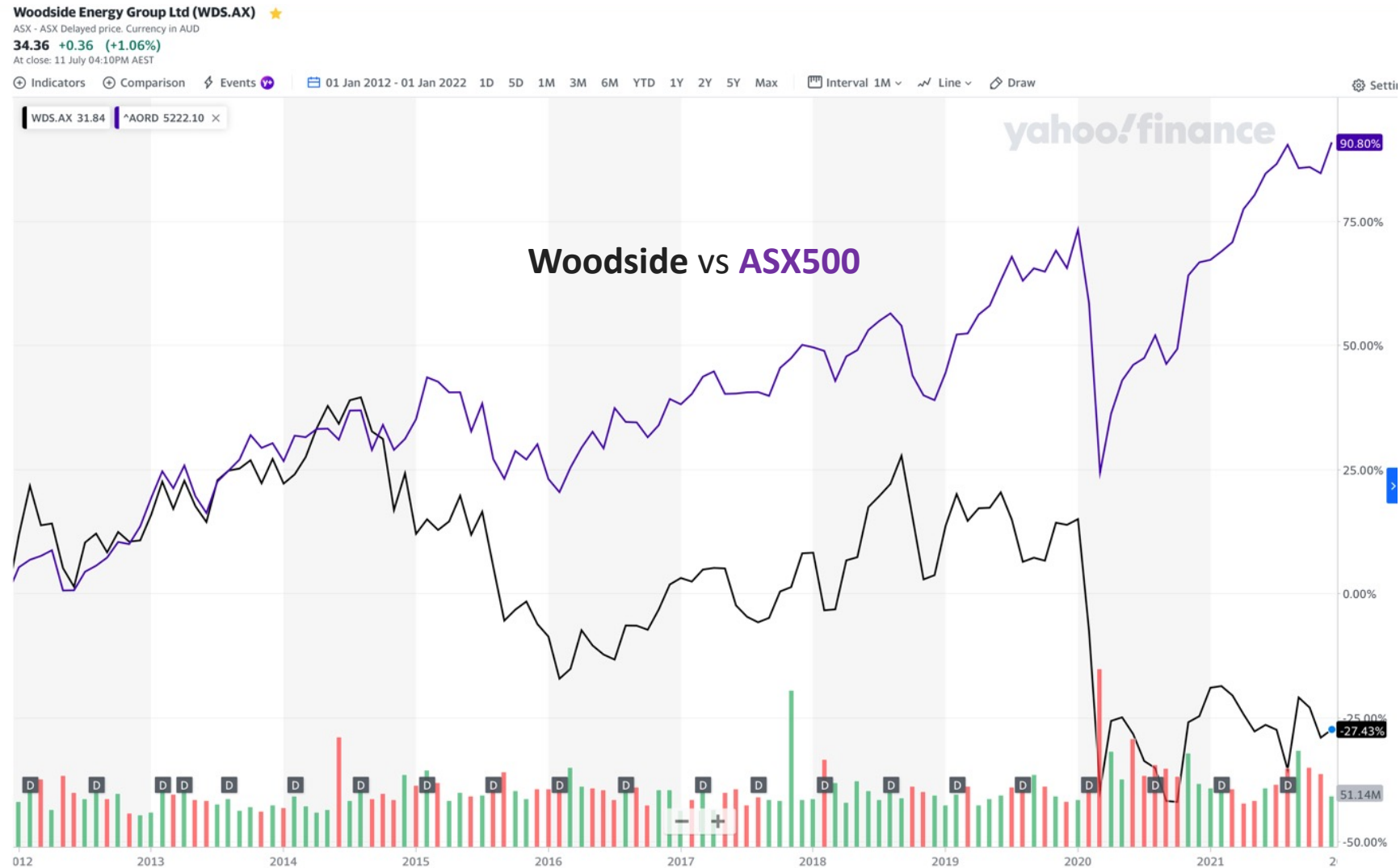


In 2022, fossil fuel corporations made \$240bn in export revenues, i.e. \$150bn gross profit (~70% profit margin).

