# Cheaper, Cleaner, Renewable: Our Plan for Victoria's Electricity Future

Summary





# Message from the Minister

Victoria is experiencing a once-in-a-generation shift in how we get our electricity. As our ageing coal-fired power stations retire, they are being replaced by cheaper, more reliable renewable energy like wind and solar. At the same time, we are moving towards electricity as our primary energy source.

The Victorian Government has set ambitious targets for using renewable energy. We want 65% of the state's energy to come from renewable sources like wind and solar by 2030 and 95% by 2035. These targets are critical to achieving our world-leading climate target of net zero emissions by 2045.

We are well on our way. We get 38% of our energy generation from renewable sources, three times more than in 2014. We have made record investments in renewable energy generation and storage projects, and will build the first offshore wind farm in the country, right here in Victoria. We are making Victoria's buildings more energy-efficient and helping more switch to electricity as their main energy source. These actions are helping ease costs and cut emissions.

Despite our significant progress, we must do more, be bolder and move faster. That's why we are taking action to streamline planning processes to help us get on with delivering the necessary renewable energy projects for the state. We are focused on delivering an affordable, safe, reliable and secure electricity system.

We are determined to ensure that all Victorians share the benefits of this electricity transition and that no one is left behind. We are establishing new ways of working with Traditional Owners and First Peoples to ensure they have a seat at the table on the decisions that impact them. We are also improving how we engage with communities and landholders to ensure their views shape how we manage impacts and maximise the benefits.

We will do all this while keeping the lights on, acting against climate change, and delivering cheaper renewable energy to homes and businesses across the state.

This document is our vision for Victoria's future electricity system.

We will keep consumers, communities, landholders, Traditional Owners and First Peoples at the heart of this transition and ensure that our energy future is bright.



#### The Hon. Lily D'Ambrosio MP

Minister for Climate Action Minister for Energy and Resources Minister for the State Electricity Commission

### **Developing partnerships with Traditional Owners and First Peoples**

Traditional Owners and First Peoples' communities have historically not had a seat at the table in the formation of the state's energy infrastructure and technology development. Communities have been negatively impacted and disempowered by a lack of a voice or not receiving long-term and sustainable benefits from energy projects. Our government is committed to working in partnership with Traditional Owners as distinct rights holders to Land, Sea, River and Sky Country. We will ensure that First Peoples are at the centre of decisionmaking processes around issues and opportunities that directly affect them and have opportunities to benefit from renewable energy development.

We will be continually guided by Traditional Owners and First Peoples' communities - now and into the future – who have expressed a strong interest in investing in renewable energy to deliver their interests and meet their communities' cultural, spiritual and economic needs.

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it.

We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

DEECA is committed to genuinely partnering with Victorian Traditional Owners and Victoria's Aboriginal community to progress their aspirations.

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# A transition that benefits all Victorians

Over the last 10 years, Victoria has led the way in the transition to renewable energy with the most comprehensive set of policies and programs in the country. We aim to ensure the benefits of the transition are shared fairly across the state, especially in communities hosting new infrastructure.

We will deliver better outcomes for consumers and communities through programs like Solar Homes, organisations like VicGrid, and through the new government-owned energy company, the SEC. We will keep electricity prices as low as possible and help protect the environment for future generations. We are also focused on making Victoria a great place to do business. We're helping businesses reduce their power bills, ensuring a reliable supply of energy and strengthening local supply chains. We're also helping develop pathways for energy careers, starting with school leavers, and helping establish and retain stable jobs in local communities.

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#### Affordable energy

Shifting to renewable energy will help keep electricity prices down.

- In recent years, Victoria has had the **lowest wholesale electricity prices** on average compared to other mainland states and forecasts suggest Victoria's prices will continue to be the lowest.
- In 2023, Victorian wholesale electricity prices were about **39% lower than New South Wales**, on average.
- Victoria's default retail electricity prices\* are between **\$142 to \$575 lower for households** and between **\$731 to \$1,822 lower for businesses** compared to other states.



#### Fair outcomes for communities and landholders

Introducing a new approach to provide direct benefits to communities hosting new transmission and renewable energy infrastructure.



#### Job creation

Creating 59,000 jobs in solar, wind and emerging energy industries.



#### A reliable and resilient energy system

Moving away from ageing and unreliable coal-fired power stations to a diverse mix of renewables and storage, including a nation-leading offshore wind industry.



#### **Emissions reduction**

Leading decarbonisation efforts by focusing on our most polluting sector and setting ambitious renewable energy targets.



#### Stronger local economy

Creating opportunities for businesses to invest in and build on the existing capabilities of our local research and development sector and local manufacturing.



# Self-determination for Traditional Owners and First Peoples

Establishing partnerships that recognise the rights and cultural responsibilities of Traditional Owners and First Peoples and ensure fair outcomes.

