



Government of Western Australia
Energy Policy WA

Distributed Energy Resources

Mekong-Australia Policy Dialogue

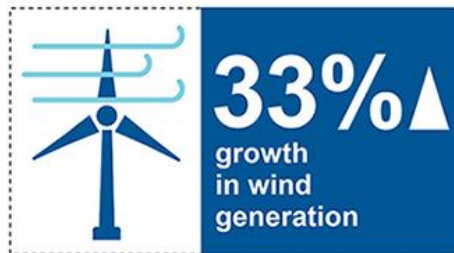
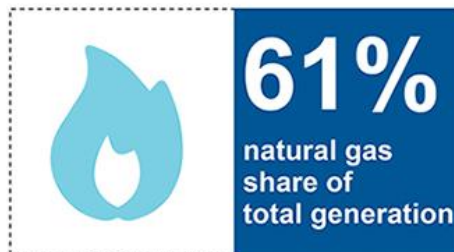
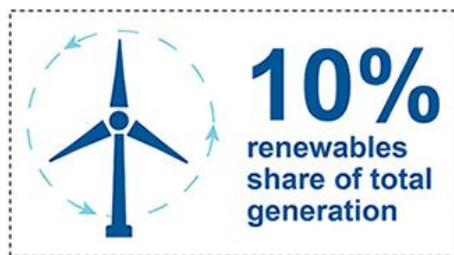
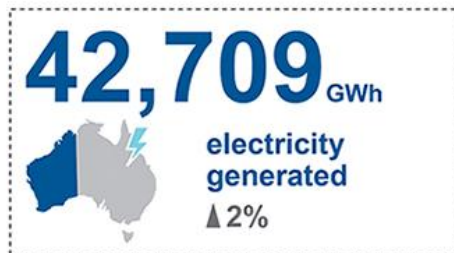
15 December 2020

Presented by Kate Ryan
Energy Policy WA

Working together for a
brighter energy future

Snapshot – electricity in Western Australia

In 2019



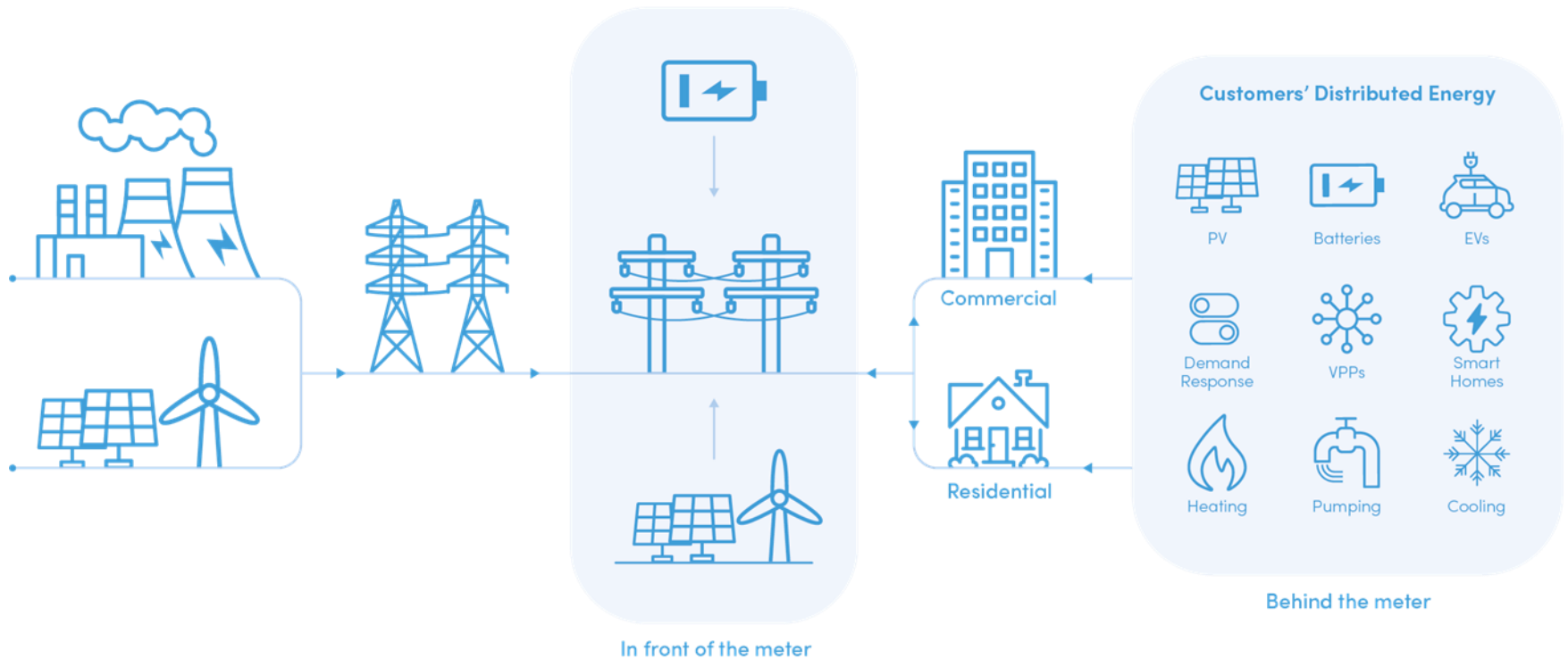
Electrically isolated, low customer density

