# Victorian Transmission Plan Interactions

# 1.1. VTP Impact Context

In August 2025, VicGrid released its final Victorian Transmission Plan (VTP), outlining a long-term strategy for the state's electricity transmission network. The plan is designed to strengthen Victoria's electricity network and enable the integration of renewable energy sources, particularly offshore wind and regional renewable energy zones (REZs), to meet the state's future energy needs.

As Victoria's energy demand continues to evolve, it is essential for industry participants to align with government and regulatory planning. The VTP intersects with AusNet Transmission asset replacement programs, submitted in the next Transmission Regulatory Reset (TRR). In response, AusNet has focused its analysis on the "Optimal Development Pathway" proposed in the VTP, as it represents the most likely scenario across a range of future energy landscapes.

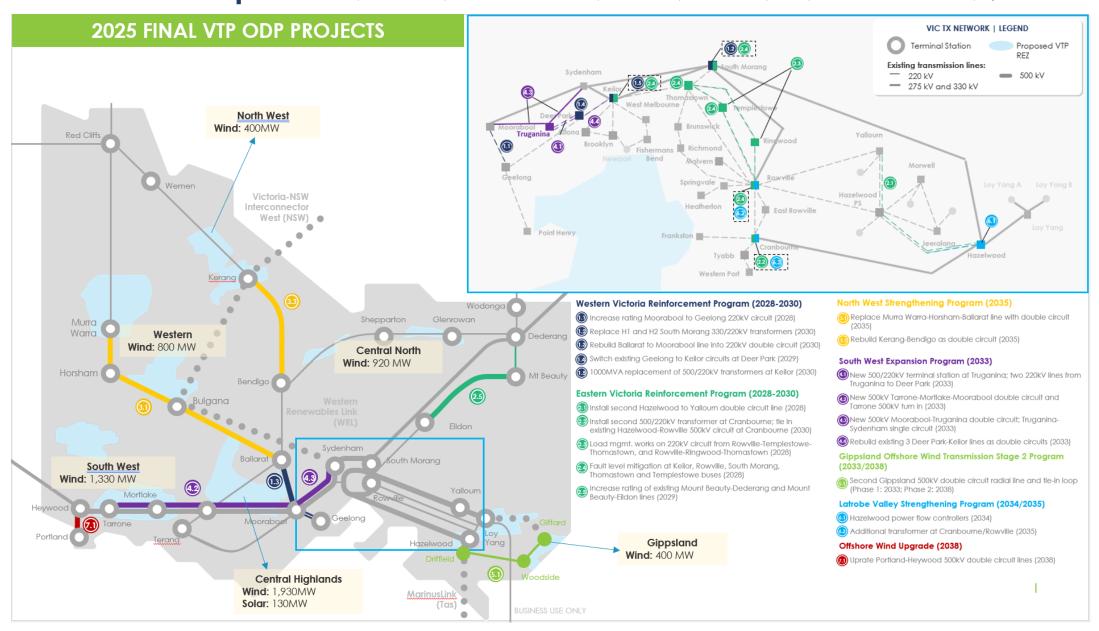
The subsequent section of this appendix illustrates VicGrid's near-term outlook and provides an overview of each program within the Optimal Development Pathway. AusNet overlays TRR programs that target the same assets to identify potential scope overlaps and have consulted with VicGrid and AusNet's Stakeholder Advisory Panel to inform the adjustments made to the TRR.

Assessments indicate that the overlap between the VTP and AusNet's TRR program is relatively minor, with a potential reduction in TRR capital expenditure of approximately \$19.27 million. These impacts are primarily associated with condition-based programs within AusNet's Line fleet, including tower resilience, low span rectification, ground wire replacements and insulator replacements. This is due to replacement and rectification of these assets becoming uneconomical where VicGrid intends to upgrade lines in the near future.

Terminal station projects have also been assessed where overlaps have been identified. After consulting with VicGrid, AusNet will proceed with delivering the asset renewal projects at terminal stations as part of the TRR proposal. There is no overlap between the VTP scope and the TRR submission for this replacement.

