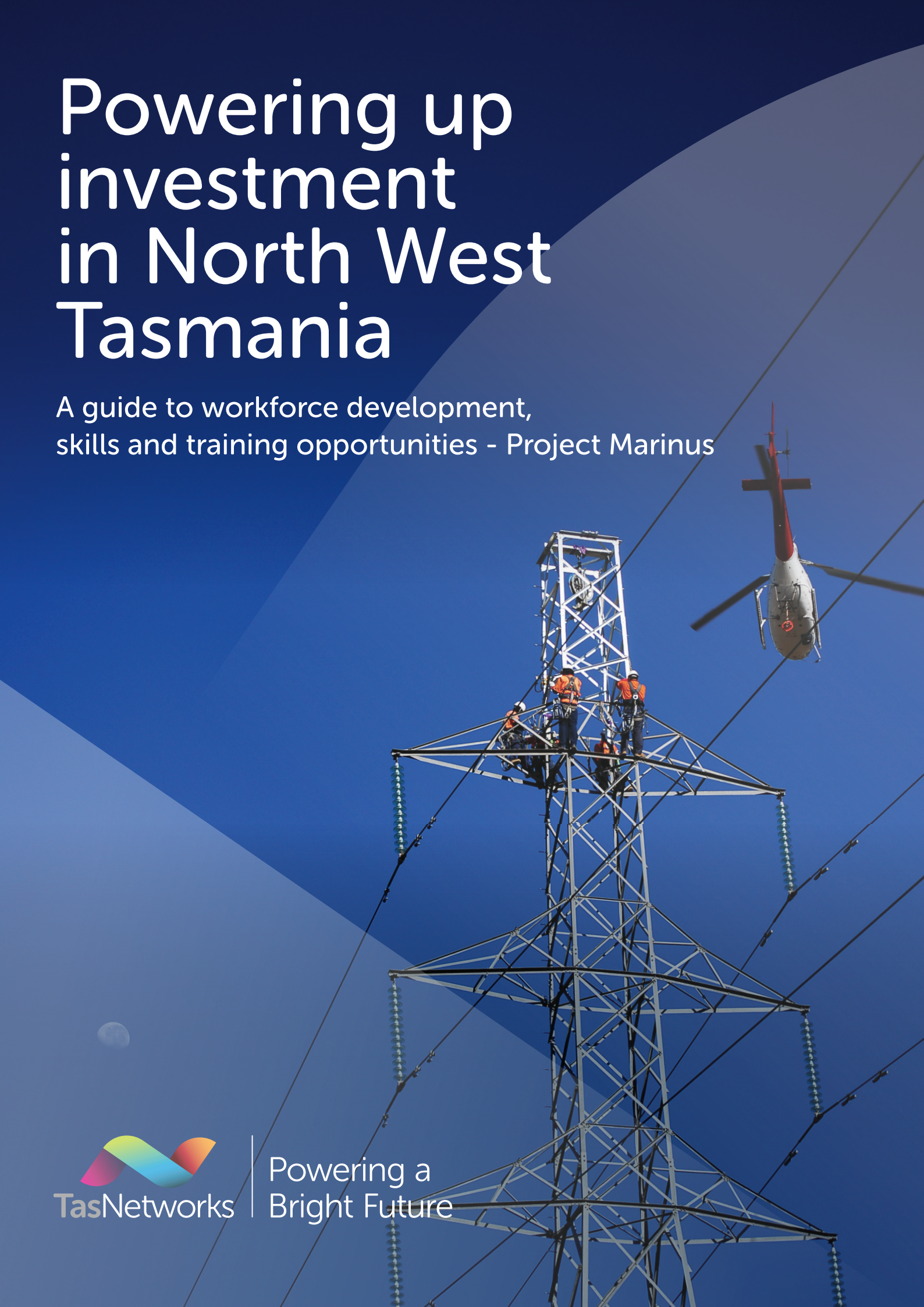
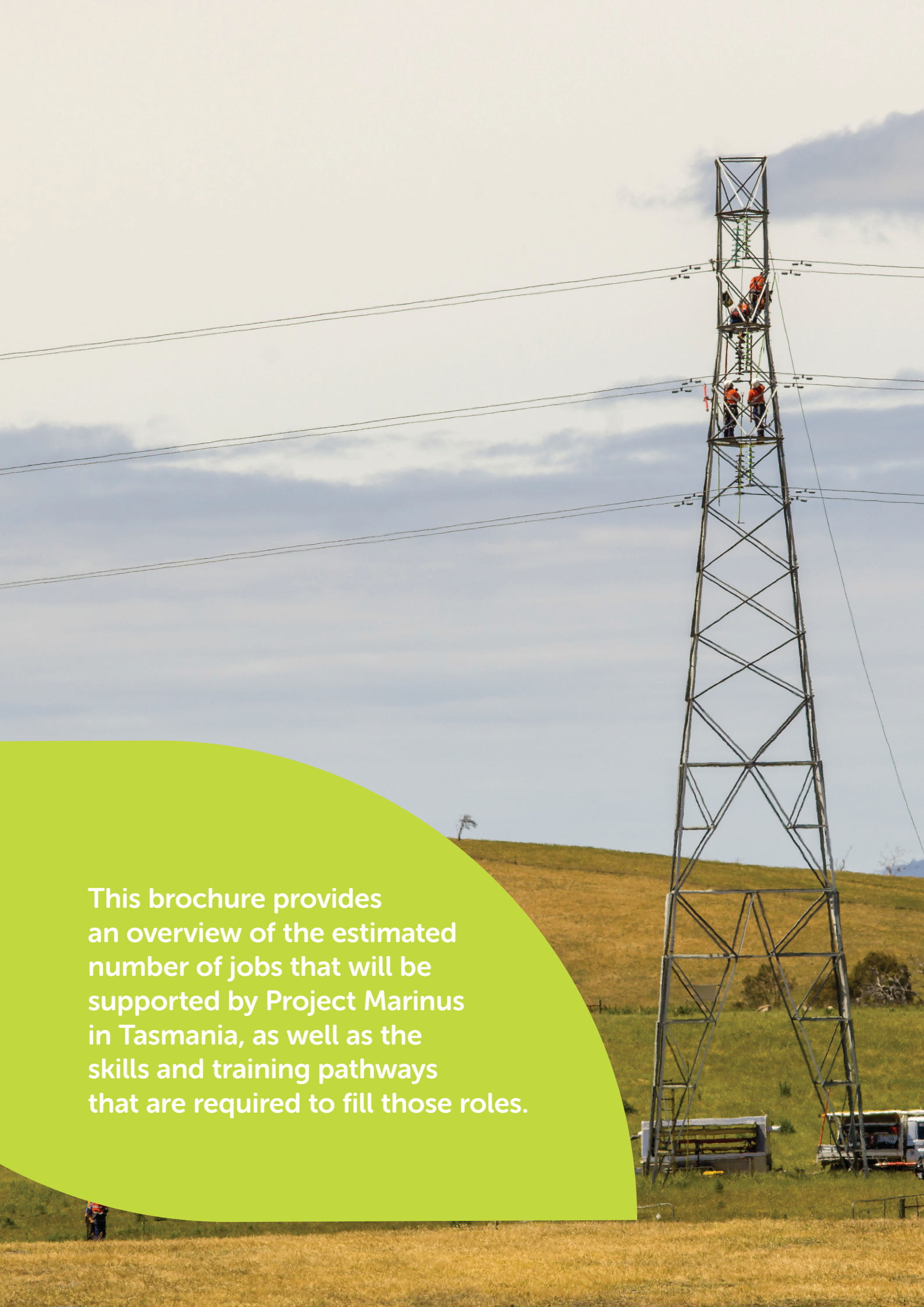
Powering up investment in North West Tasmania