More than triple the \$70 billion in revenue in FY2021 according to the Office of the Chief Economist.

Source: Department of Industry, Science, Energy and Resources, Australian Energy Statistics 2021, Tables D1 and J.  
Note: Consumption data includes statistical discrepancies. JPDA = former Joint Petroleum Development Area. PJ = petajoules.

# Gas in long term decline before 2022 war profits



# Fossil fuel finance is drying up



Whitehaven Coal unable to secure  
\$1bn debt refinance

“Australia’s big banks have turned their backs on the country’s largest pure-play coal miner, refusing to refinance a billion-dollar debt in a major rebuff that will force Whitehaven Coal to source loans offshore, sending a worrying signal to other large coal producers and potentially speeding up the demise of the sector.”

– Simon Johanson at the [Sydney Morning Herald](#)



HSBC restricts finance to new oil and gas both  
at the project and corporate level

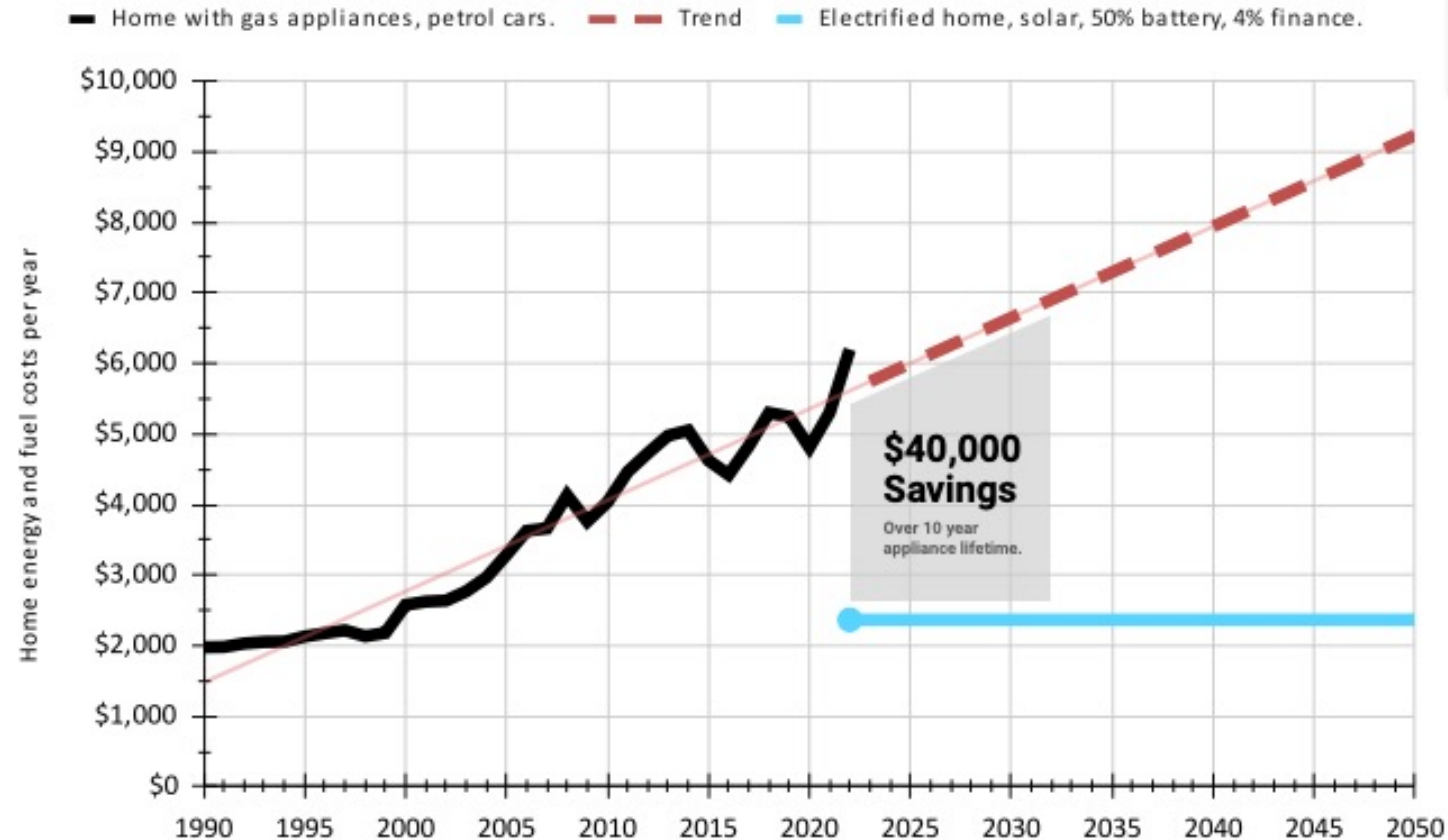
“HSBC’s announcement sends a strong signal to fossil fuel giants and governments that banks’ appetite for financing new oil and gas fields is diminishing. It sets a new minimum level of ambition for all banks committed to net zero.”

