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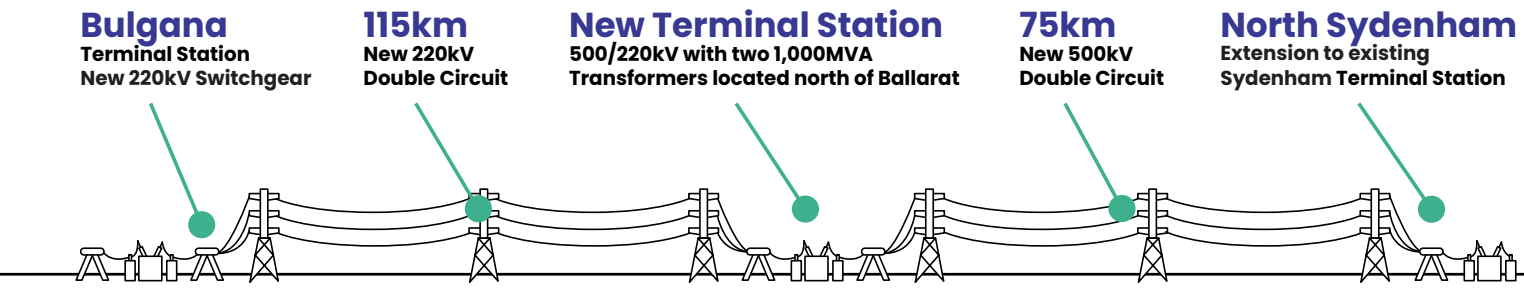
# The role of the Regulatory Investment Test for Transmission process in the development of the WVTNP




AusNet Services recognises the growing community interest in the decision-making process that informed the project scope for the Western Victorian Transmission Network Project (WVTNP). We understand that the regulatory approvals processes involved, and the different roles of multiple organisations within these processes, can be confusing.

The aim of this fact sheet is to explain the Regulatory Investment Test for Transmission (RIT-T) process that shaped the Project scope of the WVTNP. The RIT-T is a regulated economic assessment required under the National Electricity Rules[1] that must be applied to all consumer-funded transmission projects likely to cost over $6 million. The purpose of a RIT-T is to ensure these projects are built in the long term interest of electricity consumers.

SPECIFICALLY, THIS FACT SHEET WILL EXPLAIN:

- what the RIT-T process is;
- what is and is not considered by the RIT-T process;
- how the RIT-T shaped this project, and
- how to have your say on the WVTNP.

## About the Project

The WVTNP project seeks to increase transmission capacity in the Victorian network. It proposes a new, long-distance 190km high voltage transmission line between Bulgana and Sydenham terminal stations, connected by a new terminal station to be constructed in a location to be determined north of Ballarat.

## Why Western Victoria?

The energy sector across the world is in transition. In Victoria, the way we generate electricity is shifting away from reliance on Latrobe Valley coal-fired energy sources, towards areas rich in renewable resources, such as Western Victoria. This geographic shift also requires changes in the location of infrastructure that transports the electricity from the power to consumers throughout Victoria.

1 For more information on the legislation and regulation of Australia's energy system, see https://aemo.com.au/learn/legislation-and-regulation

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## What we have heard

Some community members have expressed concerns that the RIT-T did not consider broader social and environmental impacts and only focussed on economic factors. Similarly, there are concerns that as part of the RIT-T assessment insufficient detail was provided on undergrounding and partial undergrounding options. Others have asked for more information on the next best options that were considered as part of the RIT-T. We appreciate that community members want to better understand these processes and how these decisions are made.

We know that the WVTNP will have impacts on local communities, as well as on environmental features within the area. We understand that it feels unfair that some will bear the brunt of the impacts of the transmission infrastructure, while the benefits of cleaner and more affordable energy will be shared by all Victorians.

Individuals and communities have every right to expect transparency and raise concerns about the regulatory processes used to make decisions that will affect them. We know that how these decisions are made, the roles and responsibilities of different organisations, and the opportunities for you to have a say, can be confusing and unclear. This does little to give you certainty on an issue of importance. In response to this feedback from the community, we developed this fact sheet to explain the RIT-T as it relates to the WVTNP.

