

# Making sure the renewable boom delivers for Victorians

---

MAXIMISING THE BENEFITS OF VICTORIA'S RENEWABLE ENERGY TARGET



September 2018



# TABLE OF CONTENTS

<b>Executive Summary</b>	<b>3</b>
<b>State of the renewables sector in Victoria</b>	<b>5</b>
What has driven renewable energy investment to date?	6
How much does the Victorian Renewable Energy Target cost Victoria?	8
How does the VRET support Victorian jobs?	9
<b>What do you need to build a wind farm and a solar farm?</b>	<b>10</b>
How do you build a wind farm?	10
How do you build a solar PV farm?	11
<b>Driving more renewable energy into Victoria</b>	<b>12</b>
Scenario 1: Continuing with current VRET structure	13
Scenario 2: Maximising certainty within the VRET	15
Scenario 3: Cancelling the VRET	18
<b>Conclusion: creating a strong future for Victoria's renewable energy sector</b>	<b>19</b>

Lead authors: **Dean Rizzetti and Erwin Jackson**

Contact: [d.rizzetti@environmentvictoria.org.au](mailto:d.rizzetti@environmentvictoria.org.au) | +61 466 310 377

Authorised by Mark Wakeham, CEO, Environment Victoria  
[www.environmentvictoria.org.au](http://www.environmentvictoria.org.au)

This report was printed on 100% recycled paper.

Environment Victoria is located on Wurundjeri land and works across many Aboriginal nations.

We pay our respects to Aboriginal elders past and present, recognise their continuing contribution to caring for country, and acknowledge that sovereignty was never ceded.

# EXECUTIVE SUMMARY

**Over the past six years Victoria has experienced a renewable energy boom. Across the state there are 1585 megawatts (MW) of large-scale wind and solar energy projects in operation, with another 2518 MW under construction or financed.**

Growth in Victoria's renewable energy sector has been supported by the Victorian Renewable Energy Target (VRET), which mandates that Victoria will source 40 percent of its energy from renewable sources by 2025, and also by the federal government's Renewable Energy Target (RET). These mechanisms have combined with falling technology costs and Victoria's excellent renewable energy resources to drive new projects across the state.

This growth in renewable energy is creating new jobs in Victoria. By building 5050 MW of new renewable energy, the VRET will create over 9000 jobs. Similarly, there has been significant growth in Victorian businesses that supply components to renewable projects. For example, tower manufacturer Keppel Prince has already invested \$2m in its Portland facility and intends to invest a further \$11m if Victoria continues to build new renewable energy projects. Similarly, Nexans Olex has spent \$10m upgrading its Lilydale facility.

This investment in renewables will also drive down electricity prices. Modelling shows that renewable energy should halve wholesale energy prices by 2025, reducing energy bills for all Victorians.

However, there is a serious risk that this momentum could be undermined. The policy decisions made in the next four months will shape whether renewables in Victoria continue to thrive or grind to a halt.

The 2018 election gives all parties a chance to show how they will make sure there is ongoing investment in new renewable energy projects. These plans should drive a consistent pipeline of work for Victorian manufacturers, helping to ensure that the jobs created through renewable energy are kept in Victoria.

This report analyses three scenarios for the future of the Victorian Renewable Energy Target:

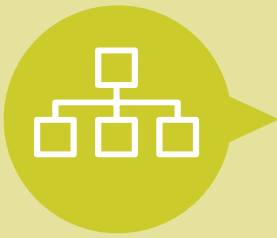
**Scenario 1: Continuing with the current VRET structure**

**Scenario 2: Maximising certainty within the VRET**

**Scenario 3: Cancelling the VRET**

# VRET SCENARIOS

---



## **SCENARIO 1: CONTINUING WITH CURRENT VRET STRUCTURE**

While the VRET is driving renewable energy investment in Victoria, the current structure cannot provide sufficient certainty. More is needed if Victoria is to unlock its potential for investment in renewable energy. The risk is that we return to 'boom and busts' in the renewable energy industry.



## **SCENARIO 2: MAXIMISING CERTAINTY WITHIN THE VRET**

The best way to maximise economic development in Victoria is to embed certainty at the centre of the VRET. To do this, the government should legislate a Renewable Energy Guarantee to ensure that at least 1000 MW of renewable energy is constructed every year between 2019 and 2024. This would create approximately 12,200 new jobs.

The Guarantee would ensure a strong pipeline of projects, driving down power prices for households and business and providing Victorian manufacturers with the certainty they need to expand their facilities and employ more staff in Victoria.



