

Western Renewables Link market benefits

Market modelling to forecast gross
market benefits

Australian Energy Market Operator

20 March 2024



**Building a better
working world**

Ernst & Young
111 Eagle Street
Brisbane QLD 4000 Australia
GPO Box 7878 Brisbane QLD 4001

Tel: +61 7 3011 3333
Fax: +61 7 3011 3100
ey.com/au

Release Notice

Ernst & Young (“EY”) was engaged on the instructions of Australian Energy Market Operator Limits (“AEMO” or the “Client”) to undertake market modelling of system costs and benefits to forecast the gross benefit of Western Renewable Link 500 kV Uprate Option (the “Project”) without the addition of VNI West, in accordance with the Description of Supplies dated 20 December 2023 (“the Engagement Agreement”).

The results of EY’s work are set out in this report (“Report”), including the assumptions and qualifications made in preparing the Report. The Report should be read in its entirety including this release notice, the applicable scope of the work and any limitations. A reference to the Report includes any part of the Report.

EY has prepared the Report for the benefit of the Client and has considered only the interest of the Client. EY has not been engaged to act, and has not acted, as advisor to any other party. Accordingly, EY makes no representations as to the appropriateness, accuracy or completeness of the Report for any other party’s purposes. Our work commenced on 20 December 2023 and was completed on 29 January 2024. Therefore, our Report does not take account of events or circumstances arising after 29 January 2024 and we have no responsibility to update the Report for such events or circumstances.

No reliance may be placed upon the Report or any of its contents by any party other than the Client (“Third Parties” or “you”). Any Third Parties receiving a copy of the Report must make and rely on their own enquiries in relation to the issues to which the Report relates, the contents of the Report and all matters arising from or relating to or in any way connected with the Report or its contents. EY disclaims all responsibility to any Third Parties for any loss or liability that the Third Parties may suffer or incur arising from or relating to or in any way connected with the contents of the Report, the provision of the Report to the Third Parties or the reliance upon the Report by the Third Parties.

No claim or demand or any actions or proceedings may be brought against EY arising from or connected with the contents of the Report or the provision of the Report to the Third Parties. EY will be released and forever discharged from any such claims, demands, actions or proceedings. In preparing this Report EY has considered and relied upon information provided to us by the Client and other stakeholders engaged in the process and other sources believed to be reliable and accurate. EY has not been informed that any information supplied to it, or obtained from public sources, was false or that any material information has been withheld from it. EY does not imply, and it should not be construed that EY has performed an audit, verification or due diligence procedures on any of the information provided to us. EY has not independently verified, nor accept any responsibility or liability for independently verifying, any such information nor does EY make any representation as to the accuracy or completeness of the information. Neither EY nor any member or employee thereof undertakes responsibility in any way whatsoever or liability for any loss or damage to any person in respect of errors in this Report arising from incorrect information provided to EY.

Modelling work performed as part of our scope inherently requires assumptions about future behaviours and market interactions, which may result in forecasts that deviate from future conditions. There will usually be differences between estimated and actual outcomes, because events and circumstances frequently do not occur as expected, and those differences may be material. EY takes no responsibility that the projected outcomes will be achieved. EY highlights that the analysis included in this Report does not constitute investment advice or a recommendation to you on a future course of action. EY provides no assurance that the scenarios that have been modelled will be accepted by any relevant authority or third party.

EY has consented to the Report being published electronically on the Client’s websites for informational purposes only. EY has not consented to distribution or disclosure beyond this. The material contained in the Report, including the EY logo, is copyright. The copyright in the material contained in the Report itself, excluding EY logo, vests in the Client. The Report, including the EY logo, cannot be altered without prior written permission from EY.

Readers are advised that the outcomes provided are based on many detailed assumptions underpinning the scenarios, and the key assumptions are described in the Report. These assumptions were selected by the Client. The modelled scenarios represent three possible future options for the development and operation of the National Electricity Market, and it must be acknowledged that many alternative futures exist. Alternative futures beyond those presented have not been evaluated as part of this Report.

EY’s liability is limited by a scheme approved under Professional Standards Legislation.

Table of contents

1.	Executive summary	1
2.	Introduction	4
3.	Assumptions overview	6
4.	Forecast gross market benefit outcomes in the Step Change scenario	8
4.1	Counterfactual Base Case	8
4.2	Summary of forecast gross market benefits	8
4.3	Sources of WRL 500 kV Uprate Option benefits	9

1. Executive summary

AEMO has engaged EY to undertake market modelling to calculate forecast gross market benefits of the Western Renewables Link (WRL) 500 kV Uprate Option without the addition of VNI West, modelled as a double circuit 500 kV line from Sydenham to Bulgana, to inform AEMO and AusNet on their submission of the Environment Effects Statement (EES) for the Project. To determine the forecast net economic benefit of the WRL 500 kV Uprate Option, the forecast gross market benefits need to be compared to the cost of the option, however this is outside the scope of this Report.

