Victoria’s Investment Prospectus: Digital Energy and Innovation

## Victoria, one of the world’s most exciting energy markets

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# Acknowledgements

**Acknowledgement of Country**

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 have ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria’s Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

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#### Traditional Owners at the centre of decision-making processes

Strong and mutually beneficial partnerships with Traditional Owners and First Peoples are imperative to the electricity transition’s success and integral to ensuring the goals and objectives of self-determination set out in the Victorian Government’s Self Determination Reform Framework and the Department of Energy, Environment and Climate Action’s (DEECA) Pupangarli Marnmarnepu ‘Owning Our Future’ Aboriginal Self-Determination Reform Strategy 2020–2025.

We will be continually guided by Traditional Owner and First Peoples’ communities – now and in the future – who have expressed a strong interest in investing in renewable energy to deliver their interests and their desire to own and manage renewable energy generation and storage technology and infrastructure to meet their communities’ cultural, spiritual and economic needs.

As part of a once-in-a-generation renewable electricity transition and transformation, there is an obligation for industry and government to create genuine partnerships with Traditional Owners and First Peoples, to ensure that their self-determining rights and interests are upheld. This will be the catalyst for historical change and reform that will see immediate and future flow-on effects. It will have a positive impact on the environment and advance the social and economic outcomes for Traditional Owners and First Peoples and all Victorians.

# Why invest in Victoria’s digital energy and innovation sectors?

#### Rich, accessible energy data

Victoria’s 99% smart meter penetration is the highest in Australia. Rich data made accessible through reforms such as the Consumer Data Right (CDR) make Victoria the ideal location to innovate, test and grow digital energy solutions.

#### Thriving energy research and development sector

World-class universities produce cutting-edge research to innovate and commercialise digital products – recently boosted by a $1.7 billion Future Made in Australia Innovation Fund.

#### Government initiatives under-writing investment

The Victorian Government has invested $2 billion in the landmark Breakthrough Victoria Fund to prioritise into future sectors including clean economies, digital technologies and startups.

#### Fast-growing startup ecosystem

Victoria's $91 billion startup ecosystem is one of the world’s fastest growing, rating highly on measures of global connectedness and talent.

#### Extensive pipeline of digital talent

Victoria has the fastest growing technology talent pool, with more skilled professionals than any Australia state, Singapore or Hong Kong.

#### Digital solutions drive Victoria’s energy targets

Victoria has released a range of ambitious energy targets including 95% renewable electricity by 2035. Digital solutions will be required for a rapid and efficient transition to achieving these targets.

# Our digital energy and innovation future

Victoria is primed to deliver a highly interconnected and sustainable energy platform.

#### What makes Victoria's digital energy and innovation subsector different?

Victoria is the only state in Australia with a fully digitised energy system, thanks to the roll-out of over 2.5 million smart meters to residential and small business electricity customers (over 99% coverage).

This makes Victoria the ideal place to develop and test new digital energy innovations, with smart meters:

* enabling near real-time remote monitoring of customer electricity flows
* allowing digital energy businesses to provide customers with new product offerings and greater insight into their energy use.

#### Smart meter coverage around Australia:

* In Victoria smart meter coverage is **above 99%**
* In the rest of Australia smart meter coverage is **less than 30%**

#### Investment Opportunity

Victoria’s growing digital and digital energy sectors are creating a wealth of investment opportunities. The following statistics show the pace and scale of growth:

* Australia's growing digital technologies sector is expanding at a rate 4 times faster than the rest of the economy, having grown 26% to $167 billion since 2020 and expected to reach $244 billion by 2031.(Source: Deloitte analysis conducted for the Department of Energy, Environment and Climate Action)
* Victoria's digital technology sector generated $34 million in revenue and $3 billion in exports annually. (Source: [globalaustralia.gov.au/industries/digitech](http://globalaustralia.gov.au/industries/digitech))
* Melbourne is home to more than half of Australia’s top 20 technology companies. (Source: [breakthroughvictoria.com/growth-sectors/digital-technologies](http://breakthroughvictoria.com/growth-sectors/digital-technologies))

# Victoria boasts world-leading data access

Victoria is the ideal location to test, develop and deploy new digital solutions, thanks to our world‑class energy data and access initiatives.

#### Unlocking energy data for innovative digital energy solutions

The national Consumer Data Right (CDR) for Energy reform is revolutionising access to Victoria’s world-class smart meter data.