## Who is AEMO and what is its role in the RIT-T for WVTNP?

The WVTNP reflects the outcome of the Western Victorian Renewable Integration RIT-T assessment that was completed by the Australian Energy Market Operator (AEMO) in 2019. AEMO is an independent not-for-profit body that is responsible for planning and managing the power system to ensure a secure, cost-efficient and reliable supply of energy for consumers. AEMO does not own or operate any electricity infrastructure.

In 2017, AEMO, in its role as the transmission network planner for Victoria, commenced a RIT-T to identify the most economically efficient investment option to increase the amount of electricity that can be transported across western Victoria. The investment option selected within the RIT-T process informed the scope of the WVTNP.

For further detail, the technical reports relating to the RIT-T for the WVTNP are available here

(**https://aemo.com.au/en/initiatives/major-programs/western-victorian-regulatory-investment-test-for-transmission**).

## What is a RIT-T?

Under the NER, transmission network planners are required to undertake economic cost-benefit assessments known as a RIT-T for significant transmission works proposed for the National Electricity Market (NEM). The NEM covers Queensland, New South Wales and the Australian Capital Territory, Victoria, Tasmania and South Australia. The RIT-T process requires transmission network planners to identify the network need, assess the cost, and evaluate the economic and technical benefits of a range of potential solutions.

The RIT-T process can be likened to a business case for any project or venture. It represents an early hurdle that needs to be crossed in order to progress to the next stage of investment and planning. Its purpose is to identify the investment option that delivers the highest net economic benefit to those who produce, transport and consume electricity in the NEM. This is done to ensure the proposed investment is in the long-term interests of electricity consumers who ultimately fund this project. This is in contrast to privately funded initiatives which do not require a RIT-T, such as in the case of a company that seeks to build a powerline to connect its wind farm to the network.

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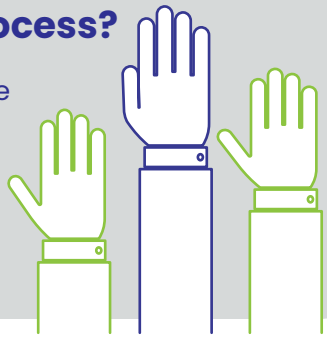
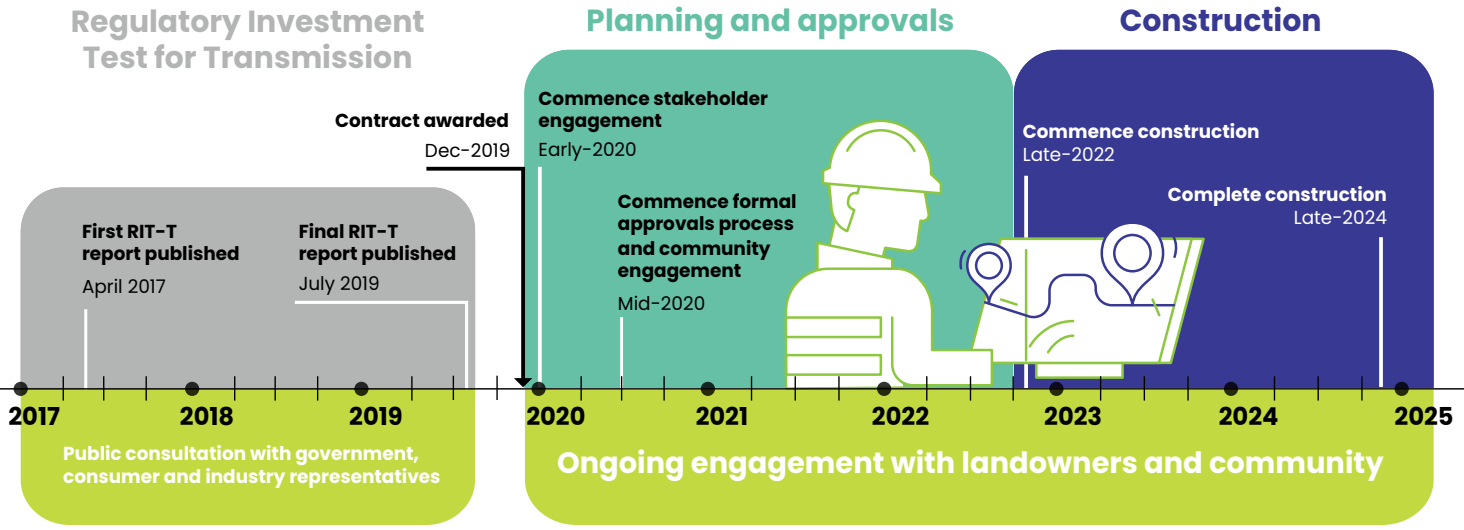
## Where does the RIT-T fit in the project development process?