The input assumptions to the modelling were selected by AEMO based on the VNI West Regulatory Investment Test for Transmission (RIT-T) to allow a consistent comparison of benefits of the Project without VNI West and combined with VNI West, if desired. Details of assumptions can be found in the VNI West RIT-T market modelling report¹. Due to availability of comparable modelling results from the VNI West RIT-T, the input assumptions are principally drawn from AEMO's Inputs, Assumptions and Scenarios Report published in July 2022², and outcomes for other transmission augmentations in the NEM (except VNI West) from the AEMO 2022 Integrated System Plan (ISP)³. The Base Case assumptions used were therefore the same as used in the VNI West RIT-T Alternative Base Case that excluded both VNI West and WRL. Notably, these assumptions did not include the Victorian government offshore wind policy that is now considered "committed" in AEMO's 2023 IASR.⁴ Accordingly, outcomes of this analysis should be interpreted with this in mind, noting that the VNI West RIT-T indicated that offshore wind in Victoria reduced some of the benefits of VNI West associated with harnessing renewable generation in North-West Victoria, although significant net market benefits of VNI West remained.

In the modelling, the WRL 500 kV Uprate Option was assumed to be commissioned by 1 July 2027 and compared to a Base Case without WRL to compute the potential gross market benefits for the 2022 ISP Step Change scenario. Both the Base Case and WRL Option case assumed the absence of any VNI West option as for the purposes of the EES it is necessary to demonstrate the benefits of the WRL option independent of whether or not VNI West proceeds.

Table 1 shows the forecast gross market benefits of the WRL 500 kV Uprate Option in the Step Change scenario for various market benefit categories. Each category was computed annually across a modelling period from 2023-24 to 2049-50 (Modelling Period). The forecast benefits are estimated over the Modelling Period and have been discounted to June 2021 (in real June 2021 dollar terms) using a 5.5% real, pre-tax discount rate based on the 2022 ISP as selected by AEMO. The forecast cumulative gross market benefits for this option are shown in Figure 1.

Table 1: Summary of forecast gross market benefits of the WRL 500 kV Uprate Option relative to the Base Case by type of benefits in the Step Change scenario; discounted to 1 July 2021 in millions of real June 2021 dollar terms

Market benefit category	Forecast gross market benefits (\$m)
Capital Expenditure (Capex)	1,293

¹ EY, 22 February 2023, *Victoria to NSW Interconnector West (VNI West) market modelling report forecasting gross market benefits for the additional option analysis*, available at: https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/victorian_transmission/vni-west-rit-t/victoria-to-nsw-interconnector-west-vni-west-market-modelling-report-for-addition. Accessed 16 January 2024.

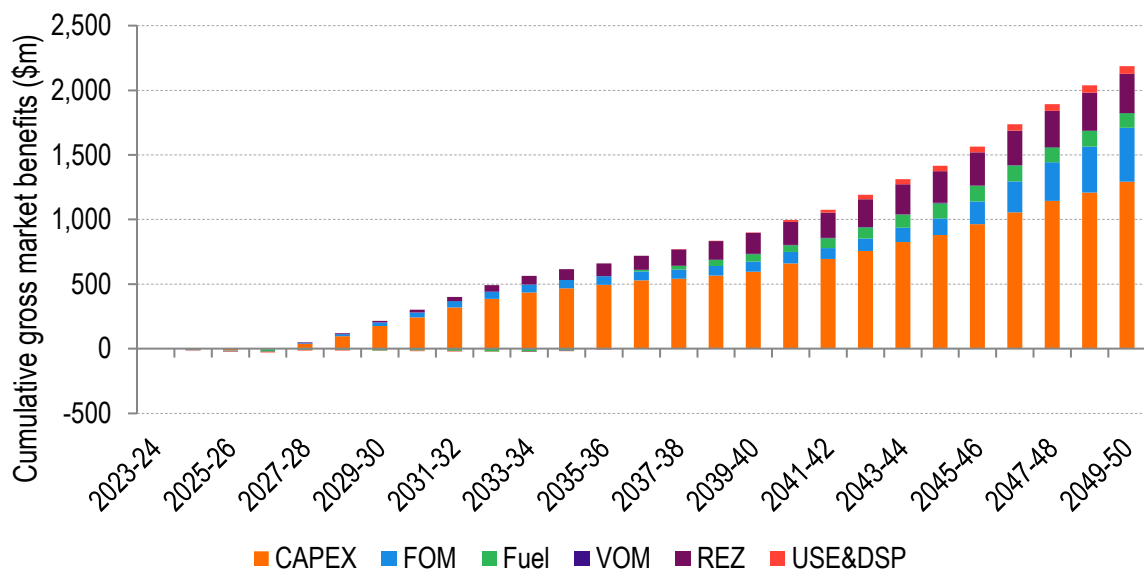
² AEMO, 30 June 2022, *2022 Forecasting Assumptions Workbook v.3.4*, available at: <https://aemo.com.au/-/media/files/major-publications/isp/2022-forecasting-assumptions-update/forecasting-assumptions-update-workbook.xlsx?la=en>. Accessed 16 January 2024.

