
We have committed to releasing annual statements of progress to support accountability and transparency, with the first of these statements to capture the achievements of 2017. The annual statements of progress will outline how the Victorian Government is meeting our Action Plan commitments, and demonstrate to the Victorian community that we are on track to a renewable, affordable and reliable energy system.

In just six months since releasing the Action Plan, I am proud to report that we have implemented several key parts of our plan to transform Victoria’s energy sector, in addition to making progress across all 23 actions in the plan. In 2018, we have more exciting projects forecast for delivery, including the implementation of large-scale battery storage facilities in Western Victoria, and the formal establishment of the Centre for New Energy Technologies.

Supporting households, businesses and industries to navigate and prosper from the energy transition remains of primary importance. We are working closely with Victorian regions most affected by the transition, as well as driving down costs through system investment and modernisation. The recently-released $55 million Energy Efficiency and Productivity Strategy rounds out our approach to helping Victorians take control of their energy use and make informed decisions, while doing everything we can to achieve a modernised, affordable energy system.

Our strong policy environment has increased industry confidence and leveraged further investment in renewable energy generation.

I encourage you to join me in recognising and celebrating our progress to date, and I look forward to further achievements in transforming Victoria’s energy system.

The Hon. Lily D’Ambrosio MP
Minister for Energy, Environment and Climate Change
Minister for Suburban Development
The Action Plan supports innovative projects such as large-scale battery storage, microgrids, legislated renewable energy targets, a renewable energy reverse auction scheme, and pilot community energy projects.

### Victorian Renewable Energy Targets

The successful passage of renewable energy target legislation provides investment certainty for the renewable energy sector.


The competitive Victorian Renewable Energy Auction Scheme for up to 650MW of renewable energy capacity will provide enough electricity to power 389,000 households – or enough energy to power Geelong, Ballarat, Bendigo and the Latrobe Valley combined. This is the largest ever reverse auction for renewable energy in Australia.

### Using government purchasing power for renewable energy certificates

The Government’s energy purchasing power is being used to source renewable energy certificates from new wind and solar farms in Victoria, and will bring forward around $533 million of new investment in renewables, 300MW new renewable energy, and around 600 jobs during construction, saving the state $84 million over 10 years.

The first round of the Renewable Certificate Purchasing Initiative has resulted in two new Victorian wind farms with a total generation capacity of around 162MW - the 30MW Kiata wind farm and the 132MW Mt Gellibrand wind farm. Kiata wind farm was completed in November 2017; and Mt Gellibrand wind farm is currently under construction and on schedule for completion by July 2018.

An additional second round announced in March 2017 resulted in two new Victorian solar projects totalling 138MW. The successful projects are the Bannerton Solar Park near Robinvale in the Sunraysia district, and the Numurkah Solar Farm near Shepparton. Bannerton Solar Park is under construction and due for completion July 2018. Numurkah Solar Farm is scheduled to be completed October 2018.

- **$1.3 billion** of investment
- **1,250 construction jobs** over two years
- **$533 million** of new investment in renewables
- **600 jobs** during construction
- **90 ongoing jobs**
- **$84 million** over 10 years
- **Saving the state**
Energy Efficiency and Productivity Strategy

On 20 November 2017, the Victorian Government released the $55 million Energy Efficiency and Productivity Strategy. This is an investment in the future – supporting the transition to an energy efficient and productive economy and jobs growth in new energy sectors. It also provides immediate help for Victorian businesses and households dealing with energy cost pressures.

The Strategy is expected to support over 2,500 jobs per year on average, save participating households and businesses around $6.7 billion and reduce greenhouse gas emissions by 34 million tonnes of carbon dioxide equivalent by 2030. Long-term savings are expected to be much larger, as the Strategy will provide the foundation to scale up Victoria’s energy efficiency and energy productivity agenda over time, as part of meeting Victoria’s net zero emissions target for 2050.

Microgrid demonstration initiative

In December 2017, the Victorian Government announced the opening of the Expression of Interest (EOI) stage of a $10 million Microgrid Demonstration Initiative.