## **SCENARIO 3: CANCELLING THE VRET**

Cancelling the VRET will see investment in new large-scale renewable energy projects cease after 2020, because the federal Renewable Energy Target (RET) has been met and there is no national policy to support investment in new wind or solar facilities in Victoria. This will mean Victoria misses out on 12,200 jobs across the state.

# State of the renewables sector in Victoria

Over the past decade Victoria has seen a significant increase in renewable energy. Victoria has 20 major wind farms already in operation, providing 1525 MW of new capacity, and one solar farm providing 60 MW of generation capacity. Even more capacity is under construction, with eleven wind farms and seven solar farms predicted to provide a further 2518 MW.

This investment in renewable energy has led to significant employment. According to ABS figures, 1960 people were directly employed in installing, building and operating wind farms, rooftop solar and utility-scale solar projects in Victoria in 2016–17.

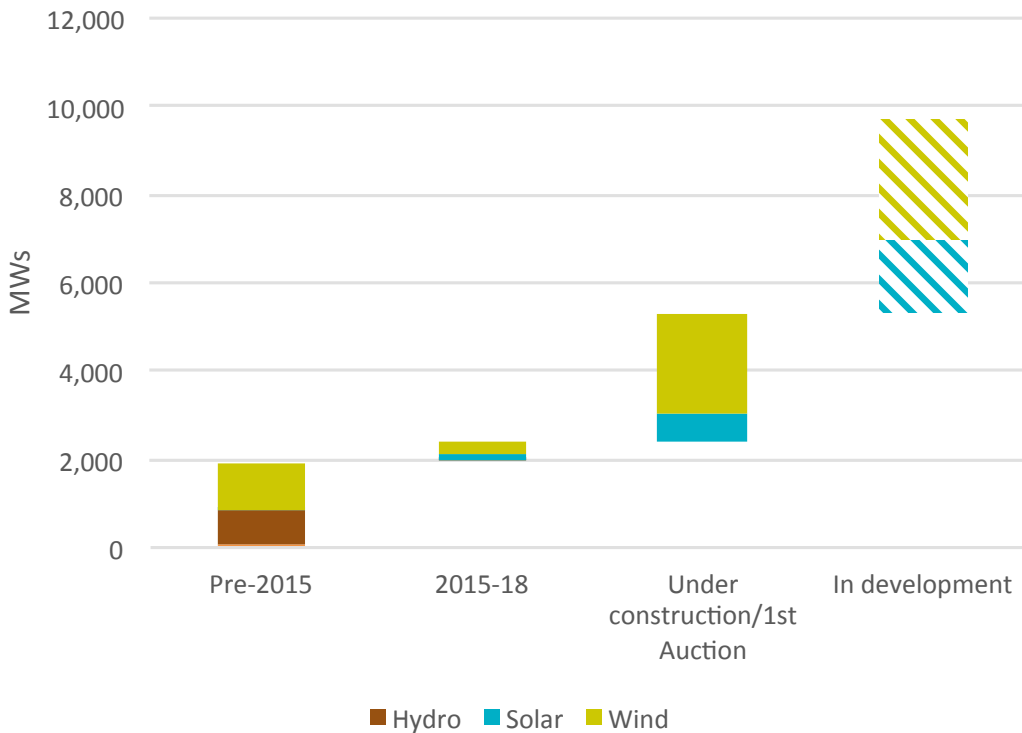
An even larger amount of renewable

energy is currently in early stages of development. Data from Green Energy Markets shows that over 4400 MW of renewables projects in Victoria are currently in development. These projects could be unlocked with appropriate policy settings and could provide enough renewable energy to power over 6.6 million homes by the middle of the next decade. This would avoid over 15 million tonnes of carbon pollution every year and create over 11,800 construction jobs and 400 ongoing jobs in Victoria.

Victoria has set a target to reduce its emissions to zero by 2050, contributing to the Paris Climate Change Agreement, which commits all countries to hold "the increase in

the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5°C". Recent science shows that 2°C presents unacceptable dangers for civilisation, and that responsible policy-making should focus on reaching a 1.5° target.<sup>1</sup> To stay below 2°C, all developed countries must have halted coal-fired power generation by 2030.

Other states across Australia will also need to boost the amount of renewable energy they produce, which provides opportunities for Victorian companies to export componentry across the country.



**Figure 1:** Construction of new renewable energy in Victoria. Data source: Green Energy Markets

<sup>1</sup> Steffan et al., 2018, 'Trajectories of the Earth System in the Anthropocene', Proceedings of the National Academy of Sciences of the United States of America, <http://www.pnas.org/content/pnas/early/2018/07/31/1810141115.full.pdf>

# WHAT HAS DRIVEN RENEWABLE ENERGY INVESTMENT TO DATE?

The energy sector has always relied on government intervention and support, which has been delivered by smoothing energy prices, providing insurance, underwriting finance or directly building energy facilities.