³ AEMO, 30 June 2022, *2022 Integrated System Plan (ISP)*, available at: <https://aemo.com.au/-/media/files/major-publications/isp/2022-2022-documents/2022-integrated-system-plan-isp.pdf?la=en>. Accessed 16 January 2024.

⁴ AEMO, 8 September 2023, *2023 IASR Assumptions Workbook*, available at: <https://aemo.com.au/consultations/current-and-closed-consultations/2023-inputs-assumptions-and-scenarios-consultation>. Accessed 5 March 2024.

Market benefit category	Forecast gross market benefits (\$m)
Fixed Operation and Maintenance (FOM)	418
Fuel	113
Variable Operation and Maintenance (VOM)	0
Renewable Energy Zone (REZ) transmission expansion	303
Unserved Energy (USE) and Demand Side Participation (DSP)	60
Total	2,187

Figure 1: Forecast cumulative gross market benefit for the WRL 500 kV Uprate Option under the Step Change scenario; discounted to 1 July 2021 in millions of real June 2021 dollar terms⁵



The potential gross market benefits for the WRL 500 kV Uprate Option are estimated to be \$2,187m. Capex savings are forecast to account for the largest share of benefits followed by FOM, REZ transmission expansion and fuel cost savings.

The drivers of the forecast benefits relative to the Base Case are:

- ▶ A forecast increase in renewable capacity in the Western Victoria REZ, reduced spill of renewable generation in Victoria as well as reduced imports, leading to deferred or avoided capex and FOM in other NEM regions.
- ▶ A forecast decrease in capacity built in other locations in Victoria, in particular in the South-West Victoria REZ, resulting in avoided cost from REZ transmission expansion.
- ▶ A forecast decrease in peaking gas generation dispatch required in later years to meet peak demand due to the additional renewable generation forecast in Victoria, resulting in fuel cost benefits due to avoided OCGT generation compared to the Base Case.

⁵ This chart presents FOM and capex savings on an annualised basis consistent with the presentation of these categories of benefits in the 2022 ISP. For example, the avoidance of build of new capacity in a given year in the option case will result in capex savings shown annually over the lifetime of the capacity in the Base Case.

- ▶ To a smaller extent USE and DSP cost savings, in line with additional investment in OCGT capacity to assist with peak demand periods as the build of some pumped hydro energy storage in conjunction with solar capacity is avoided.

While this Report does not explicitly assess the impact of the Victorian Government's offshore wind target on the potential gross market benefits of WRL, we expect that committing this policy in the modelling would reduce the forecast gross market benefits. In the VNI West RIT-T⁶ offshore wind sensitivity it was noted by AEMO in their assessment of net benefits that the VNI West preferred option - including the WRL 500 kV Uprate Option - continued to deliver significantly positive forecast net benefits with offshore wind targets imposed, although the net benefits were smaller than the core results. The net benefit outcomes indicated that there remains value in harnessing wind and solar in Western Victoria REZ and Murray River REZ to provide renewable resource diversity and the increase in the interconnector transfer capability provides greater opportunities for offshore wind generation to export into the northern regions.

⁶ AEMO, 23 February 2023. *VNI West Consultation Report - Options Assessment*, available at: <https://aemo.com.au/initiatives/major-programs/vni-west/stakeholder-consultation>. Accessed 5 March 2024.

2. Introduction

AEMO has engaged EY to undertake market modelling to calculate gross market benefits of the WRL 500 kV Uprate Option without the addition of VNI West to inform AEMO and AusNet on their submission of the EES for the Project.

The input assumptions to the modelling were selected by AEMO based on the VNI West RIT-T to allow a consistent comparison of benefits with and without the Project, without VNI West, and combined with VNI West if desired. Due to availability of comparable modelling results from the VNI West RIT-T, the input assumptions are principally from AEMO's Inputs, Assumptions and Scenarios Report published in July 2022² as well as the AEMO 2022 ISP³ for the Step Change scenario. The Base Case assumptions used were therefore the same as used in the VNI West RIT-T Alternative Base Case that excluded both VNI West and WRL. Notably, these assumptions did not include the Victorian government offshore wind policy that is now considered "committed" in AEMO's 2023 IASR.⁴ Accordingly, outcomes of this analysis should be interpreted with this in mind, noting that the VNI West RIT-T indicated that offshore wind in Victoria reduced some of the benefits of VNI West associated with harnessing renewable generation in North-West Victoria, although significant net market benefits of VNI West remained. The modelling method was also the same as that applied in the VNI West RIT-T.

