Enabling a once-in-a-generation energy transition

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But first…Pop Quiz

- No Googling, no AI, no asking your neighbour.
- Tick the answer for Questions 1-3. Question 4, write your best estimate.
- Highest score wins.
- If there's a tie, the closest answer to Question 4 takes the prize.

01

Western Power's network covers an area roughly the size of:

a) Tasmania

b) Victoria

c) The United Kingdom

d) New Zealand

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02

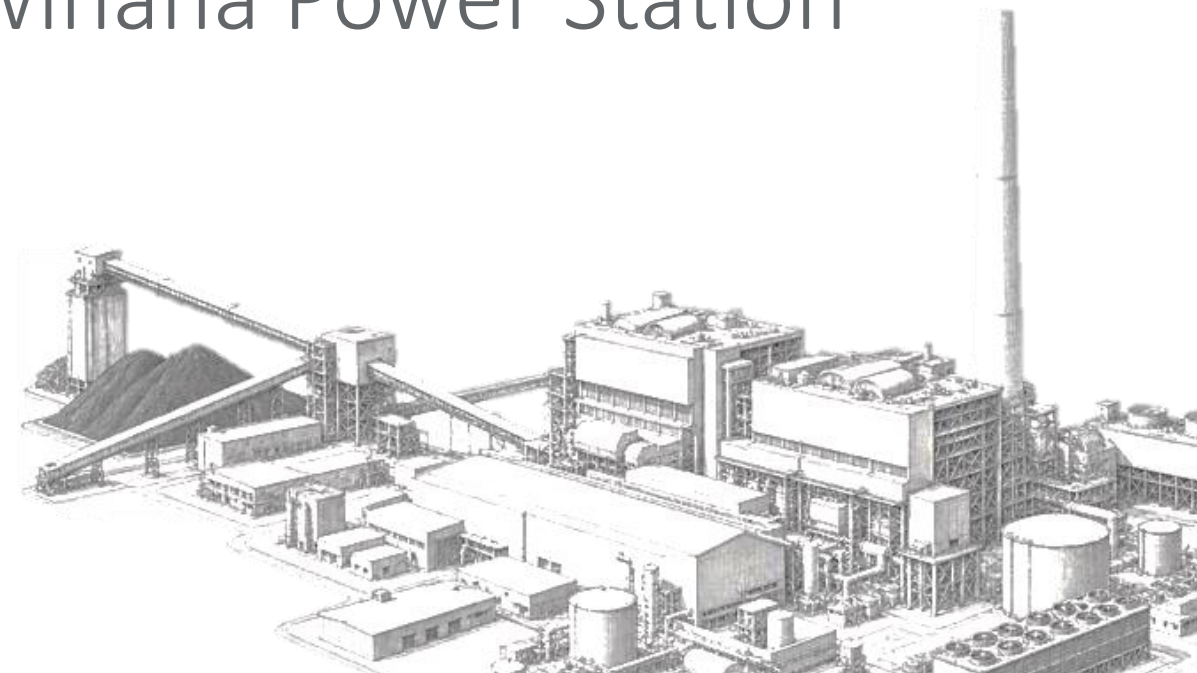
What is WA's biggest generator today?

a) Muja Power Station

b) Bluewaters Power Station

c) Rooftop solar on homes & businesses

d) Kwinana Power Station



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03

How many residential and small business batteries are connected to the network?

a) Less than 5,000

b) Between 5,000 and 25,000

c) Between 25,000 and 50,000

d) Between 50,000 and 75,000

e) More than 75,000

04

How many customers are connected to the network?

Answer: _____

Awarded 1 point if your answer is within 100,000 customers of the correct answer. If there is a tie at the end of the quiz, the closest answer wins.