– Jeanne Martin, Head of the Banking Programme at [ShareAction](#), a responsible investment NGO



# Clean energy homes are more affordable

Australian home running costs with CPI trend | Gas and petrol home vs Electrified financed



Source: ABS Consumer Price Index June 2022, Rewiring Australia Castles & Cars Report 2021.



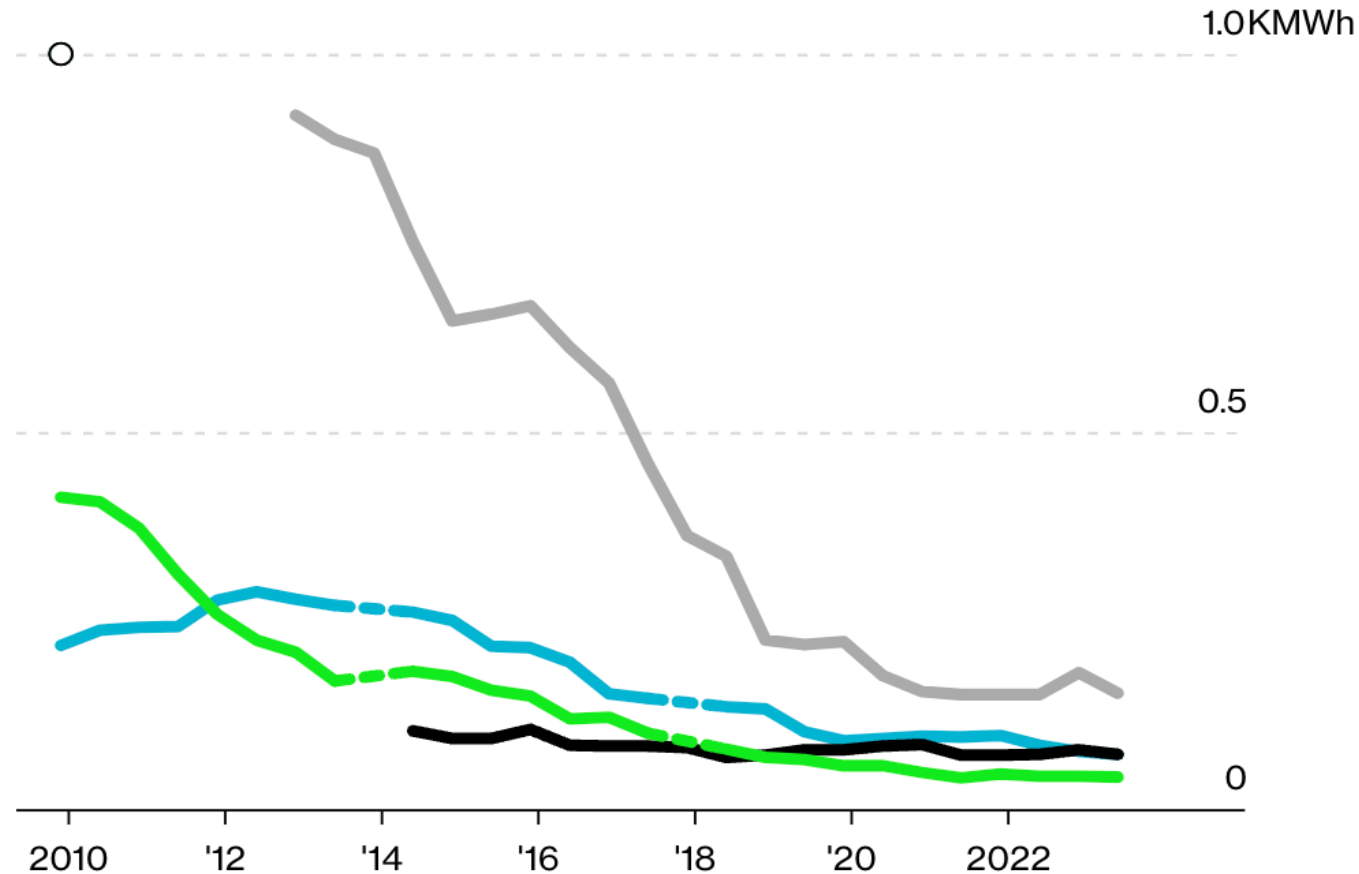
# Solar and wind becoming more cost efficient than coal