- One large grid – the South West Interconnected System – with around 1.2 million customers
- 3 regional power systems and 38 microgrids across the state with around 48,000 customers
- Large number of self-sufficient mining and resource operations

Mix of Government and private sector ownership

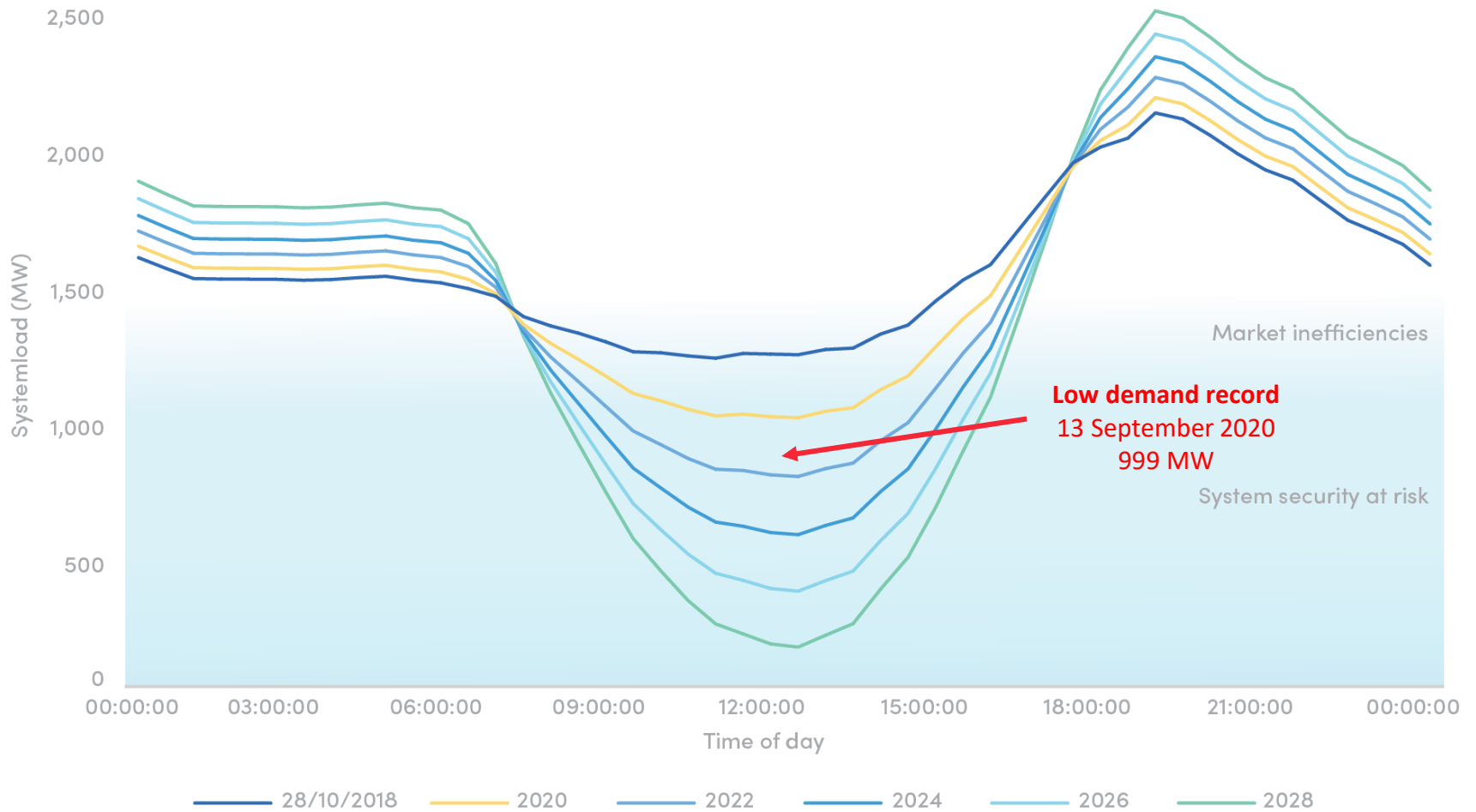
Among the world's best solar and wind energy resources