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Western Power today

Swap your answers with the person next to you and let's find out who might be more of an energy expert than they realise…

4000
strong workforce

2.6 million
customers connected

Rooftop solar provides **3.1 GW** of capacity, the largest generator on our network

19
community batteries

500+ stand-alone power systems

+50,000
residential & small business batteries connected

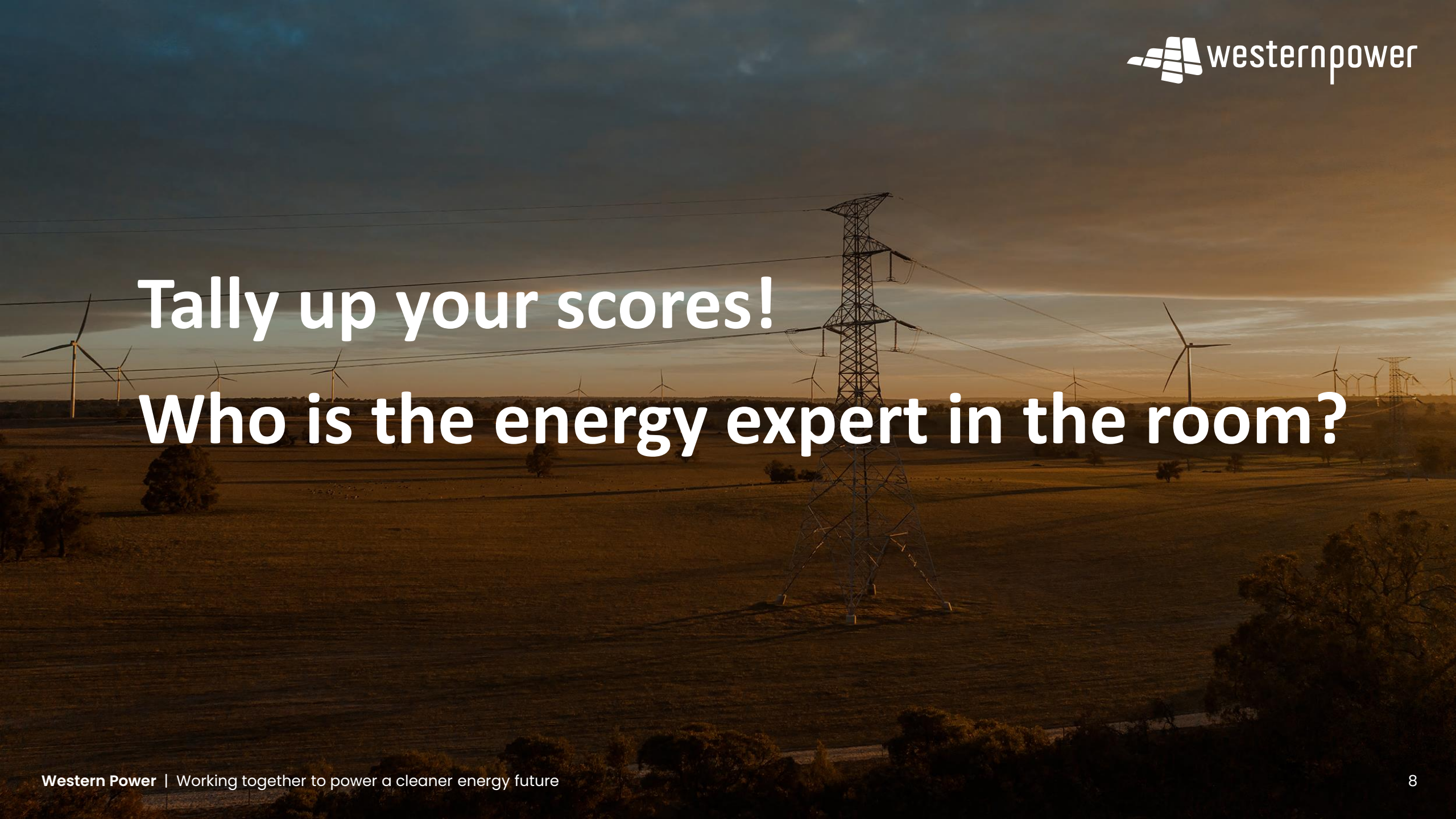
292,000
streetlights

31,000km
of underground Dx network

Our grid covers 255,000 km²

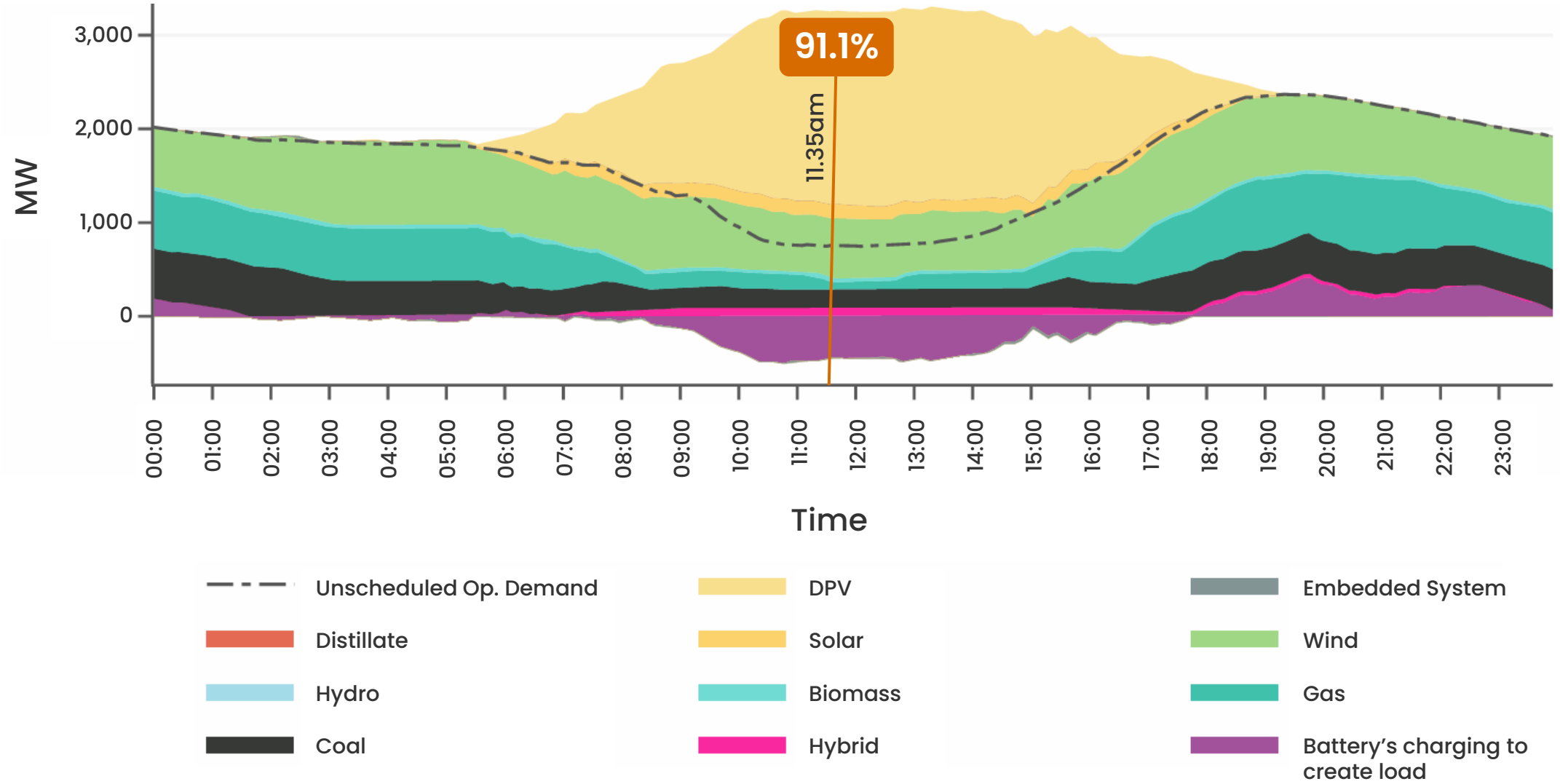
Approximately the size of the United Kingdom 243,600 km²

Figures current as of June 2026


Tally up your scores!
Who is the energy expert in the room?