Grants of between $100,000 and $5 million will be available to facilitate and implement state-wide microgrid demonstration projects, with the aim of unlocking clean energy microgrid markets in Victoria. The EOI is seeking to identify projects and explore the range of potential microgrid solutions.

The funding aims to support a range of demonstration projects in different locations, building types, scale and business models.

Supporting Victoria’s new energy technologies sector

The Victorian Government’s $20 million New Energy Jobs Fund (NEJF) is supporting Victorian-based projects that create long-term sustainable jobs, increase the uptake of renewable energy generation, reduce greenhouse gas emissions and drive innovation in new energy technologies. We have invested $12.6 million through the program to date, leveraging over $80 million in project value.

Funding to support new energy technology projects is available through three annual grant rounds. The first round closed in March 2016, investing $5.7 million across 24 projects. The second round of successful projects was announced in July 2017, investing $6.8 million across 21 successful projects. The successful applicants are from across community, manufacturing, technology and energy storage categories. Round three opened on 12 December 2017, offering a total of up to $3 million.

NEJF is just one component of our New Energy Technologies Sector Strategy which we are currently implementing.

Renewable Hydrogen Refuelling Station

Moreland City Council, in collaboration with hydrogen utility company H2U, has received Victorian Government funding to implement a renewable hydrogen refuelling station. The project will enable the council’s heavy vehicle fleet to transition to zero-emission Fuel Cell Electric Vehicles. The project will establish Australia’s first commercial-scale hydrogen refuelling station, which will produce hydrogen from 100 per cent renewable energy using an on-site solar plant and grid-sourced wind power.
Advances in Victoria’s energy sector

2018 wind farms
2018 solar farms
NEJF Round 2 projects
Pilot community power hubs
**NEW ENERGY JOBS FUND**

<table>
<thead>
<tr>
<th>Round 1</th>
<th>24 successful projects</th>
<th>$5.79 million in grants</th>
<th>$47.36 million worth of project value</th>
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**CURRENT RENEWABLE GENERATION CAPACITY**

- **Wind**: 1,520 MW
  - Including rooftop solar PV
- **Solar**: 1,105 MW
- **Hydro**: 2,287 MW
- **Bio**: 130 MW

**FORTHCOMING VICTORIAN PROJECTS DUE FOR COMPLETION END 2018**

- **Wind**: 221 MW
  - Projects under construction
- **Solar**: 217 MW
  - Large-scale

**FORTHCOMING VICTORIAN PROJECTS DUE FOR COMPLETION AFTER END 2018**

- **Wind**: 2,913 MW
  - Projects with planning approval

*Another Victorian project not yet under construction but likely to be constructed in the next few years is the 530 MW Stockyard Hill wind farm.*

**NEJF Round 2 projects**

- Pilot community power hubs (completed November 2017)

**VICTORIAN PROJECTS DUE FOR COMPLETION END 2018**

- Projects under construction: 1,520 MW
- Projects with planning approval: 1,105 MW

**VICTORIAN PROJECTS DUE FOR COMPLETION AFTER END 2018**

- Projects under construction: 2,287 MW
- Projects with planning approval: 130 MW

**FORTHCOMING VICTORIAN PROJECTS DUE FOR COMPLETION AFTER END 2018**

- Projects under construction: 1,520 MW
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*Generation sources greater than 4MW shown, locations indicative only.*
Creating new jobs, investment and energy sector growth

Action 1
Setting and delivering on ambitious and achievable renewable energy targets

The Renewable Energy (Jobs and Investment) Act 2017 came into operation on 15 December 2017. The first VRET auction was opened to tenders on 14 November 2017. The auction will deliver up to 650MW of large-scale renewable energy projects, which will set the State on the pathway to meet its 2020 and 2025 targets.

To support the high standards of community engagement expected for projects bidding in the VRET auction, we have developed a best practice guide, Community Engagement and Benefit Sharing in Renewable Energy Development, to assist developers in meeting these standards.

Action 2
Purchase renewable energy certificates

The first round of the Renewable Certificate Purchasing Initiative resulted in two new Victorian windfarms with a total generation capacity of around 162MW currently under construction, the 30MW Kiata windfarm located 50km northwest of Horsham and the 132MW Mt Gellibrand wind farm located 17km west of Winchelsea.