By allowing consumers to share their energy data with authorised third parties, CDR enables new products and services to emerge, for example:

* quicker, more accurate energy retail offers for consumers, based on their historic energy use
* home energy control systems with optimised automated appliances
* tailored energy upgrades based on consumption patterns
* bundling of services across sectors including energy, banking and telecommunications.

For more information visit: [cdr.gov.au](http://cdr.gov.au/)

#### Open data initiatives

Through DataVic, Victorian Government agencies make their data available using an open licence. Since 2012, nearly 5,500 data sets have been added, providing a wealth of data for individual or business use.

For more information visit: [data.vic.gov.au](http://digitaltwin.vic.gov.au/public)

#### Digital Twin Victoria

The Digital Twin Victoria initiative is leading the nation in recreating a digital model of the state. This will enable government, industry and the community to collaborate in planning a liveable, sustainable and resilient future supported by data-driven digital innovation and intelligence.

For more information visit: [digitaltwin.vic.gov.au/public](http://digitaltwin.vic.gov.au/public)

#### Case study: Energy data access for retail comparison services

An innovative data access agreement gave Victorian consumers the ability to authorise safe access to their smart meter data. With one click, consumers allowed the government’s retail price comparison website, Victorian Energy Compare (VEC) to access electricity consumption data for their home or business, thereby providing faster, more accurate energy retail offers.

The service pioneered safe data access pathways for the sector.

For more information visit: [compare.energy.vic.gov.au](http://compare.energy.vic.gov.au/)

# We need digital tools across the energy sector

Digital solutions are required across the energy sector, from integrating new renewable generation to managing energy behind the meter.

Machine learning, artificial intelligence (AI) and advanced data analytics present growing investment opportunities and are just some of the digital capabilities in Victoria that can be leveraged to effectively deliver reliable, safe and affordable renewable energy.

#### Generation

##### Renewable optimisation and advanced sensors

A range of advanced sensors and digital optimisation programs is used to collect in‑depth data and optimise efficient generation and utilisation of renewable assets.

##### Digital twin

The Victorian Government has developed a digital twin of Victoria, including utility assets and projects. The tool aims to streamline access to utility information across the lifecycle of major infrastructure projects, speed up project delivery, make collaboration easier and provide greater access to utilities data (more information on page 10).

#### Transmission

##### Predictive maintenance

Energy businesses such as generators, network operators and retailers are increasingly using AI to predict optimal maintenance times.

##### Rich data for operational efficiency

Drones are used to map power lines and assets to create augmented reality and Light Detection and Ranging (LiDAR) representations of networks, providing major efficiencies for the effective operation and maintenance of energy networks.

#### Distribution

##### Advanced Distribution Management Systems

With some of the highest benchmarked distribution networks in Australia, distribution network service providers (DNSPs) utilise advanced distribution management systems to ensure a reliable and efficient supply of energy between transmission and consumers.

##### Distributed Energy Resource Management Systems

As a range of consumer solar, batteries, electric vehicles and heat pumps come onto the network, DNSPs need distributed energy resource management systems to manage the new 2-way flows of energy and ensure adequate capacity to meet new demand.

##### Microgrids

Microgrids rely on digital technology to ensure the energy generation, storage and demand loads provide flexibility and reliability for consumers (more information on page 14).

#### Retailers and service providers

##### Smart meter technology

With 99% smart metering infrastructure in Victoria, we can support digital solutions that rely on near-real-time consumption analytics and insights (more information on page 7).

##### e-billing and mobile apps

We are seeing a rapid increase in online billing solutions, energy retail or service comparison products and mobile apps to help consumers monitor and reduce their energy consumption.

#### Consumers

##### Virtual power plants

Virtual power plants (VPPs) are an aggregated network of distributed energy resources (DER) that can be remotely controlled and operated to balance the supply and demand of electricity on the grid. A VPP combines devices that store, generate and shift electricity to help meet peak demand in place of a conventional power plant.

##### Smart homes

Consumers are becoming more involved in their energy management, utilising smart home and automation systems to reduce energy costs and maximise use of their DER.