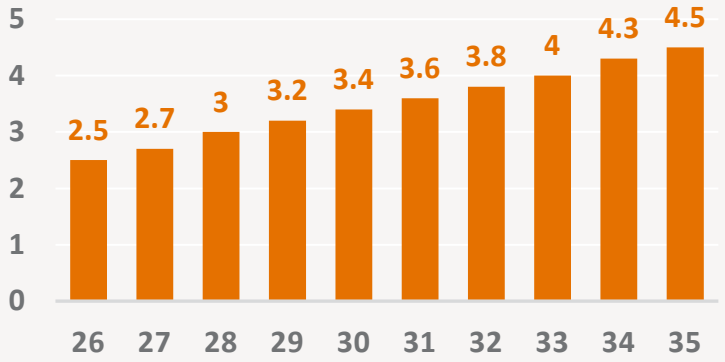
What's driving the energy transition

New renewable contribution record (91.1%) – 20 Dec 2025



Energy generated in homes and businesses, changing the energy system

Rooftop solar capacity forecast (GW)

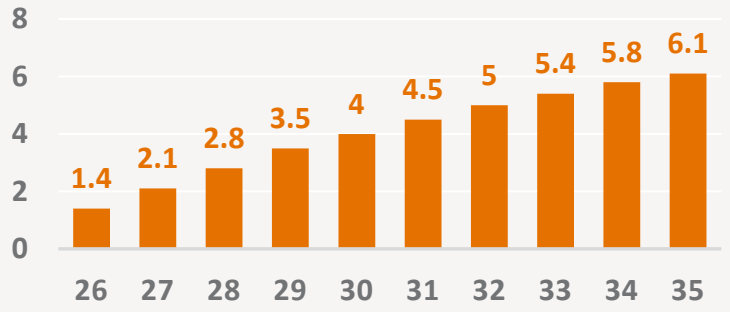


2 in 5 homes already have rooftop solar **(3.1GW)**

By 2035, rooftop solar is forecast to provide **4.5 GW** of capacity.

Currently WA's largest generation source.

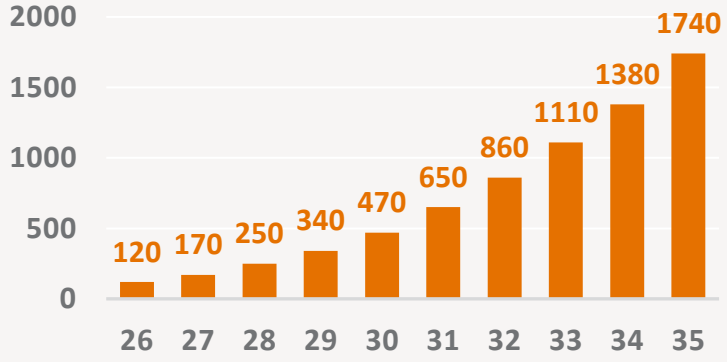
Residential & small business battery storage capacity forecast (GWh)



50,000+ battery systems installed & **1GWh** of storage capacity added in the past year.

Storage capacity is forecast to grow to **6.1 GWh** by FY35, helping shift daytime solar into evening demand periods.

EV Electricity consumption forecast (GWh)



52,000+ EVs registered in WA today

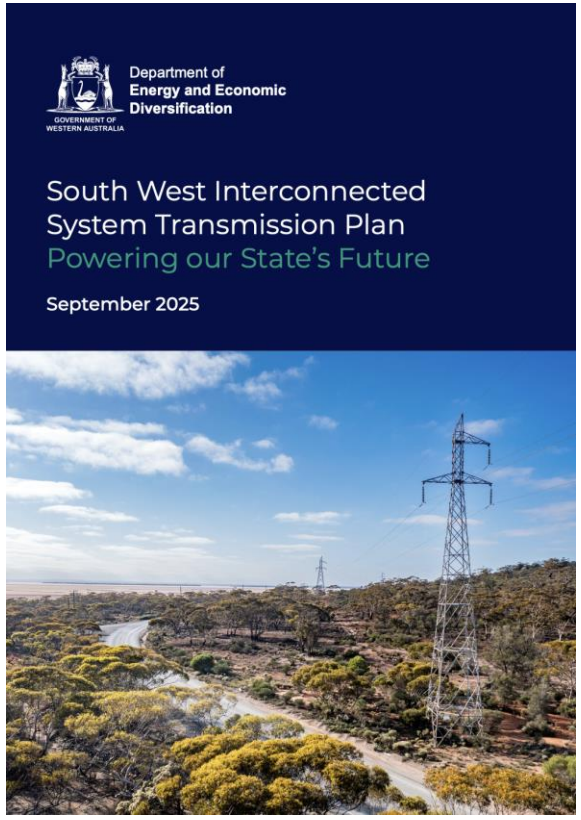
1.7 TWh annual charging demand forecast by FY35