AusNet is committed to a collaborative approach with stakeholders, guided by principles of informing, consulting, involving, collaborating, and empowering. Through the TSAP meeting held on 5 June 2025, AusNet initiated engagement on the VTP's implications, presenting seven focus areas and eighteen recommendations to support alignment and transparency in the planning process. AusNet continued to engage with VicGrid and the Panel on VTP overlap throughout the engagement.

# 1.2. The Map - Note This Map is AusNet's representation of the VTPs Optimal Development Pathway to help visualise interaction of the projects



# 2. Interactions & Responses

The following section outlines projects that AusNet has assessed as interacting with its 2027-32 TRR submission.

Within each section, we provide our assessment, key insights, and proposed actions regarding interactions and response summary regarding identified overlapping TRR and VicGrid programs.

# 2.1. Transformer Replacement at South Morang

Replace The H1 and H2 330/220kV Transformers at South Morang – Program ID 1.2

### 2.1.1. VTP Scope

VicGrid stated that the H1 and H2 330/220kV transformers at South Morang will be replaced by AusNet as part of ongoing asset renewal works.

#### 2.1.2. Interaction with TRR

In alignment with VTP, AusNet had already planned to replace the SMTS 330/220kV transformers and will deliver the project as originally scoped.

The current operational strategy is to keep two transformers 'in-service' and maintain the third as a 'hot spare'. AusNet identified a cost-effective opportunity to boost network capacity at South Morang by operating all three 330/220kV 700 MVA transformers concurrently. To pursue this option, additional short circuit mitigation works would be required, as outlined in VTP Project 2.4; however, this enhancement is not presently a committed project within the VTP.

The proposed project is:

Replacement of H1 and H2 330/220kV Transformers at SMTS

# 2.1.3. AusNet's Approach

AusNet's replacement program for these transformers is already underway and has been consulted and confirmed with VicGrid as part of the TRR proposal. This is an asset replacement initiative with no overlap with the VTP scope and the TRR submission for this replacement. The Regulatory Investment Test (RIT) process is currently in progress, with the Project Assessment Draft Report released in October 2025.

Recognising that future demand growth is likely to necessitate higher transformation capacity at SMTS, and the need to future proof our replacement plans. AusNet has identified a potential, cost-effective opportunity to enhance network capacity, that aligns with our replacement project by running all three units as 'in-service.' Realising this would require further short circuit mitigation works, which are not currently part of the committed VTP program. VicGrid will continue to monitor the project and assess any future augmentation requirements.

# 2.2. Keilor Capacity Upgrade

Undertake a 1000 MVA replacement of the A2, A3 and A4 500 220 kV transformers at Keilor – Project ID 1.5

## 2.2.1. VTP Scope

VicGrid stated that the A2, A3, and A4 500/220kV transformers at Keilor will be replaced by AusNet as part of ongoing asset renewal works. In line with the VTP, the existing three 750 MVA units will be upgraded to 1000 MVA transformers, enhancing network capacity and reliability.

#### 2.2.2. Interaction with TRR

In alignment with VTP, AusNet will continue to deliver the Keilor transformer replacement project. The project includes:

- Replacement of A2, A3 and A4 500/220kV Transformers at KTS
- Replacement of B4 220/66kV Transformer at KTS

## 2.2.3. AusNet's Approach

Following consultation with VicGrid, AusNet will continue delivering this asset renewal project as part of the TRR proposal. Through the RIT, AusNet has identified the replacement of the A2, A3, and A4 500/220kV transformers at Keilor with 1000 MVA units as the preferred option, offering greater net economic benefits compared to a like-for-like replacement. Both AEMO and VicGrid support replacing the asset with standard 1000 MVA 500/220kV transformers to alleviate congestion and support load growth. Additionally, AusNet plans to replace the B4 transformer at Keilor. There is no overlap between the VTP scope and the TRR submission for this project. The RIT process is currently in progress, with the Project Assessment Draft Report released in June 2025.

# 2.3. Ballarat to Moorabool Line Upgrade

Rebuild The Existing Transmission Line between Ballarat to Moorabool into a 220kV high-capacity Double Circuit – Program 1.3

# 2.3.1. VTP Scope

The 220 kV single circuit line from BATS to MLTS (existing BATS-MLTS No. 1 220 kV Line) will be rebuilt as a double circuit line, each with higher capacity, and an expected completion date of 2030.