## Clean-Energy Prices Falling Fast

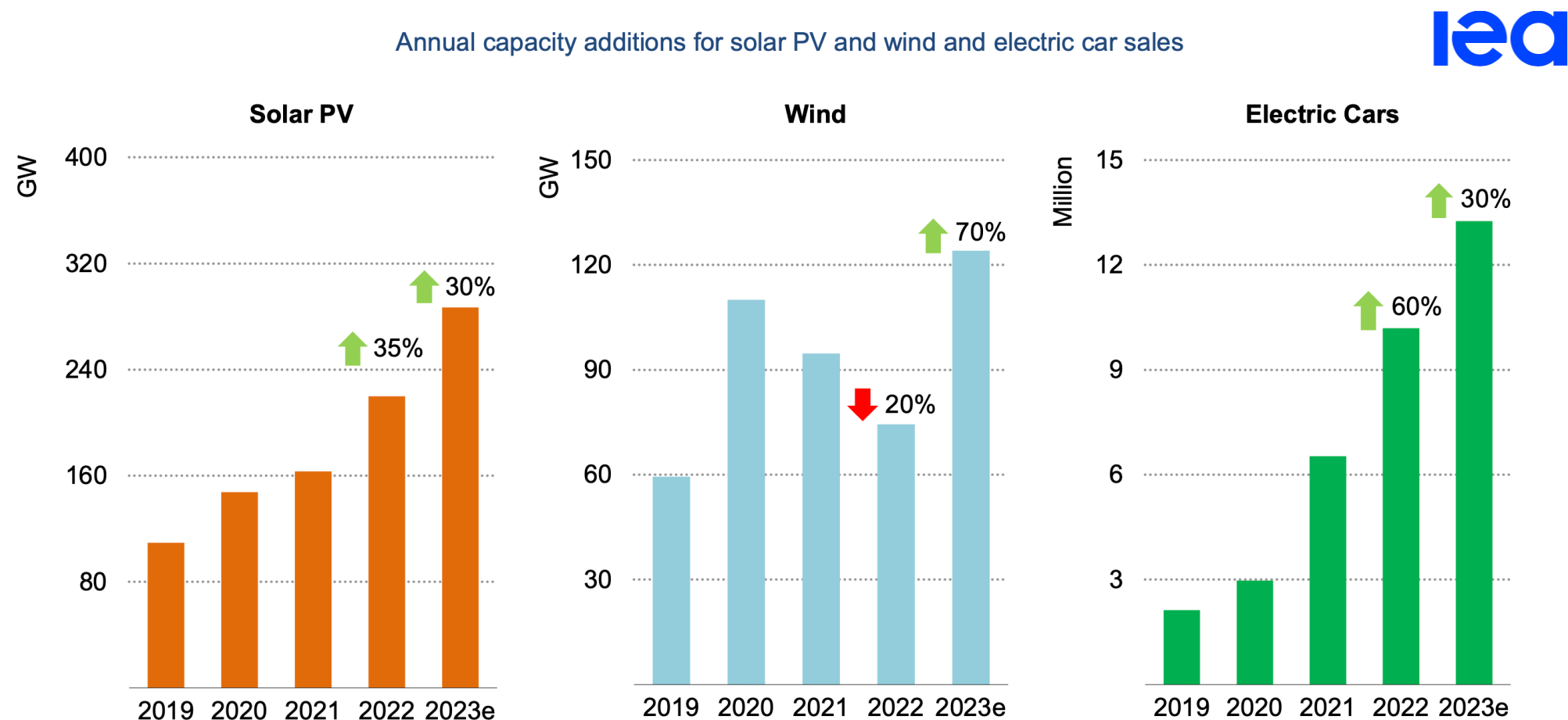
BloombergNEF

Key energy technologies are challenging or beating coal-fired power

■ Solar   ■ Coal   ■ Utility-scale battery   ■ Offshore Wind