\* The default retail offer is set by the Essential Services Commission, not energy companies, and provides Victorians with access to a fair electricity deal even if they are unable or unwilling to engage in the retail market.

# Actions we're taking to support the electricity transition

We've developed a comprehensive set of actions, under four pillars, to ensure affordable, equitable and reliable outcomes for all Victorians.



### Pillar 1: Enabling the renewables big build

A balance of renewable energy generation and storage will be required to replace retiring coal-fired power stations and ensure Victoria's electricity system is affordable, reliable, safe, and sustainable.

#### Actions:

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- Building energy storage like the Victorian Big Battery - to help provide reliable renewable energy and future-proof our grid.
- Supporting the development of our offshore wind energy industry, including establishing Offshore Wind Energy Victoria.
- Introducing a statewide approach to planning Renewable Energy Zones and transmission, led by our newly established organisation, VicGrid.
- Improving planning and approval processes to help strike a better balance between delivering the projects we need while managing impacts on our communities, landholders, Traditional Owners, First Peoples and the environment.
- Bringing back the SEC to direct investment in more renewable energy generation and storage projects and helping Victorians reduce their energy bills and emissions.
- Introducing a new community benefits approach that will require energy developers to contribute funds that will directly benefit landholders, Traditional Owners, First Peoples and regional communities hosting new energy infrastructure.

#### Pillar 2:

# Empowering households and businesses to lower energy bills

We're empowering Victorian households and businesses to participate in the electricity transition and save money by taking greater control of their energy.

#### Actions:

- Helping people better capture, store and share their energy so they benefit from greater returns on their investments, including solar and batteries, while unlocking lower energy prices for all Victorians.
- Helping existing homes and businesses use less gas and switch to cheaper, low-emission electric options through Solar Homes and the Victorian Energy Upgrades program.
- Providing targeted support to low-income households and renters, through stronger minimum energy efficiency standards for rented homes and initiatives like the Energy Efficiency in Social Housing program, which will provide 45,000 energy efficiency upgrades by 2027.
- Ensuring new builds are cheaper to run, healthier to live in and more resilient to extreme weather with 7-star energy efficiency standards and all-electric requirements.
- Piloting a digital planner for households through the SEC, creating personalised plans to reduce energy bills and get the best value for money.



#### Electrifying your home can save you money

All-electric new homes will save residents about \$1,000 per year on their energy bills, with savings increasing to more than \$2,200 per year with solar.

By switching to all-electric, households in existing homes can save about \$1,400 per year on their energy bills. These savings increase to more than \$2,700 per year with solar.



#### Pillar 3: Managing the transition away from fossil fuels

As Victoria moves away from coal-fired generation, the Victorian Government will ensure safe, reliable and secure electricity supply is maintained.

#### Actions:

- Supporting workers, businesses and local communities affected by coal-fired power closures.
- Ensuring a reliable supply of gas is maintained for critical industry and a small amount of gas-fired electricity.
- Working with the Australian Energy Market Operator and industry to ensure network reliability and community resilience. This includes addressing the effects of climate change, monitoring the impacts of severe weather events, and managing the increasing unreliability of our coal-fired power stations.
- Enhancing energy safety for the community and workers.

### Pillar 4: Creating jobs, skills and supply chains

For a successful electricity transition, it is essential to skill, up-skill, and train Victoria's energy workforce and have a supply chain that meets our growing energy sector needs.

#### Actions:

- Working with key stakeholders to strengthen local renewable electricity supply chains.
- Developing the Victorian Energy Jobs Plan and the Women in Energy Strategy.
- Working closely with the energy industry and training providers to establish greater energy-focused training to help retain existing industry workers and attract new talent.
- Developing energy-specific education infrastructure for TAFE and other training providers, including establishing six new technical schools across the state and funding to improve hands-on learning in science, technology, engineering and mathematics.
- Attracting, training and upskilling workers with the delivery of renewable energy training centres, including the Wind Worker Training Centre, the Renewable Hydrogen Worker Training Centre and the SEC Centre of Training Excellence.

### Key initiatives and investments

- Investing \$480 million in projects to modernise the grid.
- Investing **\$1.3 billion in our Solar Homes Program**, which provides rebates and loans to support households to install solar panel systems, energyefficient hot water units, and solar batteries.
- Partnering with the Australian Government to deliver \$16 million for the Victorian Government's Solar for Apartments program.
- Releasing offshore wind implementation statements to update the industry and international investors on our commitment to this new industry.
- Providing **\$112 million for electrification and energy efficiency upgrades** in public and community housing.
- Establishing new renewable energy training centres and TAFE facilities to support a pipeline of skilled workers, including through the \$50 million TAFE Clean Energy Fund.
- Upskilling the electrical and plumbing workforce through the **\$11 million Solar Victoria Training** and Workforce Development program.

