

Draft Victorian Transmission Plan Guidelines

Community summary

July 2024

Victoria is delivering a new long-term strategic plan for energy generation and transmission development to support our State's transition to renewables.

Victoria's energy system is changing. Coal-fired power stations are becoming unreliable and are retiring. We urgently need to change our power grid to carry energy from new renewable sources across the state to Victorian homes, businesses, hospitals, schools and other vital services.

The Victorian Government, through VicGrid, is developing and implementing a new statewide approach to renewable energy transmission infrastructure planning, to enable a smooth transition to renewable energy.

This new approach includes delivering a long-term strategic plan for renewable energy and transmission development in Victoria – the Victorian Transmission Plan.



What is the Victorian Transmission Plan?

The Victorian Transmission Plan will ensure we build the right amount of energy infrastructure in the right places at the right time, avoiding both under-investment (building too little) and over-investment (building too much).

As we develop the Victorian Transmission Plan, decisions at every step will aim to ensure an affordable, reliable, safe and secure transition to net zero emissions that builds community understanding and support, and encourages energy industry investment.

By making sure we don't build more infrastructure than Victoria needs, we will help minimise impacts on landholders, communities, industries and the environment, and keep costs down to avoid unnecessary energy bill increases.

We will produce a Victorian Transmission Plan in 2025, 2027 and then every 4 years. We are getting ready to prepare the first one, the 2025 Victorian Transmission Plan, which will consider Victoria's energy needs over the next 15 years.

Each plan will identify what renewable energy generation, storage and transmission projects are needed, when they are needed and where they should be built over the following 10 years.

At the heart of our approach will be meaningful partnerships with First Peoples, and early and ongoing engagement with landholders, communities and industry.

How are we developing the 2025 Victorian Transmission Plan?

The draft Victorian Transmission Plan Guidelines (a document) explains how we will prepare the 2025 Victorian Transmission Plan and subsequent plans.

The draft guidelines include information about:

- what parts of Victoria we are investigating for potential future renewable energy zones
- how we will determine how much energy is needed, and when
- how we will determine what transmission projects are needed to support new energy generation
- how we will partner with First Peoples and engage with landholders, communities and industry.

The Victorian Transmission Plan development process includes 5 steps:



Step 1 **Identify areas suitable for investigation**

Using energy market modelling, we will identify the most suitable places to explore renewable energy generation projects within a broad geographical study area.



Step 2 **Determine the desired generation capacity**

For each area being investigated, we will identify how much wind or solar energy can be produced, what energy storage capacity would be appropriate, and when that generation and storage capacity should be brought online.



Step 3 **Identify what upgrades the transmission network needs:**

We will assess what additional or upgraded transmission infrastructure is needed to support the generation capacity that will be connecting. This includes assessing the capacity of current infrastructure to accommodate additional renewable energy generation.



Step 4 **Propose a sequence of transmission network improvements**

We will start to determine the right mix of energy generation and transmission projects that will deliver the greatest economic benefits to Victoria. We will identify potential project combinations. We will then prepare a draft 'optimal pathway', which will be a combination of projects that is robust to future uncertainties and that minimises the risk of both under-investment (not being prepared) and over-investment (building more than is necessary). These will be published as part of the draft 2025 Victorian Transmission Plan, and be open for public consultation.



Step 5 **Finalise what projects need to be delivered in the next 10 years**

Following feedback on the draft optimal pathway, we will identify the transmission projects needed over the next 10 years.

Following publication of the final 2025 Victorian Transmission Plan, detailed design processes will commence to refine these transmission projects, which will involve further, more in-depth and targeted engagement with landholders, communities, industry and First Peoples.

What areas are we considering for renewable energy generation?

We have undertaken a bespoke strategic land use assessment to identify parts of Victoria for further study for potential future renewable energy development. This is an early step in the process to identify Victoria's future renewable energy zones.

What is a Strategic Land Use Assessment?

The strategic land use assessment uses a spatial multi-criteria analysis combined with geographic information system tools. This method provides a way of understanding existing land uses and landscape features across the state, using a range of spatial datasets including: land use, engineering, environmental, cultural and social factors.

It brings together more than 60 spatial datasets across environmental, cultural, land use and engineering themes.

The study area shows the parts of Victoria that have the potential to host new energy system infrastructure, such as wind and solar generation, as well as supporting transmission lines. It comprises areas to consider in more detail as we work through how much wind, solar, storage and transmission we will need, where and when.



It is important to note that only a portion of the study area will be needed to host new energy infrastructure. But for planning it is helpful to start with a broader area and then continue to narrow in on the most appropriate areas for renewable energy generation.