A guide to workforce development, skills and training opportunities - Project Marinus



TasNetworks | Powering a Bright Future



This brochure provides an overview of the estimated number of jobs that will be supported by Project Marinus in Tasmania, as well as the skills and training pathways that are required to fill those roles.

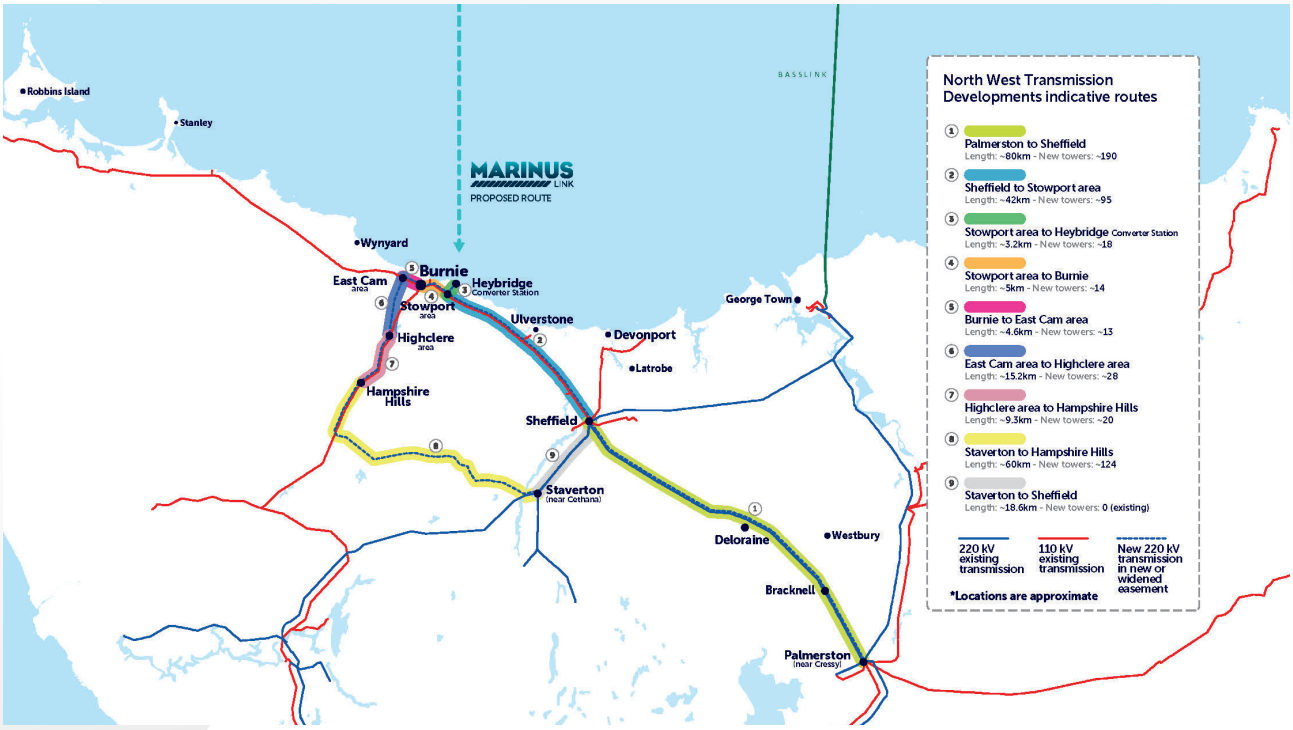
Contents

Introduction

The North West Transmission Developments (NWTD) and Marinus Link, known collectively as Project Marinus, supports Tasmania's ambition to be a world-leading renewable energy provider.

The NWTD, being progressed by TasNetworks, include 240 km of new and upgraded transmission lines that will link Cressy, Sheffield, Burnie, Hampshire Hills and Staverton, strengthening the 'backbone' transmission network in Tasmania.

Marinus Link is a proposed 1500 megawatt capacity undersea and underground electricity connection to further link Tasmania and Victoria as part of Australia's future electricity grid.



'Workforce development, skills and training' is one of five key strategic economic development objectives of Project Marinus in Tasmania.

The Project will also generate benefits across:

- Procurement and opportunities for local businesses
- Infrastructure, assets and national market benefit
- Local and regional community benefits
- Public and private sector investment

Project Marinus will stimulate and contribute to workforce development and a fair economy by contributing to decent wages, training opportunities and good working conditions. Project Marinus will stimulate a pipeline of projects in the energy sector, contributing to the creation of careers, not short-term jobs.