# Pathway to deliver the future electricity system

Pillar of the transition			Progress to date	
<b>1</b> Enabling the renewables big build	Generation		38% renewable energy use SEC strategy released	
	Storage	∲≣	~0.5GW of storage currently operating Legislated storage targets	
	Offshore wind	· · · · ·	Legislated offshore wind targets Offshore wind implementation statements released	
	Transmission		6,000km network Invested in priority renewable energy zone stage 1 projects to strengthen the grid Community and stakeholder engagement on the first Victorian Transmission Plan	
2 Empowering households and businesses to lower energy bills	Solar PV		~28 % of Victorian homes have solar PV Introduced emergency backstop for all new, upgrading and replacement solar systems	
	Energy efficiency in buildings		Introduced 7-star energy efficiency, all-electric new homes and minimum rental standards Solar Victoria 's Residential Electrification Grants program launched Energy Efficiency in Social Housing program launched	
		\$	Lowest energy prices in NEM VDO established	
3 Managing the transition away from fossil fuels			Hazelwood closure (-1.6GW)	
<b>4</b> Creating jobs, skills and supply chains			New Energy Jobs Fund, ~1,800 jobs created through VRET, ~2,200 jobs supported through the VEU program, over 4,700 workers received training through Solar Victoria SEC is building awareness of career opportunities in renewable energy through engagement with students at career days and events, with plans to scale up engagement from 2025	

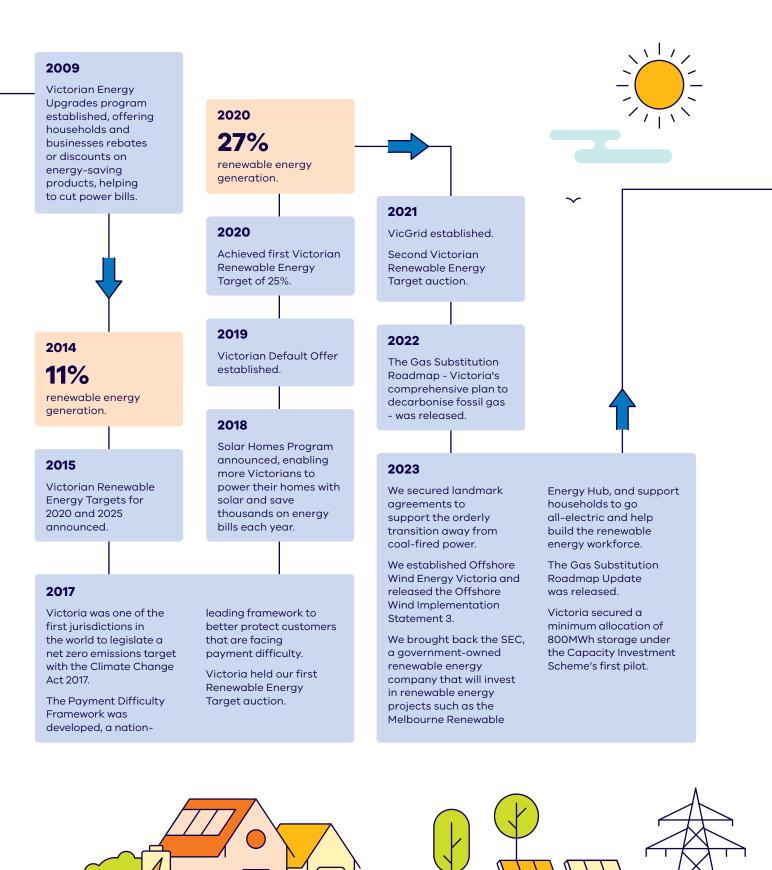
2025 →	2030 →	2035 →	2024-35
<b>2025:</b> 0.6GW comes online from VRET2 auction		<b>2035:</b> 12.7GW onshore grid-scale renewables: onshore wind (9.7GW) and utility solar (3GW) online	+7.4GW
	<b>2030:</b> 2.6GW total storage online	<b>2035:</b> At least 6.3GW total storage online	+6.3GW -
	2032: 2GW offshore wind	<b>2035:</b> A further 2GW offshore wind	+4GW -
<b>2027:</b> Western Renewables Link online <b>2029:</b> 1.7GW VNI West <sup>1</sup>	<b>2030:</b> 750MW Marinus Link stage 1 <sup>2</sup>	<b>2030-40:</b> Completion of other high priority renewable energy zone transmission projects	+2.4GW <sup>3</sup>
<b>2025:</b> 100 Neighbourhood Batteries program Round 1 projects completed		<b>2035:</b> 7.6GW additional solar PV (6.3GW rooftop PV, 1.2GW large distributed up to 30MW)	+7.6GW
<ul> <li>2025-26: New energy efficiency standards for commercial buildings</li> <li>2027: 45,000 social housing energy efficiency upgrades complete</li> </ul>			6GW avoided
2025: Consumer Protections F	ramework		
<b>2028:</b> Yallourn closure (-1.45GW)		<b>2035:</b> Loy Yang A closure (-2.21GW)	-4.8GW
		<b>TBC:</b> Loy Yang B closure (-1.16GW)	
in Energy Strategy <b>2025</b> : SEC Centre of Training E implementation <b>2028</b> : Full implementation of th	ne TAFE Clean Energy Fund, 2s established at TAFE Gippsland	<b>2035</b> : Enabled the creation of 6,000 apprenticeships and traineeships through the electricity transition	59,000 jobs created

