

# Opportunities for Small to Medium Enterprises

For companies interested  
in operations, maintenance  
and facilities management  
of onshore Australian  
LNG facilities

# ACKNOWLEDGEMENTS

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## LNG OPERATORS

To obtain an understanding of the various methodologies that can be used to maintain a LNG facility, Industry Capability Network (ICN) made contact with all companies currently operating or constructing onshore Australian LNG plants. ICN would like to acknowledge the companies listed below for their time and the valuable information provided by them that allowed the development of this report.



woodside

ConocoPhillips  
Australia

## CONTRACT PROVIDERS

ICN contacted contract providers seeking their advice on the goods and services that may be required from external sources to supply the notional operational and maintenance work scopes listed in this report. ICN would like to acknowledge the 283 contract providers listed in the Appendix for their time and the valuable information provided by them in their respective specialities.



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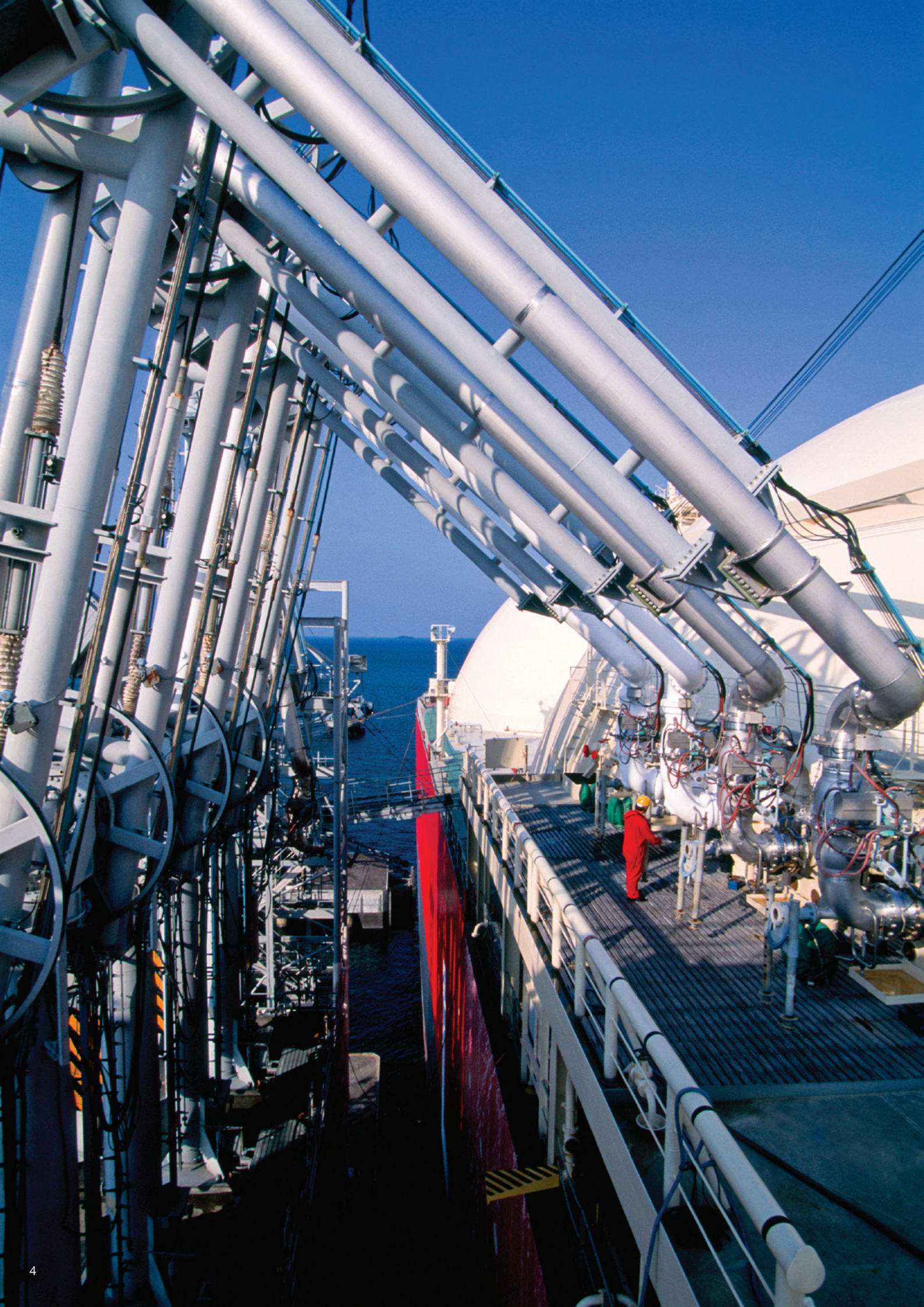


# AUSTRALIAN SOLUTIONS FOR GLOBAL SUPPLY CHAINS

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# OPERATIONS, MAINTENANCE AND FACILITIES MANAGEMENT OF ONSHORE AUSTRALIAN LNG FACILITIES

## Report Overview

The purpose of this report is to bring to the attention of Australian sub suppliers of services and goods the range of opportunities that are in general available for the key operations and maintenance (O&M) requirements of a typical onshore operational LNG facility.

The source information for the report has been provided by companies currently operating or constructing onshore Australian LNG plants, ICN enquiry information and contract providers supplying the notional operational and maintenance work.

The report provides:

1. details on the types of service agreements that LNG operators may tender directly
2. the types of businesses that may compete for these prime service contracts
3. the sub supply items required by the prime service contractors.

The sub supply items required by the prime service contractors in the report lists information on over 1,100 sub-tier opportunities. These are goods and services that may be required by the prime service contractors to perform a scope of work.

An outcome of this report is to:

- provide pathways to SMEs interested in accessing LNG maintenance opportunities
- provide opportunity advice, particularly to SMEs
- maximise Australian industry participation in global investment projects and supply chains
- deliver information and connections on Australian industry to international companies.

## Onshore LNG Facility Operations and Maintenance

A lot of media coverage and public debate has focused on Australian supply opportunities during the construction phase of LNG projects which typically take around four years from the project's final investment decision (FID).

Globalisation has moved engineering and procurement decision making for the construction of major oil and gas projects away from a project's host country to a shrinking number of global centres of technical excellence.

Many Australian firms face challenges in gaining access to international supply chains during the construction of major investment projects. The relative small size of the Australian economy, coupled with its geographical distance from the major markets of Europe and North America, and the trend towards greater use of overseas engineering and established supply chains by international investors, can create significant impediments to Australian industry participation in the construction of major projects.

The growing dominance of global engineering and contract firms in the oil and gas sector has changed the route Australian suppliers may need to take to capture opportunities and access global supply chains. This has been the case for Australian LNG projects.

