Government of **Western Australia**
Energy Policy WA

Leading Western Australia's brighter energy future

Energy Transformation Strategy

Stage 2: 2021-2025

July 2021

Working together for a **brighter** energy future.

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Working together for a **brighter** energy future.

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Minister's foreword

In March 2019, the McGowan Government launched Western Australia's Energy Transformation Strategy, setting out our response to the unprecedented changes happening in the energy sector.

The changes to our power system have accelerated since the Strategy was launched. In the past two years we have more than doubled the amount of large-scale renewable generation connected to our main grid in the south west, and enabled Western Australians to install another 537 megawatts (MW) of rooftop solar photovoltaics (PV) on their homes and businesses.

We have made good progress in how we plan and manage the power system, allowing us to embrace renewable energy and storage technologies. We have also begun the careful and considered task of making the transition away from coal-fired generation, while helping those who are impacted by our changing energy landscape.

Much of this work has been led by the Energy Transformation Taskforce, which was established by the Government in May 2019 to lead a two-year program of work including development of a Distributed Energy Resources (DER) Roadmap – an Australian first plan for integrating small scale energy technologies such as rooftop solar PV systems into the power system.

The Taskforce also led the development of our inaugural Whole of System Plan (WOSP), as well as the most significant reforms undertaken in well over a decade to the rules governing how generation and storage facilities connect to the grid and participate in the Wholesale Electricity Market (WEM).

Alongside this substantial agenda, we have commenced technology trials in metropolitan and regional Western Australia, working towards decarbonising our energy sector and re-thinking the future of our power system.

I would like to thank Stephen Edwell, Chair of the Energy Transformation Taskforce, and his fellow Taskforce members for their vision and leadership over the past two years. The work conducted by the Taskforce has been monumental in setting the foundations for our ongoing transformation.

I would also like to acknowledge the substantial contribution to our Energy Transformation Strategy by Energy Policy WA, the Government's three energy businesses (Western Power, Synergy and Horizon Power), and the Australian Energy Market Operator (AEMO). They have all invested considerable time and effort in the development of the Taskforce's initiatives, as well as undertaking a range of pilots and trials, some of which are highlighted in this document.

Thank you also to energy market participants and other stakeholders, who have provided invaluable feedback and support to the Government's energy transformation initiatives so far. We should feel proud of the achievements to date.

Through the DER Roadmap actions and ongoing transformational work program, we are managing the challenges associated with distributed energy, preparing for the uptake of electric vehicles (EVs), and learning how we can harness the immense potential of DER while keeping our power system secure.

However, there is much more to be done. We are gearing up for our new wholesale market arrangements, targeted to go live in late 2022, and are continuing to trial new technologies, including stand-alone power systems (SPS) and microgrids.

We know batteries and SPS will play a big part in our future, so we are looking at how we can build an industry around this technology here in Western Australia – technology that will also play a vital role in helping our world-class mining sector transition to lower-emissions energy.

With the Energy Transformation Taskforce's work program now complete, Energy Policy WA will lead the delivery of this next stage of work. Over the coming years we will continue our Energy Transformation Strategy, build on the momentum already created in the transition to a lower-emissions energy supply, and continue to work with the energy sector for a brighter energy future.

Bill Johnston

Hon. Bill Johnston MLA
Minister for Mines and Petroleum; Energy; Corrective Services