There has never been a better time to consider a career in renewables.

Project Marinus is already creating hundreds of direct and indirect jobs through the design and approvals phase and will create thousands more once construction begins.

Once Marinus Link and the NWTD are built, there will be a pipeline of renewable energy electricity generation and storage projects in the State, harnessing Tasmania's world-class renewable energy resources, these include;

- wind and solar farms and hydro generation upgrades to double renewable energy production
- pumped hydro storage to avoid wasting excess energy and improve reliability in Tasmania and right across the national electricity market
- new forms of energy like green hydrogen production which can be exported internationally.

The once-in-a-century transformation of the power system results in a steady and significant pipeline of job opportunities across all skill levels over a long period of time, including the creation of apprenticeships for young people and experienced workers looking to reskill. There will also be opportunities for workers transitioning out of traditional fossil fuel energy sector roles to bring experience and skills into renewable energy roles. This activity will create demand for skills and training programs in Tasmania, which will enable Tasmania and the North West in particular to develop a fit-for-purpose local workforce to fill the jobs of the future.

Our research shows the jobs required to deliver these projects span numerous occupation groups and encompass a variety of career pathways. While it is recognised that some specialised skills will need to be sought from interstate and overseas, particularly to fill short-term skills gaps, TasNetworks is working closely with a range of industry stakeholders to identify the key training and skills development and career pathways that are required to maximise employment opportunities for Tasmanians.

Building on Tasmania's proud heritage and natural advantage as a state powered by renewable energy for over a century; TasNetworks is collaborating with industry and Government stakeholders to prepare the workforce to deliver a renewable energy power system for the next century.

Overview of jobs

	Job Years*	Approximate Number of Jobs
Direct (Project Marinus)		
Construction (8 year period)	1,263	158
Operations (25 year period)	573	23
Indirect (Project Marinus)		
Construction (8 year period)	4,957	620
Operations (25 year period)	1,288	52
Induced Energy Generation (25 year period)		
Direct	9,993	400
Indirect	27,424	1,097
Total Jobs (Project Marinus & Induced Investment) (30 year period)	44,517	1,484

*A 'job year' represents one full-time job supported for a full year i.e. 1,000 job years may be 500 jobs sustained over 2 years, or 100 jobs sustained over 10 years, noting that some years will have higher employment than others.

Direct jobs

During the construction phase, it is estimated Project Marinus will create 1,263 job years in Tasmania, predominantly in the North West. This equates to approximately 158 ongoing, full-time positions over an eight year period, with some years to have higher employment than others. In the three year period of peak construction, it is estimated that 283 direct jobs will be supported.

Once operational, Project Marinus is forecast to support 573 job years, which equates to 23 full-time jobs on average, per annum, over a 25 year period in Tasmania.

The jobs created will be across a wide range of occupations.

The construction phase will lead to employment for:

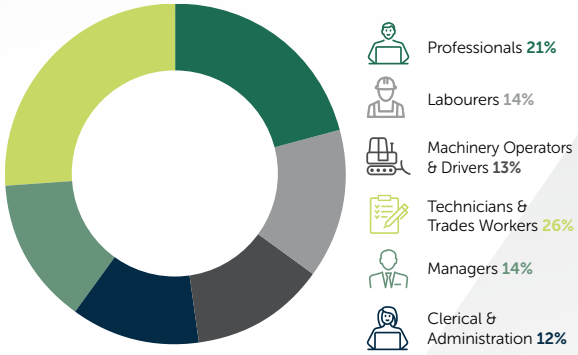
- **Technicians and trades workers**, including electricians, architectural, building and surveying technicians, welders, metal fitters and machinists, plumbers and concreters
- **Labourers**, including a range of building and construction labourers
- **Machinery operators and drivers**, including earthmoving plant operators, truck drivers, crane, hoist and lift operators
- **Professional roles**, including engineers, accountants and draftspersons
- **Managers**, including construction managers, human resource managers and office managers
- **Clerical and administration roles**, including contract, program and project administrators

During operations, there will be local employment opportunities for:

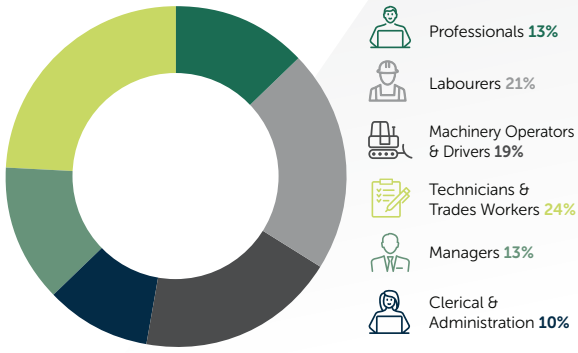
- **Professional roles** including electrical engineers, accountants, ICT managers, management and organisation analysts
- **Managers, clerical and administration roles**
- **Technicians and trade workers,** including electricians and electrical engineering draftspersons and technicians

Professionals and tradespeople with experience in maritime settings will also be required, including maritime safety staff, marine preservation advisors, maritime construction and engineering experts, maritime logistics, and transportation specialists.

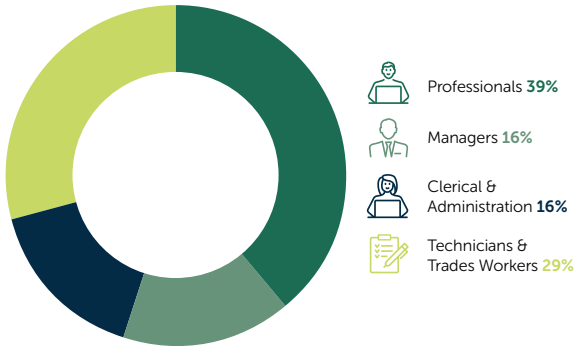
Direct Jobs - Construction & Operations (30 year period)



Construction Phase (8 year period)



Operation Phase (25 year period)



Indirect jobs

A broad range of industries will be supported by the construction and operation of Project Marinus in Tasmania.

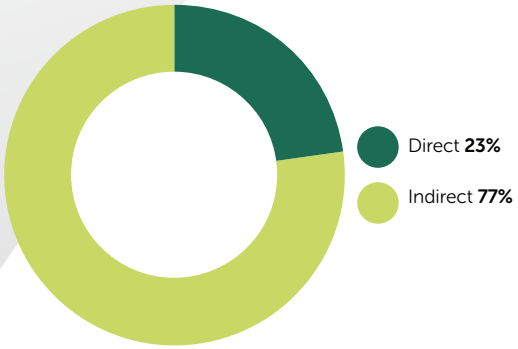
It is estimated that the construction phase of Project Marinus will create 4,957 indirect job years in Tasmania, predominantly in the North West. This equates to approximately 620 indirect, ongoing jobs per annum in Tasmania over an eight year period, peaking at 1,109 jobs on a per annum basis during the three year peak construction period.

Once operational, Project Marinus is forecast to support 1,288 indirect job years. This equates to 52 full-time, indirect jobs on average, per annum, over a 25 year period in Tasmania.

These flow-on jobs will accrue in support industries such as:

- Education and training
- Accommodation
- Hospitality
- Cleaning
- Retail
- Medical services
- The supply chains for construction in manufacturing, construction services, engineering, transport, and financial services

Direct and Indirect Jobs (25 year period)



Induced jobs

Induced jobs are created due to the construction and operation of the wind, solar and pumped hydro energy generation and storage developments, enabled by Project Marinus, predominantly in the north-west region of Tasmania.

The construction and operations of the induced energy generation is estimated to create 9,993 direct job years, which equates to approximately 400 ongoing, long term jobs over a 25 year period.