This Report describes the forecast gross benefits of the WRL 500 kV Uprate Option, which is modelled as a double circuit 500 kV line from Sydenham to Bulgana, by comparing it to a Base Case without WRL. Both the Base Case and WRL Option case assumed the absence of any VNI West option as for the purposes of the EES it is necessary to demonstrate the benefits of the WRL option independent of whether or not VNI West proceeds.

Details of the modelling of the WRL 500 kV Uprate Option as compared to the Base Case are outlined in Table 2 below.

Table 2: Key modelling differences assumed by AEMO for the cases modelled

Case	Indicative impact on REZ transmission limit	N-1 limit for new circuits	Timing
Base Case - no WRL	Western Vic (V3): 650 MW (existing network limit)	N/A	N/A
WRL 500 kV Uprate Option	Western Vic (V3): 650 MW (existing network limit) + 1,460 MW (WRL benefit) = 2,110 MW	3,000 MW	1/7/2027

The descriptions of outcomes in this Report are focussed on identifying and explaining the key sources of forecast gross market benefits. The categories of gross market benefits modelled include all the classes of benefits identified in 2022 ISP as follows:

- ▶ Capital costs of new generation capacity installed,
- ▶ Total FOM costs of all generation capacity,
- ▶ Total VOM costs of all generation capacity,
- ▶ Total fuel costs of all generation capacity,
- ▶ Total cost of voluntary and involuntary load curtailment (DSP and USE),
- ▶ Transmission expansion costs associated with REZ development,
- ▶ Transmission and storage losses which form part of the demand to be supplied, which are calculated dynamically within the model, impacting the calculated classes of benefits mentioned above.

Each category of forecast gross market benefits is computed annually across the Modelling Period from 2023-24 to 2049-50. Forecast benefits are discounted to June 2021 (in real June 2021 dollar terms) using a 5.5% real, pre-tax discount rate based on the 2022 ISP as selected by AEMO. The forecast gross market benefits of the WRL 500 kV Uprate Option need to be compared to the cost of the option to determine the forecast net economic benefit, however this is outside the scope of this Report.

3. Assumptions overview

The input assumptions to the modelling were selected by AEMO based on the VNI West RIT-T. The input assumptions are principally drawn from AEMO's Inputs, Assumptions and Scenarios Report published in July 2022², and outcomes for other transmission augmentations in the NEM (except VNI West) from the AEMO 2022 ISP³ for the Step Change scenario. EY was requested to incorporate modifications to the 2022 ISP input and assumptions based on updated information since the publication of the 2022 ISP in line with the VNI West RIT-T, as follows:

- ▶ Retirement of Loy Yang A in 2035⁷
- ▶ Retirement of Torrens Island B in 2026⁸.

The modelling assumptions and methodology are detailed in the market modelling report accompanying the VNI West RIT-T¹. Table 3 below provides a summary of the input assumptions used.

Table 3: Summary of key input assumptions

Key drivers input parameter	Step Change Scenario
Underlying consumption	ESOO 2021 ⁹ (2022 ISP) - Step Change
Committed and anticipated generation	2022 ISP
New entrant capital cost for wind, solar PV, SAT, OCGT, PHES large-scale batteries and hydrogen turbine	2022 Inputs and Assumptions Workbook ² - Step Change
Retirements of coal-fired power stations	2022 ISP coal retirement outcomes in the Step Change scenario ³
Gas fuel cost	2022 Inputs and Assumptions Workbook ² - Step Change: Lewis Grey Advisory 2020, Step Change
Coal fuel cost	2022 Inputs and Assumptions Workbook ² - Step Change: Wood Mackenzie, Step Change
NEM carbon budget	2022 Inputs and Assumptions Workbook ² - Step Change: 891 Mt CO ₂ -e 2023-24 to 2050-51
Victorian Renewable Energy Target (VRET)	40% renewable energy by 2025 and 50% renewable energy by 2030 ² VRET2 including 600 MW of renewable capacity by 2025 ²
Queensland Renewable Energy Target (QRET)	50% by 2030 ²
Tasmanian Renewable Energy Target (TRET)	100% by 2022, 150% by 2030 and 200% Renewable generation by 2040, excluding hydro ²
NSW Electricity Infrastructure Roadmap	12 GW NSW Roadmap, with 3 GW in the Central West Orana REZ, modelled as generation constraint per 2022 ISP and 2 GW of long duration storage (8 hrs or more) by 2029-30 ²

⁷ AGL, Review of Strategic Direction Outcomes & FY Guidance, available at: <https://www.agl.com.au/about-agl/media-centre/asx-and-media-releases/2022/september/review-of-strategic-direction-outcomes-and-fy23-guidance?rmxt3r=vwt06z>. Accessed 16 January 2024.