This report aims to provide increased focus on the importance of O&M of resource projects such as LNG facilities to counter the downward trend of opportunities during a project's construction.

Some suppliers have already shifted their business models to concentrate more on the operational phase of major resource projects. Via O&M contracts, suppliers can form close relationships with the owners/operators of LNG facilities. This places them as a distinct advantage to supply goods and services for facility upgrades and brownfield expansions. O&M work can provide more predictable work flows allowing suppliers to retain essential skills and invest in new capabilities

The cost of maintaining and improving LNG facilities is considerable. Over the lifetime of an LNG project these costs may equal or even exceed its initial capital cost. For example, through the North West Shelf Project's operations and development about A\$800 million annually is directly injected into Australian businesses.

Australia currently has three LNG export plants operating, two in Western Australia and one in the Northern Territory, with total capacity of 24.4 million tonnes per annum (MTPA). All three facilities source natural gas from offshore fields.

Table 1 lists Australia's three operational LNG projects.

In the next four years, seven under-construction LNG projects costing a combined \$180 billion are scheduled to commence operations. This includes 36.5 MTPA from plants that will source conventional offshore gas fields in Western Australia and the Northern Territory, and 24.3 MTPA that will source onshore coal seam gas resources in Queensland.

This new capacity will nearly quadruple LNG exports to about 85 MTPA and possibly see Australia become the world's largest LNG exporter.

Table 2 lists LNG projects currently under construction.

The North West Shelf Project's \$800 million annual operations and development expenditure equates to a cost of A\$49 million per million tonne of LNG produced. Using this as a baseline, the three operational LNG plants are injecting over A\$1.1 billion a year directly to Australian businesses. This annual operational and development expenditure can be expected to increase to A\$4.1 billion by 2017 as the seven LNG plants under construction come online.

The increasing number of Australian LNG facilities will also create economies of scale that could be used to create an environment capable of developing a significant O&M export capability.

Transitioning an LNG project from its construction phase into operations is a challenging process. To address this, operations personnel are often embedded into inspection and construction teams up to two years before start up. The goal of operations is ensuring the reliability of the facility to maximise LNG production. This requires a complex set of commercial agreements with external contractors and suppliers that will undertake a large portion of a LNG facility O&M.

Besides having the responsibility for ensuring that a LNG facility performs to or above specification, operations will also be responsible for executing any capital works that may have been deferred during the construction phase, debottlenecking and fit-for-purpose retrofitting programs. They will also have a significant role in small and large brownfield expansions. This is additional expenditure on top of normal O&M requirements.

Project operators will endeavour to minimise the complexity of managing dozens of service agreements by aggregating together different work scopes. Operators work to find a balance between work scope size and coverage and the number of suppliers that can competitively tender and perform the work using their own personnel and equipment.

Even so, it would not be unusual for operations to have ninety or more commercial agreements with external contractors and suppliers. Some of these will be service agreements such as legal services or diesel supply that have few opportunities for sub-tier supply by small to medium enterprises (SMEs).

**TABLE 1: AUSTRALIA'S THREE OPERATIONAL LNG PROJECTS**

Project	Location	Commenced	Capacity (MTPA)	No of Trains	Operator
North West Shelf Project	WA	1989	16.3	5	Woodside
Darwin LNG	NT	2006	3.8	1	ConocoPhillips
Pluto LNG	WA	2012	4.3	1	Woodside
			<b>24.4</b>		

**TABLE 2: LNG PROJETS CURRENTLY UNDER CONSTRUCTION**

Project	Location	Operational	Capacity (MTPA)	No of Trains	Operator
Queensland Curtis LNG	QLD	2014	8.5	1	BG Group
Gladstone LNG	QLD	2014	7.8	1	Santos
Gorgon LNG	WA	2015	15.6	3	Chevron
Australia Pacific LNG	QLD	2015	8.0	2	ConocoPhillips
Wheatstone LNG	WA	2016	8.9	2	Chevron
Prelude FLNG	WA	2016	3.6	1	Shell
Ichthys LNG	NT	2016	8.4	2	Inpex
			<b>60.8</b>		

Other agreements, many of which are covered in this report, have a significant number of sub-tier opportunities that can be pursued by Australian SMEs.

O&M is a basic requirement in the operation of onshore LNG infrastructure. However many SMEs are not aware of supply items required for the O&M of LNG projects.

To assist SMEs, ICN has worked with LNG operators, and many of the companies supplying them with the goods and services, to identify hundreds of sub-tier supply opportunities.

This ICN report identifies over 1,100 sub-tier operations and maintenance opportunities that can be targeted by SME's.

The O&M work packages that operators indicate that are often exclusively sole sourced and contain negligible sub-tier supply items have not been included in this report.

For additional information on Australian LNG projects please contact ICN [www.icn.org.au](http://www.icn.org.au).

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# INDUSTRY CAPABILITY NETWORK (ICN)

Industry Capability Network (ICN) is a business network that links project buyers to the capabilities of Australian suppliers. This gives local companies full, fair and reasonable opportunity to bid on major resource projects and helps keep work in Australia.

ICN is an independent organisation financially supported by Australian, New Zealand, state and territory governments. Since it started 28 years ago, ICN has helped local suppliers find \$20.6 billion worth of contracts. In Western Australia the ICN service is provided by the Chamber of Commerce and Industry of Western Australia under a contract with the WA Government.

ICN also helps Australian companies to access global supply markets through a number of Australian Government programs which include the following.

## Supplier Access to Major Projects (SAMP)

SAMP seeks to increase opportunities for Australian industry, especially SMEs to participate in major projects and increase access to global supply markets for major projects. ICN Limited administers SAMP on behalf of the Australian Government.

## National Sector Manager Program

Australian Government funds the ICN managed National Sector Manager Program aimed at promoting competitive Australian suppliers to major projects and the communication of opportunities to SMEs. The eight National Sector Managers work with government, industry and local suppliers to help maximise Australian and New Zealand content across key sectors such as clean technologies, health, national broadband network, oil and gas, rail, steel, mining and water.

## Resource Sector Supplier Advocates

As part of that the Australian Government's Buy Australian at Home and Abroad initiative, three Resource Sector Supplier Advocates have been appointed to work with key stakeholders on practical strategies to help Australian companies capitalise on opportunities in the resources sector. Supplier Advocates play a strategic role by building on existing industry and government initiatives, and complement programs such as ICN.

## ICN Gateway

At the heart of the ICN service is ICN Gateway, a powerful online tool helping local suppliers find new business opportunities.

ICN Gateway is a comprehensive online system with around \$247 billion worth of projects and more than 60,000 suppliers listed.