# Exciting market opportunities created by distributed energy resources

**Victoria is transitioning to a ‘smarter,’ more resilient and reliable grid, creating exciting market opportunities for digital energy technologies.**

Table 1: Victorian government initiatives driving market demand and the opportunities

|  |  |
| --- | --- |
| Opportunities | Victorian government initiatives driving market demand |
| **Microgrids and neighbourhood battery storage**  Digital technologies can play a key role in the integration and proliferation of microgrids and neighbourhood battery storage initiatives.  This will improve grid reliability and provide greater flexibility for energy retailers and consumers. | **100 Neighbourhood Batteries Program:** The Victorian Government has committed more than $42 million to fund installation of 100 neighbourhood batteries across Victoria.  The 100 Neighbourhood Batteries Program provides grants to install neighbourhood batteries to improve energy reliability and provide energy storage capacity for locally generated solar power, which is expected to increase access to renewable energy and help lower energy bills.  For more information visit: [energy.vic.gov.au/grants/ neighbourhood-batteries/100- neighbourhood-batteries](https://www.energy.vic.gov.au/grants/neighbourhood-batteries/100-neighbourhood-batteries-program-grants) |
| **Distributed energy resources**  Next generation technologies (such as smart inverters) enable advanced control and coordination of small-scale generation and storage, including electric vehicles. The penetration of these technologies continues to grow, creating market opportunities for digital energy service providers. As an example, the potential size of the market for monitoring and analytics photovoltaic (PV) tools in Victoria could reach $80 million in revenue per year by 2028 (Based on an average annual cost of $80 per year and a potential one million photovoltaic solar. Source: Deloitte analysis conducted for the Department of Energy, Environment  and Climate Action). | **Increasing energy generation and storage at home:** Our Solar Homes Program is accelerating the rate at which solar PV and batteries are installed. Victoria already has the third highest capacity of residential PV in Australia at >2,000 MW, and the state will increase the number of solar households to over one million by 2028.  For more information visit: [solar.vic.gov.au](http://solar.vic.gov.au/)  **Victoria has committed to a sales target of 50% zero emission light vehicles by 2030:** Integrating more zero emissions vehicles and electric vehicle chargers will be enabled by digital technologies.  For more information visit: [energy.vic.gov.au/renewable-energy/zero-emissions-vehicles](https://www.energy.vic.gov.au/renewable-energy/zero-emission-vehicles) |

## Case study: Amber Electric

Amber Electric (Amber) is an innovative energy company giving households access to the real-time wholesale price of electricity as it changes every 5 minutes.

Founded in December 2017 with the goal of using new technologies to benefit customers and build a more sustainable world, Amber is backed by Australia’s leading venture capitalists, impact- focused investors and individuals.

Through smart meters, Amber customers can see their detailed electricity usage data in the Amber app, allowing them to shift energy use and be rewarded for using power at cheaper and greener times.

Amber is currently trailing new digitally enabled SmartShift™ technology that will make home devices more intelligent by automatically running them at times when energy is cheaper and greener.

In February 2024 the Victorian Government backed investment fund, Breakthrough Victoria, announced an equity investment of $4.5m. Since this investment, Amber has grown its customer base to over 37,000 and hired 28 people (taking the total team size to 124). (Source: Breakthrough Victoria Investment Update: Amber Electric)

For more information visit: [amber.com.au](http://amber.com.au/)

# Digital tools for smarter home energy management

Smart energy management systems and smart appliances will be critical to driving more efficient energy consumption and increasingly sought by consumers to make energy cheaper.

#### Victorian Government initiatives driving market demand

##### Victorian Energy Upgrades (VEU) Program

In 2024, the Victorian Government will unlock $600 million in incentives for energy upgrades through the Victorian Energy Upgrades (VEU) program.

Legislated to 2030, the VEU program provides incentives for Victorians to move to efficient electric appliances as outlined in Victoria’s Gas Substitution Roadmap.

Households and businesses can access incentives to move away from gas, with hot water and space heating upgrades available in the program. In 2023-24, over 13,500 households installed efficient heat pumps for home heating. Over the same time, nearly 8,000 household replaced inefficient gas water heating.

For more information visit: [energy.vic.gov.au/households/victorian-energy-upgrades-for-households](https://www.energy.vic.gov.au/victorian-energy-upgrades/homes)

#### Case study: Powerpal

Powerpal is an invention that takes a new approach to energy monitoring.

The Powerpal energy monitor attaches to a customer’s smart meter, giving them real-time access to their energy consumption information via an easy-to-use app.