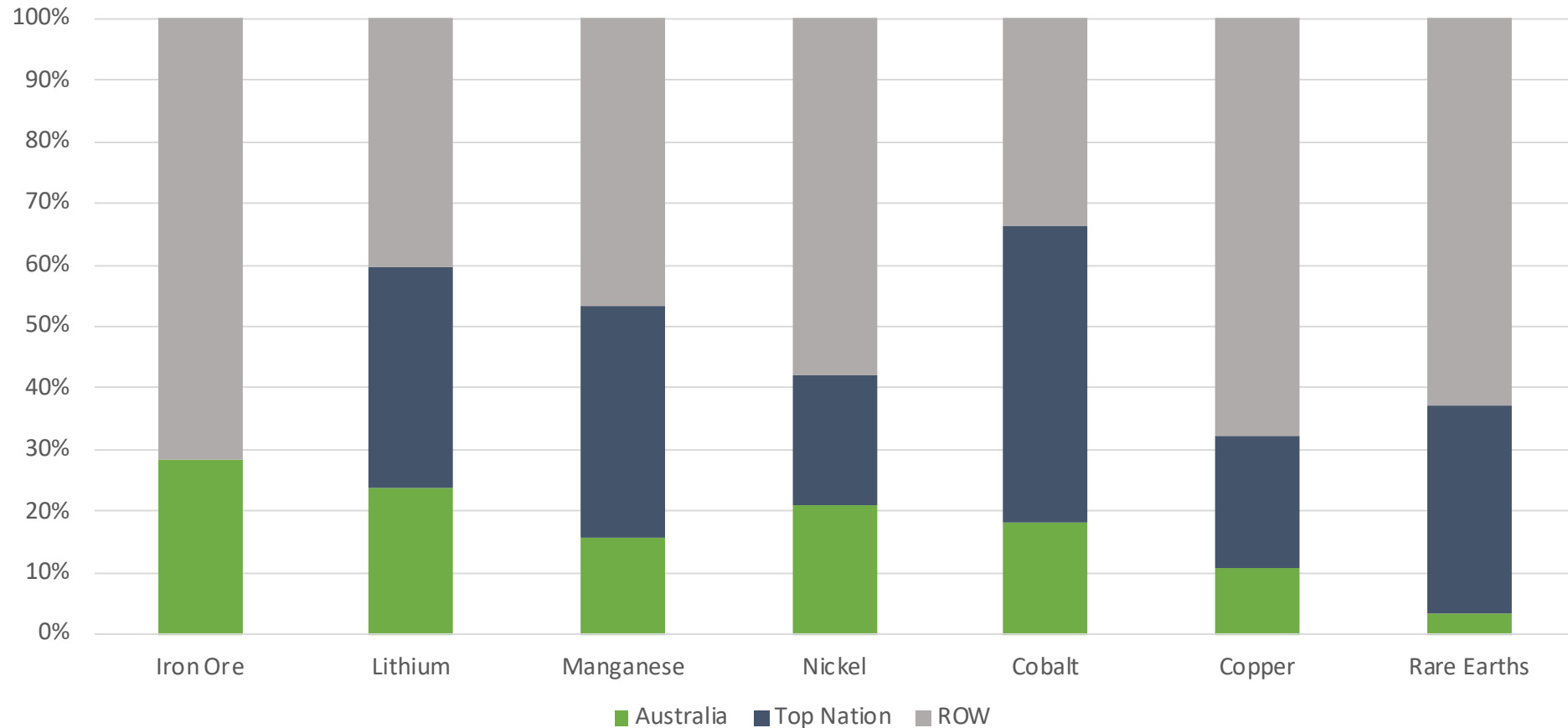


# Global supply of solar, wind and EVs rapidly increasing



Source: [International Energy Agency](#) Critical Minerals Market Review 2023.

