

MARINUS



LINK

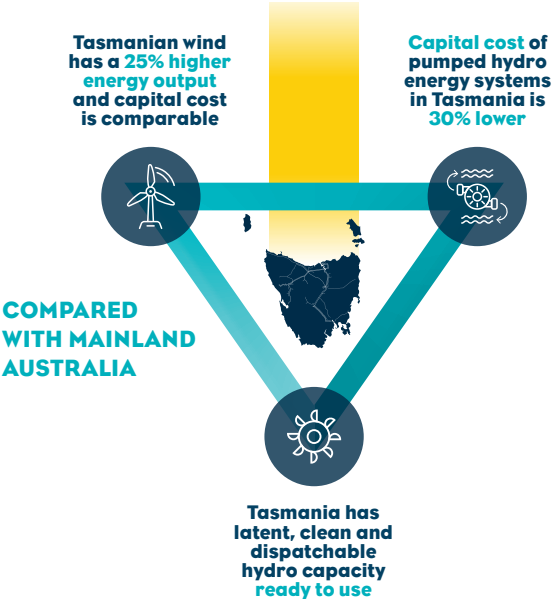
DELIVERING LOW COST,
RELIABLE & CLEAN ENERGY



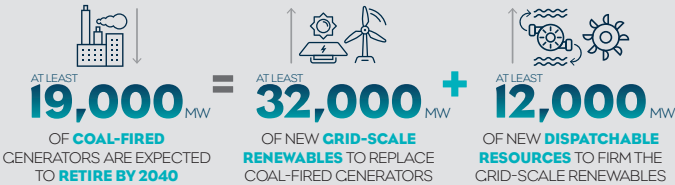
Marinus Link is a proposed 1500 megawatt (MW) capacity undersea and underground electricity and telecommunications connection that links North West Tasmania to Victoria. It requires further development of the transmission network in North West Tasmania. **TasNetworks** completed a positive feasibility and business case assessment for Marinus Link and supporting North West Transmission Developments in December 2019. The Australian Renewable Energy Agency (ARENA) & the Tasmanian Government supported this work. **TasNetworks** is now undertaking the Design & Approvals phase with funding support provided by the Australian Government.

THE NATIONAL ELECTRICITY MARKET IS CHANGING

Coal generation continues to retire with variable renewable generation, such as wind and solar, increasingly taking its place. To support these variable energy sources, the National Electricity Market (NEM) also needs 'dispatchable' energy. This is energy capacity that is on-demand, such as hydro electricity and pumped hydro long duration energy storage resources.



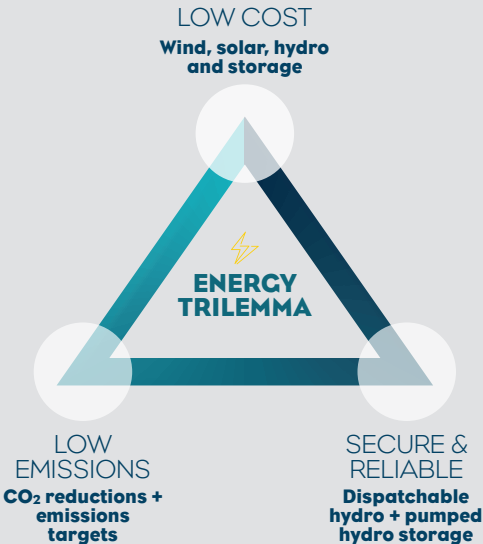
Tasmania has some of Australia’s most cost-effective renewable energy and dispatchable capacity resources.



Figures based on AEMO 2020 ISP central scenario

Marinus Link and supporting transmission help Australia’s transition to a low emissions future by unlocking Tasmania’s renewable energy and long-duration energy storage resources to provide dispatchable energy when it’s needed.

Together they will help address Australia’s energy needs by supporting:



A POSITIVE BUSINESS CASE ASSESSMENT

TasNetworks' analysis shows that Marinus Link and supporting transmission:

- ◇ Have a positive business case assessment
- ◇ Are technically feasible and commercially viable for up to 1500 MW and will provide greater benefits than costs
- ◇ Could be in service from the late 2020s
- ◇ Will create billions in economic growth, thousands of jobs, and be a source of skills, training and workforce development potential in Tasmania and regional Victoria

For more information see the Project Marinus Business Case Assessment Report, available here:

marinuslink.com.au/business-case-assessment

PROJECT COST ESTIMATE

Analysis to date estimates Marinus Link and supporting transmission would have a total project cost of around \$3.5 billion (in 2019 dollars). This estimate includes allowances to reflect the present level of accuracy and contingencies that may arise.

