

BUILDING SAFE INFRASTRUCTURE FOR STRONGER COMMUNITIES

nacap

A QUANTA SERVICES COMPANY



INTEGRITY
TEAM WORK
STRIVE TO BE BETTER

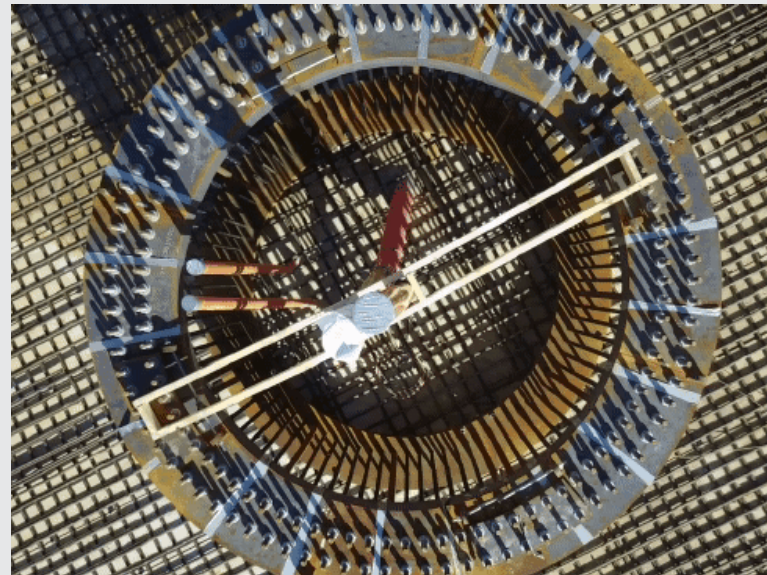
Nacap Construction Services

Nacap provides a broad range of construction services including:

- Civil Construction
- Heavy Earth Moving
- Large Diameter Pipelines
- Horizontal Directional Drilling (HDD)
- Hydrostatic testing
- Civil, mechanical, E&I, FOC, HV Cable
- Prefabrication
- Commissioning
- Maintenance & Refurbishment

Our civil construction experience includes:

- Site preparation
- Concrete foundations and paving
- Storage dams
- Storage tanks
- Pump stations
- Compressor stations
- Metering stations



Nacap Pipeline/Civil Construction Projects

DATE	PROJECT TITLE	CLIENT	LOCATION	PIPELINE LENGTH	CIVIL CONSTRUCTION
2018	Lincoln Gap Wind Farm	Senvion	SA	-	212MW of Power, 10MW Grid Scale Battery Storage, Phase 1 - 35 Wind Towers, 17,500 m3 of Concrete, 2100 Tonne of Steel, Project employing 110-130 people.
2018	Kennedy Energy Park	Quanta Solar	QLD	-	43MW Wind Generation, 15WMAC Solar PV Generation, 2 MW/4 MWH Battery Energy Storage, WTC Foundations and Civil Construction
2017	Kiata Wind Farm Project	CPP	VIC	-	9 x WTC Foundations, 5000M3 concrete, 460T steel
2017	Mobil Oil Australia Pty Ltd Yarraville Jet Fuel Pipeline	Mobil Oil Australia Pty Ltd	VIC	3KM	Excavations, concrete footings, pavement cutting, pipe bridge, mini HDDs, installation of 30t of structural steel components
2016	MGP Dam 1 Upgrade	Arrow Energy	QLD	1KM	Pump station, centrifugal pumps, pipework, SCADA system, flowmeters
2015 - 2017	Longford to Long Island Pipeline	Esso	VIC	186KM	MLVs, major HDDs, mini HDDs
2013 - 2014	Western Tranche	APLNG	QLD	126KM	Launcher/receiver facilities, MLV's, earthworks, concrete foundations, structural steel erection, piping, painting, electrical instrumentation
2013 - 2014	Woleebee Lateral Works	APLNG	QLD	93KM	Launcher/receiver facilities, MLV's, earthworks, concrete foundations, structural steel erection, piping, painting, electrical instrumentation
2012 - 2014	APLNG Infield Pipeline Works	APLNG	QLD	117KM	Launcher/receiver facilities, MLV's, earthworks, concrete foundations, structural steel erection, piping, painting, electrical instrumentation
2013	Wandoan Interconnect Facility	APLNG	QLD	-	Control and metering skids, skid infrastructure, utilities, earthworks and civil concrete works
2013	Talinga Pipeline Compressor Facility	APLNG	QLD	-	Below ground construction, compressor station foundation, earthworks and civil concrete works
2012	Arrow Tipton WTS	Arrow Energy	QLD	14KM	Inline and endline facilities, above ground metering skids
2010 - 2012	Victorian Desalination Project	Victorian Government	VIC	84KM	Major HDDs, mini HDDs, MLVs, underground HV electrical install, 1930 OD MSCL install
2010 - 2011	QSN3 Project	Epic Energy	QLD	938KM	Inline/endline facilities, MLVs, compressor stations
2008 - 2009	Walloon Pipeline Project	Origin Energy	QLD	205KM	Inline/endline facilities
2008 - 2009	Queensland, South Australia, New South Wales Link (QSN Link)	Epic Energy	QLD & SA	183KM	Hot taps, MLV's, facilities
2007-2008	Wimmera Mallee Pipeline	GWM Water	VIC	840KM	Storage facilities, pump stations, inlet filtration facility
2007-2008	Phu My To Ho Chi Minh Gas Pipeline	Petro Vietnam	Vietnam	39KM	Launching facilities, MLVs, filtering, heating and metering facilities, push pull wet ditch construction techniques, HDDs
2005 - 2006	Dampier to Bunbury Natural Gas Pipeline -Stage 4D	Alinta	WA	194KM	Bore water facilities upgrade, civil works, hot taps, MLV's, facilities
2003 - 2004	North Queensland Gas Pipeline	Enertrade	QLD	392KM	Compressor station construction, inline and endline facilities
2004 - 2005	Third Transmission Gas Pipeline	PTT	Thailand	115KM	HDDs, MLV's and facilities
2002	Tasmanian Natural Gas Pipeline	Duke Energy International	TAS	163KM	Inline and endline facilities, MLV's