Customers can obtain clear and detailed updates in real time and receive automated analysis of their weekly power usage, allowing them to benefit by identifying which appliances and usage patterns are costing the most.

Powerpal learns how customer homes use energy and provides personalised guidance based on their usage profile to help customers make better energy usage decisions   
and save money.

The Powerpal energy monitor is free through the VEU Program, and since it has been introduced, has been installed in nearly 140,000 homes, resulting in an estimated 37,000 less tonnes of CO2 produced and $12 million saved on electricity bills.

For more information visit: [powerpal.net](http://powerpal.net/)

# The Centre for New Energy Technologies

The Centre for New Energy Technologies (C4NET) can connect your business into Victoria’s digital energy sector, from start-ups and data access to research capabilities.

#### C4NET focus areas

Harnessing the value of energy data to solve sector-wide challenges arising from Victoria’s energy system transformation, C4NET is delivering targeted projects that:

* improve energy data access and usage
* accelerate the deployment of new energy technologies
* create a dialogue between leaders that progresses energy policy and regulation
* strengthen the skills of the existing and emerging energy workforce.

For more information, visit: [c4net.com.au](http://c4net.com.au/)

#### What can C4NET do for investors?

C4NET is connected with distribution network service providers (DNSPs), innovators, research institutions, government and investors.

C4NET facilitates:

* contact with investment-ready ideas, start-ups and subject matter experts in the energy sector
* links with 6 leading Victorian universities
* access to energy data and implementation of best practice data governance procedures
* new projects and programs, drawing on the expertise and knowledge of partners
* an investment-friendly ecosystem in Victoria, including the state’s policy and regulatory environments.

#### Case study: Enhanced System Planning Victoria

C4NET’s Enhanced System Planning Victoria (ESPV) is a research collaboration between Victorian universities and DNSPs that aims to inform post-2030 sub-transmission level electricity planning. This program of works will also inform the uptake and integration of electric vehicles (EVs), as well as the impact of households’ transition away from gas to electrification.

Distribution networks are critical for a power system that is efficient, reliable and secure. The Australian Energy Market Operator (AEMO) is working with DNSPs and Energy Networks Australia (ENA) to strengthen the links between AEMO’s.

Integrated System Plan and distribution network planning processes. ESPV will be a point of optimisation for electricity system planning downstream to the transmission level.

For more information, visit: [c4net.com.au/projects/enhanced-system-planning-project](http://c4net.com.au/projects/enhanced-system-planning-project/)

# A thriving startup ecosystem to foster your digital energy solution

Victoria’s accelerators, hubs and networks support over 3,400 startups, making Victoria’s $91 billion startup ecosystem one of the fastest growing in the world and the optimal environment to develop your next digital energy product or service.

#### EnergyLab

EnergyLab is Australia and New Zealand’s largest cleantech startup accelerator and network dedicated to the clean energy transition.   
For more information, visit: [energylab.org.au](http://energylab.org.au/)

#### LaunchVic

LaunchVic is the government agency charged with growing Victoria’s startup ecosystem, focusing on funding, community building and global recognition.

For more information, visit: [launchvic.org](http://launchvic.org/)

#### Startupbootcamp

Startupbootcamp is a leading global accelerator for innovative startups addressing alternative fuels including hydrogen, energy efficiency, energy independence, digitisation and analytics.

For more information, visit: [startupbootcamp.com.au/energy](http://startupbootcamp.com.au/energy)

#### Victorian Cleantech Cluster

Victorian Cleantech Cluster is an industry-led group supporting Victoria to become a major hub for innovation, uptake and commercialisation of clean technology.

For more information, visit: [victoriancleantech.org.au](http://victoriancleantech.org.au/)

#### An easier, more affordable place to do business

* Victoria boasts one of the most favourable business tax environments among Australian states.
* Melbourne office lease costs are up to 38% cheaper than Sydney.
* Victoria ranks first as the most business-friendly state in Australia. (Source: Business Council of Australia)

#### Investment Opportunity

The Global Startup Ecosystem Report 2023 (Source: The Global Startup Ecosystem Report 2023) indicated that Victoria’s thriving startup ecosystem jumped up 6 places in 2023 to #33 globally and is continuing to rapidly grow.

Victoria's ecosystem value has almost doubled since 2019 to $91 billion (AUD). (Source: Scaling Up: Growing the Economic Opportunity for Victoria's start-up ecosystem)

Now is a perfect time to invest and support our world-class innovators and cutting-edge digital energy solutions.