A PRIORITY NATIONAL INFRASTRUCTURE PROJECT

Project Marinus has been recognised as a;

- ◇ National priority project by the Australian Government to stimulate economic recovery in the wake of COVID-19
- ◇ High priority initiative by Infrastructure Australia
- ◇ Major Infrastructure Development by the Tasmanian Government
- ◇ Australian Energy Market Operator Integrated System Plan 2020 actionable project, to be shovel ready from 2023

BROADER BENEFITS

Marinus Link and supporting transmission will add significant economic value to regional communities in Tasmania and Victoria based on expert modelling.



Marinus Link and supporting transmission unlocks a pipeline of investment in renewable energy and long-duration energy storage developments. Together, these developments will provide an estimated **\$7.1 billion and an additional **2,350 jobs**.**

Jobs figure is the estimated average of direct and indirect jobs at peak construction for the period spanning from 2030 to 2034.



Marinus Link enables the National Electricity Market to

**save at least
70 million tonnes of CO₂** ^{*}

*The emission saving is calculated based on the current carbon emission intensity of the NEM. Commissioning of Marinus Link unlocks the achievement of the 200 per cent Tasmanian Renewable Energy Target (10,500 megawatt hours of additional renewable generation by 2040).

WORKING OUT WHO PAYS

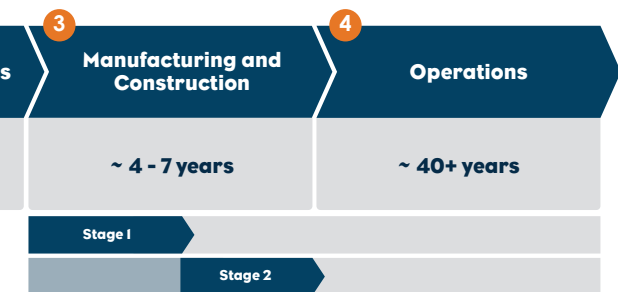
New pricing arrangements will need to be agreed to achieve fair pricing outcomes. A fair cost allocation methodology for interconnectors is being investigated by the Energy National Cabinet Reform Committee. An appropriate pricing outcome is required for Marinus Link and supporting transmission to proceed. Marinus Link proceeding will see downward pressure on wholesale prices.



WHERE WILL IT GO?

The proposed routes seek to minimise adverse impacts on landowners, businesses and conservation areas whilst balancing key objectives of cost, efficiency and constructability. To date, work indicates that the proposed routes for Marinus Link and supporting transmission are feasible.

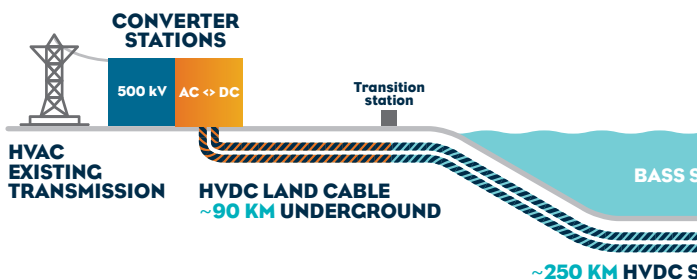




TECHNICAL SPECIFICATIONS

The favoured technical design is for a 1500 MW High Voltage Direct Current (HVDC) interconnector, built in two 750 MW links and supported by High Voltage Alternating Current (HVAC) transmission network developments in North West Tasmania. The design includes modern HVDC cable and converter station technologies that support reliable power transfers across Bass Strait.

VICTORIA CONNECTS IN THE LATROBE VALLEY





Marinus Link and supporting transmission have a positive business case assessment. Work continues to progress this critical national infrastructure to being a 'shovel ready' project. TasNetworks is committed to working with stakeholders and local communities and to providing opportunities for feedback and comment on the project.

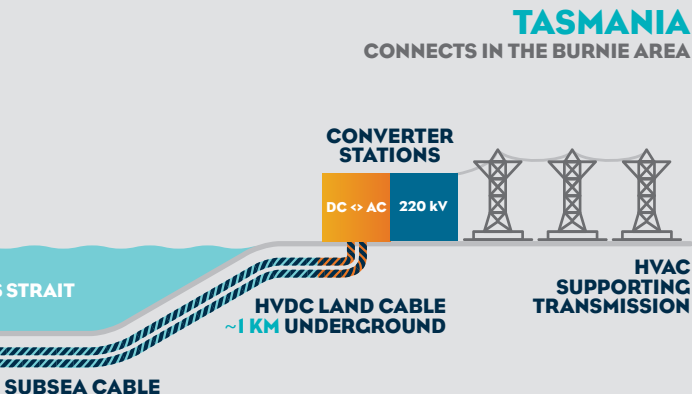
GET IN TOUCH

To learn more about Marinus Link, share your ideas and find out about upcoming stakeholder and community engagement events

visit **marinuslink.com.au**

email **team@marinuslink.com.au**

or call **1300 765 275**





WHERE WILL IT GO?