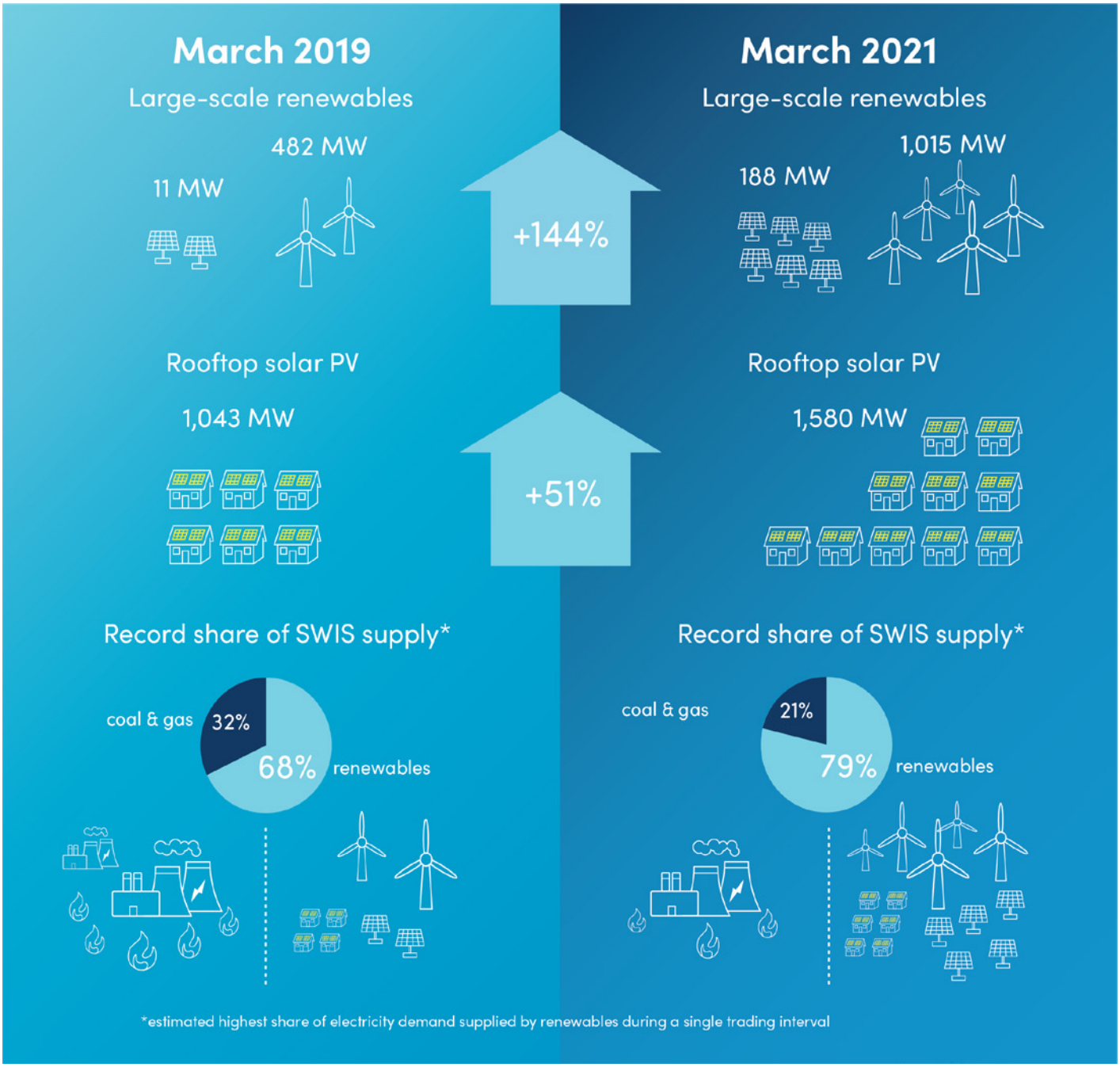
Our ongoing energy transition

The past two years has seen the pace of change in Western Australia's energy sector exceed expectations.

Since the Energy Transformation Strategy commenced in March 2019, the amount of large-scale renewable capacity connected to the South West Interconnected System (SWIS) has more than doubled, featuring a huge (1600%) increase in large-scale solar. Rooftop solar PV generation connections have increased by 51%, bringing the total amount of renewable capacity to 2,784 MW.

Today, around one in three homes and businesses have rooftop solar panels, which is expected to grow to around one in two by 2030.

We have also seen a new record share of renewable supply in the SWIS, with approximately 79% of demand being supplied by renewables during a single trading interval in March 2021. As renewable capacity has increased, renewables now account for a larger share of the SWIS generation mix, both in terms of capacity and generation output.



The phenomenal increase in renewable capacity is having a profound impact on our power system. As rooftop PV continues to grow, minimum daytime demand from the main grid continues to fall.

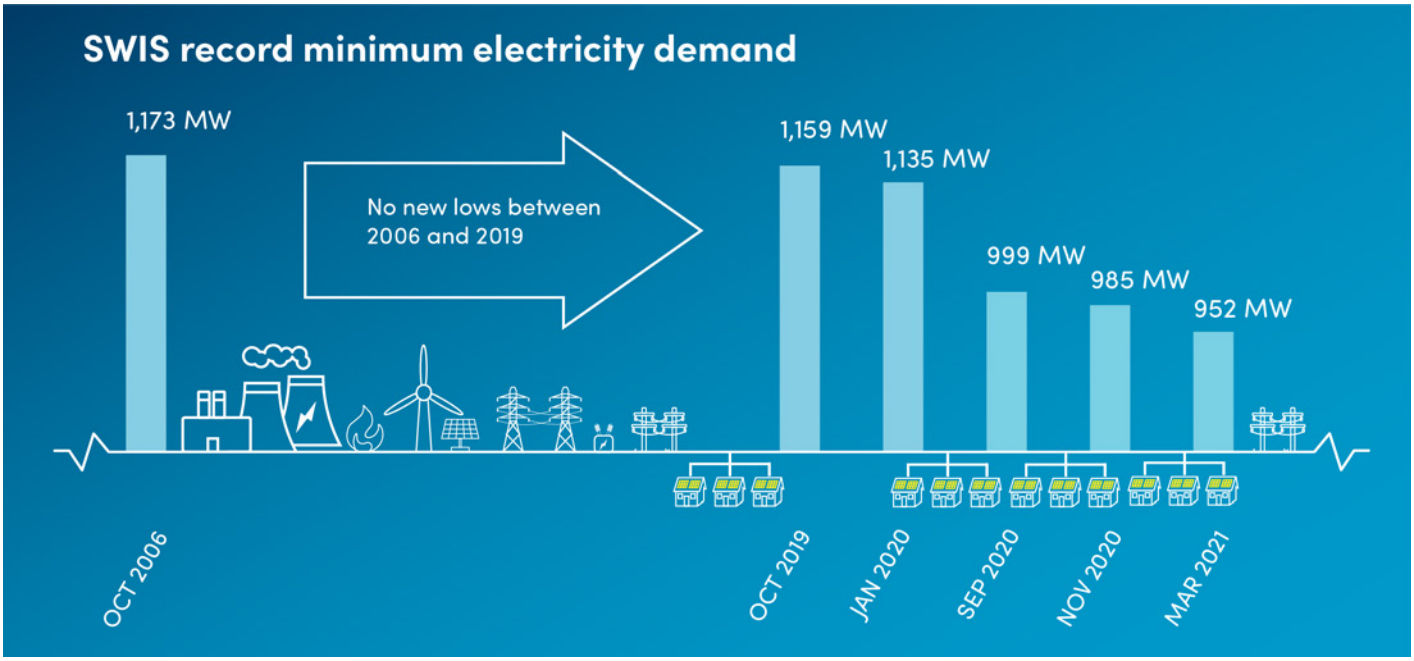
As shown in the graphic below, minimum electricity demand remained steady for well over a decade, with no new lows between 2006 and 2019. However, as Western Australians have continued to embrace solar power and the energy transition has accelerated, a new record minimum demand has been set in almost every quarter since Q3 2019.