An additional second round was announced in March 2017, resulting in two new Victorian solar projects totalling 138MW – Foresight Solar’s 100MW Bannerton Solar Park near Robinvale, and Neoen’s 38MW Numurkah Solar Farm near Shepparton.

Action 3
Energising our transport sector

The Solar Trams Initiative is a $200 million investment in solar energy to offset the energy used by Melbourne’s tram network.

In August 2017, two solar projects were announced as the successful tenderers to support the Solar Trams Initiative – the 100MW Bannerton Solar Park near Robinvale and the 38MW Numurkah Solar Farm near Shepparton. The 35MW the tram network uses annually will be offset by these two solar farms.

Once operational, the Bannerton and Numurkah Solar projects will contribute to supply the required Renewable Energy Certificates.

Action 4
Government leading the way

The Victorian Government continues to explore a range of innovative mechanisms to support investment in renewable and new energy technologies. Victoria was the first government in Australia to issue Green Bonds, with the first bond released in 2016 and raising $300 million. Following this success, further Green Bonds may be issued as needed.

We are working with the Clean Energy Finance Corporation (CEFC) to support innovative new energy technology projects in Victoria. CEFC is also looking at the potential to invest in the North-West grid network to unlock renewable resources.
Action 5

Establishing bodies to support the transition

The Victorian Renewable Energy Advocate, Simon Corbell, is providing valuable advice to government, industry and communities about Victoria’s renewable energy transition. The Advocate has made presentations to government committees, taskforces and inquiries, and spoken at numerous industry and community events.

Follow @VicRenewAdvo on Twitter or visit https://www.energy.vic.gov.au/vrea for more information about the work of the Victorian Renewable Energy Advocate.

The Victorian Government is working to support industry to create an integrated business energy platform which supports Victorian businesses to address rising energy costs and take control of their energy future. This includes proactive business outreach through numerous forums and events, engagement with industry peak bodies, and whole of Victorian Government business energy collateral.

Action 6

Streamlining renewable energy project processes and approvals

The Victorian Government’s ‘one stop shop’ for wind farm planning permit matters is ensuring timely response to individual application matters.

We have completed a review of model planning permit conditions in wind farm guidelines, which will be published in the next review of the wind farm guidelines. An end-to-end analysis of the planning process for wind farm applications is also underway.

Action 7

Supporting investment in the new energy technologies sector

We are delivering work across each of the 15 goals identified in the New Energy Technologies Sector Strategy, including supply chain analysis to support the Victorian Renewable Energy Auction Scheme by identifying capability gaps and opportunities for new investment. We are also supporting development of the Latrobe Valley New Energy Jobs and Investment Prospectus.

The first and second round of the $20 million New Energy Jobs are now closed, investing $12.6 million across a total of 45 projects in Victoria. The third round of projects opened in December 2017.

The Victorian Government has expanded its facilitation role across new energy technologies, hosting regional events such as the new energy business roundtables in the Latrobe Valley and the Goulburn Valley.
Empowering and engaging households, businesses, and communities

**Action 8**

**Empowering households to take control of their energy use**

The Victorian Energy Compare (VEC) website has been upgraded with a refreshed user interface and functionality to accommodate demand tariffs. Other enhancements to the website include an online web support service and an automated bill reading service, both of which will play a key role in making it easier for consumers to compare energy offers and retailers. In early 2018, a statewide awareness campaign will commence to help raise the awareness of the VEC website among Victorian consumers.

The Energy Efficiency and Productivity Strategy outlines other activities to help consumers better understand and manage their energy use, including the Victorian Residential Efficiency Scorecard and the Victorian Energy Upgrades program.

**Action 9**

**Ensuring a fair approach for all consumers**

The Essential Services Commission (ESC) recent review into the network value of distributed generation found distributed generation can and does create network value, primarily by reducing congestion in localised parts of the electricity network. This value is currently modest and highly variable, depending on the location and time of generation along with technology used.