The energy sector is undergoing **unprecedented transformation**



This presents challenges, but we are creating our own opportunities

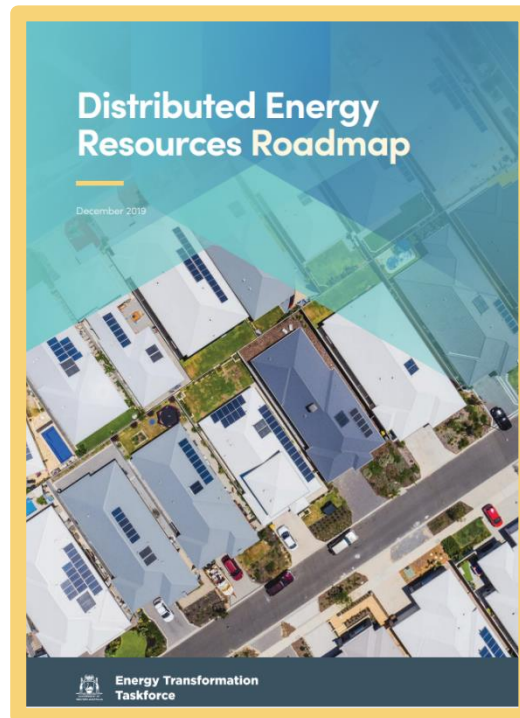
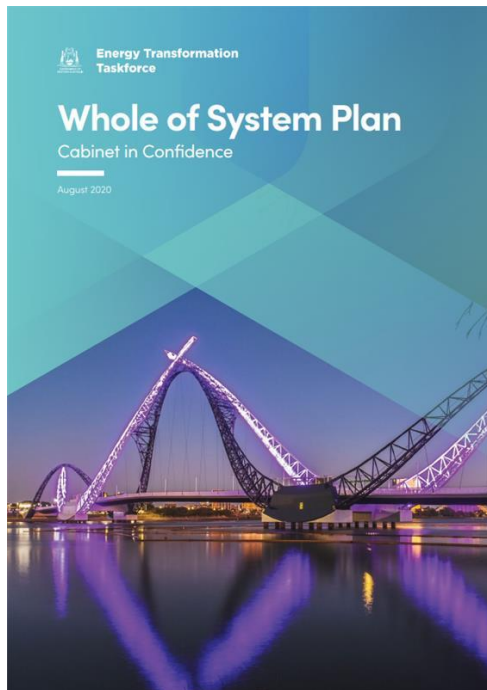
Western Australia's duck curve



Energy Transformation Strategy

The WA Government's **Energy Transformation Strategy**

A two-year work program to enable us to embrace renewables and keep the lights on in the South West Interconnected System



Wholesale Electricity
Market
Redesign

Market start in 2022

The block contains two icons at the top: a pie chart with a dollar sign (\$) and a line graph showing a fluctuating trend. Below the icons, the text 'Wholesale Electricity Market Redesign' is centered, followed by 'Market start in 2022' at the bottom.