Increasing the amount of clean, renewable and lower-carbon energy in our power system is a good thing. We are moving towards a decarbonised energy landscape, however, the pace of this transition is not without its challenges.

As explained in detail in the DER Roadmap and the WOSP, the growing volume of energy produced by rooftop solar systems means huge amounts of excess electricity can flow out into the network, reducing demand for electricity produced by power stations connected to the main grid. This particularly occurs on sunny autumn or spring days, when rooftop solar output is high but self-consumption is low.

Having too little demand from the main grid – even if only for a short time – means some of the larger 'dispatchable' generators (generators that can be controlled by the system operator) have to turn down or turn off. This can distort the electricity market and can even cause voltage and frequency issues, as these dispatchable generators play an important role in maintaining system stability.

We are managing this system risk and have plans in place to address this issue in the short term, such as installing batteries to soak up the excess rooftop solar generation. Nevertheless, falling daytime demand remains an important consideration and one of the urgent drivers for continuing our Energy Transformation Strategy.

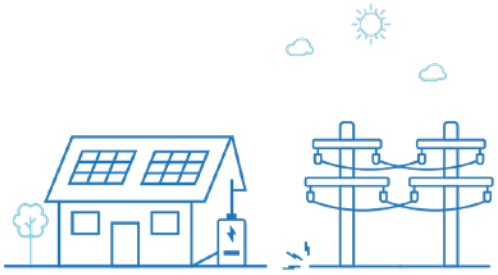


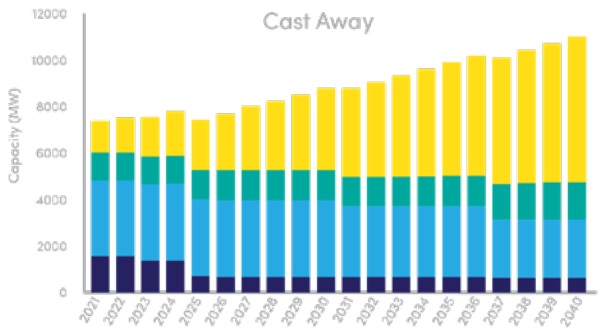
Rooftop solar and other renewables will continue to play a huge role in our energy transition. The inaugural WOSP modelled four different scenarios to identify the least cost mix of electricity network, generation and storage infrastructure needed for the SWIS over the next 20 years. The detailed WOSP modelling shows renewables are expected to account for more than 70% of SWIS generation capacity by 2040.

Renewables account for >70% of SWIS generation in all WOSP scenarios

Cast Away

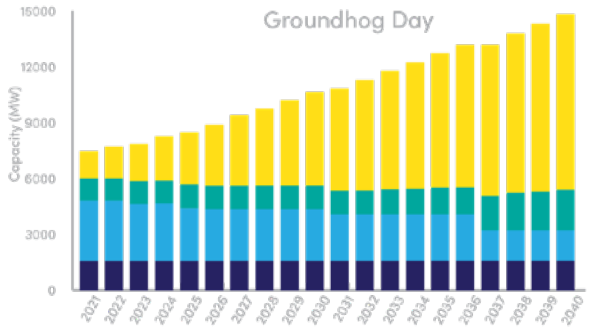
Muted economic and population growth





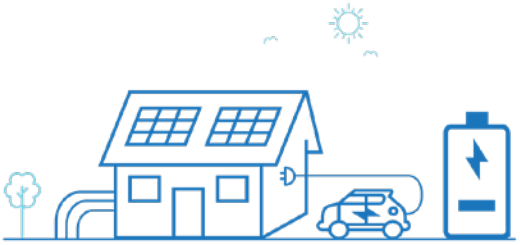
Groundhog Day

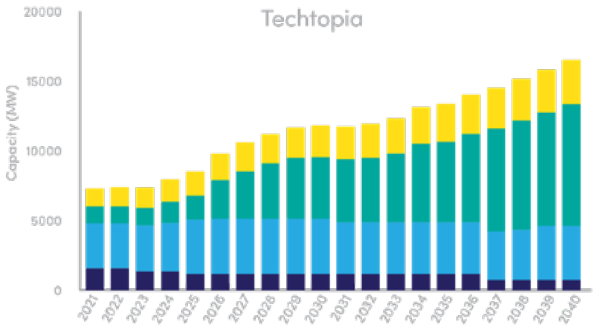
Distributed energy resources thrive, but reliance on the network remains high



Techtopia

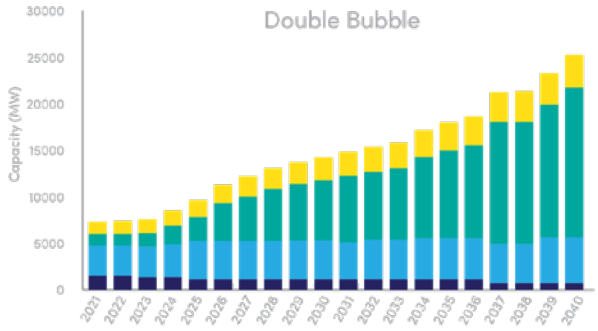
Technological change flattens the increasing energy demand profile





Double Bubble

Ongoing strong economy results in largest growth in demand



Coal | Gas/liquid | Large-scale renewables | Rooftop PV

While the work set in motion by the Energy Transformation Strategy has gone a long way to help us understand and manage the issues facing our power system, the task is far from complete.