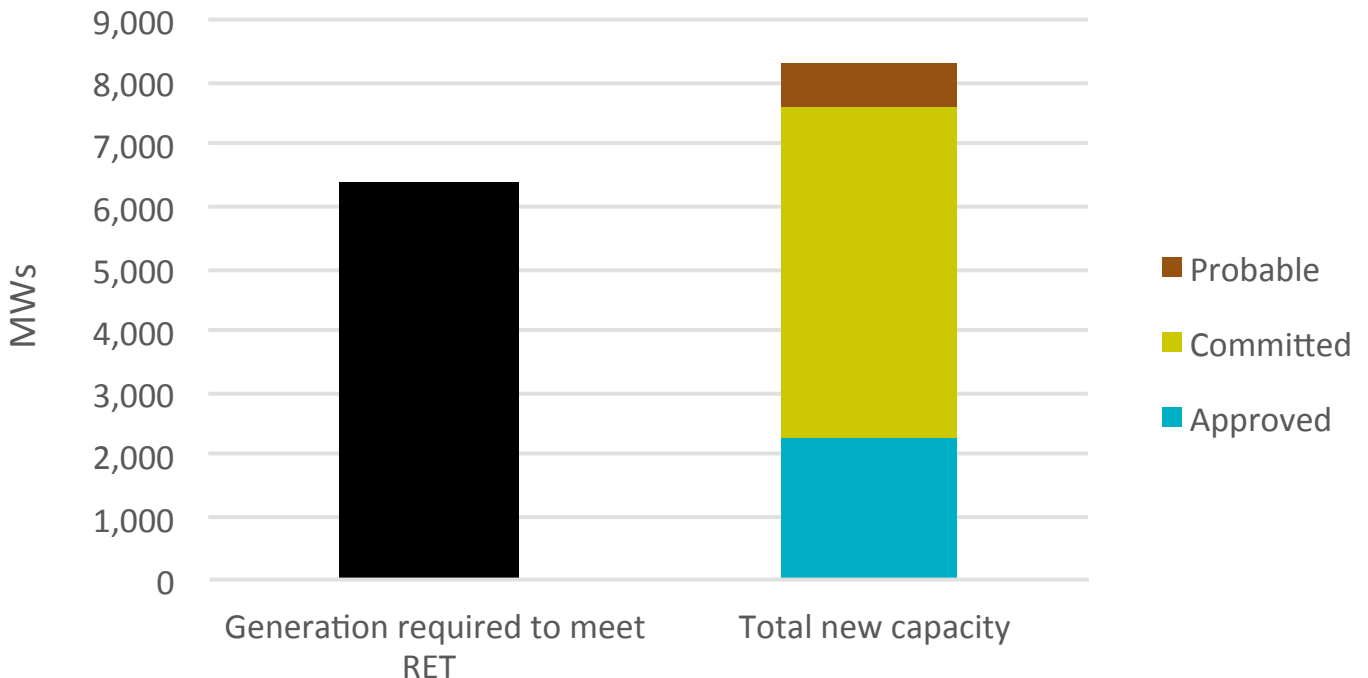
While renewable energy is the cheapest form of new generation, it requires similar support. This is commonly done by guaranteeing offtake prices and accounting for environmental benefits. Because it is providing support, the government can also place requirements on project

developers, such as local content and apprenticeship requirements, ensuring that the benefits of projects stay in Victoria.

A large proportion of Victoria’s existing renewable energy projects were financed with the support of the federal Renewable Energy Target (RET). In June 2015, however, the federal Coalition government decided to reduce the RET from 41,000 GWh to 33,000 GWh. As a result, Australia met its new, lower RET in 2018, so the target will not drive any new

investment in renewable energy. Figure 2 shows the renewable generation required to meet the RET, which is less than total new capacity.

This lack of incentive to build renewables in Victoria will not be addressed by the federal government. The current federal government has effectively dropped the National Energy Guarantee, which was its only policy to reduce emissions from the electricity sector after 2020.



**Figure 2:** Generation capacity required across Australia to meet the RET compared to total generation. Data source: Green Energy Markets

A more recent driver of investment in renewables is the Victorian Renewable Energy Target (VRET). This target was set in 2016, and requires Victoria to source 40 per cent of its power from renewable sources by 2025.