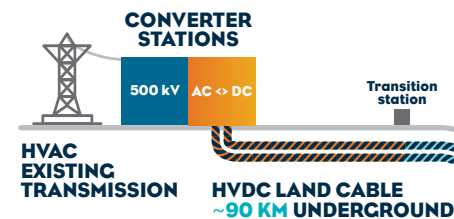
The proposed routes seek to minimise adverse impacts on landowners, businesses and conservation areas whilst balancing key objectives of cost, efficiency and constructability. To date, work indicates that the proposed routes for Marinerus Link and supporting transmission are feasible.



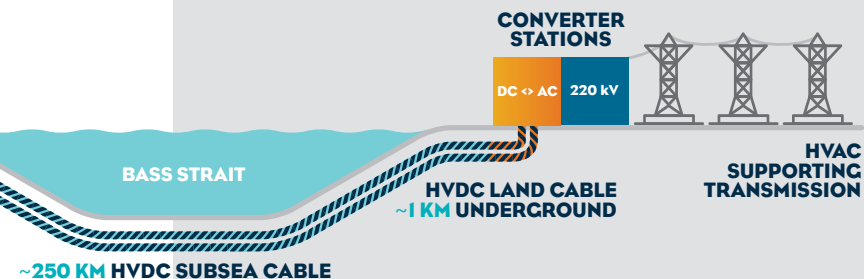
TECHNICAL SPECIFICATIONS

The favoured technical design is for a 1500 MW High Voltage Direct Current (HVDC) interconnector, built in two 750 MW links and supported by High Voltage Alternating Current (HVAC) transmission network developments in North West Tasmania. The design includes modern HVDC cable and converter station technologies that support reliable power transfers across Bass Strait.

VICTORIA CONNECTS IN THE LATROBE VALLEY



TASMANIA CONNECTS IN THE BURNIE AREA



MARINUS
LINK

Marinerus Link and supporting transmission have a positive business case assessment. Work continues to progress this critical national infrastructure to being a 'shovel ready' project. TasNetworks is committed to working with stakeholders and local communities and to providing opportunities for feedback and comment on the project.

GET IN TOUCH

To learn more about Marinerus Link, share your ideas and find out about upcoming stakeholder and community engagement events
visit marinuslink.com.au
email team@marinuslink.com.au
or call 1300 765 275

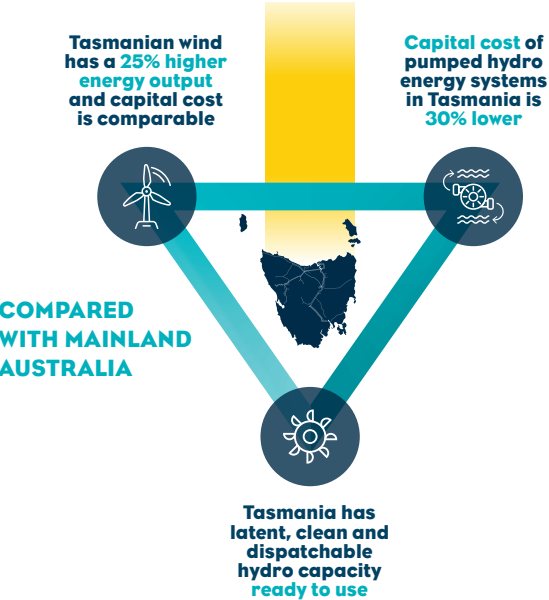
MARINUS
LINK

DELIVERING LOW COST,
RELIABLE & CLEAN ENERGY

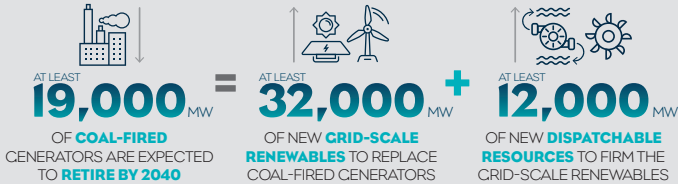
Marinus Link is a proposed 1500 megawatt (MW) capacity undersea and underground electricity and telecommunications connection that links North West Tasmania to Victoria. It requires further development of the transmission network in North West Tasmania. **TasNetworks** completed a positive feasibility and business case assessment for Marinus Link and supporting North West Transmission Developments in December 2019. The Australian Renewable Energy Agency (ARENA) & the Tasmanian Government supported this work. **TasNetworks** is now undertaking the Design & Approvals phase with funding support provided by the Australian Government.