Whether you're a project manager or a supplier, you can't afford not to be using this powerful online business tool.

Visit [www.icngateway.com.au](http://www.icngateway.com.au)



# EXAMPLES OF PRIME SERVICE CONTRACT OPPORTUNITIES

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This report is not project specific. It is intended to provide a generic overview of typical service agreements LNG operators have directly with contractors and what second and third tier opportunities flow down from those agreements. The table below lists the types of service agreements that LNG operators may require to support the operation of their facility.

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Fuel farm equipment and general maintenance	26
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# POTENTIAL PRIME SERVICE CONTRACT PROVIDERS AND SUB-TIER OPPORTUNITIES

The table below provides details on the types of service agreements that LNG operators may tender directly and the types of businesses that may compete for the work. The table also provides information on sub-tier opportunities. These are goods and services that the prime service contractor may require to perform the work.

## Table components

<b>Column 1</b>	Provides examples of prime service contracts some LNG operators may have directly with suppliers.
<b>Column 2</b>	Provides a generic description of the scope of work that an LNG operator may require. Each LNG project will have different headings, requirements and scope of work descriptions. Some listed examples may not be contracted directly by the operator. The listing is provided solely as a guide on the types of services that can be required to maintain an onshore LNG facility.
<b>Column 3</b>	Provides examples of the type of suppliers that may actively pursue listed work scopes. The supplier listings are provided solely as a guide on the type of company that SMEs pursuing sub-tier opportunities will need to engage. The website address for listed suppliers is provided at the end of this report.
<b>Column 4</b>	Provides examples of the types of goods and services that some prime contract suppliers have indicated they may need to obtain from sub-suppliers or subcontractors. Prime contractor requirements will vary and are dependent on their in-house capabilities and capacities.

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
<b>Aerial survey</b>	Provision of aerial survey data acquisition and processing over LNG Facilities. This could include topographic images of the area being surveyed, including ground disturbance, natural vegetation density and extent, topography, inter-tidal areas and infrastructure development, where required. Data processing may include data presentation, modelling and simulation.	<ul style="list-style-type: none"> <li>• AAM Group</li> <li>• Fugro Spatial Solutions</li> <li>• Outline Imagery</li> <li>• Survey Graphics</li> <li>• Vekta</li> <li>• WorleyParsons Services</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Aerial film processing and printing</li> <li>• Aircraft maintenance</li> <li>• Asset management and infrastructure mapping</li> <li>• Benthic habitat mapping</li> <li>• Digital aerial cameras and airborne LIDAR systems</li> <li>• Environmental baseline and monitoring</li> <li>• Flight planning software</li> </ul>

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			<ul style="list-style-type: none"> <li>• Helicopter and fixed wing charter</li> <li>• Hire vehicles</li> <li>• Imaging software</li> <li>• Laser scanning</li> <li>• Mammal and large aquatic population survey</li> <li>• Mapping and cartography software</li> <li>• Medicals</li> <li>• OH&amp;S training</li> <li>• Photogrammetric scanning services</li> <li>• Post processing software</li> <li>• Remote satellite imagery and data</li> <li>• Sensing</li> <li>• Silt and pollution plume monitoring</li> <li>• Spill monitoring, detection and mapping</li> <li>• Surveying equipment and accessories</li> <li>• Terrestrial surveying</li> <li>• Unmanned aerial vehicles</li> <li>• Vegetation mapping and change detection</li> <li>• Wildlife monitoring</li> </ul>
<b>Biological survey and vegetation management</b>	Provision of biological survey and vegetation management services for the LNG facilities and surrounding impact area. This could include items such as biological baseline and monitoring surveys, vegetation management, non-indigenous species control and eradication procedures, weed monitoring and control, seed collection, storage and utilisation, rehabilitation advice including re-vegetation and topsoil management and short-term secondment of specialist environmental staff.	<ul style="list-style-type: none"> <li>• 360 Environmental</li> <li>• Coffey Environments</li> <li>• Ecologia Environmental Consultants</li> <li>• Greening Australia</li> <li>• Land Management Systems</li> <li>• Sinclair Knight Merz</li> <li>• WorleyParsons Services</li> </ul>	<ul style="list-style-type: none"> <li>• Aerial imagery and surveying services</li> <li>• Biological monitoring</li> <li>• Cultural awareness training</li> <li>• Drilling services</li> <li>• Environmental analytical testing services</li> <li>• Fauna baseline assessments</li> <li>• Non-indigenous species control and eradication</li> <li>• Rehabilitation and landscaping services</li> <li>• Seed collection, storage and utilisation</li> <li>• Soil stabilisation, dust and erosion control</li> <li>• Specialist environmental staff</li> <li>• Targeted conservation significant species surveys</li> <li>• Water, soil and air quality testing</li> <li>• Weed control (chemical treatment)</li> </ul>



1	2	3	4
Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Brownfield capital project execution services</b>	<p>Provision of brownfield capital project execution services across all disciplines within the LNG industry. The requirement for brownfield capital project execution services often arises from the need to execute Brownfield modifications, maintenance and improvements to existing LNG assets.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• adoption of site safety management processes</li> <li>• project management</li> <li>• brownfield execution management</li> <li>• engaged in constructability reviews</li> <li>• HAZIDs and safety in design reviews</li> <li>• material management</li> <li>• quarantine management</li> <li>• purchasing and expediting</li> <li>• offsite fabrication</li> <li>• QA/QC</li> <li>• pre-commissioning and commissioning activities</li> <li>• project close out reporting</li> <li>• technical information management</li> <li>• personnel secondments</li> <li>• third party services.</li> </ul>	<ul style="list-style-type: none"> <li>• AGC Industries</li> <li>• Clough</li> <li>• Downer Infrastructure West</li> <li>• Fluor Australia</li> <li>• Hatch</li> <li>• Leighton Contractors</li> <li>• Monadelphous</li> <li>• Thiess</li> <li>• Transfield Services</li> <li>• UGL</li> <li>• WorleyParsons Services</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Actuator field service and site machining</li> <li>• Advanced corrosion control equipment</li> <li>• Asset management and maintenance management</li> <li>• Atmospheric emissions specialists</li> <li>• Audits on various statutory requirements e.g. Dangerous goods</li> <li>• Boiler servicing</li> <li>• Bore drillers</li> <li>• Building construction services</li> <li>• Car hire</li> <li>• Catering</li> <li>• Cleaning</li> <li>• Coating and painting</li> <li>• Code testing certification</li> <li>• Commissioning and completions management tools</li> <li>• Concreting</li> <li>• Condition monitoring and NDT</li> <li>• Consumable chemical supplies</li> <li>• Control systems hardware</li> <li>• Control systems software and support</li> <li>• Control valves</li> <li>• Corrosion and cathodic protection specialist</li> <li>• Courier</li> <li>• Cross cultural awareness contract</li> <li>• Customs formality management and customs clearance Including quarantine</li> <li>• Design system support</li> <li>• Dispersion and plume modelling and analysis</li> <li>• E&amp;I - Electrical and instrumentation labour hire</li> <li>• E&amp;I - Skid design and manufacture</li> <li>• Earthmoving</li> <li>• Electrical cable, electrical motors, starters</li> <li>• Electrical design</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Engaged In constructability reviews</li> <li>• Engineering services</li> <li>• Environmental licensing</li> <li>• Equipment hire</li> <li>• Explosion modelling and analysis</li> <li>• Fabrication, welding and pipe fitting</li> <li>• Feasibility studies</li> <li>• Field expediting services</li> <li>• Field inspection services</li> <li>• Fire protection</li> <li>• Fitness for work testing</li> <li>• Flow assurance</li> <li>• Geotechnical analysis</li> <li>• Geotechnical surveys</li> <li>• Hazardous waste storage and disposal</li> <li>• Hazard and safety in design reviews</li> <li>• HDPE membrane liner installation</li> <li>• Health services for medicals</li> <li>• Heat treating</li> <li>• Heavy lift configurations</li> <li>• High voltage testing</li> <li>• Human factors specialist services (HFE)</li> <li>• HVAC supply</li> <li>• HVAC maintenance</li> <li>• Hydraulic analysis</li> <li>• Hydraulic and industrial hose fitting specialists</li> <li>• Hydraulic design</li> <li>• Hydraulic systems</li> <li>• Hydro testing</li> <li>• Hydrostatic pressure testing</li> <li>• Industrial hygienist specialist services (Health)</li> <li>• Inspection and chemical analysis</li> <li>• Inspection and specialised testing</li> <li>• Installation supervision</li> </ul>