Since the target was announced, there have been a number of announcements by the Victorian government. In September 2018 the government released the results of its first reverse auction for new renewable energy. The Government initially planned to auction 650 MW of new supply, but due to strong demand and low prices it increased

the amount of renewable energy supported through the auction to 928 MW. This was Australia's largest ever reverse auction, driving over \$1.1 billion of new capital investment and reducing Victoria's greenhouse gas emissions intensity by up to 2.2 million metric tonnes.

The auction demonstrated a strong appetite to build new renewable energy projects, with over 3500 MW of proposals submitted to the auction process.

The government has also supported renewable energy through the

Renewable Certificate Purchasing Initiative, which was used to offset the power consumed by Victorian government agencies such as Melbourne's trams. This has supported four projects: the 31 MW Kiata Wind Farm, the 132 MW Mt Gellibrand Wind Farm, the 88 MW Bannerton Solar Park and the 34 MW Numurkah Solar Farm.

Finally, the Victorian government has also announced a plan to install solar PV on 650,000 homes across Victoria by providing rebates and no-interest loans to households. This will add 2GW of additional solar PV and create over 5500 jobs.

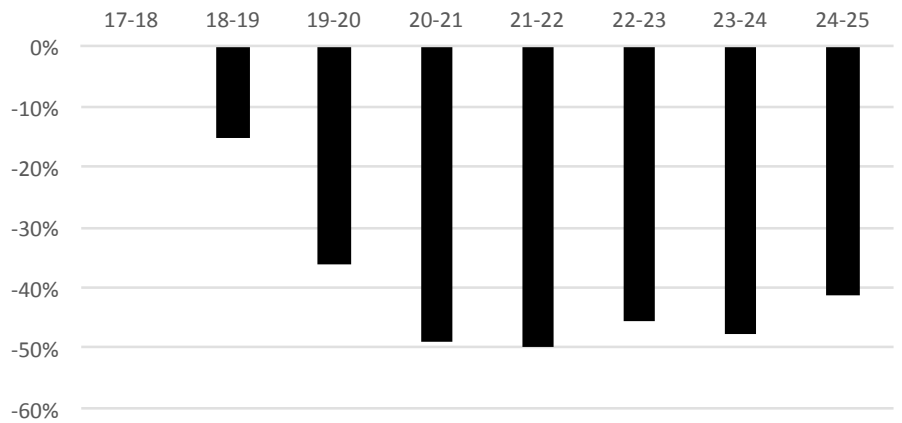


# HOW MUCH DOES THE VICTORIAN RENEWABLE ENERGY TARGET COST VICTORIA?

Ernst & Young undertook detailed modelling of the VRET, comparing the costs of building 3200 MW and 5150 MW of renewable energy with the cost of doing nothing. This analysis showed that the VRET will bring down wholesale prices compared to business as usual, and the higher the renewable energy target, the greater the reduction in wholesale prices.

Modelling for CoAG's Energy Security Board reinforces this conclusion. It shows that renewable investment driven by the RET and the first VRET auction will reduce wholesale electricity prices by around 50 percent over the next five years.

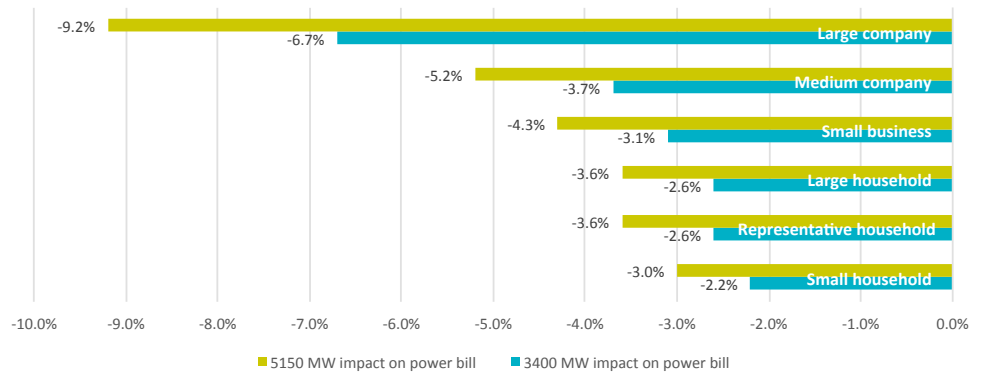
Change in Victoria wholesale electricity prices



**Figure 3:** Change in time-weighted wholesale electricity prices from today due to increase in renewables and first round of VRET auction (Real 2018 \$ / MWh). Data source: Energy Security Board

Analysis by EY also showed that the higher VRET target will reduce retail energy prices for business and households. Again, the higher target led to the greatest reductions in power prices.