# Australia can shift away from dig & ship to invest in exporting value-added metals and minerals



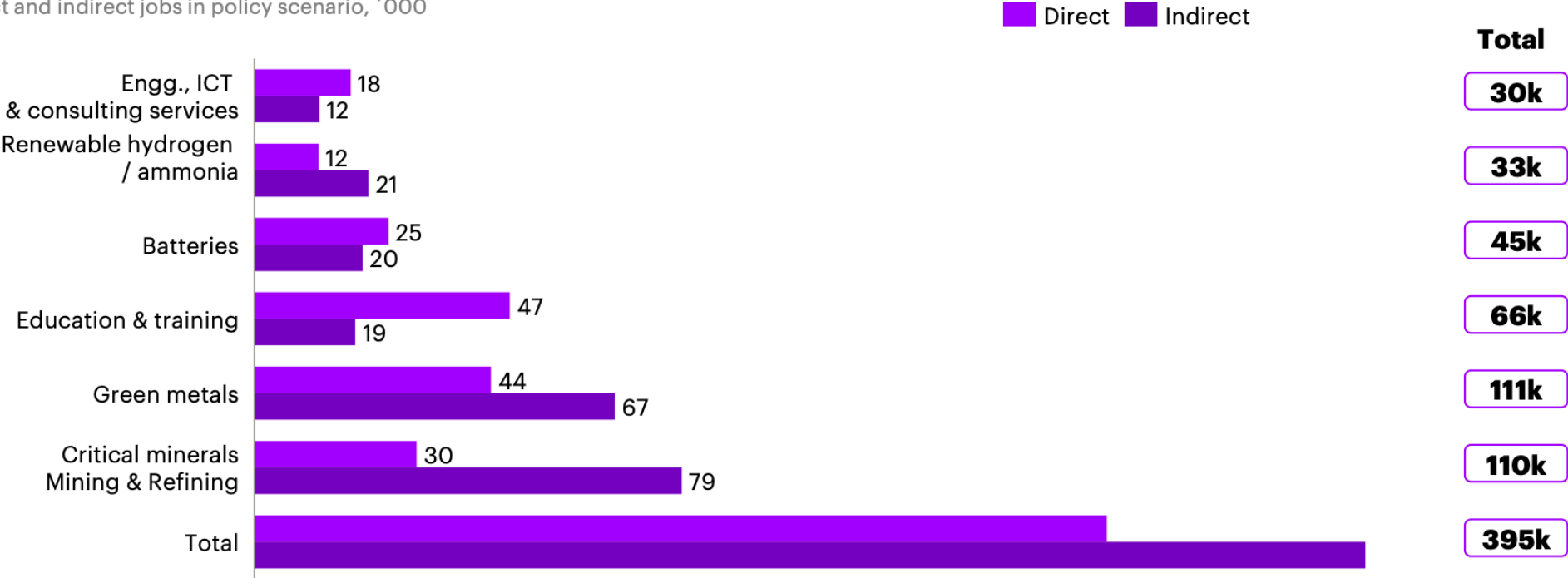
*Note: Australia has the largest reserves of iron ore, and equals Indonesia in nickel reserves.*