How will we prioritise areas for investigation?

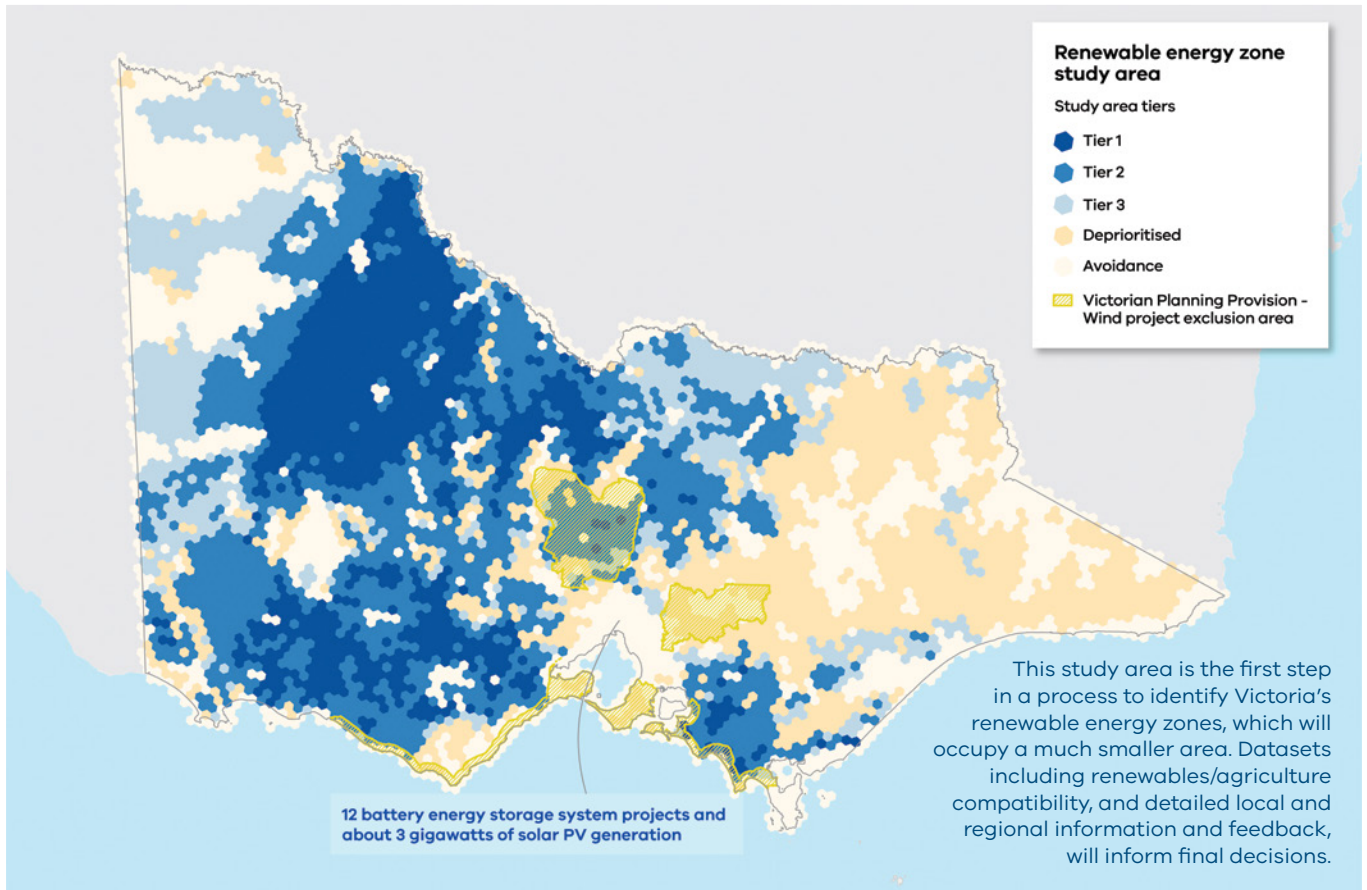
Within the study area we have identified three areas (tiers 1 to 3) that we will use to prioritise our investigations.

Tiers 1 and 2 areas will be prioritised for future investigation based on strong wind and solar generation opportunities and the likely low impact on land values such as biodiversity, agriculture and rural residences. Tier 3 areas present moderate opportunities for energy generation and more constraints. However, some of these areas may

still be required to support overall reliability and security of the power system. Other areas of the state have been deprioritised for reasons such as sensitive or incompatible land uses.

Partnering with First Peoples, and meaningful engagement with landholders, communities and industry will help us plan and develop renewable energy zones in a way that minimises impacts and maximises the collective benefits.