Reduction in retail costs through the VRET





## HOW DOES THE VRET SUPPORT VICTORIAN JOBS?

The VRET supports Victorian manufacturers through two key requirements that were placed on projects in the Victorian Renewable Energy Auctions:

**Local Content Requirement:** VRET Projects are required to source at least 64 per cent of their components from local manufacturers.

**Apprenticeship Requirement:** 10 per cent of the labour required to build VRET projects must be undertaken by apprentices, trainees, or engineering cadets.

This has led to manufacturing companies across Victoria investing in their facilities and increasing their workforce. For example, cable company Nylex Oxen has invested \$10m in their Lilydale facility to meet demand for cables. Similarly, wind-tower manufacturer Keppel Prince has recently invested \$2m, which has doubled their production capacity.

In both cases the local content requirement has a key driver of demand and provided a basis for future investment.

If projects are undertaken outside the VRET, these criteria will not necessarily be applied. For example, projects undertaken through direct corporate purchase agreements are not subject to local content or apprenticeship requirements. This means that a larger proportion of the componentry such as towers or cabling will be imported. Therefore, it is vital that the VRET be expanded so that it continues to drive new renewables projects and achieve the broader benefits that are so important to Victorian communities and the state government.



# What do you need to build a wind farm and a solar farm?

## How do you build a wind farm?

A wind farm is made up of a number of wind turbines linked into the electricity grid. The wind farm may be connected to on-site batteries or may feed directly into the grid.

To build the project, developers need to construct new roads, develop transmission connections, pour concrete foundations, undertake extensive landscaping of the surrounding area and, of course, erect the turbines.

A wind turbine is made up of four main components: the foundation, the tower, nacelle and the rotor, which consists of blades and a central hub.

- The foundation holds the turbine in place and requires extensive excavation, the construction of a reinforcing cage and a concrete

layer. The foundation is constructed entirely on site.

- Wind towers can be made out of tubular steel, concrete or steel lattice. These towers can either be made locally or imported. Australia's largest manufacturer of wind towers is based in Portland in western Victoria.
- The nacelle sits at the top of the tower and holds the gears, shafts, generators and brake. Nacelles are not made in Australia.
- The rotor and blades are the parts of the turbine that are driven by the wind to create electricity. Wind turbine blades range in size from 34 to 55 meters. Rotors were once made in Australia, but are now imported.

- Wind turbines also require a range of other materials such as transformers, substations and cabling. Many of these components can be made locally or imported.

Building a wind farm requires many construction and operations workers. For every 50 MW in capacity, a wind farm directly employs up to 48 construction workers, with each worker spending approximately \$25,000 in the local area, and five staff on an ongoing basis, bringing \$125,000 to the local economy. Wind farms also bring up to \$250,000 per year to farmers in land rental income and \$80,000 on community projects each year. It can take between 12 and 24 months to construct a wind farm.<sup>2</sup>

<sup>2</sup> Clean Energy Council, *Wind Farm Investment, Employment and Carbon Abatement in Australia*, Australia, 2012.



Waubra wind farm being constructed.

## How do you build a solar PV farm?

Solar PV farms are large arrays of solar photovoltaic panels that provide a large injection of solar power into the grid. Panels are mounted on steel frames across paddocks, with panels covering approximately 30 percent of a site. Tracking systems can also be used to follow the sun to maximise solar output from the panels.

Like household solar PV, solar farms employ large inverters to convert the

direct current generated by solar into the alternating current required by the grid. Solar farms require the installation of substations, fencing and remote monitoring.

Solar PV farms can also be connected to batteries, which can firm up the solar production and allow the farm to sell power at times when prices are higher.

Solar panels are often imported, although some companies

manufacture panels in Australia. Similarly, inverters can be imported or manufactured in Australia. Tracking systems are currently developed by Victorian companies.



# Driving more renewable energy into Victoria

---

If Victoria is to avoid dangerous climate change, we need ambitious plans to reliably deliver large-scale renewable energy projects. The VRET can position Victoria as the pre-eminent state in Australia for building renewable energy and manufacturing the components required for renewables. This will both create sustainable jobs and drive down power prices, while cutting carbon pollution. Realising this vision will require certainty and ambition, sending a clear message that Victoria is committed to renewable energy jobs.

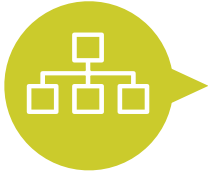
To understand the future of the VRET, Environment Victoria analysed three scenarios:

**Scenario 1: Continuing with the current VRET structure**

**Scenario 2: Maximising certainty within the VRET**

**Scenario 3: Cancelling the VRET**





## Scenario 1: CONTINUING WITH CURRENT VRET STRUCTURE

The VRET currently sets a target of 40 percent of renewable energy by 2025, but little detail has been provided about how this will be achieved.