#### 2.3.2. Interaction with TRR

The VTP overlap with AusNet planned work on the BATS-MLTS No. 1 220 kV line, includes:

- Rectification of 11 low spans on BATS-MLTS No. 1 Line
- Replacement of 43 ground wire spans on BATS-MLTS No. 1 Line

# 2.3.3. AusNet's Approach

#### **Low Spans Rectification**

AusNet has reconsidered low span rectification on 11 BATS-MLTS No. 1 line spans, given the planned line rebuild under the VTP due for completion in 2030.

Since VicGrid intends to rebuild the line during the same period (2027–2032), the need for rectification of low spans will be addressed through the VTP, as new lines will need to be built to current clearance requirements.

Consequently, this work has been excluded from our TRR scope, resulting in a \$6.72 million reduction to the TRR submission.

#### **Ground Wire Replacement**

AusNet has reconsidered ground wire replacement on 43 BATS-MLTS No.1 Line spans, given the planned line rebuild under the VTP in 2030.

Since VicGrid intends to rebuild the line during the same period (2027–2032), the need for replacement is addressed through the VTP, as new ground wire will need to be installed under the rebuild. As a result, this work has been removed from our TRR scope, resulting in a \$3.94 million reduction in the TRR submission.

# 2.4. Fault Mitigation Works

Undertake fault level mitigation at Keilor, Rowville, South Morang and Thomastown 220 kV buses, and Templestowe and Thomastown 66 kV buses – Program ID 2.4

## 2.4.1. VTP Scope

This project involves fault level mitigation at Keilor, Rowville, South Morang and Thomastown 220 kV buses and Templestowe and Thomastown 66 kV buses, expected to be complete by 2028. This project is needed to address fault level constraints in metropolitan Melbourne.

#### 2.4.2. Interaction with TRR

There are two proposed TRR projects that interact with VicGrid's 2.4 program. These projects are:

- Replacement of A2, A3 and A4 500/220kV and B4 220/66kV Transformers at KTS
- Circuit Breaker replacement program at TTS

# 2.4.3. AusNet's Approach

AusNet's KTS transformer replacement project will impact fault levels at Keilor, where we are increasing the capacity of existing transformers to 1,000 MVA. To maximise delivery efficiency and minimise outages, VicGrid's and AusNet's programs should be delivered in a coordinated manner, rather than isolated assessments.

Fault level mitigation works are anticipated to be initiated by VicGrid and delivered by AusNet through a customer-led project. From a delivery standpoint, there are opportunities to align the implementation of the VicGrid initiative with asset renewal activities particularly at sites where work is planned, such as KTS and TTS. Notably, there is no overlap between the VTP fault level mitigation works and AusNet's asset renewal projects outlined in the TRR.

Following the TRR submission, joint planning activities with VicGrid and AEMO will be undertaken as appropriate to identify the scope and delivery approach for VTP's fault level mitigation works to maximise planning and delivery synergies.

# 2.5. Rating Increase at Mt Beauty, Dederang and Eildon line

Increase the rating of the existing Mount Beauty to Dederang and Mount Beauty to Eildon lines – Program ID 2.5

## 2.5.1. VTP Scope

Uprating line MBTS to DDTS and MBTS to EPS lines to operate at a higher operating temperature by remediating the spans which have clearance issues at these higher operating temperatures. This work is expected to be completed by 2029.

#### 2.5.2. Interaction with TRR

The VTP overlap with AusNet planned work on the MBTS-EPS 220 kV line, includes:

- Replacement of 1 insulator location<sup>1</sup> on MBTS-EPS Line
- Rectification of 3 low spans on MBTS-EPS line

# 2.5.3. AusNet's Approach

#### **Insulator Replacement**

AusNet has reassessed insulator replacement on the MBTS-EPS line due to the planned 2029 VTP clearance remediation to uprate the line. AusNet concludes that these activities are distinct, based on the assumption that raising the conductor is unlikely to affect Strain towers, and the single insulator location identified for replacement is located on a strain tower. AusNet will include this replacement in the TRR submission.