DER Roadmap

Vision

A future where DER is integral to a safe, reliable and efficient electricity system, and where the full capabilities of DER can provide benefits and value to all customers.

1. A safe and reliable electricity system where customers can continue to connect DER and where DER supports the system in an efficient way.
2. DER capability can offer value throughout the electricity supply chain.
3. DER benefits are flowing to all customers, both with and without DER.

DER Roadmap



Technology integration

- Inverter Standards
- Distribution Battery Storage
- Grid Response
- Power System Operations
- Distribution Network Visibility
- Planning for EV Integration



Tariffs and investment signals

- Tariff Pilots
- DER for Tenants



DER participation

- Network Investment Process
- DER Orchestration Pilot
- DSO/DMO Function Set



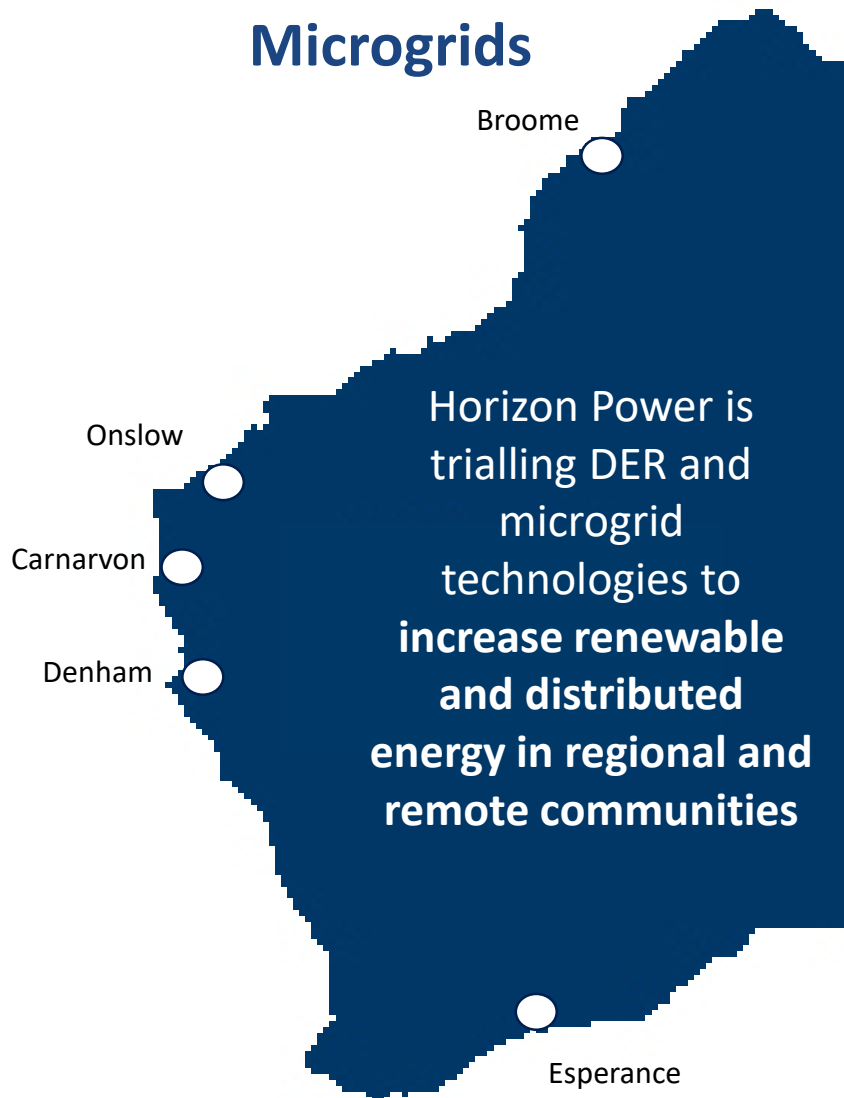
Customer protection and engagement