4 Delivery as close as possible to 2028.

5 Development of Marinus Link Stage 2 subject to further business case assessment. This would provide a further 750MW of interconnector transfer capacity.

6 Interconnector flows only from VNI West and MarinusLink. Additional renewable energy zone transmission projects will be identified in the Victorian Transmission Plan, a long-term strategic plan for transmission development in Victoria.

# Victoria's leadership and vision for the transition



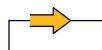
#### 2024

We legislated updated renewable electricity generation targets of 65% by 2030 and 95% by 2035 and offshore wind targets of at least 2GW by 2032, 4GW by 2035 and 9GW by 2040. To provide support for more renewable capacity, we legislated storage targets of at least 2.6GW by 2030 and 6.3GW by 2035.

Victoria secured an initial allocation of a minimum

#### 1.4GW renewable energy generation capacity under the national Capacity Investment Scheme's first tender.

We introduced a suite of reforms, including 7-star energy efficiency, all-electric new homes and minimum rental standards, that will make Victorian homes cheaper to run and more comfortable to live in.



#### 2030

- Emissions will be 45-50% below 2005 levels.
- 65% renewable electricity generation.
- At least 2.6GW energy storage capacity.
- Half of all light vehicle sales in Victoria will be zero emissions vehicles.

#### 2025

By 2025, Victoria's emissions will be 28-33% below 2005 levels and 40% of our electricity will come from renewables.

Victorian Transmission Plan is released, the first strategic plan identifying Victoria's future renewable energy zones and transmission projects.

Next phase of the offshore wind auction process will commence.

### 2032

2GW offshore wind.

#### 2035

- Emissions will be 75-80% lower than 2005 levels.
- 95% renewable electricity generation.
- At least 6.3GW energy storage capacity.
- 4GW offshore wind.

### We are here

We are seeing an increase of large-scale solar and wind farms across the state and storage solutions, like the Victorian Big Battery.

Victorians are embracing the transition, with growing uptake of energy-efficient electric appliances, rooftop solar, household batteries and electric vehicles.

Our energy system is becoming stronger through microgrids and neighbourhood batteries.

We will kick off our competitive offshore wind auction process with an Expression of Interest opening later this year. And we're working on transmission and network upgrades across the state to improve and modernise the grid so more renewables can flow through Victoria.

Throughout all this change, we are listening to communities and partnering with Traditional Owners and First Peoples to deliver better outcomes for all Victorians.

**38%** renewable energy generation.

#### 2040

9GW offshore wind.

#### 2045

Victoria will reach net zero emissions.

# Our plans to reach 95% renewable electricity

Victoria has comprehensive plans for each of the key sectors within the energy transition, providing clear guidance to industry and communities. Our Plan for Victoria's Electricity Future summarises all of the plans the Victorian Government has in place to reach 95% renewable electricity by 2035.



Gas Substitution Roadmap Update



Offshore Wind Energy Implementation Statement 3



Victorian Transmission Investment Framework – Final Design Paper



Draft Victorian Transmission Plan Guidelines



Gas Substitution Roadmap



Offshore Wind Energy Implementation Statement 1



Offshore Wind Energy Implementation Statement 2



Victorian Renewable Hydrogen Industry Development Plan



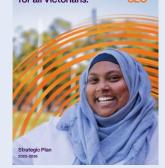
Local Jobs First Policy

Victorian Energy Jobs Plan Consultation Paper Supporting the development of the Victorian Energy Jobs Plan

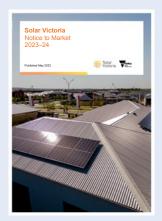


Victorian Energy Jobs Plan Consultation Paper

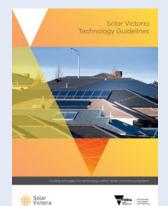
Working together for renewable, affordable, reliable energy for all Victorians.



State Electricity Commission Victoria Strategic Plan 2023–2035



Solar Victoria Notice to Market 2023–24



Solar Victoria Technology Guidelines



Victoria's Renewable Gas Consultation Paper



Clean Economy Workforce Development Strategy 2023–2033

Major Projects Skills Guarantee Policy Statement

Harnessing Victoria's Distributed Energy Resources

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