⁸ AGL, AGL Torrens Power Station, Available at: <https://www.agl.com.au/about-agl/how-we-source-energy/agl-torrens>. Accessed 16 January 2024.

⁹ AEMO, National Electricity and Gas Forecasting, <http://forecasting.aemo.com.au/Electricity/AnnualConsumption/Operational>, Accessed 16 January 2024.

Key drivers input parameter	Step Change Scenario
NSW to Queensland Interconnector Upgrade (QNI Minor)	QNI minor commissioned by July 2022 ²
Victoria to NSW Interconnector Upgrade (VNI Minor)	VNI Minor commissioned by December 2022 ²
Victorian SIPS	300 MW/450 MWh, 250 MW for SIPS service during summer. In the summer months the remaining 50 MW can be deployed in the market on a commercial basis, in the winter months the full capacity is available. From April 2032 the full capacity is available to the market. ²
EnergyConnect	2022 ISP ³ : EnergyConnect commissioned by July 2026
HumeLink	2022 ISP ³ outcome - Step Change: HumeLink commissioned by July 2028
New-England REZ Transmission	2022 ISP ³ outcome - Step Change: New England REZ Transmission Link commissioned by July 2027; New England REZ Extension commissioned by July 2035
Marinus Link	2022 ISP ³ outcome: 1 st cable commissioned by July 2029 and 2 nd cable by July 2031
QNI Connect	2022 ISP ³ outcome - Step Change: QNI Connect commissioned by July 2032
VNI West	Excluded
Snowy 2.0	Snowy 2.0 is commissioned by December 2026 ²

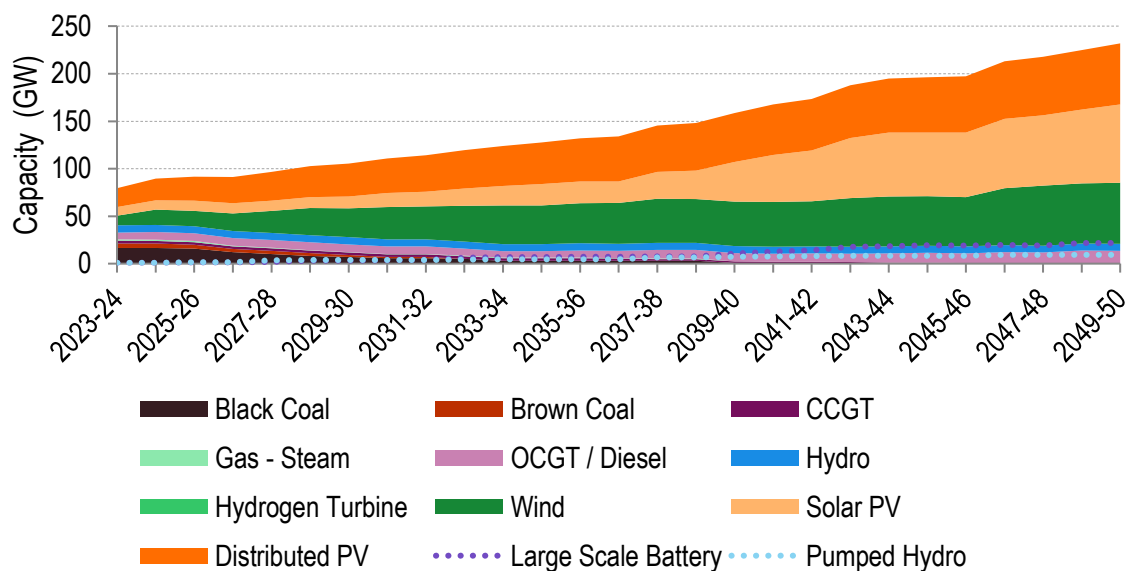
4. Forecast gross market benefit outcomes in the Step Change scenario

4.1 Counterfactual Base Case

This section summarises the results of the counterfactual Base Case without the WRL 500 kV Uprate Option (or VNI West).

Figure 2 shows the capacity outlook forecast by technology type in the Step Change scenario. In this scenario, the NEM is forecast to rapidly transition from a coal and gas dominated market, to a market with a high share of renewables. Significant investment in new generation capacity is forecast in the NEM to supply increasing demand and replace existing thermal generation. The pace and scale of the new investment is driven by the assumed demand forecast, government policies and the carbon budget.