Wind Farm Project Overviews



The Facts

- 212MW OF POWER
- 10MW GRID SCALE BATTERY STORAGE
- PHASE 1 - 35 WIND TOWERS
- 17,500 M3 OF CONCRETE
- 2100 TONNE OF STEEL
- PROJECT EMPLOYING 110 - 130 PEOPLE

Project Overview

Work has officially begun on the Lincoln Gap Wind Farm and Battery Storage project in South Australia.

An ideal location for a wind farm - situated far from any residences or communities - the site has an excellent wind resource, and great access to the grid as it is located approximately 15km to the west of Port Augusta.

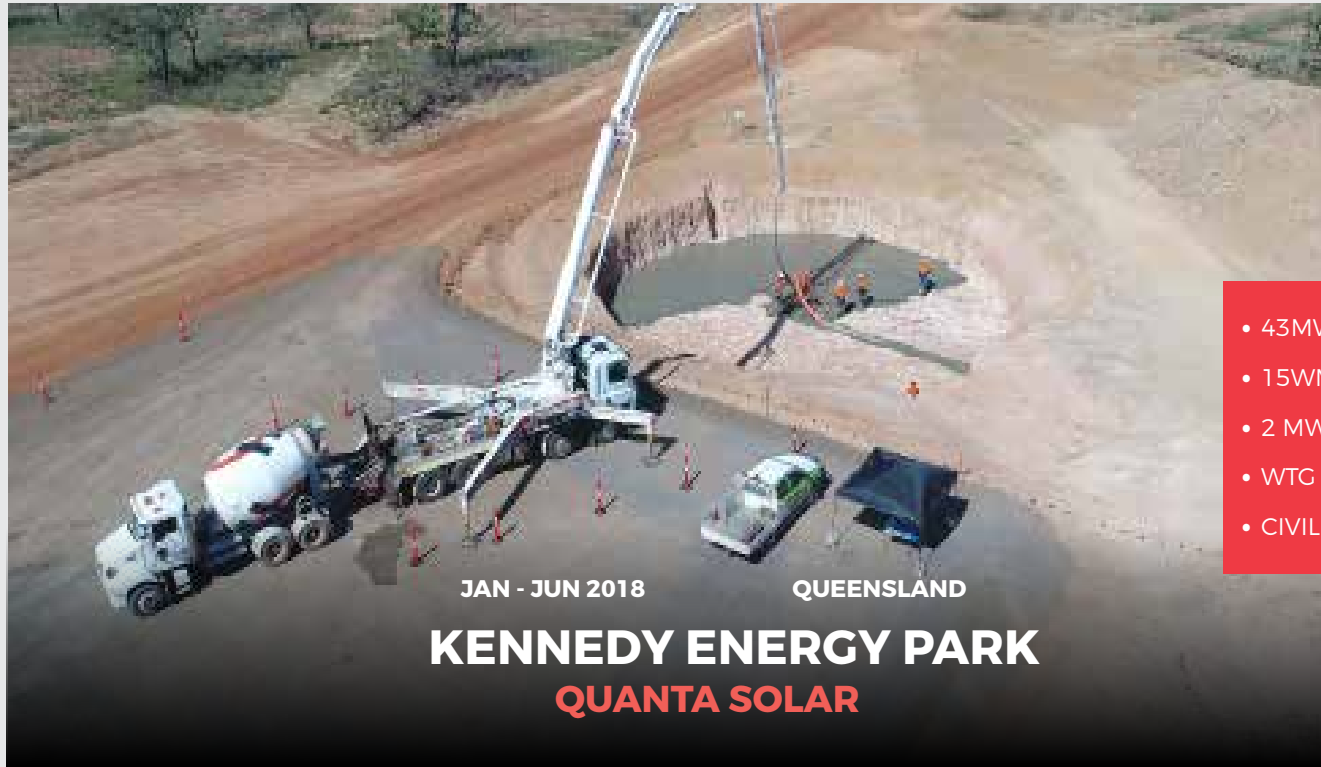
Changes in wind turbine technology over time led to modifications of the wind farm layout and wind turbine height to 180m using 3.6MW Senvion wind turbines.