The ESC considers that new technologies and business models will increase this network value in the future, especially when factoring in other forms of community energy such as demand response. The ESC proposed a work program to progress the development of a market for grid services. The Victorian Government is carefully considering this report.

**Action 10**

**Supporting local energy projects across Victoria**

We have begun discussions with stakeholders on practical actions we can collectively take to build social acceptance and community trust in renewable energy to underpin the transition to new energy technologies.

In May 2017, a competitive process invited eligible organisations to apply to become a Pilot Community Power Hub host. The Hubs enable community groups to access renewable energy expertise and services for renewable energy projects. The three successful applicants are Ballarat Renewable Energy and Zero Emissions (BREAZE), Bendigo Sustainability Group (BSG), and Gippsland Climate Change Network for the Ballarat, Bendigo and Latrobe Valley Hubs respectively. The hosts are currently developing governance structures and business plans for their Hubs and will have priority project lists developed by the end of 2017.

**Action 11**

**Improving processes for community renewable energy projects**

In August 2017, a review of the General Exemption Order to section 16 of Electricity Industry Act 2000 was completed, examining the regulatory arrangements for embedded networks to determine whether they are meeting the needs of consumers. On 15 November 2017, a new General Exemption Order was made to ensure that consumers are protected and that there is regulatory clarity in Victoria. Most of the new requirements will commence on 1 April 2018.

**Action 12**

**Creating smart, solar energy schools**

The Victorian School Building Authority (VSBA) is in the process of developing a program to pilot energy efficiency upgrades in selected schools across Victoria, including the installation of solar power.

**Action 13**

**Supporting important artistic and cultural sustainability events**

The Victorian Government has secured the Land Art Generator Initiative (LAGI) 2018 sustainable design competition in Melbourne. We are now working with LAGI and many other organisations to deliver a successful competition, which will open in January 2018 and close in May 2018, with winning designs to be announced at an awards ceremony in October 2018. The inaugural presentation for the Minister’s Award for Community Renewable Energy Innovation is also scheduled for 2018.

Energy Hack 2017, our second Energy Hack, was a success, with 100 participants working on challenges regarding community energy and virtual power plants.

**Action 14**

**Encouraging more efficient investment in our energy system**

The Victorian Government is exploring policy options to:

- support network transformation in Victoria by facilitating a market for grid services and removing regulatory barriers to efficient network investment;
- enable greater demand side participation in the broader energy market through policy leadership and regulatory reform; and
- facilitate smarter electricity use by consumers by enabling new demand management services and rewards.

**Action 15**

**Stimulating and attracting new demand management services with community benefits**

On 31 August 2017, GreenSync launched the digital platform prototype ‘deX’. The launch included an announcement of new partners and projects beyond the conclusion of the initial trial. The deX prototype enables the community to be paid for providing grid services to networks. GreenSync will trial deX through eight projects, including the NEJF-supported Community Grid project on the Mornington Peninsula with United Energy. The Victorian Government is using deX trial to inform its demand management policy development.

**Action 16**

**Delivering a more flexible approach to grid connections**

We are engaging with Powercor to facilitate and develop better understanding on connection issues for commercial scale renewable energy generators. Powercor has recently developed a connection process map that provides a clearer understanding and expectation for applicants on network connections. We have also established a working group which includes AEMO, Grampians regional councils, and other council groups. We are seeking to commission modelling to help unlock vast solar and wind resources in the West and North-West Victoria.
Strengthening our affordable, reliable and resilient energy system

**Action 17**

**Supporting energy storage that integrates with renewable generation**

In May 2017, we released a request for detailed proposals for large-scale battery facilities in western Victoria to be delivered by the end of 2018, supported by up to $25 million of investment. Applications for the program closed on 13 June 2017. The Government engaged an independent expert assessment panel to assist in the assessment of the applications.

We have also seen significant media and community interest in the pre-feasibility study into solar pumped hydro in Bendigo. We have formed a steering committee composed of cross-agency and relevant external members to approve the study scope and provide guidance. A competitive procurement process has engaged an expert service provider to undertake the study. The study is due for completion by 31 January 2018.