The challenges posed by falling network daytime demand continue to require urgent action to maintain power system security and prevent voltage issues. Action is also required to ensure customers can continue to install distributed energy resources such as rooftop solar panels, and to prepare our power system the for connection of technologies such as EVs and community batteries.

The good news is that this action is being taken.

The Energy Transformation Strategy is well under way and the Western Australian Government has mapped out the next phase of work, which will continue over the next five years to help Western Australia transition to a more secure, lower-carbon energy environment, helping achieve our ambition of net zero emissions by 2050.

The vision and objectives set out in Energy Transformation Strategy: A brighter energy future in March 2019 remain. We are on the right path, and building on momentum already established, we can achieve our objectives and potentially so much more.

Our vision is to provide safe, secure, reliable, low-emission power to Western Australian households and businesses at the lowest sustainable cost, while allowing new technology to connect and giving people more control over their electricity use.

Our objectives remain to:

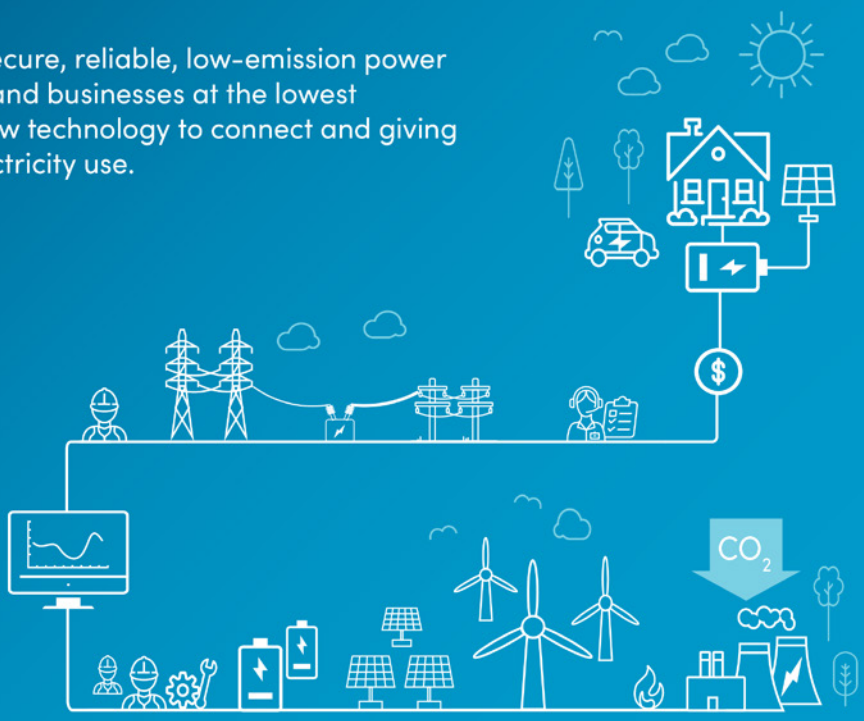
Maintain a secure and reliable electricity supply

Ensure affordable electricity for households and businesses

Reduce energy sector emissions

Transition affected workers in the Collie region

Promote local jobs and growth



Achievements so far

Before we focus on next steps in the Energy Transformation Strategy, it is important to celebrate the milestones achieved so far.

The initial Strategy set out five core reform initiatives designed to transform the way Western Australia governs, plans and manages its electricity supply as we transition to a lower-emissions future. These core initiatives range from establishing whole of system planning to managing the transition away from coal-fired power. All five are substantial programs of work in their own right.

To date, three of these core initiatives have been delivered in full, with the other two on track for delivery as planned. The Strategy also outlines several supporting initiatives. Again, these are on track and expect to be delivered as planned.

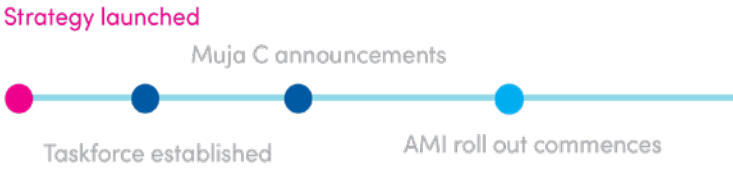
As the Energy Transformation Strategy has progressed, the Western Australian Government has also identified new opportunities to enable the energy sector's transition to lower-emissions energy sources, such as reforms to energy sector governance arrangements, energy business licensing, and the deployment of Western Australia's first 'big battery'. These new initiatives and others will progress over the coming years as the energy transition continues.

20+ technology trials and pilots under way across metro and regional WA

- ✓ Community PowerBanks (x10)
- ✓ Project Symphony
- ✓ Inverter upgrade trials
- ✓ Tariff pilots (x2)
- ✓ SPS
- ✓ Regional microgrids
- ✓ Schools Virtual Power Plants trial
- ✓ Smart Energy for Social Housing
- ✓ Electric vehicle charging infrastructure
- ✓ Western Power storage plan

Energy Transformation Strategy - Stage 1

March 2019



Core initiatives

What we are doing

Establish an Energy Transformation Taskforce

Produce a DER Roadmap

Develop a WOSP

Modernise network access and market arrangements to allow more lower-emission technologies to connect

Plan for an orderly retirement of coal-fired generation

Supporting initiatives

What we are doing

Deliver and implement a 'Just Transition' plan

Roll out SPS

Enable advanced metering infrastructure (AMI)

Trial new technologies

Consider Economics & Industry Standing Committee's Microgrid Inquiry recommendations

Seek Commonwealth funding to support Western Australia's energy transition

New initiatives

What we are doing

Energy sector governance changes (stage 1)