Source: AEMO, 2026 WEM Electricity Statement of Opportunities (Expected Scenario)

What we're doing about it

A major upgrade in the transmission network

SWIS Tx Plan



Western Power's role

- Transmission infrastructure – scoping, planning and construction
- Harnessing the power of WA – connections
- Supporting and ensuring value add for communities
- Approvals, environmental heritage and planning

Benefits for WA

- Increased clean energy and emissions reduction
- Industry and community decarbonisation
- Business capacity and economic growth
- Housing growth
- Support for regional communities

What we're doing about it
Decarbonising the distribution network

System-wide effort
Unlock greater value from customer solar and batteries through virtual power plants

Project Jupiter

Western Power's role
Changing how we operate the network as a Distribution System Operator:

- Dynamic Operating Envelopes unlock available network capacity
- Network Support Services use customer batteries when the grid needs it most
- Enabling customers to participate in markets and services through virtual power plants

Benefits for WA

- ☑ Greater uptake of rooftop solar, batteries and EVs
- ☑ More value from customer investments in solar and batteries
- ☑ Reduced need for costly network upgrades
- ☑ Lower peak demand and improved system reliability
- ☑ A more reliable, affordable and sustainable energy system for WA

A system-wide transformation

Integrating DER at scale across the SWIS

Project Jupiter

Project Jupiter aims to realise the full potential of DER in WA's energy transition by developing Australia's first energy system and market where DER is safely and securely integrated at scale for the benefit of community

By early 2028

All new solar and battery systems connected to the network, will be visible, compliant, and capable of participating in a VPP

Customers have the information and greater choice to participate in VPPs and unlock more value from their energy assets

Aggregated customer-owned DER will be an integral part of the energy system, providing Network Support Services (NSS) and Capacity in the market

In partnership with: western power, synergy, AEMO, Department of Energy and Economic Diversification

ARENA program snapshot

We now have a blueprint for the technical architecture, market pathways, customer models alongside regulatory & policy settings to enable operational virtual power plants. This summer we'll begin testing for scale.

Project Jupiter

Progressing

Milestone 1 Initiation	Milestone 2 Initial design	Milestone 3 Deployment	Milestone 4 Integration	Milestone 5 Completion
Establish the project team, governance and program Deliver the national alignment report Establish the vision and impact pathway Define the functional and aggregator requirements	High-level end-to-end technology systems design Customer engagement and participation pathways VPP awareness and education	Technical platform delivery commenced DER and VPP standards, procedures and compliance frameworks implemented Customers DER actively participating in peak demand reduction and Network Support Services. Exploring participation pathways for commercial and industrial customers	End-to-end DER orchestration integrated into partner operational systems (BAU) Coordination between Western Power, AEMO, Synergy and other aggregators enabling network support services and capacity participation. Operating models, processes and market participation frameworks embedded	DER integration capability demonstrated at scale. Commercial VPP operating in the WEM delivering system, network and customer value
June 2025	March 2026	March 2027	March 2028	June 2028

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Pathway through hot seasons

Project Jupiter

2025 / 2026

Build the foundations and capability, test, monitor and learn

- Growing volume of participating DER and increasing fleet size
- DOE dispatch & verification (test to scale)
- Building market capability through NSS events and vendor engagement

Real world testing of VPP operational fleet this summer, enabling testing and learning on how best to utilise this capability and manage impacts in the market.

2026/2027

Use DER in real operations

- Aggregated DER used for peak demand reduction (Individual Reserve Capacity Requirement) and Network Support Services
- Early evidence of DER supporting the grid
- Scaling up DER contribution this summer

This is where DER actually starts being used for real system and network value.

2027 / 2028

System-level impact

- At-scale DER participation (hundreds of MW)
- Increasing DER contribution to peak demand and network support services
- Whole-of-system value across network, market and transmission

Here, DER is having a material impact on the system

Working together to power a cleaner energy future

No **transition** without **transmission**

No **decarbonisation** without **distribution**

No **change** without **customers**

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