The Victorian Government is contributing to the national regulatory framework for battery storage through the Council of Australian Governments (COAG) Energy Council. This process has resulted in inter-jurisdictional initiatives such as a work program to establish a national Distributed Energy Register.

**Action 18**

**Advocate to deliver secure, reliable and fairly priced gas for renewable energy generation**

In August 2017, the COAG Energy Council implemented a commercial arbitration framework to apply to gas pipeline operators and entities wishing to use pipeline services. This initiative is expected to help reduce the cost of gas transportation and promote the trade of gas. Legislation to implement this reform commenced in August 2017.

**Action 19**

**Establishing the Centre for New Energy Technologies (C4NET)**

The formal establishment of C4NET as a collaborative, not-for-profit organisation is scheduled for 2018. Several universities, network businesses, and other industry stakeholders are working closely with the government on the design of C4NET, ready to bring additional financial and skilled capability to the project.

**CASE STUDY – EMERGING ENERGY SOLUTIONS**

**Warburton Community Hydro**

In May 2017, the Minister for Energy, Environment and Climate Change approved a grant of up to $450,000 under the New Energy Jobs Fund Round Two to the Yarra Ranges Shire Council, to support their Warburton Community Hydro Project. This funding is matched by a financial contribution from the Upper Yarra Community Enterprise which, alongside in-kind contributions, brings the total project value to $1 million. This project will deliver 100kW hydroelectric generation using water taken from, and returned to Ythan Creek in Warburton. It will demonstrate renewable energy generation and will act as a pilot site for similar community energy projects using ‘run of river’ mini-hydro techniques. Project profits are returned to the local community via an innovative sponsorship model and to local community shareholders.
Action 20
Unlocking the potential and benefits of energy data

Data is now one of the most valuable commodities globally. The Victorian Government is actively working to unlock the full value of Victoria’s energy data. Greater access to this data will create a marketplace for consumer products and services, and drive insights and analysis for academic, government and industry stakeholders.

The Victorian Government has undertaken analysis to identify and understand other energy data initiatives, leverage opportunities to work with partners in this area and to inform the direction of moving forward. We are now embarking on a Concept Development study to define the value propositions for various stakeholder groups, cost and benefits for the state, privacy and security for consumers, the role for Victorian Government, and the latency of energy data. We are anticipating delivery of the study mid-2018, followed by a proof of concept in partnership with key industry stakeholders by mid-2019.

Action 21
Exploring innovative smart grid, microgrid and storage models

We are investing $10 million in a Microgrid Demonstration Initiative to support microgrid demonstration projects across Victoria. The Expression of Interest process opened in December 2017 and will be followed by a Request for Proposal in 2018.

Our Memorandum of Understanding with Monash University to collaborate on Monash’s Transformative Energy Initiative led to a $100,000 grant for Monash to develop a design study for a microgrid for its Clayton campus, which was announced at Monash University’s Clayton campus. The design study was released in October 2017.

Action 22
Investing in emerging energy solutions

We are developing a whole of government policy on waste to energy to give certainty to industry, community and local government. Waste-to-energy initiatives help reduce reliance on landfill, reduce greenhouse gas emissions, extract value in the form of energy from residual waste and create employment and economic opportunities for Victoria. Sustainability Victoria recently announced the outcomes of their waste to energy infrastructure fund, providing $2.4 million in grants to support new waste to energy facilities. The Government recently released a Waste to Energy discussion paper and is also progressing development of a Bioenergy Industry Development Plan.

Action 23
Leading the transition to a modern energy system

The Victorian Government has provided funding over two years for National Energy Market Advocacy and Reform activities and continues to participate in the COAG Energy Council and Standing Committee of Officials and advocate for the interests of Victorian energy consumers.

We are also working with market institutions and regulators towards a reliable and affordable energy sector that ensures efficient network spending and empowers consumers.

We are exploring policy options to enable greater demand side participation in the energy market and facilitate smarter electricity use by consumers by enabling new demand management services and rewards. This is in addition to an upcoming policy statement on demand management which will lay out the Government’s intention to lead in the demand management sector.
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Progression

Calendar years shown
For more information visit energy.vic.gov.au