The RIT-T is by law obliged to identify the investment option that delivered the highest net economic benefit for the transmission of electricity. Following a competitive tender process, AusNet Services was chosen to design, deliver, own and operate the WVTNP. The diagram below illustrates the key steps in the overall project development process (including the RIT-T process), and responsible organisations.






## Are social and environmental impacts excluded from the RIT-T?

The RIT-T process can only consider the net economic benefit to electricity consumers.

The matters that can and cannot be considered during a RIT-T process are set out in guidelines developed by the Australian Energy Regulator (AER). The guidelines reflect the objective of protecting consumers from paying more than necessary for electricity. Specifically, the RIT-T considers:

- network parameters (e.g. technical feasibility, options that provide benefits to electricity consumers);
- cost parameters (direct costs), and
- time parameters (timely completion of infrastructure).

The RIT-T guidelines explicitly exclude matters related to social and environmental impacts on local communities in its assessment unless it conflicts with the law. The guidelines, for example, explicitly exclude consideration of an option's impact to the environment or for matters, such as, the loss of visual amenity, that are not regulated.

However, the RIT-T process is only the first assessment stage in the development of the Project. Social and environmental impacts will be assessed at subsequent stages of the planning and approvals processes (see Diagram above).

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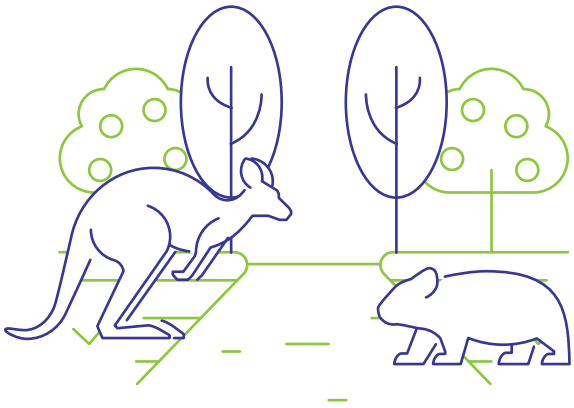
## When will social and environmental impacts be considered?

AusNet Services is responsible for designing the Project and meeting the requirements of planning and environmental approvals processes. During the approvals processes, AusNet Services will consult with local communities on the design and route of the transmission line. These processes require AusNet Services to undertake extensive environmental, amenity and cultural investigations, prior to any routes or locations receiving final approval decisions. As part of these processes, a number of opportunities exist for the local communities to have a say about the issues that are of most concern. More information about these opportunities can be found on our website:

**https://www.westvictnp.com.au**



If the Project obtains approval from the Victorian and Commonwealth Governments, AusNet Services will construct, own, operate and maintain the transmission line.

## How was the undergrounding option considered by the RIT-T?

Concerns have been raised that the undergrounding option was dismissed too early in the RIT-T process and that the cost-benefit analysis that accounts for social and environmental impacts was not undertaken. It is understandable that some community members may feel that this option was dismissed too early in the process.