The project will connect to a 275kV grid line managed by ElectraNet, running to the south of the project.

Working with sister Quanta Services company, Consolidated Power Projects (CPP) - Phase 1 will see Nacap will be laying the ground work and concrete bases for an initial 35 Wind Towers and creating approximately 30KMs of roads.

Once completed, the project will:

- Have the ability to offset over 600,000 tonnes of CO2 emissions for every year of its operations, and
- Be supplying 25+ years of Green Energy and power for ~155,000 Homes.



The Facts

- 43MW WIND GENERATION
- 15MWac SOLAR PV GENERATION
- 2 MW/4 MWh BATTERY ENERGY STORAGE
- WTG FOUNDATIONS
- CIVIL CONSTRUCTION

Project Overview

Nacap is proud to be part of Australia's First Utility Scale Hybrid Farm – Kennedy Energy Park.

Located near Hughenden in Queensland, Kennedy Energy Park is a combined wind, solar and battery storage facility being developed through a 50/50 joint venture between Windlab Limited and Eurus Energy Holdings Corporation.

The Project, the first stage of the park, will consist of a nominal 43MW wind generation, 15MWac solar PV generation and a 2 MW/4 MWh battery energy storage system. The EPC Contractor a joint venture between Quanta Power Pty Ltd and Vestas – Australian Wind Technology Pty Ltd has engaged Nacap Pty Ltd as its preferred Contractor for the construction of the Wind Turbine Generator foundations.

Nacap will be responsible for execution of the following activities:

- Foundation bulk excavation
- Electrical conduit installation
- Blinding concrete placement
- Anchor cage assembly and installation
- Steel reinforcement fixing works
- Concrete batching plant establishment
- Formwork design and installation
- Structural concreting placement
- Foundation backfill and compaction, and
- Grouting and foundation sealing.



The Facts

- 9 X WTG FOUNDATIONS
- 5000 M3 CONCRETE
- 460T STEEL

Project Overview

The Kiata Wind Farm project consisted of 9 x V126 3.45MW IEC2B Vestas Wind Turbine Generators (WTGs) connected into the National Electricity Market (NEM). The wind farm is located 10 kilometres south-east of Nhill in north-western Victoria.

The Kiata Wind Farm project encompasses all the works required to design, construct, install and commission 9 x V126 turbines, including associated electrical and civil works.

Working with sister Quanta Services company, Consolidated Power Projects (CPP), Nacap was appointed to construct all WTG foundations.

Scope of civil works include:

- Assembly and installation of Vestas anchor ring cages
- Anchor bolt tensioning
- Bulk concrete and steel works (including batch plant)
- Specialist grouting
- Waterproofing of WTG

Works completed in September 2017.

Pipeline & Facilities Project Overviews



The Facts

- NEW PUMP STATION + 2 CENTRIFUGAL PUMPS
- ASSOCIATED PIPEWORK
- SCADA SYSTEM
- 3 FLOWMETERS
- COMMISSIONING OF PUMP STATION
- DECOMMISSIONING OF REDUNDANT EQUIPMENT

Project Overview

Moranbah Dam 1 is a part of the water distribution network of the Moranbah Gas Project (MGP – is jointly owned by AGL Energy and operated by Arrow Energy).