Figure 2: NEM capacity mix forecast in the Base Case



The NEM is forecast to require up to around 178 GW of new capacity by 2049-50 from large-scale generation and storage, including 78 GW of solar, 62 GW of wind and 28 GW of storage (both large-scale battery and pumped hydro energy storage (PHES)). This is in addition to existing, committed and anticipated capacity modelled. In Victoria, the requirement is up to 30 GW of new capacity, including up to around 10 GW of solar, 12 GW of wind and 4 GW of storage by 2050. NEM-wide, 10 GW of new gas-fired capacity is also forecast to firm renewables and maintain reliable supply, particularly after coal generator retirements.

All assumed state-based renewable targets and schemes are forecast to be exceeded, and by 2030-31 the NEM is forecast to achieve a renewable energy generation share of 81%.

4.2 Summary of forecast gross market benefits

Table 4 shows the forecast gross market benefits of the WRL 500 kV Uprate Option in the Step Change scenario.

Table 4: Summary of forecast gross market benefits of the WRL 500 kV Uprate Option relative to the Base Case by type of benefits; discounted to 1 July 2021 in millions of real June 2021 dollar terms

Market benefit category	Forecast gross market benefits (\$m)
CAPEX	1,293
FOM	418
Fuel	113
VOM	0
REZ expansion	303
USE and DSP	60
Total	2,187

The potential gross market benefits for the WRL 500 kV Uprate Option are estimated to be \$2,187m, with the largest source of benefits forecast to be due to deferred or avoided capex, followed by avoided FOM, REZ transmission expansion, fuel and USE and DSP costs.

The WRL 500 kV Uprate Option is forecast to result in increased renewable capacity in the Western Victoria REZ, reduced spill of Victorian wind generation and reduced imports, leading to deferred or avoided capex and FOM in other NEM regions.

Less capacity is forecast to be built in other locations in Victoria, in particular in the South-West Victoria and Central North Victoria REZs but also in Central Highlands in Tasmania, resulting in avoided cost from REZ transmission expansion.

With the additional renewable generation forecast in Victoria, less peaking gas is expected to be required in the later years to meet peak demand, resulting in fuel cost benefits due to avoided OCGT generation compared to the Base Case.

4.3 Sources of WRL 500 kV Uprate Option benefits

This section gives an overview of the timing and sources of forecast market benefits for the WRL 500 kV Uprate Option. The forecast cumulative gross market benefits for this option are shown in Figure 3. Furthermore, the corresponding differences in the forecast capacity and generation outlooks across the NEM between the WRL 500 kV Uprate Option and the Base Case are presented in Figure 4 and Figure 5.

Figure 3: Forecast cumulative gross market benefit for the WRL 500 kV Uprate Option under the Step Change scenario; discounted to 1 July 2021 in millions of real June 2021 dollar terms¹⁰