# Exceptional research and development capabilities

Victoria boasts a thriving energy research and development sector, with some of the world’s top research centres and facilities, including 2 universities (Source: QS World University Rankings 2024) ranked in the top 50 globally and several quality regional universities.

**The University of Melbourne’s Energy Institute (MEI)** delivers influential, interdisciplinary research on the challenges of transitioning towards a low carbon energy system. MEI has 4 key energy research programs:

* Energy Systems
* Environment and Resources
* Hydrogen and Clean Fuels
* Power Generation and Transport.

For more information, visit: [energy.unimelb.edu.au](http://energy.unimelb.edu.au/)

**Monash University’s Monash Energy Institute** brings together world-leading academics in fields including behavioural economics, energy materials and systems, and data science to accelerate the transition towards a sustainable energy future through impactful interdisciplinary research and education programs for Monash University and its trusted partners.

For more information, visit: [monash.edu/energy-institute](http://monash.edu/energy-institute)

**Deakin’s Digital Design and Engineering Centre (3DEC)** was established in 2017 by integrating existing multi-disciplinary design and engineering R&D ingenuities in civil, mechanical, electronics, environmental, renewable Energy and electrical engineering disciplines to advance industries that are vital for Australia’s social, economic and environmental future including the sustainable energy infrastructure industry.

For more information, visit: [deakin.edu.au/3dec](http://deakin.edu.au/3dec)

**Swinburne University of Technology (SUT)** is home to the Siemens Swinburne Energy Transition Hub, a research and development centre dedicated to accelerating the transition towards a sustainable energy sector, with a focus on achieving net zero targets and promoting the uptake of renewable energy sources.

For more information, visit: [swinburne.edu.au/research/platforms-initiatives/siemens-swinburne-energy-transition-hub](http://swinburne.edu.au/research/platforms-initiatives/siemens-swinburne-energy-transition-hub)

**Victoria University’s Victoria Energy Policy Centre (VEPC)** is a research centre focusing on policy challenges in energy, with a focus on wholesale market transition to a low carbon economy, design and operation of retail energy markets and the economics of storage.

For more information, visit: [vepc.org.au](http://vepc.org.au/)

**La Trobe University’s Centre for Technology Infusion** conducts energy research focusing on:

* smart energy monitoring and management technologies
* alternative energy sources
* smart grid technologies.

For more information, visit: [latrobe.edu.au/technology-infusion](http://latrobe.edu.au/technology-infusion)

**Federation University’s** energy research interests focus on energy data and systems, encompassing:

* blockchain applications to community energy
* Internet of Things in energy systems sustainability
* microgrids and clusters
* data analytics.

For more information, visit: [federation.edu.au](http://federation.edu.au/)

**RMIT University** has a long and rich history of cutting-edge, industry-relevant research in the energy sector.

Energy@RMIT brings together all its researcher capabilities to form a team with expertise that spans the complete research space required to understand, lead and support the energy transition.

For more information, visit: [rmit.edu.au](http://rmit.edu.au/)

# Supporting investment in innovation

Accelerating the state-wide clean energy transition, the Victorian and Australian Governments have created several initiatives to support innovation in the energy sector, including digital and renewable technologies.

#### Government support for startups

The 2024-25 Australian State Budget provided the $1.7 billion Future Made in Australia Innovation Fund, delivering a 10-year extension of funding to the Australian Renewable Energy Agency.

The Australian Government has committed $1.5 billion to manufacturing clean energy technologies, including the $1 billion Solar SunShot and $523.2 million Battery Breakthrough Initiative. It will also undertake a strategic examination of Australia’s research and development (R&D) system with $38.2 million invested in a range of science, technology, engineering and mathematics programs.

#### Breakthrough Victoria

Breakthrough Victoria is an independent investment management company established in 2021 to invest and manage the Victorian Government’s landmark $2 billion Breakthrough Victoria Fund.

Over the next 10 years, the fund will invest in 5 priority sectors, including clean economies and digital technologies, to create the jobs of tomorrow.

#### Digital Energy Economy Program

The Victorian Government’s Digital Energy Economy Program (DEEP) delivers high value interventions to develop the energy innovation ecosystem. The program capitalises on Victoria’s unique competitive advantages, helping grow investment-ready local startups and new products at the cutting edge of the energy transition. Building on the successes of 2023-24, planning is underway for DEEP 2025, continuing the commitment of the Victorian Government to fostering innovation in the energy sector.