<sup>&</sup>lt;sup>1</sup> Note: Replacing insulators at any location involves replacing X insulators per phase (depending on tower type (strain or suspension) and conductors number (single, twin or quad)) × 3 phases, covering all insulators on the circuit.

#### **Low Spans Rectification**

AusNet has reviewed the rectification of 3 low spans on the MBTS-EPS line, given the VTP project scheduled for completion in 2029. Due to overlapping scopes and timeframes, AusNet has removed proposals to raise low clearances on these 3 spans, reducing the TRR submission by \$2.22 million.

# 2.6. Double Circuit Murra Warra, Horsham and Ballarat Lines

Rebuild the Existing Transmission Line Between Murra Warra, Horsham and Ballarat into a High-Capacity Double Circuit Line – Program ID 3.1

### 2.6.1. VTP Scope

Replacing the existing single circuit transmission line with a new high-capacity double circuit line from Murra Warra to Ballarat by 2035. This project includes cutting into all substations along the route and decommissioning the existing 220 kV single circuit line.

#### 2.6.2. Interaction with TRR

The VTP overlaps with AusNet planned work on the following lines:

- Replacement of 4 insulators location on BATS-WBTS line
- Replacement of 1 insulator location on BGTS-HOTS line
- Rectification of 1 low span on ARTS-CWTS line
- Rectification of 1 low span on BGTS-HOTS line

## 2.6.3. AusNet's approach

#### **Insulator Replacement**

AusNet has assessed the replacement of 5 insulator locations on the BATS-WBTS and BGTS-HOTS lines during 2027-32, considering the VTP project due for completion by 2035.

As VicGrid plans to rebuild the lines within 3 years of the TRR program and AusNet anticipates the rebuild will take a number of years to deliver, replacing the insulators in the current TRR program would not be operationally efficient or economically justified. The latest risk assessment shows that delaying replacement to 2033 is manageable.

As a result, AusNet has removed the insulator replacement scope from our TRR proposal, resulting in a reduction of \$272K from the TRR submission.

#### Low Span Rectification

AusNet has reassessed the rectification of 2 low span locations on ARTS-CWTS and BGTS-HOTS in light of the proposed line rebuild under the VTP, expected to be complete by 2035.

As VicGrid plans to rebuild the line by 2035, rectifying these spans is neither efficient nor economically justified. Furthermore, the latest risk assessment determined that deferring the rectification works until 2035 presents a tolerable level of risk, confirming that rectification in the next reg period is not required.

AusNet has excluded the low span rectification scope from the TRR proposal, resulting in a reduction of \$2.05 million from the TRR submission.

# 2.7. Kerang & Bendigo Double Circuit Upgrades

Rebuild The Existing Transmission Line Between New Kerang and Bendigo into a High-Capacity Double Circuit Line – Program ID 3.3

### 2.7.1. VTP Scope

Constructing a new high-capacity double circuit line from Kerang/New Kerang to Bendigo. This line is intended to be in service by 2035.

### 2.7.2. Interaction with TRR

AusNet is planning to conduct tower strengthening and address low-span issues along the Kerang to Bendigo line, including:

- Rectification of 2 low span on KGTS-BETS line
- Strengthening of 2 towers on KGTS-BETS line

## 2.7.3. AusNet's Approach

#### Low Span Rectification

AusNet has reassessed the low span rectification works on 2 spans of the KGTS-BETS line, in light of the VTP projects expected to be completed by 2035.

Since VicGrid plans to rebuild the line by 2035, rectifying these spans prior is neither operationally efficient nor economically justified. Furthermore, the latest risk assessment determined that deferring this works until 2035 presents a tolerable level of risk, so rectification can wait until the line is replaced.

AusNet has removed this low span rectification project from the TRR submission. By doing so, \$2.05 million is removed from the TRR submission.

#### **Tower Resilience**

AusNet has re-evaluated the tower strengthening works on the KGTS-BETS line due to the VTP project, which will replace the line and its towers by 2035. Strengthening the towers during the 2027-2032 regulatory period is no longer economically justified.