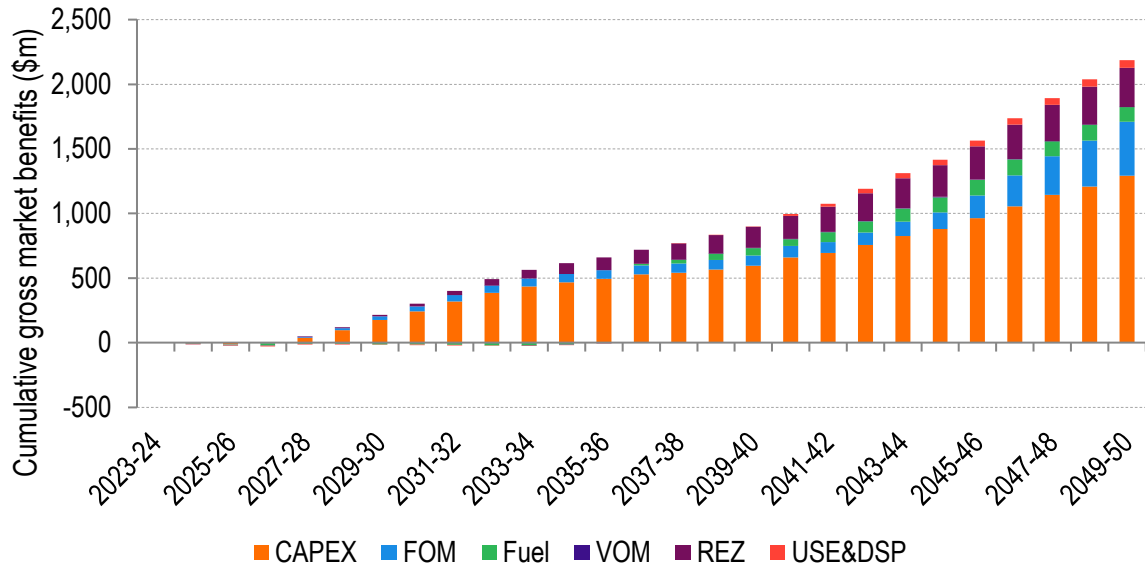
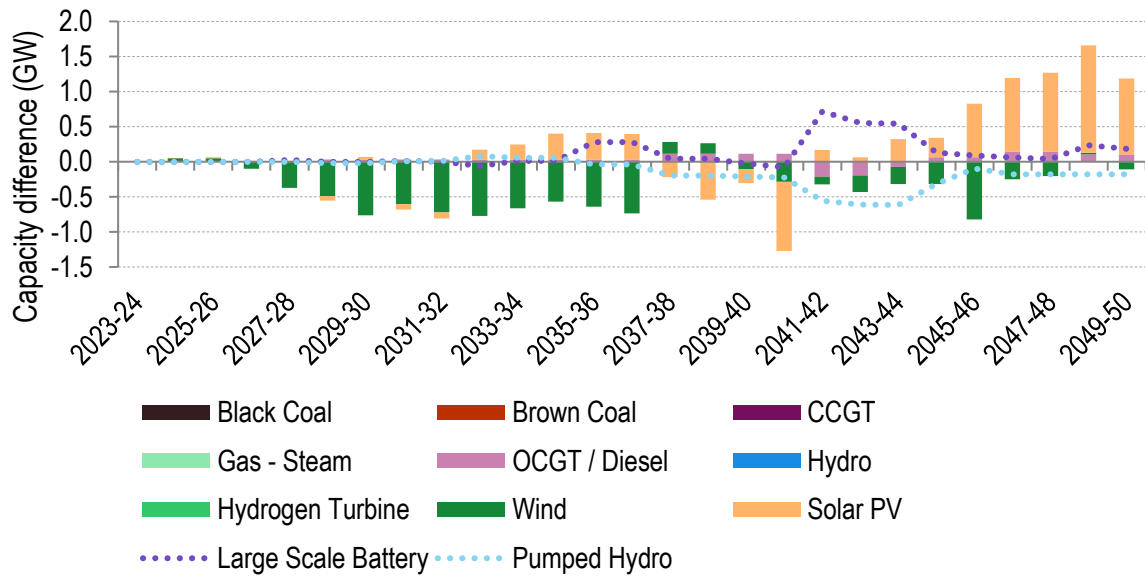
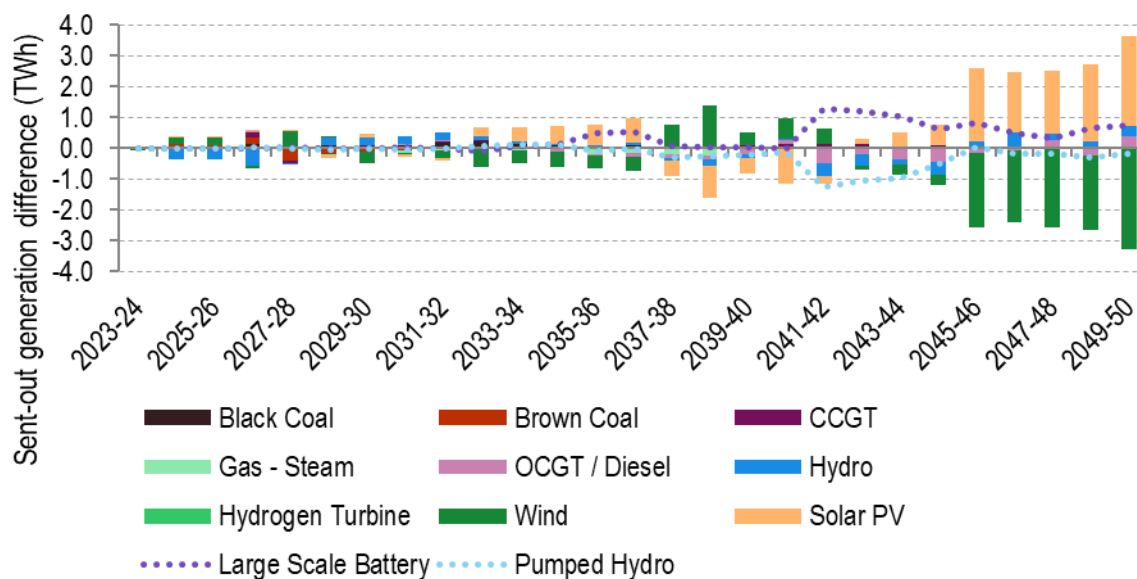


Figure 4: Difference in NEM capacity forecast between the WRL 500 kV Uprate Option and the Base Case



¹⁰ This chart presents FOM and capex savings on an annualised basis consistent with the presentation of these categories of benefits in the 2022 ISP. For example, the avoidance of build of new capacity in a given year in the option case will result in capex savings shown annually over the lifetime of the capacity in the Base Case.