Energy business licensing (recommendation of the Microgrid Inquiry)

SWIS Big Battery

COVID-19 Recovery Plan

- how we are tracking

How we are tracking

Complete – Taskforce completed its two-year tenure in May 2021

Complete – published April 2020, outlining 36 actions over a five-year period to integrate DER into the power system

Complete – first WOSP published in September 2020. Subsequent WOSPs to be developed by Energy Policy WA at least every five years

On track – regulatory changes substantially complete, with implementation under way for the new arrangements to commence in late 2022

On track – in 2019, the Western Australian Government announced Muja C will retire in 2022 and 2024, and established a three-year notice requirement for power station retirements

How we are tracking

On track – in December 2020, the Western Australian Government published Collie's Just Transition Plan

On track – pilots and core regulatory changes complete. SPS now a 'business as usual' supply option in regional and edge of grid locations

On track – AMI roll out commenced in 2019, supported by Access Code amendments in 2020

On track – technology, tariff and market trials under way and planned by AEMO, Synergy, Horizon Power and Western Power

Complete – the Western Australian Government's response to the Microgrid Inquiry tabled in Parliament in 2020. Initiatives underway in response to the Standing Committee's recommendations

On track – in 2020, the Western Australian Government secured $28.5 million in Commonwealth support for the SWIS Big Battery and regional and remote microgrids. Discussions ongoing

How we are tracking

Complete – from July 2021, Coordinator of Energy commenced responsibility for rule making and market development, and the development of future WOSPs

On track – drafting instructions prepared for legislative amendments along with a draft code to apply to behind-the-meter (e.g. solar PV and battery) power purchase agreements

On track – in 2020, Synergy announced development of Western Australia's first 'big battery' to support the ongoing uptake of renewable energy in the SWIS. Investment decision to be made in 2021, for operation to start in late 2022

On track – in July 2020, the Western Australian Government announced the $66.3 million renewable energy technologies boost including the Schools Virtual Power Plant and Smart Energy for Social Housing scheme

Case studies – technology trials and pilots

Technology trials and pilot projects are playing an important part in our transformation work. More than 20 trials of new technologies are being undertaken across hundreds of sites throughout metropolitan and regional Western Australia.

Pilot projects are designed to test and challenge our power system, identifying how we can enhance the way Western Australians can generate, access, share and consume electricity. Our strategy is to continue a program of trials and pilots over the coming years, working closely with Western Australian communities to understand what technology works best for them.

The data and lessons learnt from critical projects like Project Symphony will inform the ongoing Energy Transformation Strategy, as well as helping address current system security issues such as the challenges posed by low daytime demand and intermittent generation.

An important focus over the past two years of the Energy Transformation Strategy has been to ensure joined-up thinking across government agencies when considering our energy future. This will continue over the next stage of the Strategy.

The trials and pilots led by Energy Policy WA, AEMO, and the government-owned energy businesses are part of a coordinated program of proactive projects and strategic planning for the future for our state.

For example, the McGowan Government's Renewable Hydrogen Strategy and Western Australian Climate Policy are all informed by and will help inform the ongoing Energy Transformation Strategy and future WOSPs. These in turn are aligned with the WA Labor Plan for Jobs, aiming to establish new, technology-driven industries in Western Australia, creating jobs and investment opportunities.

Case studies on some of the ongoing trials and projects helping shape our energy future are provided in the following section.

Project Symphony

Western Australia's landmark DER orchestration pilot, known as Project Symphony, is a program of work designed to demonstrate how DER can be aggregated and its potential harnessed to support our energy transition considering issues across three key areas:

1. Technical – how DER can be used to address local and system wide security and reliability issues in the SWIS;
2. Customer – to understand residential and commercial customer preferences regarding DER, including what DER products, tariffs and services Western Australians want; and
3. Market – how DER can participate in the wholesale market and help drive down system-wide costs.

Started in 2020, Project Symphony is a collaborative effort between Western Power, AEMO, Synergy, Energy Policy WA and educational institutions. Over a two-and-a-half-year project period, Project Symphony will enable around 27,000 residential and commercial customers to participate in DER and virtual power plant trials. The project team will quantity the costs and benefits associated with DER integration, and the outcomes of the project will inform future energy policy, market design and regulatory frameworks.

Project Symphony is a core deliverable of the DER Roadmap.

Stand-alone Power Systems

The SPS Trial, led by Western Power and Horizon Power, has been a major success. SPS typically include solar panel, a battery and a back-up generator, and can be deployed in regional and remote areas as an efficient substitute for a main electricity grid connection – improving reliability for customers and reducing bushfire safety risks.

Following a successful trial of six SPS units in 2016, in 2020 Western Power commenced its full SPS Program – the largest of its kind in Australia. This has seen 52 units installed, with a planned deployment of 98 units over 2021 and 2022. In Horizon Power's service area across regional and remote parts of the state, some 25 SPS have been deployed and, in 2020, the Western Australian Government allocated almost $10 million to deploy an additional 50 SPS over two years.

A Western Australian Government commitment will see an additional 1,000 SPS delivered by Western Power and Horizon Power over the coming four years. Planning is continuing, however Western Power estimates close to 7,000 of its customers are likely to be SPS candidates over the next 30 years, while Horizon Power has identified more than 1,000 SPS candidates over the next decade.

Community PowerBanks

Community PowerBanks are an exciting new technology being trialled by Western Power and Synergy, providing customers the opportunity to store the unused electricity they generate from their rooftop PV systems. Customers can pay a daily fee so they can 'virtually' store solar exports in the battery and then draw from this storage without charge.