**The target itself has been set as a percentage, rather than a fixed megawatt target, which means that it is not certain exactly how much renewable energy will be needed.**

Furthermore, there is no schedule of auctions for the VRET or milestones in the delivery of the mechanism. Indeed, it is unclear if Victoria will hold another auction after the initial 928 MW auction. This increases risk for investors and reduces the incentive to invest in renewable energy manufacturing in Victoria.

The VRET will finish in 2025 and does not provide a pathway to fully decarbonise Victoria's electricity sector. If Victoria is to meet the global goal to keep temperature increases below 2°C, it will need to transition the vast bulk of its energy supply to renewable energy by 2030.

This lack of certainty restricts investment in Victoria's manufacturing capacity. For example, Keppel Prince have stated that an additional 1000 MW of auctions would likely justify a significant new investment in their business.

### CHALLENGES WITH THE CURRENT VRET STRUCTURE

- While the current VRET sets a broad target for renewables in Victoria, it does not provide a pipeline of projects
- Without a pipeline of projects, it is difficult for local manufacturers to justify large-scale investment.



## CASE STUDY 1:

### **WILSON TRANSFORMER COMPANY**

---

Wilson Transformer Company (WTC) is a family-owned business that manufactures and installs transformers. The company started in South Melbourne in 1933, and now operates in Glen Waverley and Wodonga. It has provided transformers to major projects across Victoria, such as the Waubra, Ararat and Mt Gellibrand wind farms.

WTC have seen significant growth in demand for their renewable energy componentry.

The local content requirement in the VRET has played a key part in this, and the projects coming through the first auction were an important ingredient in the company's decision to invest \$10m upgrading its Wodonga facility. The emphasis on local content has also encouraged stronger partnerships with global companies. For example, WTC has worked with

SMA Germany to develop a range of solar power skids for the large-scale solar market in Australia.

*Ed Wilson, the owner of Wilson Transformers, says: "A strong VRET is a critical ingredient for Victorian manufacturers as it encourages renewable energy project developers to look first towards local manufacturers. It's then up to local manufacturers to provide a competitive solution and value proposition for the developers to consider."*



## Scenario 2: MAXIMISING CERTAINTY WITHIN THE VRET

To maximise the benefits of the VRET, the state government could improve the mechanism to give Victorian businesses certainty to expand their manufacturing capacity while continuing to deliver low-cost, clean energy. This could be done through a Renewable Energy Guarantee, which would ensure that at least 1000 MW of renewable energy is brought online each year over the next four years. This would provide a clear pipeline for delivering renewable energy investment in Victoria.

Data from Green Energy Markets shows there are over 4400 MW of projects in the development stage in Victoria. These projects would be unlocked through the Renewable Energy Guarantee, creating over 11,800 construction jobs and over 410 ongoing jobs in Victoria, powering over 6.6 million homes and avoiding over 15 million tonnes of carbon pollution a year.

The Renewable Energy Guarantee could be incorporated into the current

legal framework of the Renewable Energy (Jobs and Investment) Act 2017. The Minister is currently required to report annually to the Parliament on progress towards meeting the VRET. A Renewable Energy Guarantee would take the current VRET process a step further: if the pipeline of renewable energy projects fell short of 1000 MW a year, the Minister would announce policy measures to bring new renewable energy capacity online over the next twelve months to ensure the 1000 MW annual target was achieved. This could be done through reverse auctions, power purchasing agreements, cooperation with industry associations or by requiring electricity retailers to purchase green power.

### The Renewable Energy Guarantee would give industry certainty and clarity.

It would ensure that companies serving renewable energy projects, such as tower manufacturers and solar mounting companies, have a