Figure 5: Difference in NEM generation forecast between the WRL 500 kV Uprate Option and the Base Case



Capex savings are forecast to account for the largest share of benefits followed by FOM, REZ transmission expansion and fuel cost savings.

- ▶ Capex and FOM cost savings are forecast to make up the largest proportion of potential benefits. Compared to the Base Case, the WRL 500 kV Uprate Option is forecast to defer and avoid some wind and PHES investment. However, some additional solar and large-scale battery is forecast to be built by the end of the Modelling Period.
 - ▶ In the early years of the Modelling Period, the build of wind capacity is forecast to be deferred due to reduced spill of wind generation in Victoria and Tasmania with the option allowing a better use of the existing generators. The potential benefit due to avoided FOM is largely associated with the deferral of wind capacity.
 - ▶ The forecast of reduced renewable energy spill in earlier years, and additional capacity in Victoria in the mid- to long-term compared to the Base Case, reduces the need for interregional imports. This defers the build of wind and solar capacity in all other NEM regions, accruing capex and FOM savings.
 - ▶ Without the WRL option to connect the Western Victoria REZ, more peaking gas and offshore wind is required to supply Victorian demand in later years of the Modelling Period. In addition, more wind and solar is required in the other states in the Base Case.
 - ▶ The forecast solar capacity with the WRL 500 kV Uprate Option is higher in the last few years of the Modelling Period compared to the Base Case. This is because offshore wind capacity in Victoria (2.3 GW) forecast in the Base Case is forecast to be replaced by the lower cost but also lower capacity factor solar and onshore wind technologies with the WRL 500 kV Uprate Option.¹¹
- ▶ The WRL 500 kV Uprate Option and its increased transmission capacity from the Western Victorian REZ is forecast to avoid some peaking gas generation in Victoria, which results in fuel cost savings.
 - ▶ More peaking gas generation is required in the counterfactual Base Case to supply peak demand in this region after the retirement of brown coal.

¹¹ The Victorian Government's offshore wind policy that is now considered "committed" in AEMO's 2023 IASR was not applied in this Report as AEMO selected input assumptions aligned with the VNI West RIT-T to allow a consistent comparison of benefits of the Project without VNI West and combined with VNI West.

- ▶ REZ expansion costs are representative of the estimated costs associated with increasing transmission capacity of a REZ. As advised by AEMO, the WRL 500 kV Uprate Option is considered to unlock significantly more transmission capacity in the Western Victoria REZ. The improved access to this REZ is expected to shift additional wind and solar built into this REZ relative to the Base Case. This is forecast to displace investment in wind and transmission capacity in other REZs mostly within Victoria and result in the expected REZ transmission cost savings.
 - ▶ In the WRL case, 2.5 GW additional wind, and 2.2 GW additional solar are forecast for the Western Victorian REZ compared to the Base Case.
 - ▶ The largest reduction in transmission cost is forecast in the South-West Victoria REZ, where 821 MW are avoided, as well as the Central Highland REZ in Tasmania with 160 MW avoided.
- ▶ It is also forecast that the WRL 500 kV Uprate Option results to a smaller extent in USE and DSP cost savings, mostly in Queensland in line with additional investment in OCGT capacity.
 - ▶ With decreased renewable capacity in Queensland and New South Wales, more peaking gas is forecast to be built after the assumed black coal retirements, incurring capex and FOM costs but also delivering USE and DSP savings.

While this Report does not explicitly assess the impact of the Victorian Government's offshore wind target on the potential gross market benefits of WRL, we expect that committing this policy in the modelling would reduce the forecast gross market benefits. In the VNI West RIT-T¹² offshore wind sensitivity it was noted by AEMO in their assessment of net benefits that the VNI West preferred option - including the WRL 500 kV Uprate Option - continued to deliver significantly positive forecast net benefits with offshore wind targets imposed, although the net benefits were smaller than the core results. The net benefit outcomes indicated that there remains value in harnessing wind and solar in Western Victoria REZ and Murray River REZ to provide renewable resource diversity and the increase in the interconnector transfer capability provides greater opportunities for offshore wind generation to export into the northern regions.

¹² AEMO, 23 February 2023. *VNI West Consultation Report - Options Assessment*, available at: <https://aemo.com.au/initiatives/major-programs/vni-west/stakeholder-consultation>. Accessed 5 March 2024.

EY | Building a better working world

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets.

Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate.

Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. Information about how EY collects and uses personal data and a description of the rights individuals have under data protection legislation are available via ey.com/privacy. EY member firms do not practice law where prohibited by local laws. For more information about our organization, please visit ey.com.

© 2024 Ernst & Young, Australia
All Rights Reserved.

Liability limited by a scheme approved under Professional Standards Legislation.

Ernst & Young is a registered trademark.