PowerBanks not only provide an exciting opportunity for Synergy and its customers to better manage electricity consumption and costs, but can also serve as a cost-effective option to help Western Power manage the network. The scale and operational benefits of larger batteries also provides a cost-effective storage solution to customers when compared to home batteries.

Fulfilling an action in the DER Roadmap, Western Power installed 10 PowerBanks in 2020, in addition to two batteries already operating in Meadow Springs and Falcon.

Onslow DER Project

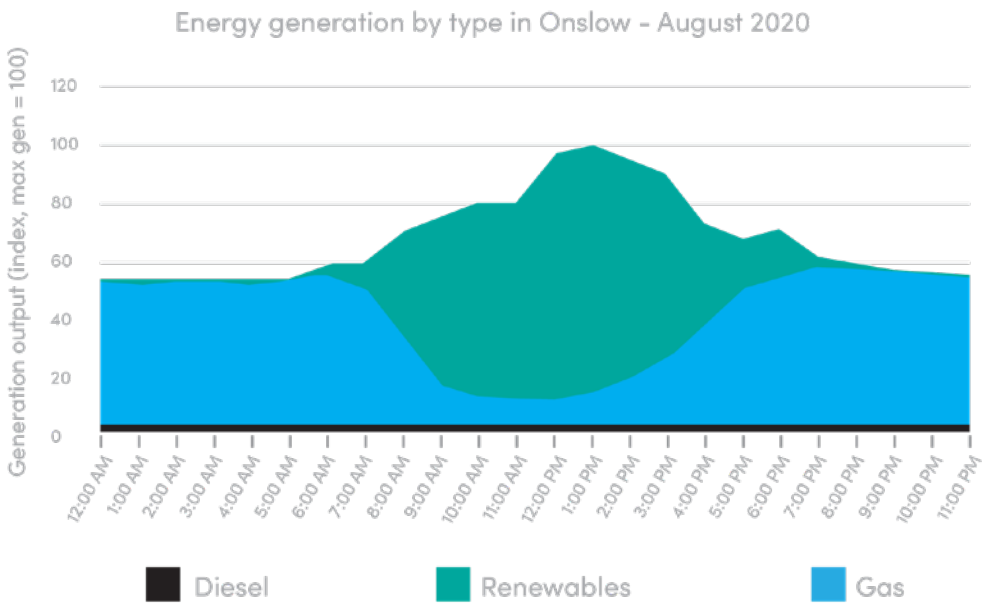
Horizon Power is responsible for providing safe and reliable electricity in Onslow, a regional town characterised by a small, transient population of less than 1,000 residents. Despite its small population, demand in Onslow is growing as new resources projects commence in the area. In 2016, Horizon Power identified the need for investment in Onslow's electricity system to meet growing demand and to safely support the increasing number of rooftop solar PV systems.

Horizon Power initiated the Onslow DER Project to test its ability to safely integrate customer DER to supply over 50% of Onslow's annual energy demand, and build a DER management system (DERMS) that could manage high volumes of DER economically.

The project saw the installation of heavily subsidised (discounts between 50-75%) customer solar and storage systems, on the condition that these systems could be 'generation managed', or curtailed, by Horizon Power. Network-owned battery storage and a 1 MW solar farm was also installed. This was accompanied by the development of the DERMS, which incorporates generation and load information, and then sends wireless commands to DER inverters to manage their generation.

As a result, installed solar in Onslow (2.1 MW) now far exceeds the 850 kilowatt (kW) hosting capacity of the network, and network and customer-owned DER is now capable of providing up to 50% of Onslow's annual energy volume (as managed by Horizon Power's centralised DERMS). The current stage of the project is focussing on short test events that run the town entirely on inverter-based generation. The Onslow DERMS received the world's first certification for use of the communication protocol (IEEE2030.5), which underpins the communication between DERMS and DER inverters.

In June 2021, Horizon Power successfully demonstrated Onslow being powered by 100% renewable energy for a period of 80 minutes – using 700 kW of customer-generated solar and 600 kW of utility solar, while supported by battery storage.



The next stage of our energy transition

The next stage of Western Australia's energy transition is among the most important and exciting periods of our energy future.

The Western Australian Government's key Energy Transformation Strategy initiatives over 2021 to 2025 have four distinct themes, which together will enable the ongoing energy transition and reduce carbon emissions in our economy:

1. Implementing the Energy Transformation Taskforce decisions;
2. Integrating new technology into the power system;
3. Keeping the lights on as the power system transitions; and
4. Regulating for the future.

The initiatives under these four themes build on the work already started and are designed to take our principal power system and wholesale market through to a new state from which to continue the transition.

By 2025 the new energy markets will be well established, current system security concerns will be addressed, and we will have a refreshed Whole of System Plan. There will remain lots of technological and regulatory changes to deliver, however we will be in a strong position for the future.

Energy Transformation Strategy - Stage 2 initiatives - themes

1. Implementing Taskforce decisions

Completing the work we have already started. This includes delivering the 36 DER Roadmap activities, implementing the new network connection, essential system services and wholesale market arrangements, and developing the next WOSP.

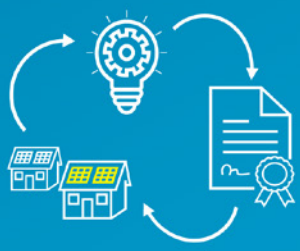
2. Integrating new technology

Continuing technology trials, preparing for EVs, and developing tariffs that support investment in new technologies. This includes supporting local renewable energy suppliers to assist the mining sector's transition to lower-emissions energy, and planning for the SWIS to transition to a more 'modular' grid over the long term, including SPS and microgrids.