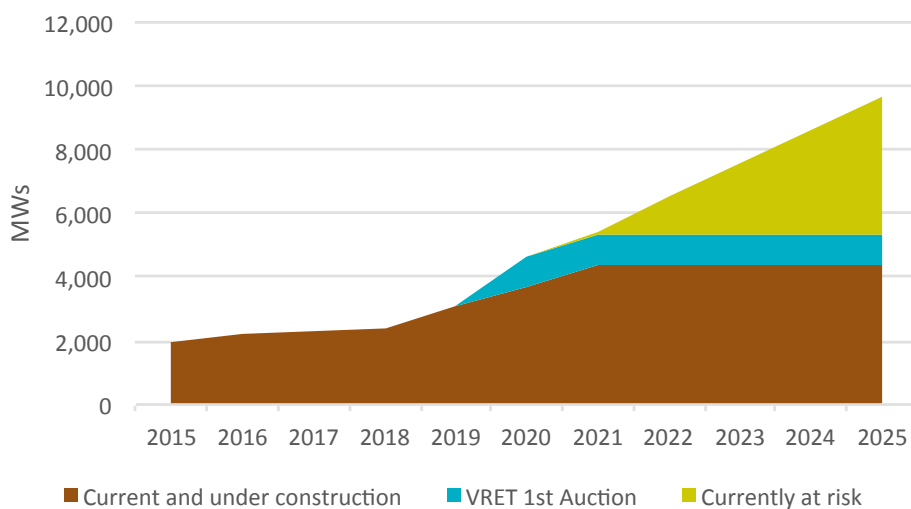
reliable pipeline of work, and would allow Victorian businesses to upgrade equipment. It would also ensure that the other benefits of the VRET such as the local content guarantee and apprenticeship requirements are applied.

Importantly, the Renewable Energy Guarantee would not require the government to fund the whole of Victoria's energy transition. In years when the private sector independently meets the Renewable Energy Guarantee, the government will not be required to intervene. Where the pipeline is not sufficient, however, the government will be able to draw on a range of mechanisms to continue to drive Victoria's energy transition, reduce power prices and provide workers and industry with certainty.

### Benefits of the Renewable Energy Guarantee:

- Provides workers and industry with long-term certainty by ensuring a guaranteed pipeline of projects
- Ensures that Victoria is the obvious destination for investment in the manufacture of renewable energy and associated componentry
- Is most consistent with Victoria's goals of decarbonisation.

**The success of the Renewable Energy Guarantee** would require wind and solar farm developers to continue to deliver affordable projects. There is already strong demand in the wind and solar sector, which will put downward pressure on prices, but to ensure prices stay low the Victorian government can expand the role of the Victorian Renewable Energy Advocate to monitor renewable energy costs and actively identify opportunities to build and invest in manufacturing facilities in Victoria.



**Figure 4:** Opportunity that can be delivered through the Renewable Energy Guarantee 2015-2025 (excluding old hydro).

## CASE STUDY 2:

### KEPPEL PRINCE

---

Keppel Prince is an engineering company based in Portland. They specialise in the construction, fabrication and maintenance of wind towers, which are used to mount turbines and blades. These towers are made of rolled steel and are approximately 85m to 120m tall. They are the largest part of a wind farm, and can be made in Australia or imported from Asia.

Keppel Prince has been at the fore of the wind sector in Australia, which means they have had to negotiate the last decade of chaos in Australia's energy market. The company grew significantly in the 2000s but was then devastated by the halt in wind turbine construction that resulted from the new planning controls the Baillieu government imposed in 2010, essentially making it impossible to construct new wind farms.

Today, however, Keppel Prince is again expanding, putting on more workers and planning the

investments that will make it the pre-eminent supplier of wind towers across Australia.

The company recently invested \$2m in expanding production capacity to meet the demand from the RET and the first round of the VRET auction. This has doubled their production capacity and ensured that they are able to supply Victoria with towers to meet the first VRET auction.

However, if sufficient demand is brought online through the VRET, Keppel Prince has the capacity to significantly increase investment, with \$11m worth of upgrades and a significant increase in staff to build the large towers that are now standard in modern wind farms.

*Dan McKinna, Assistant General Manager, Keppel Prince has said: "The importance of certainty for our business cannot be overstated. We have projects locked in for the next 18 months, which has led to a \$2M (AUD) investment in plant and*

*equipment and the creation of 50 full-time jobs. In the coming months with the VRET we will be able to further streamline our business processes and reduce our manufacturing costs. These improvements are absolutely vital if Australian manufacturers are to compete with businesses in Asia.*

*"But this growth is just the beginning. With more certainty and ambition from the state government we've got really big plans. If we can be sure that there will be consistent demand for wind towers, then we'll be able to double our manufacturing capacity to build much bigger towers, which are quickly becoming industry standard. An ambitious VRET is vital to helping us make this investment.*

*"This investment will double our workforce in Portland, and help position Victoria as Australia's pre-eminent state for manufacturing renewable energy components."*





***"This investment will double our workforce in Portland, and help position Victoria as Australia's pre-eminent state for manufacturing renewable energy components" - Dan McKinna, Assistant General Manager, Keppel Prince***

## CASE STUDY 3:

### **NEXANS OLEX**

---

Nexans Olex is an Australian manufacturer of electrical cables supplying many industries: building & construction, infrastructure, energy resources, renewable energy and electricity supply. Nexans' cables are used across Victoria to connect wind and solar projects to the grid connection and to ensure that large-scale projects can generate power safely while maximising efficiency.