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			<ul style="list-style-type: none"> <li>• Insulation and protective coatings</li> <li>• IT support</li> <li>• Laboratory testing</li> <li>• Laundry services</li> <li>• Lawn mowing and weed control</li> <li>• Leak testing</li> <li>• Lifting equipment statutory inspection</li> <li>• Logistics support</li> <li>• Machining</li> <li>• Mechanical labour hire</li> <li>• Minor civil works</li> <li>• Mobilization support</li> <li>• Modifications</li> <li>• NDT services</li> <li>• Noise specialist services</li> <li>• Offsite archiving</li> <li>• Offsite fabrication assurance</li> <li>• Offsite fabrication QA/QC 3rd party inspection</li> <li>• Onsite machining</li> <li>• Operating equipment inspection</li> <li>• Optical data installation</li> <li>• Overhead cranes</li> <li>• Overseas inspection and expediting services</li> <li>• Payroll system support</li> <li>• Peer reviews</li> <li>• Pipe and cable laying vessel</li> <li>• Piping</li> <li>• Plant and pipeline maintenance</li> <li>• Plumbing consultancy</li> <li>• PMI testing</li> <li>• Pressure testing</li> <li>• Process controls - valve maintenance</li> <li>• Provision of rigging</li> <li>• Pump repairs and commissioning</li> </ul>

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			<ul style="list-style-type: none"> <li>• Quality control and inspection services</li> <li>• Quarantine management</li> <li>• Recruitment agencies,</li> <li>• Reliability engineering services capability</li> <li>• Relocation service providers</li> <li>• Remedial engineering services</li> <li>• Road repairs</li> <li>• Roof restoration</li> <li>• Rope access and scaffolding</li> <li>• Rotor dynamics analysis</li> <li>• Scaffold and access services</li> <li>• Security</li> <li>• Specialist cleaning services</li> <li>• Specialist flange management</li> <li>• Specialist lifting studies</li> <li>• Specialist material handling studies</li> <li>• Specialist packing services</li> <li>• Specialist rotating equipment fitters</li> <li>• Specialist site surveys</li> <li>• Steel fixing</li> <li>• Structural welding (repairs, modules, supports, skids, etc.)</li> <li>• Survey</li> <li>• Technical information management</li> <li>• Telecommunications and tower inspection.</li> <li>• Transportation and shipping</li> <li>• Turbine servicing</li> <li>• Vibration specialist services</li> <li>• Warehousing and storage</li> <li>• Waste disposal</li> <li>• Waste management services</li> <li>• Water cartage services</li> </ul>



1	2	3	4
Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Catering and domestic services</b>	<p>Supply of catering, cleaning and facility management. Services could include items such as:</p> <ul style="list-style-type: none"> <li>• provision of catering service to company personnel and visitors at LNG facility</li> <li>• provision of tea and coffee service to company personnel in various locations</li> <li>• management of catering and domestic services including recreation facilities and sports hall/multipurpose area</li> <li>• laundry service</li> <li>• housekeeping and janitorial services for all accommodation and office units</li> <li>• provision of cleaning and janitorial services for facilities</li> <li>• provision of ground maintenance</li> <li>• pest control for facilities</li> <li>• waste collection.</li> </ul>	<ul style="list-style-type: none"> <li>• Cater Care Services</li> <li>• Compass Group</li> <li>• ISS Facility Services Australia</li> <li>• Morris Corporation</li> <li>• Sodexo Remote Sites Australia</li> <li>• Spotless</li> </ul>	<ul style="list-style-type: none"> <li>• Aborist services</li> <li>• Bulk food supply</li> <li>• Carpet and tile care products</li> <li>• Chemical supplies</li> <li>• Cleaning equipment and maintenance</li> <li>• Commercial laundry and linen services</li> <li>• Cultural awareness training</li> <li>• Food supply</li> <li>• Furniture</li> <li>• Gardening and irrigation equipment and services</li> <li>• General cleaning products</li> <li>• Hard floor care products</li> <li>• Healthy life style coordinators</li> <li>• Hygiene and waste products</li> <li>• Kitchen and catering suppliers</li> <li>• Labour hire for relief staff</li> <li>• Landscape supplies and equipment</li> <li>• Landscaping services</li> <li>• Maintenance</li> <li>• Packaging products</li> <li>• Pest control</li> <li>• Plumbing services</li> <li>• Pre-employment and health assessments</li> <li>• Safety and personnel protective equipment</li> <li>• Service of commercial kitchen equipment.</li> <li>• Vehicles</li> <li>• Washroom and janitorial products</li> <li>• Waste and environmental management</li> <li>• Weed control (chemical treatment)</li> <li>• White goods</li> <li>• Window cleaning supplies</li> <li>• Workplace health programs</li> </ul>