# Clean exports can create 395,000 jobs

**Figure 16: Jobs enabled by Australia’s clean energy export opportunities**

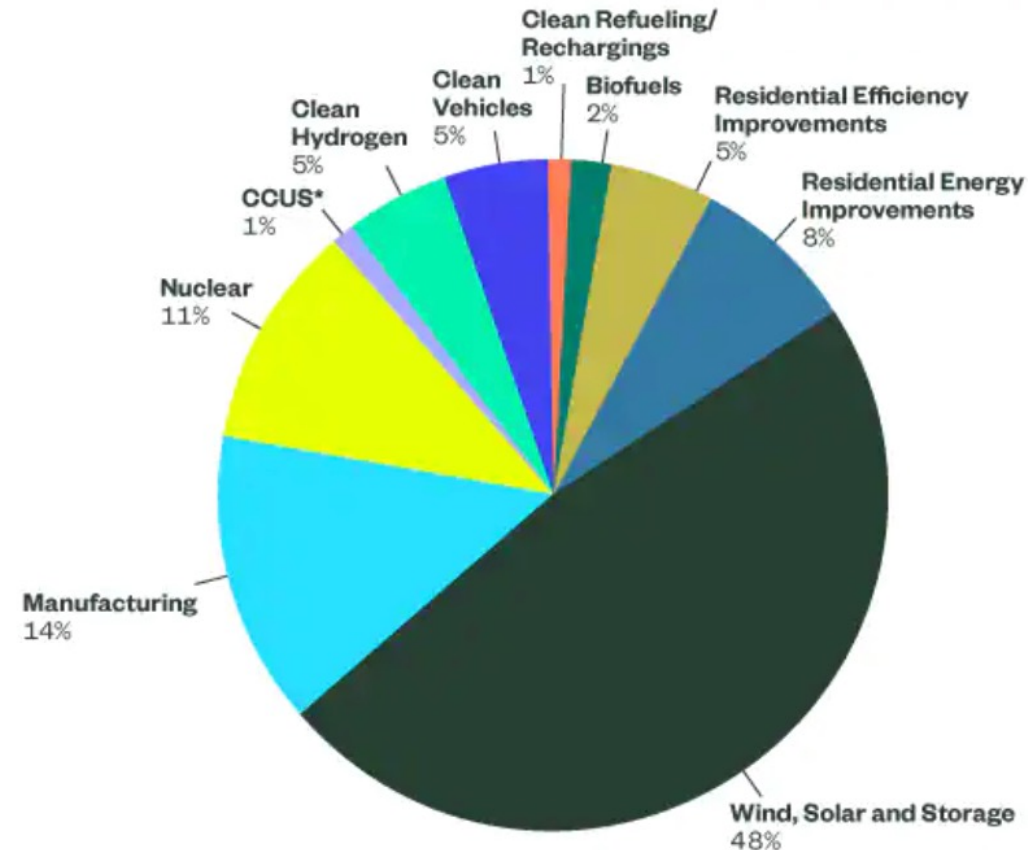
Direct and indirect jobs in policy scenario, `000



***The clean energy opportunities will create 176K direct jobs and 219k indirect jobs due to the flow-on supply chain***

Note: Represents the total number of new jobs created (permanent and casual) due to additional industry output (revenue) Direct jobs refers to jobs created in the specific industry due to additional output. Indirect jobs refer to jobs created due to flow-on supply-chain effects. Indirect jobs will include some but not all potential new renewable energy jobs created in the economy.  
Source: Accenture analysis

# The global clean tech race is stimulated by A\$1.2tn in financial incentives



***The United States Inflation Reduction Act releases US\$800bn (A\$1.2tn) worth of incentives into the global market***

# Australia has a once in a lifetime opportunity to power the global green economy

— Opinion

## It's time to power up from a petrostate to an electrostate

Government investment is a must to seize the once-in-a-century opportunity to leverage our natural advantages and position ourselves as a value-adding clean industry and export superpower.

**Tim Buckley** *Clean energy advocate*

Aug 1, 2023 - 1.11pm



***Climate Energy Finance estimates \$100bn public finance to crowd in \$200-\$300bn private financing this decade***

*When the money moves,  
get out of the way*



Nishtha Aggarwal

Climate Energy Finance | Financed emissions analyst

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