3. Keeping the lights on

Continuing the orderly transition away from coal, while decarbonising our energy sector. Our power system is becoming more complex and will continue to do so. We must ensure our management capabilities and systems are effective and promote ongoing security, reliability and sustainability.

4. Regulating for the future



Establishing a governance framework that can keep pace with ongoing energy transition. This includes developing innovative licensing and access arrangements that encourage market participation, enable new services, and can adapt to consumers' needs, as well as a more robust framework for managing power system security and reliability.

Energy Transformation Strategy - Stage 2 initiatives - timeline

	2021	2022	2023	2024	2025
1. Implementing Taskforce decisions					
Commence new network access and wholesale market arrangements	Market start targeted Oct 2022		Update market settlement arrangements - Oct 2025		
Deliver the DER Roadmap actions			Actions through to 2024		
Prepare the next WOSP		Refresh model inputs and scenarios			
2. Integrating new technology					
Electric Vehicle Action Plan and implementation			Action Plan 2021 - ongoing implementation to integrate EVs		
Consider options to transition to improved electricity tariff structures			Consider learnings from trials and options to transition to improved electricity tariff structures		
Plan and implement the transition to a modular grid in the SWIS	SPS as BAU		Pilots commencing 2023, roadmap by 2025, and develop regulatory framework		
Support mining sector transition to renewable energy			Work with local manufaturers and mining industry to increase uptake in locally-supplied renewable energy		
Continue to trial new technologies and roll out advanced metering infrastructure			Identify new technology and supply arrangements, evaluate accelerating AMI roll out		
Continue to seek funding from the Commonwealth Government			Work with Commonwealth Government to identify opportunities for funding to support Western Australia's energy transition		
3. Keeping the lights on					
Continue to modernise contingency planning and management arrangements	Accelerate DER Roadmap actions		Review and refine with changing supply mix		
Review the Reserve Capacity Mechanism (RCM)		Review RCM to support lower-emissions electricity supply mix			
Continue to plan and manage the orderly transition from coal-fired generation			Muja C retirements and forward plan		
4. Regulating for the future					
Review Western Power access framework			Remove barriers to access and investment		
Further energy sector governance reforms		Licensing, system security framework, administration of Rules			

Our initiatives for 2021-2025 in more detail

The initiatives to be delivered over the next five years are fundamental to the ongoing energy transition and the continued provision of secure, affordable, and lower-emissions electricty in Western Australia. Each of the initiatives will be subject to detailed planning and engagement with stakeholders.

The following section provides a snapshot of what we will be looking to achieve during stage two of the Energy Transformation Strategy.

1. Implementing Taskforce decisions

Commence new network access and wholesale market arrangements

Key rule changes and market design decisions were completed by the Energy Transformation Taskforce in December 2020. This includes establishing new Essential System Services (ESS) arrangements to maintain a secure and reliable power system.

Following design and implementation of the necessary IT systems, the new market start is planned for October 2022, supporting the connection of more lower-emissions energy sources to the SWIS.

Deliver the DER Roadmap actions

The DER Roadmap sets out 36 actions to be delivered by 2024. These include DER orchestration (virtual power plant) pilots, tariff trials and changes to technical standards. Actions are ongoing and are shared between Western Power, Synergy, AEMO and Energy Policy WA, with Energy Policy WA having oversight of the whole program.

Prepare the next Whole of System Plan

The next WOSP will be delivered by the end of 2023 and will model the future energy mix and network requirements under a number of refreshed scenarios, including the transition to net zero emissions by 2050 as outlined in the Western Australian Climate Policy.

In both the next and subsequent WOSPs, the coal transition, new market operation and DER connections will be key considerations, as will the potential for new large sources of demand (e.g. for green hydrogen production) in the SWIS. The WOSP will also factor in sectoral emissions reduction strategies , which are being developed by the Western Australian Government's Ministerial Taskforce on Climate Action, and relevant decarbonisation trends across the broader economy (e.g. increased electrification for transport and other uses).

2. Integrating new technology

Publish and implement an Electric Vehicle Action Plan

EVs are coming. As discussed in the State Electric Vehicle Strategy for WA, forecasts show a steep rise in global EV uptake as price parity with conventional vehicles becomes closer. Energy Policy WA will lead testing and development of the necessary EV resources, technical standards and legislative changes to enable EVs to be part of Western Australia's energy future. The EV Action Plan, to be released in 2021, will focus on system security and electricity infrastructure requirements to ensure we are ready for the uptake of EVs.

Consider options to transition to improved electricity tariff structures

As new technologies connect and power system requirements change, new and innovative tariff structures are required to promote energy consumption behaviours, while protecting vulnerable customers. Energy Policy WA will commence work to review the types of electricity tariffs that could be made available to customers. These may include time of use and mobile phone style demand-based tariffs, which can be used to encourage customers to use electricity at certain times (such as shifting consumption to when solar generation is plentiful).

Work will include a series of customer trials and development of tariff transition plans to inform ongoing consideration of tariffs. Design and implementation will depend on outcomes of trials and AMI roll out.

Plan and implement the transition to a modular grid in the SWIS

Following the successful SPS trials, along with microgrid trials in Onslow and Carnarvon, Energy Policy WA will work with Horizon Power and Western Power to facilitate further use of innovative supply options in regional and remote areas.

The first trial of a microgrid in the SWIS is scheduled to commence in mid-2023, with Western Power to develop a long-term plan by 2025.

Energy Policy WA will support these roll outs by developing the necessary changes to technical standards and legislative arrangements to facilitate SPS implementation and microgrid trials.