1	2	3	4
Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Cathodic protection services</b>	<p>Provision of downstream cathodic protection (CP) systems services during the operation of LNG facility.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• performance oversight of the CP systems during commissioning, as required</li> <li>• monitoring CP effectiveness</li> <li>• maintaining CP systems, as required</li> <li>• assessing and reviewing the effectiveness of CP systems</li> <li>• review of CP and monitoring for and control of interference</li> <li>• monitoring the effectiveness of the isolation joints</li> <li>• other studies, as required.</li> </ul>	<ul style="list-style-type: none"> <li>• Auscor</li> <li>• Corrosion Control Engineering</li> <li>• Corrosion Specialists</li> <li>• Extrin</li> <li>• iicorr</li> <li>• Kulin Group</li> <li>• McCoy Engineering</li> <li>• Savcor</li> <li>• Stork Technical Services</li> <li>• SVT Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Anode material suppliers</li> <li>• Baseline NDT services</li> <li>• Cables and cable equipment</li> <li>• Cathodic protection consumables</li> <li>• Corrosion monitoring probes and equipment</li> <li>• Divers</li> <li>• Drilling services (for drilling in soils to depths of 100 metres for the installation of anodes)</li> <li>• Earthworks</li> <li>• Electrical equipment suppliers</li> <li>• Electrical services</li> <li>• Electrical test equipment</li> <li>• Electricians</li> <li>• Enclosures, junction boxes and conduits</li> <li>• Import and customs agents</li> <li>• Installation of cathodic protection system</li> <li>• Lightning and high voltage surge protection devices</li> <li>• Reference electrodes</li> <li>• Road, air and sea transport</li> <li>• Steel fabrication services</li> <li>• Supply of sacrificial and impressed anodes</li> <li>• Transformer rectifier units for cathodic protection</li> <li>• Trenching and earthworks services</li> <li>• Welders</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Civil works</b>	<p>Supply of all materials, plant, labour, supervision, consumables and all other items necessary to execute civil work.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>the supply and installation of precast foundations</li> <li>construction of cast insitu foundations and other miscellaneous insitu concrete works</li> <li>installation and testing of underground E&amp;I services</li> <li>installation and commissioning of piping for drainage, potable, fire water including hydrant installation, sewage, stormwater and other piped services</li> <li>supply and installation of perimeter security fencing, gates, security lighting, CCTV support towers and associated services cabling</li> <li>detailed and bulk earthworks, including geotextiles where specified, bunds, access ramps and construction platforms, road sub-grades and deep fill construction;</li> <li>bulk material haulage</li> <li>road construction including asphalt and or bitumen and chip surfacing</li> <li>supply installation of road markings, road furniture, signage, guard rails and crash barriers, protection bollards and lighting</li> <li>road maintenance</li> <li>relocation and/or demobilization of temporary construction facilities</li> <li>dust control and suppression around the site.</li> </ul>	<ul style="list-style-type: none"> <li>BGC Contracting</li> <li>Downer Infrastructure West</li> <li>Ertech</li> <li>Georgiou Group</li> <li>Laing O'Rourke</li> <li>Leighton Contractors</li> <li>Ngarda Civil &amp; Mining</li> <li>Thiess</li> </ul>	<ul style="list-style-type: none"> <li>Bolt torquing and tensioning</li> <li>Cable installation including cable jointing, terminations testing and commissioning</li> <li>Chemical cleaning</li> <li>Civil contraction materials</li> <li>Concrete injection</li> <li>Concrete pumping</li> <li>Concrete supply</li> <li>Corrosion prevention systems</li> <li>Crane hire</li> <li>Culverts</li> <li>Drain grates and frames</li> <li>Dust suppression</li> <li>Electrical and instrumentation services</li> <li>Electrical consumables</li> <li>Explosive consultants</li> <li>Fabricated embedded items</li> <li>Fencing</li> <li>Formwork and steel fixing</li> <li>FRP/GRP joint spooling</li> <li>Fuel supply</li> <li>Geotechnical testing services</li> <li>Geotextiles</li> <li>HDPE and PVC pipes and fittings for water, sewage, fire, storm water</li> <li>Horizontal directional drilling</li> <li>Industrial signage, isolation and tagout products</li> <li>Installation of structural grouting</li> <li>Labour hire</li> <li>Landscaping</li> <li>Leak detection systems for underground piping</li> <li>Medical, security and emergency services</li> <li>Non-destructive excavation of holes, trenches, footings</li> <li>On-site pipe welding and fabrication</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Poly fabricated spools</li> <li>• Poly pipe and fittings</li> <li>• Precast and/or prestressed concrete products</li> <li>• Pressure testing of pipework, pipelines, valves and vessels etc.</li> <li>• Quarantine fumigation</li> <li>• Quarantine wrapping services</li> <li>• Reinforcing bar and mesh</li> <li>• Remote video inspection</li> <li>• Road line marking</li> <li>• Road safety barriers, bridge barriers, handrails, wire rope barriers, concrete barriers, handrails</li> <li>• Signage</li> <li>• Site rehabilitation</li> <li>• Specialised coatings and sealings</li> <li>• Surveying services</li> <li>• Threaded products including foundation bolts, hold down bolts, chemical anchors, allthreaded rod u bolts, j bolts and rag bolts.</li> <li>• Trenchless pipe replacements and upsizing</li> <li>• Vehicle operator training</li> <li>• Water supply</li> <li>• Waterproofing</li> </ul>
<b>Consolidated environmental services</b>	<p>Operational LNG Plants may establish a panel of environment and heritage services consultants with the demonstrated capability, skills, qualifications, depth of resources and experience to provide ongoing services (including specialist services) to the LNG Facility on an "as needs" basis.</p> <p>Categories of service support can cover the following areas:</p> <ul style="list-style-type: none"> <li>• environmental management systems</li> <li>• energy management and efficiency and green building</li> </ul>	<ul style="list-style-type: none"> <li>• 360 Environmental</li> <li>• AECOM Australia</li> <li>• Asia-Pacific ASA</li> <li>• Astron Environmental Services</li> <li>• Aurecon</li> <li>• Biota Environmental Sciences</li> <li>• Coffey Environments</li> <li>• Compliance Monitoring</li> <li>• Dynamiq</li> <li>• Eco Logical Australia</li> <li>• Ecologia Environmental</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation</li> <li>• Aerial imagery and surveying services</li> <li>• Cultural awareness training</li> <li>• Drilling services</li> <li>• Environmental analytical testing services</li> <li>• Flood risk modelling and ecology</li> <li>• Historic heritage assessment and management</li> <li>• Indigenous heritage assessment and management</li> <li>• Landscaping services</li> <li>• Modelling of emissions</li> <li>• Natural heritage assessment and management</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	<ul style="list-style-type: none"> <li>policy and assessment</li> <li>water assessment and management and waste minimisation</li> <li>biodiversity conservation, landscape assessment and management</li> <li>environmental impact assessment and management;</li> <li>pollution prevention and contaminated sites assessments and management</li> <li>historic heritage assessment and management</li> <li>indigenous heritage assessment and management</li> <li>natural heritage assessment and management</li> <li>emergency management</li> <li>health and safety.</li> </ul>	<ul style="list-style-type: none"> <li>Consultants</li> <li>EmQ</li> <li>Environmental Resources Management</li> <li>GHD Pty Ltd</li> <li>Golder Associates</li> <li>Greening Australia</li> <li>Land Management Systems</li> <li>Outback Ecology Service</li> <li>RPS Environmental &amp; Planning</li> <li>Sinclair Knight Merz</li> <li>SVT Engineering</li> <li>Thiess</li> <li>URS Australia</li> <li>WorleyParsons Services</li> <li>WSP Environmental</li> </ul>	<ul style="list-style-type: none"> <li>Noise monitoring and impact assessment</li> <li>Non-indigenous species control and eradication</li> <li>Rehabilitation and landscaping services</li> <li>Seed collection, storage and utilisation</li> <li>Soil stabilisation, dust and erosion control</li> <li>Specialist environmental staff</li> <li>Specialist exsitu remediation techniques such as soil washing, bioremediation, stabilisation and acid soil treatment</li> <li>Specialist insitu treatments such as soil vapour extraction and chemical oxidation</li> <li>Supply of environmental measurement instrumentation</li> <li>Vehicle hire</li> <li>Water, soil and air quality testing</li> <li>Weed control (chemical treatment)</li> </ul>