#### Invest now help support Victoria’s emissions targets

Victoria is seeking investment in innovative, digital technologies and data-driven services to support our ambitious net zero emissions targets.

For more information visit: [climatechange.vic.gov.au/victorias-climate-change-strategy](http://climatechange.vic.gov.au/victorias-climate-change-strategy)

# Investing in a Future Made in Australia

The Australian Government is investing $22.7 billion to transform the nation into a renewable energy superpower. As the country’s leading manufacturing state, Victoria can be central to these ambitions.

Future Made in Australia has been designed to maximise the economic and industrial benefits of the net zero transition. It is focused on facilitating private sector investment and building a stronger, more diversified and more resilient economy powered by renewable energy.

The Victorian Government can connect you with the Australian Government’s specialist investment vehicles, including the:

* **Clean Energy Finance Corporation:** Australia’s ‘Green Bank’, with access to $30.5 billion in investment capital from the Australian Government
* **Australian Renewable Energy Agency:** Provides financial assistance for research, development, demonstration, commercialisation and deployment of renewable energy technologies.
* **National Reconstruction Fund:** A $15 billion national investment fund designed to diversify and transform Australia's industry and economy.
* **Net Zero Economy Authority:** $399 million to establish the Net Zero Economy Authority and support the economy wide net zero transformation.

#### Key initiatives include:

* **$7 billion** production tax incentive for the processing and refining of critical minerals
* **$6.7 billion** production tax incentive for renewable hydrogen
* **$2 billion** for early-mover renewable hydrogen projects as part of the Hydrogen Headstart program (bringing total investment to $4 billion)
* **$1.7 billion** to promote net zero innovation, including for green metals and low-carbon fuels
* **$1.5 billion** to strengthen battery and solar panel supply chains through production incentives
* **$134 million** to fast-track approval processes for renewable energy projects.

For more information, visit: [treasury.gov.au/publication/p2024-526942](https://treasury.gov.au/publication/p2024-526942)

# Access to Victoria’s world-class renewable energy talent

Our growing, highly-skilled workforce drives project delivery and fosters industry growth. To meet the needs of the sector, the Victorian Government has committed to significant new energy skills and workforce initiatives.

#### World-class education and training

Victoria has a globally renowned education and training system, including:

* 2 global ‘Top 50’ universities. (Source: QS World University Rankings 2024 [topuniversities.com/world-university-rankings?page=2](http://topuniversities.com/world-university-rankings?page=2))
* 4 dual-sector universities (offering both tertiary and vocational education).
* 12 independent technical and further education (TAFE) locations under a single TAFE network.
* a diverse talent pool with strong growth across the broad range of occupations relevant to the renewable energy sector.
* the highest number of engineering managers of any Australian state or territory.

#### Government investment in skills and workforce

The Victorian Government is investing in the skills and workforce requirements needed for Victoria’s transition to a renewable energy future. Major initiatives include:

* The Victorian Energy Jobs Plan, which will set out actions to develop the workforce required to deliver our nation-leading target of 95 per cent renewable electricity generation by 2035 and drive investment confidence. The plan is due to be released in early 2025.
* Establishing the SEC Centre of Training Excellence to attract and train a skilled renewable energy workforce, working with industry to ensure Victoria has the workers required to support the energy transition.
* The Wind Worker Training Centre and Renewable Hydrogen Worker Training Centres are funded initiatives to ensure Victoria has a pipeline of skilled workers to meet workforce needs and deliver the wind and renewable hydrogen projects now and in the future.

#### Case study: HAL Systems and CivVic Labs Digital Energy Challenge

HAL Systems is an early-stage climate-tech start-up focused on improving energy efficiency in commercial buildings through advanced predictive climate control technology.

Founded with the mission to reduce CO2 emissions and operational costs in commercial properties, HAL Systems utilises real-time weather forecasts to optimise heating, ventilation, and air conditioning (HVAC) systems. This innovative solution ensures a balance between energy savings and occupant comfort, making it a valuable tool for building owners pursuing their sustainability goals.