THE NATIONAL ELECTRICITY MARKET IS CHANGING

Coal generation continues to retire with variable renewable generation, such as wind and solar, increasingly taking its place. To support these variable energy sources, the National Electricity Market (NEM) also needs 'dispatchable' energy. This is energy capacity that is on-demand, such as hydro electricity and pumped hydro long duration energy storage resources.



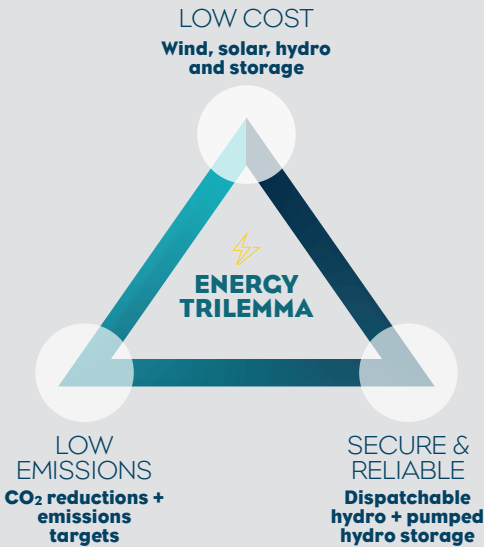
Tasmania has some of Australia's most cost-effective renewable energy and dispatchable capacity resources.



Figures based on AEMO 2020 ISP central scenario

Marinus Link and supporting transmission help Australia's transition to a low emissions future by unlocking Tasmania's renewable energy and long-duration energy storage resources to provide dispatchable energy when it's needed.

Together they will help address Australia's energy needs by supporting:



A POSITIVE BUSINESS CASE ASSESSMENT

TasNetworks' analysis shows that Marinus Link and supporting transmission:

- ◇ Have a positive business case assessment
- ◇ Are technically feasible and commercially viable for up to 1500 MW and will provide greater benefits than costs
- ◇ Could be in service from the late 2020s
- ◇ Will create billions in economic growth, thousands of jobs, and be a source of skills, training and workforce development potential in Tasmania and regional Victoria

For more information see the Project Marinus Business Case Assessment Report, available here:

marinuslink.com.au/business-case-assessment

PROJECT COST ESTIMATE

Analysis to date estimates Marinus Link and supporting transmission would have a total project cost of around \$3.5 billion (in 2019 dollars). This estimate includes allowances to reflect the present level of accuracy and contingencies that may arise.

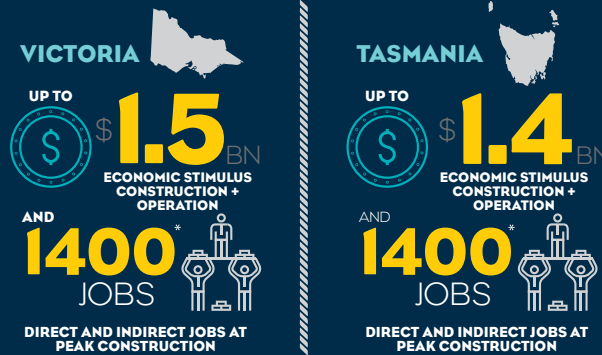
A PRIORITY NATIONAL INFRASTRUCTURE PROJECT

Project Marinus has been recognised as a:

- ◇ National priority project by the Australian Government to stimulate economic recovery in the wake of COVID-19
- ◇ High priority initiative by Infrastructure Australia
- ◇ Major Infrastructure Development by the Tasmanian Government
- ◇ Australian Energy Market Operator Integrated System Plan 2020 actionable project, to be shovel ready from 2023

BROADER BENEFITS

Marinus Link and supporting transmission will add significant economic value to regional communities in Tasmania and Victoria based on expert modelling.



Marinus Link and supporting transmission unlocks a pipeline of investment in renewable energy and long-duration energy storage developments. Together, these developments will provide an estimated \$7.1 billion and an additional 2,350 jobs.

Jobs figure is the estimated average of direct and indirect jobs at peak construction for the period spanning from 2030 to 2034.

Marinus Link enables the National Electricity Market to **save at least 70 million tonnes of CO₂***

*The emission saving is calculated based on the current carbon emission intensity of the NEM. Commissioning of Marinus Link unlocks the achievement of the 200 per cent Tasmanian Renewable Energy Target (10,500 megawatt hours of additional renewable generation by 2040).

WORKING OUT WHO PAYS

New pricing arrangements will need to be agreed to achieve fair pricing outcomes. A fair cost allocation methodology for interconnectors is being investigated by the Energy National Cabinet Reform Committee. An appropriate pricing outcome is required for Marinus Link and supporting transmission to proceed. Marinus Link proceeding will see downward pressure on wholesale prices.