<b>Consultancy and inspection for electrical equipment</b>	Provision of consultancy and inspections services for electrical equipment installed in hazardous areas. Services could include items such as: <ul style="list-style-type: none"> <li>consultancy services</li> <li>expert services to resolve queries on ex-certification/ installation</li> <li>area classification drawing review and reclassification if required due to change in the equipment location/plant operational conditions</li> <li>expert advice on hazardous area verification dossier contents/ format etc.</li> <li>inspection services</li> <li>periodic/sample/visual/detailed inspection of ex-equipment in hazardous area at site and assist in integration to the maintenance management system</li> <li>onsite guidance on the applicable/acceptable installation technique to ensure ongoing compliance.</li> </ul>	<ul style="list-style-type: none"> <li>ABS Group Australia</li> <li>Logic Services</li> <li>LogiCamms</li> <li>QA Management - Velosi</li> <li>RDW Electrical Engineering</li> <li>SvB ExTech</li> </ul>	<ul style="list-style-type: none"> <li>Calibration equipment</li> <li>Hazard and operability (HAZOP) facilitation</li> <li>Non-destructive testing and inspection services</li> <li>Oil analysis</li> <li>Security and vulnerability assessments</li> <li>Electrical test equipment</li> <li>Thermal diagnostic imaging services</li> <li>Electrical equipment in hazardous areas inspector training and competency assessment</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Crane services (including maintenance)</b>	<p>Supply of crane and maintenance services including leasing and/or buying cranes supporting LNG production operations.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>inspection/recertification of fixed/static equipment</li> <li>inspection/recertification of mobile equipment</li> <li>lift studies capability</li> <li>maintenance of all supplied mobile equipment</li> <li>maintenance of all supplied fixed/static equipment</li> <li>supply wet and/or dry hire crane services .</li> </ul>	<ul style="list-style-type: none"> <li>Boom Logistics</li> <li>EnerMech</li> <li>Freo Group</li> <li>Sparrows Group</li> <li>Supercrane</li> <li>Tutt Bryant</li> </ul>	<ul style="list-style-type: none"> <li>Access equipment</li> <li>Crane operator training</li> <li>Crane safe inspection</li> <li>Crane spare parts</li> <li>Filtration and flushing services</li> <li>Gear box repair</li> <li>Hydraulic hose</li> <li>Hydraulic services</li> <li>Motor and pump repairs</li> <li>NATA accreditation for hydraulic hoses</li> <li>NDT services (including eddie current ultrasonic and magnetic particle testing)</li> <li>Oil analysis</li> <li>Parts and maintenance services</li> <li>PLC system repairs</li> <li>Rigging and parts</li> <li>Slew ring machining</li> <li>Transport of counterweights and cranes</li> <li>Verification of competency services</li> <li>Wire rope</li> </ul>
<b>Cranes and lifting equipment</b>	<p>Provision of services to maintain the integrity of LNG plant's mobile and fixed cranes as well as all lifting equipment.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>inspection/recertification of lifting equipment (overhead/gantry cranes, mobile cranes, all lifting equipment, scaffolding etc.)</li> <li>repair of lifting equipment (overhead/gantry/mobile cranes etc.)</li> <li>provision of rigging stores (unmanned, movable containers) for base load as well as shutdowns</li> <li>management of all rigging inventory and rigging stores</li> <li>rigging studies</li> </ul>	<ul style="list-style-type: none"> <li>Australian Crane Engineering</li> <li>Boom Logistics</li> <li>Eilbeck Cranes</li> <li>EnerMech</li> <li>Favelle Favco Cranes</li> <li>SGS Australia</li> <li>TBF Oceania (Tutt Bryant Crane Hire)</li> <li>The Rigging Shed</li> </ul>	<ul style="list-style-type: none"> <li>Crane operator training</li> <li>Crane spare parts</li> <li>Crane safe inspection</li> <li>Gear box repair</li> <li>Hydraulic hose</li> <li>Hydraulic services</li> <li>Motor and pump repairs</li> <li>NDT services (including eddie current ultrasonic and magnetic particle testing)</li> <li>Oil analysis</li> <li>PLC system repairs</li> <li>Rope access service</li> <li>Strip down, refurbishment and recertification of:</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
	<ul style="list-style-type: none"> <li>• failure analysis</li> <li>• rope access service</li> <li>• crane maintenance</li> <li>• spares management.</li> </ul>		<ul style="list-style-type: none"> <li>- drive gearbox</li> <li>- hydraulic motors</li> <li>- hydraulic pumps</li> <li>- diesel engines</li> <li>- splitter gearbox</li> <li>- safe load indicator and control computer systems</li> <li>- slip ring.</li> <li>• Verification of competency services</li> <li>• Wire rope</li> </ul>
<b>Engineering data portal/warehouse</b>	<p>Provision and implementation of an engineering portal and warehouse to provide an interface for users to access structured and unstructured engineering information in the digital asset linking to various corporate systems and project systems. Engineering information includes documents and drawings (including P&amp;IDs), document metadata, 2D and 3D models, equipment and line lists, instrument index, datasheets, technical changes, vendor information and their inter-relationships.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• access to engineering information contained within other data stores</li> <li>• defined and auditable processes and responsibilities for managing and updating information (including information ownership and custody)</li> <li>• output reporting – search and export functionality</li> <li>• audit reporting</li> <li>• information security – disaster recovery, security hierarchy, IP.</li> </ul>	<ul style="list-style-type: none"> <li>• Aveva Proprietary Limited</li> <li>• Bentley Systems</li> <li>• IBM Australia</li> <li>• Intergraph Corporation</li> <li>• Mahindra Satyam</li> <li>• Oracle Australia</li> </ul>	Primarily an in-house service supplying proprietary software