It is true that the assessment of an underground option was undertaken at a high level for the RIT-T, with modelling based on market and industry information. The high-level analysis found that per kilometre, building transmission cables underground would be in the order of up to ten times more expensive when compared with the equivalent overhead option. Given the significant difference in cost, without providing any additional economic benefits meant that undergrounding options could not be justified under the RIT-T regulations. As such, no further analysis was undertaken in the RIT-T in relation to full or partial undergrounding options. AusNet Services will present more detailed costings that will be publicly available as part of the EES.

## Was High Voltage Direct Current (HVDC) considered as an option within the RIT-T?

We have noted some questions about whether HVDC was considered by AEMO in the RIT-T process. HVDC equipment was considered in the RIT-T but also excluded on the basis that it was not considered economically feasible. This was because although HVDC does offer technical benefits and requires fewer cables than High Voltage Alternate Current (HVAC), it would cost significantly more overall compared to a HVAC solution due to the need for associated infrastructure to link into the existing network which is HVAC. Integration of HVDC and HVAC technologies, for example, requires 'converter stations' at every point the two technologies meet. This would involve the installation of very large, expensive, above ground facilities adjoining each of the four terminal stations connecting to the new transmission line, as well as for each subsequent generator that connects. Additional infrastructure may also be required to maintain adequate system strength. Given the cost of this additional infrastructure, HVDC options could not be justified under the RIT-T regulations.

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## What about other projects that used undergrounding?

There has been a lot of debate and interest in drawing comparisons with other projects that have incorporated the undergrounding of cables. There are key differences between the WVTNP and other projects which include project type, location and technical specifications (such as the types of cables required, length, transmission requirements and capacity). However, an important difference with the WVTNP, when compared to other projects, is that it is subject to the RIT-T where the benefits must outweigh the costs. It is subject to the RIT-T because it is:

1. A proposed network transmission investment of over $6 million, and
2. Funded by Victorian electricity consumers.

In contrast, projects which are privately funded, or sit under the $6 million threshold, are not subject to the RIT-T.

## Why can't consumers just pay more to cover the costs of undergrounding?

We have noted some questions regarding whether any additional cost associated with undergrounding – full or partial – could be passed on to consumers through increased electricity prices.

It is true that the RIT-T does not take options like this into account. This is because the purpose of the RIT-T test is to find the most efficient option to protect consumers from paying more than necessary for their electricity.

## What about other overhead options considered within the RIT-T process?

Similar to the option of undergrounding, other overhead options were assessed under the RIT-T for the WVTNP. These included various locations (such as transmission lines with different start and end points), voltages and technologies. Options that were considered feasible were subject to a more detailed assessment. For example, the runner-up option (named B3) involved a new (220 kV) line between Bulgana, Elaine, Ballarat and Moorabool (a suburb near Geelong) terminal stations. Other options included a new 500 kV line from Sydenham to Ararat and a large battery at Ararat Terminal Station.

The WVTNP is based on the option selected (named C2) as it was found to deliver the highest net economic benefit to all those who produce, transport and consume electricity in the NEM.

All options considered in the RIT-T are listed in this document:

RIT-T Project Assessment Conclusions Report, **https://aemo.com.au**

## Does the RIT-T process define the area of interest or route?

While the RIT-T process identifies the start and end point of the transmission line, the area of interest and route are developed by AusNet Services in subsequent stages of the project.

**https://www.westvictnp.com.au/57077/widgets/298049/documents/171638**

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## At what point in the process will other impacts be considered?

The RIT-T is only the starting point of the Project. Once the RIT-T identifies the most technically and economically feasible option, any environmental and social impacts arising from AusNet Services design that meets this option will be assessed within subsequent planning and approvals stages. For the Project to be granted the relevant government planning and environmental approvals, it will need to demonstrate that impacts have been identified and effectively offset or mitigated.

**https://www.westvictnp.com.au/62122/widgets/312640/documents/183864**

## Where to from here?

We would like to thank those community members who have taken the time to provide us with valuable feedback. If you require further information in relation this fact sheet, want to learn more about the Project or to register for updates visit **westvictnp.com.au** call **03 9021 0674** or email **info@westvictnp.com.au**