Nexans Olex started in the 1940s in Footscray, and over time brought together Australian companies Nylex and Olympic Cables. In the 2000s the company was acquired by the French giant, Nexans, becoming part of a global company serving the energy industries around the world.

Today, Nexans Olex employs over 500 people in Australia and New Zealand. The Company which is

headquartered in Melbourne's CBD has manufacturing facilities in Lilydale (Victoria) and New Plymouth (New Zealand) where they design, manage and install cables for projects across Victoria.

The company has pioneered technologies designed specifically for Australian conditions. For example, Nexan's Thomastown-based subsidiary Austramold has developed a specialised transition and joining cabinet to be used across Australia to connect wind farms to the grid.

For Nexans Olex, the ambition expressed through the VRET plays a key role in maintaining and justifying their ongoing presence in Victoria, providing a strong basis for investment and driving demand for their products. The increased demand arising from the VRET was an important factor in

the company's decision to invest \$10m to expand its Lilydale facility, which kept manufacturing jobs in Victoria and gave the company an opportunity to serve the global market.

*Geoffrey Simpson, Director of Renewable Energy at Nexan Olex, says: "For factories such as our Lilydale facility to remain viable, it's vital that we have strong, reliable demand from renewable energy projects in Victoria. Indecision at the federal level has dampened global enthusiasm to invest in Australia's renewable sector. However, state action such as Victoria's VRET has acted as a counterweight, showing that investments in Victoria are still viable. The VRET has played a vital role in keeping Nexans Lilydale operation here in Victoria and driven renewable energy project optimising innovation."*



## Scenario 3: CANCELLING THE VRET

If the VRET were to be abolished without a replacement mechanism it is highly unlikely that there will be any major new renewable energy projects built in Victoria beyond the projects already committed. This is because the policies which have driven projects to date are fully subscribed and Federal policies coming online will not drive new investment.

In the past ten years, renewable energy developments have been driven by the Federal Government's Renewable Energy Target. This target has now been met, which means that it will not drive any new renewable energy investment. Similarly, with no federal clean energy policy for post 2020, national action will also be insufficient to drive new projects in Victoria.

**Therefore, without the VRET it is highly unlikely that there will be new renewable energy projects built in Victoria.**

This is supported by modelling undertaken by EY, which showed that without the VRET there would be insufficient demand to justify new wind or solar farms.

The Victorian Coalition has indicated that it does not support the VRET and

would abolish the policy if elected. This will effectively halt new renewable investment in Victoria, which will mean Victoria misses out on 12,200 jobs and will threaten the viability of manufacturers such as Keppel Price who rely on projects coming through the VRET.

***“The Liberals Nationals will scrap Victorian Renewable Target - Matthew Guy, Leader of the Opposition”***.<sup>3</sup>

The lack of bipartisan support for the VRET also introduces short-term risk for renewable energy developers, as the opposition has not confirmed whether it will guarantee support for projects funded in the first round of auctions.

Cancelling the VRET will also put upward pressure on wholesale prices, as Victoria will see a reduction in investment in new low-cost generation and will instead have to rely on high-cost gas generation. This challenge is further exacerbated by Victoria's aging fleet of coal power stations, which are becoming increasingly expensive to operate and are not able to work in a modern energy market where generation has to ramp up and down to complement low-cost, clean energy.

### COST OF CANCELLING THE VRET

- Cancelling the VRET would halt investment in large-scale renewables in Victoria
- This would threaten the viability of Victorian manufacturers such as Keppel Prince, who rely on projects coming through the VRET to build their businesses
- Cancelling the VRET would increase wholesale energy prices by reducing new investment in renewable energy and forcing Victoria to rely on high-cost gas generation.

<sup>3</sup> <https://vic.liberal.org.au/news/2017-02-13/liberal-nationals-will-scrap-victorian-renewable-energy-target>

# Conclusion: Creating a strong future for Victoria's renewable energy sector

---

Victoria's renewable energy sector will be shaped by decisions about whether to keep and how to structure our VRET. Without the VRET it's unlikely that new projects will be built and the momentum which has developed in the industry will dissipate. Conversely, if more certainty is injected into the VRET then it will be possible to drive significant amounts of new investment in Victoria. This will create new jobs in manufacturing combined with an increase in cheap, clean solar and wind for all Victorians.

Authorised by Mark Wakeham, CEO, Environment Victoria

Level 2, 60 Leicester St, Carlton Victoria 3053 | (03) 9341 8100 |  
admin@environmentvictoria.org.au | www.environmentvictoria.org.au