Support mining sector transition to renewables

Energy Policy WA will establish an Energy Industry Development Team to work with local manufacturers and the mining industry to increase the uptake of locally-supplied renewable energy options for remote mine sites. The team will be established during 2021 and will have an ongoing remit to aid the transition of one of Western Australia's most important industries to renewable energy.

Continue to trial new technologies and roll out advanced metering infrastructure

Western Power, Synergy, Horizon Power, AEMO and Energy Policy WA will continue to trial new technologies to identify future supply arrangements that best deliver the objectives of the Strategy.

Western Power commenced the full AMI roll out in 2019 and is currently evaluating an acceleration of the program.

Continue to seek funding from the Commonwealth Government

The Western Australian Government will continue to work with the Commonwealth Government to identify opportunities for Commonwealth funding to support Western Australia's transition to a lower-emissions energy system and economy.

3. Keeping the lights on

Continue to modernise contingency planning and management arrangements

In light of Western Australia's changing energy mix and emerging minimum electricity demand challenges, it is important we have appropriate plans and processes in place to be able to manage major contingency events on the power system (such as supply outages and unplanned equipment failures). Energy Policy WA will work with AEMO, Western Power and electricity market stakeholders to review current contingency arrangements, including risk and performance studies of different technologies, and make recommendations where necessary to build on the ESS framework developed by the Taskforce.

Key DER Roadmap initiatives will be accelerated in 2021 to address rapidly emerging challenges. A broader review is ongoing, including to identify legislative changes to clarify roles and security standards into the future.

Review the Reserve Capacity Mechanism

The RCM ensures there is sufficient generation capacity to meet peak demand levels in the SWIS. Energy Policy WA will review the RCM to ensure it remains fit-for-purpose and supports the transition to a lower-emissions generation mix.

The RCM review will be completed, in consultation with stakeholders, by mid-2022 followed by implementation of any identified actions.

Continue to plan and manage the orderly transition from coal-fired generation

The Muja C units will be retired in 2022 and 2024. Synergy and Energy Policy WA, in conjunction with other government agencies and the Just Transition Working Group, will manage the transition and will continue to engage with affected workers and work to attract new industries to Collie.

The acceleration of the energy transition is placing pressure on the financial viability of coal-fired power. Energy Policy WA will continue working with Synergy to model the impacts of the energy transition on coal-fired power to enable the Western Australian Government to consider future coal-fired power retirements in coming years.

4. Regulating for the future

Review Western Power access framework

Energy Policy WA will conduct a comprehensive review of Western Power's third party network access regime and the associated regulatory framework.

The aim will be to make recommendations and ultimately implement modifications to the framework to ensure it promotes efficient investment and equitable network access in the SWIS.

Particular focus will be on removing barriers to network access and investment, and making sure this framework remains fit for purpose as the power system continues to develop and transform.

The review is scheduled for completion by the end of 2024, with implementation to follow.

Further energy sector governance reforms

Energy Policy WA will investigate further governance changes to help improve the efficiency of energy sector policy and decision making.

Reforms will include:

- the framework for and governance of power system and network security and reliability;
- the framework for licensing energy entities, in order to enable new business models and facilitate microgrids and embedded networks, with appropriate customer protections; and
- administration and evolution of regulatory instruments.

Legislative changes will be developed by the end of 2022, with a view to implementing any modifications to governance arrangements by mid-2024.

Delivering the strategy

The Energy Transformation Strategy to date has been underpinned by industry collaboration and regular engagement with consumers and interested parties. This collaborative approach will continue through the next stage of the Energy Transformation Strategy.

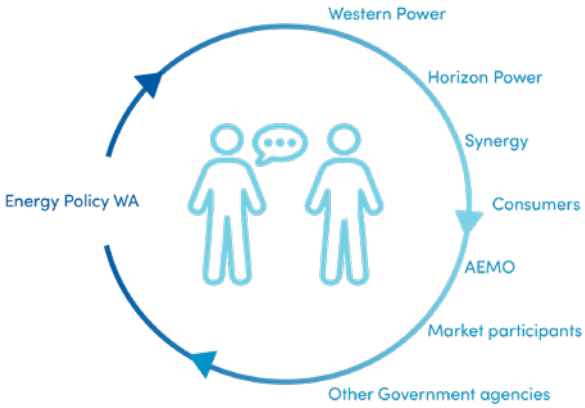
The McGowan Government is delivering a broader package of related initiatives that touches all aspects of Western Australia's economic future, designed to create jobs and opportunity for Western Australians. The Energy Transformation Strategy, led by Energy Policy WA, is an important part of this overall package.

Other parts of this package include promoting investment in renewable hydrogen, preparing for EVs, and establishing a clear policy on climate change. For example, the Renewable Hydrogen Strategy and the Future Battery Industry Strategy both seek to leverage Western Australia's world-class resources to support the development of lower-emission energy technologies as well as employment and economic opportunities for Western Australians.

The Energy Transformation Strategy initiatives are necessary to achieve the objectives of the Western Australian Climate Policy and State Electric Vehicle Strategy, to enable the transition to lower-emissions electricity, which in turn will support decarbonisation of other sectors of the economy.

The McGowan Government remains committed to the orderly transition from coal-fired electricity generation in Western Australia and is providing support to affected workers and the broader Collie community. Collie's Just Transition Plan along with the COVID-19 WA Recovery Plan are further crucial, interrelated initiatives that form part of our commitment to supporting Western Australians through times of uncertainty.

Building on the momentum of the past two years, Energy Policy WA will continue to drive Western Australia's energy transition, working together with industry, government agencies and consumers, for a brighter energy future.



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