<b>Engineering services contract/s</b>	Provision of multi-discipline professional engineering and design studies. The requirement for engineering services principally arises from the need to execute Brownfield modifications, maintenance and improvements to the LNG facilities.	<ul style="list-style-type: none"> <li>• AECOM Australia</li> <li>• AME</li> <li>• Atkins Australasia</li> <li>• Clough</li> </ul>	<ul style="list-style-type: none"> <li>• 3rd party inspection</li> <li>• 3rd party logistics</li> <li>• Access, removal, cleaning</li> <li>• Design and construction of buildings</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	<p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• project management</li> <li>• brownfield execution management</li> <li>• integrity management</li> <li>• problem identification</li> <li>• feasibility studies</li> <li>• concept development</li> <li>• detail design</li> <li>• purchasing</li> <li>• offsite fabrication assurance</li> <li>• QC/inspection</li> <li>• expediting</li> <li>• installation supervision</li> <li>• project close out reporting</li> <li>• technical information management</li> <li>• personnel secondments</li> <li>• third party services</li> <li>• management and administration.</li> </ul>	<ul style="list-style-type: none"> <li>• Fluor Australia</li> <li>• Hatch</li> <li>• Jacobs E&amp;C Australia</li> <li>• Kempe Engineering Services</li> <li>• LogiCamms</li> <li>• Lycopodium Asset Management</li> <li>• Plexal Group</li> <li>• Sinclair Knight Merz</li> <li>• Technip Oceania</li> <li>• URS Australia</li> <li>• WorleyParsons Services</li> </ul>	<ul style="list-style-type: none"> <li>• Electrical design</li> <li>• Equipment and car hire</li> <li>• Equipment and materials supply</li> <li>• Expediting</li> <li>• Flow assurance</li> <li>• Geotechnical design</li> <li>• Hydraulic design</li> <li>• Installation supervision</li> <li>• Land and aerial survey</li> <li>• Machining</li> <li>• Metals fabrication</li> <li>• NDT inspection services</li> <li>• Offsite fabrication assurance</li> <li>• Purchasing</li> <li>• Quality control and inspection</li> <li>• Shop detailing</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Fire fighting equipment and systems maintenance</b>	<p>Provide scheduled maintenance and inspection to items such as:</p> <ul style="list-style-type: none"> <li>• portable and fixed fire fighting systems</li> <li>• maintenance of self-contained breathing apparatus</li> <li>• maintenance of fire trucks</li> <li>• recharging of fire fighting equipment</li> <li>• installation and maintenance of fire alarm systems</li> <li>• consulting on fire protection matters</li> <li>• fire safety audits</li> <li>• development of expert conclusions on fire protection regulations compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Australian Safety Engineers (ASE)</li> <li>• Chubb Fire and Security</li> <li>• Fire &amp; Safety WA</li> <li>• Firesafe Resources &amp; Industrial</li> <li>• Inmaco</li> <li>• Kidde Australia</li> <li>• Mercury Firesafety</li> <li>• National Fire Solutions</li> <li>• Orion Safety Industries</li> <li>• Wormald</li> </ul>	<ul style="list-style-type: none"> <li>• Air purity testing</li> <li>• Calibration of safety valves</li> <li>• Carbon dioxide</li> <li>• chemicals and agents</li> <li>• Custom engraved plastic or metal tags and signs</li> <li>• Dry and wet chemical suppliers (fire suppression)</li> <li>• Fire fighting foam concentrates</li> <li>• Fire hose</li> <li>• Fire simulation training</li> <li>• hazmat response equipment</li> <li>• Hydrostatic pressure proof testing of cylinders</li> <li>• personal protective equipment</li> <li>• Safety valve calibration</li> <li>• Servicing air breathing apparatus</li> <li>• Servicing high pressure compressors</li> <li>• Testing and certification of pressure hoses and safety valves</li> </ul>
<b>Flange management services</b>	<p>Providing flange management services to LNG facilities.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• onsite flange management and bolt tensioning services</li> <li>• a system solution that can readily access and store data produced by an LNG project and configured into a live system, suitable for operations and includes standardising flange management torque values and process</li> <li>• a system solution that is able to edit and load new data, including changes in line specifications</li> <li>• a database that can be utilised for both turnarounds and routine maintenance</li> <li>• a system solution that can show joint status during bolting activities</li> <li>• training for bolting technicians, inspectors and engineers</li> </ul>	<ul style="list-style-type: none"> <li>• Baker Hughes - Process and Pipeline Services</li> <li>• BLJ In-situ Solutions</li> <li>• Boltstress Ultrasonics</li> <li>• Callidus Process Solutions</li> <li>• Destec Engineering</li> <li>• EnerMech</li> <li>• Furmanite Australia</li> <li>• Geographe Energy</li> <li>• Hydratight Asia Pacific</li> <li>• National Tools</li> <li>• Stork Technical Services</li> <li>• Technofast Services</li> <li>• Torque Tension Systems</li> </ul>	<ul style="list-style-type: none"> <li>• Data base system</li> <li>• Flange alignment tooling</li> <li>• Gaseous quad hire (N2/He)</li> <li>• Gasket design (specials)</li> <li>• Heat treatment services</li> <li>• Hot tapping and line stopping services</li> <li>• Hydraulic bolt tensioning</li> <li>• Hydraulic bolt torquing</li> <li>• Hydrostatic testing</li> <li>• Leak sealing services</li> <li>• NATA certification of gauges</li> <li>• NDT services</li> <li>• On-site machining</li> <li>• Onsite maintenance and calibration of LNG plant and contractor owned flange tightening tooling</li> <li>• Pipework and structural composite repair services</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
	<ul style="list-style-type: none"> <li>onsite maintenance and calibration of LNG plant and contractor owned flange tightening tooling.</li> </ul>		<ul style="list-style-type: none"> <li>Recycling of used hydraulic oil</li> <li>Safe disposal of used parts</li> <li>Specialist tool hire</li> <li>Supply of high pressure hydraulic accessories</li> <li>Supply of hydraulic oils and consumables</li> <li>Supply of pneumatic accessories</li> <li>Training for bolting technicians, inspectors and engineers</li> <li>Ultrasonic bolt tension measurement</li> <li>Vehicle hire</li> </ul>
<b>Fuel farm equipment and general maintenance</b>	<p>Provision of fuel Farm equipment maintenance and inspection services to underground and above ground fuel storage tanks and associated fuel dispensers including all integral mechanical, electrical, and electronic parts of the fuel dispensers. Maintain all physical apparatus including items such as :</p> <ul style="list-style-type: none"> <li>maintain calibration</li> <li>all assisted vapour recovery components</li> <li>tank monitor system</li> <li>underground and above ground tank equipment including turbine pumps, check valves, o-rings, fill and vent caps, pressure vents, dry breaks, gage caps, gaskets, sump cover, lids, and bolts and fasteners</li> <li>compliance environmental examinations.</li> </ul>	<ul style="list-style-type: none"> <li>Banlaw</li> <li>DTE Fluid Systems</li> <li>Fuelco</li> <li>Fuelfix</li> <li>GE Group Australia</li> <li>Integrated Fuel Services</li> </ul>	<ul style="list-style-type: none"> <li>Cranage</li> <li>Destructive and non destructive testing of welds and materials</li> <li>Fire protection systems</li> <li>Flowmeter repairs, calibration and certification</li> <li>Fuel electrical systems</li> <li>Fuel hose compliance testing and supply</li> <li>Fuel spill and oily water containment</li> <li>Industrial consumables</li> <li>Minor and major civil works</li> <li>Protective coating application</li> <li>Pump repairs</li> <li>SCADA control systems</li> <li>Specialised welding and fabrication</li> <li>Specialist transportation services</li> <li>Valve repairs</li> <li>Waste liquid disposal services</li> </ul>
<b>Fundamental computer based training modules</b>	<p>Provision of pre-developed computer based training (CBT) modules to provide basic knowledge training in liquefied natural gas plants.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>process operations and technology – e.g. separation, gas compression, produced water, liquefied natural gas, gas treatment, process chemistry, compressors</li> </ul>	<ul style="list-style-type: none"> <li>Catalyst Interactive</li> <li>OverNite Software Inc</li> </ul>	Primarily an in-house service supplying proprietary software