The construction and operation of wind generation will lead to employment for:

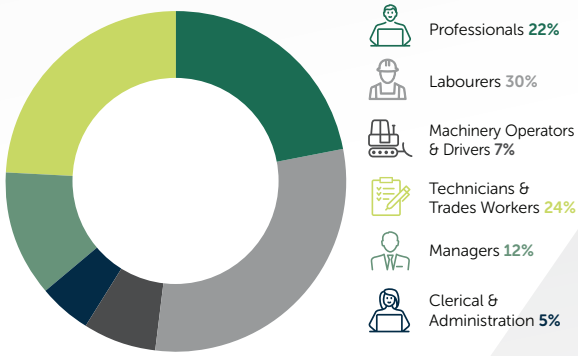
- **Technicians and trades workers**, including electricians, mechanical trades and technicians, metal trades, construction trades and site supervisors
- **Labourers**, including, electrical trade assistants, building and construction labourers, concreters, assembly workers, riggers and dogmen, mechanical labourers
- **Machinery operators and drivers**, including earthmoving operators
- **Professional roles** including electrical, civil, mechanical and supervisory control and data acquisition (SCADA) engineers and roles in finance, legal, planning, business development, marketing and sales
- **Managers**, including construction and project managers, business development, admin and sales
- **Clerical and administration roles**, including contract, program and project administrators

The workers required for pumped hydro will be similar to that of wind generation, but with a slightly different mix of labourers, including concreters, steel fixes, riggers and dogmen.

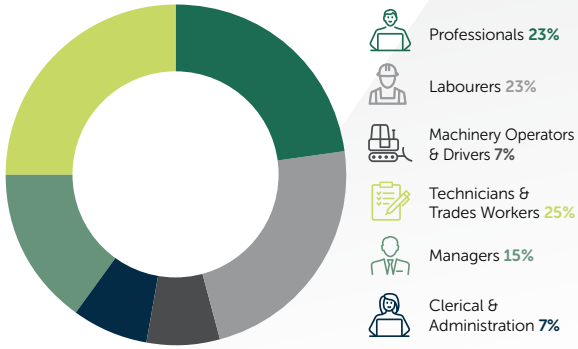
Furthermore, it is estimated that new energy generation projects will support a further 27,424 job years in indirect roles in the north-west region of Tasmania. This equates to approximately 1,097 ongoing, long term jobs over a 25 year period.

In total, by combining job creation in construction and operations of the induced energy generation, nearly 1,500 jobs will be supported on a per annum basis over a 25 year period. Project Marinus unlocks a steady and significant pipeline of job opportunities across all skill levels over a long period of time.

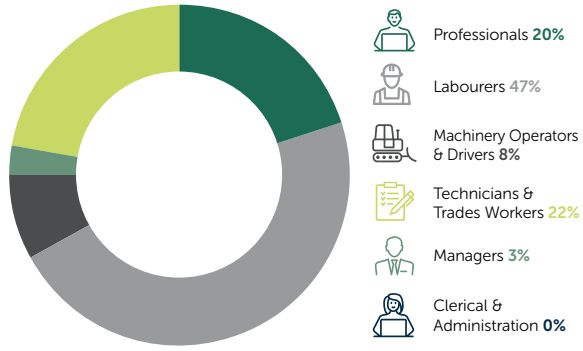
Total Induced Jobs - Construction & Operations of Wind & Hydro Generation (25 year period)



Jobs in Induced Wind Construction & Operations



Jobs in Induced Hydro Construction & Operations



Skill levels and training pathways

Project Marinus will create jobs across a broad range of skill levels.

Across the construction and operation of Project Marinus, and induced wind and hydro energy generation developments, 27 per cent of jobs will be for labourers classified as being skill level 4 or 5 requiring Certificate I, II or III from a vocational education provider.

At the other end of the education spectrum, 21 per cent of jobs created will be for tertiary-educated professionals, 12 per cent for tertiary trained managers and another 24 per cent for highly skilled, vocationally trained technicians and trade workers.

A broad range of skill levels, tertiary, vocational and apprenticeship pathways are required for the north-west region.

TasNetworks is working closely with a range of industry stakeholders to identify the key training and skills development and career pathways that are required to maximise employment opportunities for Tasmanians.

Skill Levels & Education Required

- Professionals **21%** (Bachelor Degree or higher)
- Labourers **27%** (Certificate I, II or III)
- Machinery Operators & Drivers **9%** (Certificate II or III)
- Technicians & Trades Workers **24%** (Certificate III or IV, Diploma or Advanced Diploma)
- Managers **12%** (Diploma, Advanced Diploma, Bachelor Degree or higher)
- Clerical & Administration **7%** (Certificate II or III or Diploma)

Total jobs

In total, it is estimated that Project Marinus will support 44,517 job years. This equates to around 1,484 ongoing, full time jobs per annum over a 30 year period in Tasmania.