AusNet has excluded this project from the TRR submission, resulting in a reduction of \$660K from the TRR submission.

# 2.8. Deer Park & Keilor Circuit Line Upgrade

Rebuild The 3 Existing Transmission Lines Between Deer Park and Keilor with New High-Capacity Double Circuit Lines Program 4.4

# 2.8.1. VTP Scope

Replacing the three existing circuits between Deer Park and Keilor on the Geelong-Keilor 220 kV easement with four new high-capacity lines, along with minor substation augmentations. The in-service date is stated as 2033

#### 2.8.2. Interaction with TRR

AusNet intends to replace ground wires along this line, which will interact with the scope of the VTP initiatives, specifically:

• Ground wire replacement of 20 spans on the DPTS-KTS and GTS-KTS lines

# 2.8.3. AusNet's Approach

#### **Ground Wire Replacement**

AusNet has reviewed the proposed ground wire replacement of 20 spans on the DPTS-KTS and GTS-KTS lines, in light of the VTP project to rebuild these lines, with expected completion in 2033.

As VicGrid plans to rebuild the line within 1 years of our program, AusNet concludes that replacing the ground wire in our TRR program is neither operationally efficient nor economically justified. The latest risk assessment shows that delaying replacement to 2033 is manageable, so the ground wire replacement can wait for the line rebuild.

Consequently, AusNet has removed this project from the TRR submission, by doing so \$1.34 million is removed from the TRR submission.

# 2.9. Rating Increase of Line from Portland to Heywood

Increase The Rating of the Portland to Heywood 500 kV Double Circuit Lines - Program ID 7.1

## 2.9.1. VTP Scope

Uprating the existing 500 kV double circuit transmission lines from Portland to Heywood, including an upgrade of the station plant to meet requirements for increasing capacity to the lines design rating, by 2038. This project will allow more electricity to be transmitted through the same infrastructure and support offshore wind generation in the Southern Ocean offshore wind area.

#### 2.9.2. Interaction with TRR

AusNet's TRR program of work includes the following initiatives on the HYTS-APD 550 kV double circuit lines:

- Replacement of 59 insulator locations on the HYTS-APD lines
- Replacement of 22 towers on the APD end of HYTS-APD lines
- Replacement of members and bolts on 36 additional (not the 22 above) towers on the HYTD-APD lines

## 2.9.3. Our Approach

AusNet anticipates no overlap between the VTP and its asset replacement programme on HYTS-APD 500kV lines. Although the existing line conductor can already accommodate the offshore wind generation planned for Portland, current capacity is restricted by secondary station components. The VTP initiative is designed to resolve this limitation independently of the TRR projects discussed above.

As a result, no amendments have been made to the TRR submission in response to the HYTS-APD VTP initiative.

# 3. Conclusion

AusNet is committed to making certain project costs are not duplicated across the Transmission Revenue Reset (TRR) and the Victorian Transmission Plan (VTP). Costs associated with works that will no longer proceed due to the VTP have been removed, and each project will only be funded once, even if referenced in both programs. This dedication to minimising costs to consumers is reflected in considerable steps taken to guarantee that, where VicGrid's work removes assets in poor condition, no additional funding is sought to replace those same assets. AusNet works proactively to avoid unnecessary expenditure and duplication, always with the interests of consumers in mind

Collaboration and joint planning with VicGrid remain ongoing, with both parties identifying and confirming that any potential overlaps are non-duplicative. This partnership supports the efficiency and transparency of investment decisions, and helps deliver the best possible outcomes for Victorian consumers. AusNet's approach to joint planning on the overlap between the TRR and VTP programs demonstrates a clear commitment to delivering reliable, cost-effective outcomes for Victoria's electricity consumers. By avoiding duplication of effort and expenditure across these initiatives, AusNet upholds transparency and efficiency in its investment decisions.

Proactive collaboration with VicGrid, alongside a continued focus on asset condition and capacity enhancements, will support the integration of renewable generation, strengthen the state's energy security, and guarantee long-term value for consumers. Looking ahead, AusNet remains dedicated to responsible network development and continuous improvement, working with stakeholders to meet future energy needs sustainably and efficiently.