Figure 1: Geographic areas considered for the 2025 VTP (REZ study area)



A more detailed map of the renewable energy zone study area including key geographic features and towns is available on Engage Victoria at engage.vic.gov.au/victransmissionplan

What do the tiers on the map mean?



Tier 1
Most suitable for investigation

We will prioritise these areas to investigate for future renewable energy zones, based on the combination of high opportunities and low constraints for wind and solar.



Tier 2
Suitable for investigation

These areas are suitable for investigation based on the combination of moderate-high opportunities and low-moderate constraints. Some of these are close to key locations where wind and solar can connect to the network.



Tier 3
Available for investigation

These areas are available for investigation. This tier contains a mix of areas. Some have moderate opportunities and constraints, and others have higher opportunities and lower constraints but are a significant distance from available 500kV transmission lines.



Deprioritised area

These areas contain a combination of lower opportunities and higher constraints. We are not prioritising the investigation of these areas for the 2025 VTP.



Avoidance area

Avoidance areas highlight early areas to protect and avoid where there are significant sensitive land use and landscape value.

The Victorian Planning Provisions include specific prohibitions for permits to develop wind energy facilities in certain circumstances and locations, which include specific designated locations with high landscape or environmental value. These prohibition areas were introduced into the Victorian Planning Provisions in 2012 and are shown in the study area.



How will we narrow the study area into proposed renewable energy zones?

As part of developing the 2025 Victorian Transmission Plan, we will narrow down the study area to identify smaller areas for further investigation.

We will use industry-standard, best-practice energy market modelling and a multi-criteria analysis to help identify these more granular areas.

Energy market modelling will be used to identify the most suitable locations from an economic or 'least cost' point of view.

A multi-criteria analysis will take into account community feedback, regional economic development and developer/generator interest alongside other social, environmental and land use factors.

An important part of the refinement process includes working closely with landholders, communities, First Peoples and industry to minimise impacts on agricultural land, communities, water systems and biodiversity.

Figure 2: How the study area will be refined to identify Victoria's future renewable energy zones



The areas eventually proposed for renewable energy zones will need to protect significant areas and sites, minimise impacts on land, communities, water and biodiversity, and keep the total cost of infrastructure low to keep power bills down. These areas will be shared as draft proposed renewable energy zones in the draft 2025 Victorian Transmission Plan, and be open for community and industry feedback.

Partnering with First Peoples

We are committed to working in partnership with First Peoples as distinct rights holders to Country and Sea Country. They are our partners who have rights that must be upheld as laid out under the Charter of Human Rights and Responsibilities Act 2006 (Vic), the Traditional Owner Settlement Act 2010 (Vic), Aboriginal Heritage Act 2006 (Vic) and Native Title Act 1993 (Cth). We acknowledge First Peoples have legal rights and cultural responsibilities that will be recognised and supported.

VicGrid is committed to the Pupangarli Marnmarnepu 'Owning Our Future' Aboriginal Self-Determination Reform Strategy and intends to work in partnership with First Peoples in the regions to identify key considerations and concerns, and benefits and opportunities that may be of interest.



We are seeking to partner with Traditional Owner groups to enable First Peoples to play an active role in the development of the 2025 Victorian Transmission Plan (VTP) in line with self-determination principles, and to minimise impacts to Country from future renewable energy zone and transmission projects.

Engaging with communities and industry

We are committed to implementing a new way of planning energy infrastructure that gives First Peoples, landholders and communities a real voice.

The development of the 2025 Victorian Transmission Plan will demonstrate our commitment to delivering place-based engagement with landholders and local communities. The new framework will incorporate early, deeper and ongoing community engagement throughout the planning of and investment in transmission projects.

We will also work with the energy industry to explore other critical factors we need to consider and seek to understand how we can effectively work with developers to incorporate local insights and values in the detailed design of future transmission projects.





We're seeking your feedback to help shape development of the 2025 Victorian Transmission Plan

We're seeking your input to help us finalise the Victorian Transmission Plan Guidelines and shape our approach to narrowing the study area to proposed renewable energy zones.

Consultation on the draft Victorian Transmission Plan Guidelines will be open until 25 August 2024.

We are also inviting feedback on the study area until 30 September 2024. This feedback will be considered during the refinement process to identify draft proposed renewable energy zones,

which will be shared for feedback in the draft 2025 Victorian Transmission Plan in early 2025.

The final Victorian Transmission Plan Guidelines will be published by 30 September 2024.

You'll find the full draft Victorian Transmission Plan Guidelines, study area and more information about how to provide feedback and other engagement opportunities at engage.vic.gov.au/vicgrid

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