HAL Systems was a participant in the inaugural CivVic Labs Digital Energy Challenge, a start-up accelerator program delivered by the Victorian Government and funded through its Digital Energy Economy Program. Over six weeks, ten start-ups including HAL Systems received $15,000 in equity-free funding, alongside mentorship and training. HAL Systems was one of two start-ups awarded an additional $35,000 to develop their prototype.

This program not only provided crucial development funding but has also positioned HAL Systems to continue developing its technology, piloting it with Victorian businesses to reduce their energy costs.

For more information, visit [halsystems.com](http://halsystems.com/)

# Key Victorian Government entities

We can help facilitate connections with key Victorian Government entities and industry members across our renewable energy sector.

#### Department of Energy, Environment and Climate Action (DEECA)

DEECA works with industry and the community to develop Victoria's secure and sustainable energy future.

For information on Victoria’s energy policy landscape and facilitated connections across the Victorian Government and renewable energy sector, contact the Business and Industry Engagement team at: [BIE@deeca.vic.gov.au](mailto:BIE@deeca.vic.gov.au)

[energy.vic.gov.au](http://energy.vic.gov.au/)  
[energy.vic.gov.au/ forindustry/investment-opportunities](http://energy.vic.gov.au/%20forindustry/investment-opportunities)

#### Breakthrough Victoria

Breakthrough Victoria is an independent investment management company established in 2021 to manage the Victorian Government’s landmark $2 billion Breakthrough Victoria Fund.

Visit the website of Breakthrough Victoria at: [breakthroughvictoria.com](http://breakthroughvictoria.com/)

#### Invest Victoria

Invest Victoria is the Victorian Government’s investment attraction agency. Services include:

* market regulatory information
* statutory approvals coordination
* site location services
* identification of infrastructure and utility requirements
* advocacy within government.

Visit the website of Invest Victoria at: [invest.vic.gov.au](http://invest.vic.gov.au/)

#### Offshore Wind Energy Victoria

Offshore Wind Energy Victoria (OWEV) was established as the single point of entry for industry and community engagement on offshore wind.

Visit the website of Offshore Wind Energy Victoria at:   
[energy.vic.gov.au/renewable-energy/offshore- wind-energy](http://energy.vic.gov.au/renewable-energy/offshore-%20wind-energy)

#### SEC

The SEC is a Victorian Government-owned renewable energy company. It is partnering with the private sector to deliver 4.5 GW of new renewable energy and storage projects with an initial investment of $1 billion.

Visit the SEC website at: [vic.gov.au/state-electricity-commission-Victoria](http://vic.gov.au/state-electricity-commission-Victoria)

#### Solar Victoria

Solar Victoria is responsible for the delivery of the Victorian Government’s $1.3 billion Solar Homes Program – one of the most ambitious and transformative renewable energy programs in Australia.

Visit the Solar Victoria website at: [solar.vic.gov.au](http://solar.vic.gov.au/)

#### Sustainability Victoria

Sustainability Victoria empowers Victorians to live sustainably by taking action on climate change and using our precious resources wisely – to deliver a sustainable future for us all.

Visit the Sustainability Victoria website at: [sustainability.vic.gov.au](http://sustainability.vic.gov.au/)

#### VicGrid

VicGrid coordinates the planning and development of Victorian Renewable Energy Zones (REZs). It also oversees the $540 million REZ fund that will be used to strengthen the grid and develop each REZ.

Visit the VicGrid website at: [energy.vic.gov.au/renewable- energy/renewable-energy-zones](http://energy.vic.gov.au/renewable-%20energy/renewable-energy-zones)

# For international investors

Contact a local Victorian Government Trade and Investment Office to help you:

* navigate investment opportunities in Victoria’s new energy technology sector
* set up a briefing with energy specialists
* arrange inbound market visits
* introduce you to the Victorian Government’s Energy Business and Industry Engagement team and Invest Victoria.

For more information, visit: [global.vic.gov.au/meet-our-global-team/all-office-locations](http://global.vic.gov.au/meet-our-global-team/all-office-locations)

Figure 3: Victorian Government Trade and Investment office locations

* Melbourne, Australia
* Kuala Lumpur
* Jakarta
* Singapore
* Vietnam
* Tokyo
* Seoul
* Bengaluru
* Mumbai
* Shanghai
* Nanjing
* Chengdu
* Beijing
* Hong Kong
* London
* Paris
* Frankfurt
* Dubai
* Tel Aviv
* New York
* Washington DC
* Boston
* San Francisco
* Santiago



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