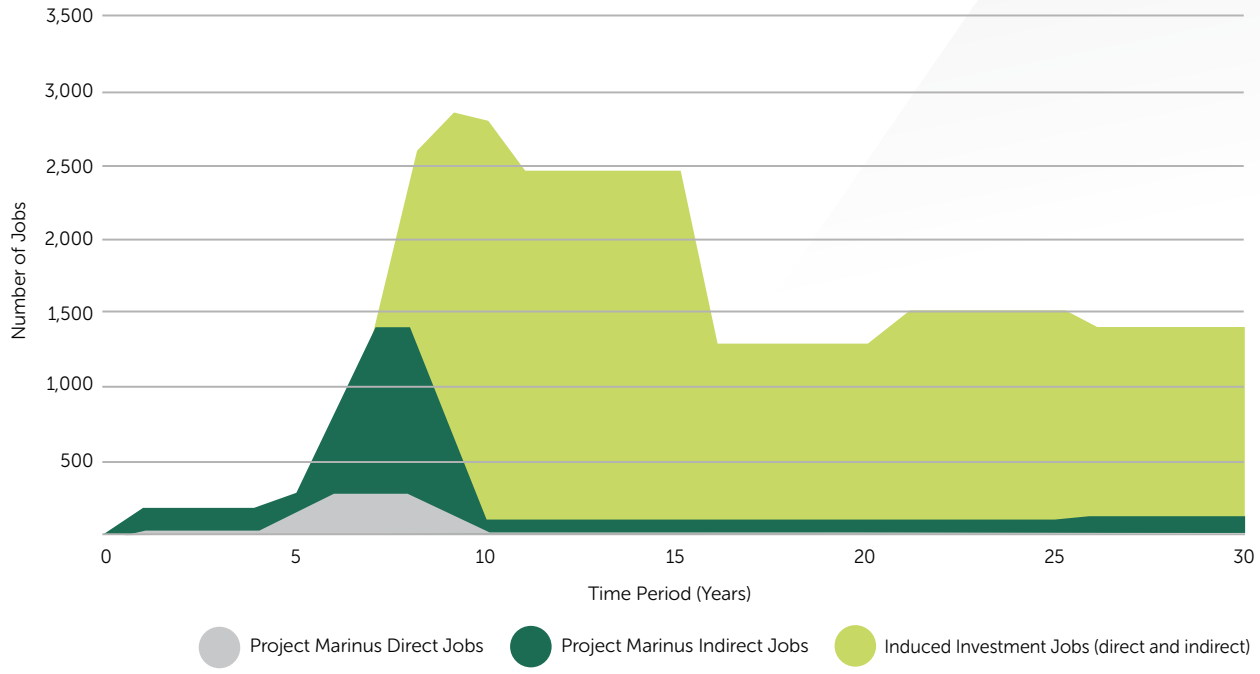
Out of those, 4 per cent of the jobs are direct, and 12 per cent are indirect, from the construction and operation of Project Marinus.

Additionally, 84 per cent of the jobs created are due to the induced investment in wind and pumped hydro projects enabled by the development of Project Marinus.

Given the size of the North West workforce is around 52,500 at present (30,700 working full-time, 17,900 working part-time, 3,900 unemployed), the 600 workers demanded at around 2030 accounts for over 1 in 100 jobs in the North West, if all positions can be filled locally.

The induced investment is a major economic benefit of the project. The jobs supported will be across a range of occupations and skill levels, providing significant opportunities for the north-west region of Tasmania.

Timeline of Jobs Supported in Tasmania (30 year period)



You can contact us with any questions about the proposed North West Transmission Developments via our project email and phone line.

Visit: tasnetworks.com.au

Email: NWTD@tasnetworks.com.au

Call: 1300 127 777

TasNetworks | Powering a Bright Future

TasNetworks.com.au

V1-07-2022