Under a CPECC Nacap JV, scope included construction of a pipeline to a new pump station, two centrifugal pumps and associated pipework with suction/discharge capabilities. Also included was a SCADA system to provide remote communication from the dam site to the Arrow Energy MGP office to transfer water to/from various dams dependent on water levels. Three flowmeters were installed to provide important information on flows to and from the dam. The addition of a weather station to understand rainfall and evaporation rates was linked to the flow rates to allow an improved understanding of water production.

On completion, the pump station and associated instruments/pipework were commissioned and various redundant equipment/pipework was decommissioned, capped, terminated and removed from site.

The crew selected to execute the works performed multifunctional roles - civil, mechanical and hydrostatic testing - and had the ability to operate plant as well as carry out butt fusion welding, hydrostatic testing and general labouring duties. The project was completed on time and to client satisfaction.



The Facts

- 186KM DN350 PIPELINE
- 15 MAJOR HDDS
- 1200 FENCE CROSSINGS
- 72 MINI HDDS
- 120 BURIED SERVICE CROSSINGS

Project Overview

In 2016, Nacap commenced work on a 186 kilometre pipeline in regional Victoria for Esso. The pipeline is one of Australia's most vital pieces of infrastructure that transports crude oil and condensate between the Longford processing facility near Sale and the Long Island Point plant situated near Hastings. Operating for more than 45 years, the plant has been supplying most of Victoria's gas requirements since 1969 and currently supplies around 20 per cent of Australia's crude oil requirements.

The new pipeline is 350mm in diameter and replaces the existing 700mm pipeline which was constructed in 1969, following the existing pipeline route. The existing pipeline underwent a partial replacement in 1980 but is now approaching the end of its operational life. The new pipeline will allow for

continued delivery of crude and condensate as well as natural gas, providing continuity of supply for Australian households and businesses.

Construction was executed over a two season campaign and successfully completed on time and within budget by mid 2017. The construction effort employed a workforce of up to 450 people to construct the 186km pipeline.

Construction included 15 major HDDs, 70 mini HDDs and 13 valve stations through a complex ROW and 320 landowners.



The Facts

- CONTROL AND METERING SKIDS
- SKID INFRASTRUCTURE
- UTILITIES
- EARTHWORKS AND CIVIL CONCRETE WORKS

Project Overview

This project provided a critical connection for APLNG and QCLNG to transfer and meter sales gas under controlled conditions.

Stage 1 of the project consisted of earthworks and civil concrete works required for the installation of control and metering skids, associated infrastructure and utilities for





The Facts

- GAS PIPELINES
- 55 x DN600
- 71 x DN450
- ASSOCIATED IN LINE FACILITIES

Project Overview

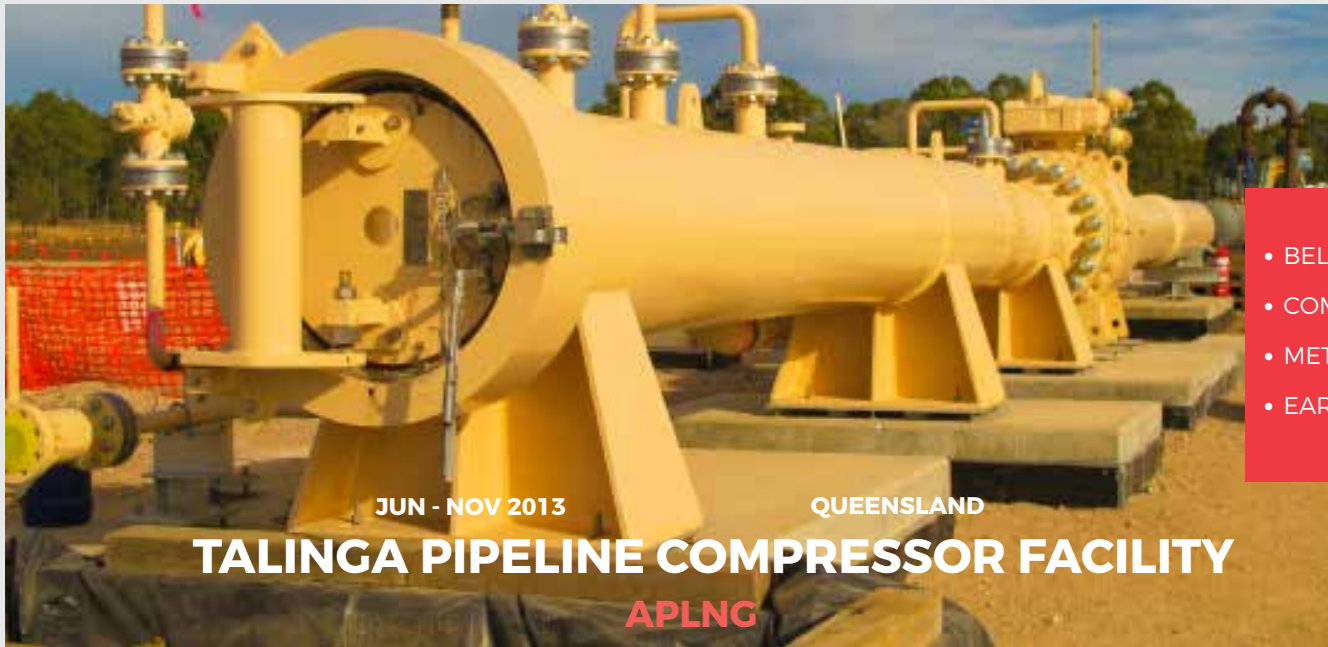
Nacap successfully completed construction of portions of the APLNG pipeline system and associated facilities including the Western Tranche package of the Infield Pipeline Works.