- Data
- New Business Models
- Customer Engagement

36 actions across four themes to achieve the Roadmap vision

Microgrids and stand-alone power systems

Microgrids



Stand-alone power systems

More cost-effective, safe and reliable supply for many consumers

Over 6,000 SPS over next 30 years



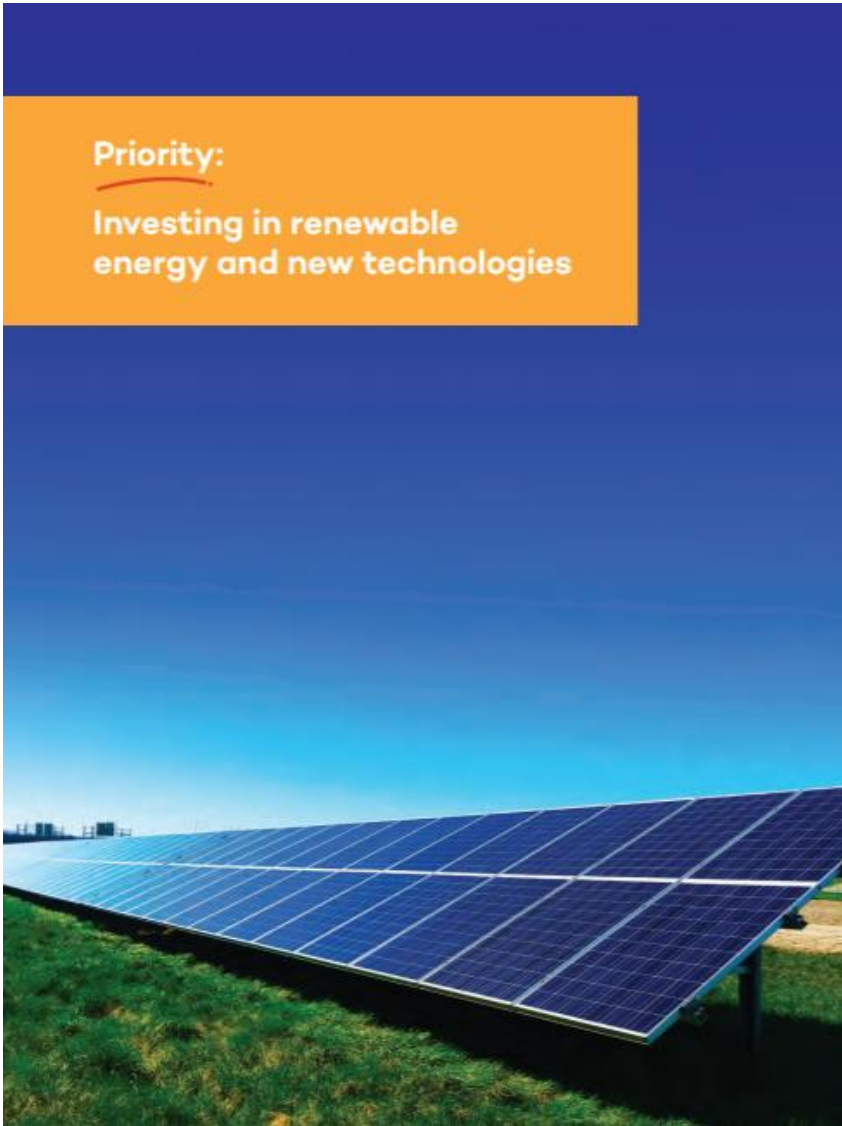
Supporting Western Australia's COVID recovery

Priority:

Investing in renewable energy and new technologies

\$66.3 million renewable energy technologies boost

- 50 additional SPS
- nine Battery Energy Storage Systems in nine regional communities
- infrastructure upgrades in remote Aboriginal communities
- schools virtual power plant
- solar energy for social housing
- solar panels at up to 60 bus and rail stations
- additional funding available through the Clean Energy Futures Fund



Thank you

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brighter energy future