The Western Tranche Project consisted of the following Separable Portions and associated facilities:

- Combabula Spur to Reedy Hub DN450 Approximately 17km in length
- Eurombah Lateral to Reedy Creek GPF DN600 Approximately 55km in length
- Fairview to Spring Gully Pipeline DN450 Approximately 28km in length
- Spring Gully to Talooona Pipeline DN450 Approximately 26km in length

Other works performed by Nacap include:

- Combabula Spur Line facilities - Complete construction of Launcher facility (excluding bulk earthworks) and Receiver facility at Reedy Hub (bulk earthworks are in the Woleebee Lateral scope)
- Eurombah Lateral facilities - Launcher facility and civil works at Eurombah Creek GPF excluding bulk earthworks; Mid-line tie in from Spring Gully to Talooona Pipeline at Pine Hills including barred tee and riser and associated civil works; and Tie-in to the DN600 portion of the Woleebee Lateral at Reedy Creek GPF.
- Spring Gully to Talooona Pipeline facilities - Talooona Tie In including civil works; Launcher facility at Spring Gully GPF and Receiver facility at the intersection with the Eurombah Lateral Pipeline.
- Fairview to Spring Gully Pipeline facilities - Launcher facility at Fairview,



JUN - NOV 2013

QUEENSLAND

TALINGA PIPELINE COMPRESSOR FACILITY

APLNG

The Facts

- BELOW GROUND CONSTRUCTION
- COMPRESSOR STATION FOUNDATION
- MET CRITICAL TIMEFRAMES
- EARTHWORKS AND CIVIL CONCRETE WORKS

Project Overview

Working collaboratively with APLNG and to a tight construction schedule, Nacap was appointed to construct below ground infrastructure and foundations for the APLNG compression station to be built directly adjacent to the existing Talinga Metering Station (TMS). This involved installation of all tanks, cabling, conduits and foundations.

Nacap successfully fast tracked works in accordance with client needs and collaborated with above ground contractors appointed to complete compression station construction.





The Facts

- 88KM X DN750 GAS PIPELINE
- 88KM FIBRE OPTIC CABLE
- 5KM X DN600
- IN LINE AND END LINE FACILITIES

Project Overview

Nacap's 370 person crew was mobilised on the Woleebee project in early June 2013. As this fast tracked project was expected to be completed by December 2012, work commenced immediately

The overall general scope of work consisted of:

- Construction and pre-commissioning of the DN750 (30") Woleebee Lateral Gas Pipeline and Fibre Optic Cable from the Reedy HUB Facility to the APLNG HUB Facility, approximately 88.2 km in length
- Construction and pre-commissioning of the DN600 (24") Eurombah Interconnect Gas Pipeline and Fibre Optic Cable from Reedy Creek off take station to the Reedy Creek HUB Facility, approximately 5.2 km in length
- Construction and pre-commissioning of the Reedy HUB Facility (Woleebee Launcher and Eurombah Receiver), including bulk earth works, civil works, piping fabrication and erection, electrical and instrumentation, fencing and earthing.
- Construction and pre-commissioning of the Reedy Creek GPF tie-in station, including bulk earth works, civil works, piping fabrication and erection, fencing and earthing.
- The majority of work was conventional open cut, including special crossings, as well as 6 trenchless bored sections.
- Nacap mobilised an independent pipeline construction spread, including special crews, to undertake the installation of the works.
- Construction commenced on the Woleebee Lateral at the APLNG HUB and progressed toward the Reedy HUB after which the Eurombah Interconnect Pipeline was constructed from the Reedy HUB to Reedy Creek GPF.

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