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	<ul style="list-style-type: none"> <li>• industry familiarisation training – e.g. subsea control systems, distillation, gas dehydration, gas compression systems, basic refrigeration process, basic process science, pressure and temperature, flow and level instrumentation, and safety systems</li> <li>• safe systems of work – e.g. permit to work, authorised gas testing</li> <li>• HSE awareness</li> <li>• mechanical engineering training – e.g. pumps, gas turbines, diesel engines, valves and reciprocating and centrifugal compressors.</li> </ul>		
<b>Gas turbine and compressor maintenance</b>	<p>Provision of gas turbine and compressor maintenance services to the LNG plant. Services could include items such as scheduled maintenance, access to expertise through resident engineers, monitoring and diagnostics of the installed equipment coupled with engineering analytics, plus a reliability guarantee relating to continuity of production. Manage planned maintenance inventory as well as supply initial spare parts.</p>	<ul style="list-style-type: none"> <li>• GE Oil &amp; Gas</li> <li>• Wood Group PSN</li> <li>• Solar Turbine</li> </ul>	<ul style="list-style-type: none"> <li>• Balance and alignment of rotating components</li> <li>• Boroscope inspections</li> <li>• Combustion inspections</li> <li>• Compressor inspection, repair and overhaul</li> <li>• Cultural awareness training</li> <li>• Custom clearance</li> <li>• Development of maintenance, work procedures and spare parts management systems</li> <li>• Dry low nox combustion system maintenance</li> <li>• Electrical and instrumentation calibration and servicing</li> <li>• Emission monitoring</li> <li>• Fuel gas conditioning unit maintenance</li> <li>• Gas turbine inlet air filtration system and gas turbine outlet exhaust system maintenance</li> <li>• Gearbox inspection and maintenance</li> <li>• Generator inspection and repair and overhaul</li> <li>• Hazardous goods disposal</li> <li>• Heavy lifts logistics and crange</li> <li>• Hot gas path inspections</li> <li>• Immigration services</li> <li>• Industrial consumables</li> <li>• Lube oil system maintenance</li> <li>• Maintenance of UPSs, rectifiers, DC/DC converters and batteries</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Major inspection and overhauls</li> <li>• Manufacturing and repair of turbine and compressor components</li> <li>• Non destructive testing and inspection services</li> <li>• Oil analysis</li> <li>• Onsite insulation replacement and maintenance</li> <li>• Painting and protective coatings</li> <li>• Personnel protection equipment</li> <li>• Preservation and quarantine</li> <li>• Pressure testing</li> <li>• Provision of equipment availability, reliability, performance tracking</li> <li>• Provision of remote monitoring and diagnostics</li> <li>• Scaffolding and rigging</li> <li>• Servicing of fire and gas suppression and detection equipment</li> <li>• Shutdown planning, management and execution</li> <li>• Specialised fabrication and welding</li> <li>• Specialised machining</li> <li>• Supply of supplementary personnel</li> <li>• Transport general and specialised</li> <li>• Valve maintenance</li> <li>• Vibration monitoring</li> </ul>
<b>General industrial consumables</b>	<p>Supply and delivery of multiple general industrial consumables commodities. Suppliers may also be required to undertake surrogate buying from third party suppliers or manufacturers on behalf of LNG facility operator as and when required.</p> <p>Industrial consumables may include but, are not limited to the following items:</p> <ul style="list-style-type: none"> <li>• tools</li> <li>• brushes</li> <li>• abrasives</li> </ul>	<ul style="list-style-type: none"> <li>• Atom Supply</li> <li>• Blackwoods</li> <li>• Cova Parts</li> <li>• Heatleys Safety &amp; Industrial</li> <li>• Integrated Industrial Mining Supply</li> <li>• L&amp;H Group</li> <li>• MRC Global</li> <li>• Ross Industries</li> <li>• WESCO Australia Pty Ltd</li> </ul>	<ul style="list-style-type: none"> <li>• Abrasives</li> <li>• Adhesives, sealants and filler</li> <li>• Airline fittings</li> <li>• Air tools</li> <li>• Automotive parts, electrical and accessories</li> <li>• Batteries</li> <li>• Building and construction hardware</li> <li>• Building products</li> <li>• Cable - MV and LV</li> <li>• Cable accessories - conduit</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	<ul style="list-style-type: none"> <li>• electrical materials</li> <li>• fittings</li> <li>• others.</li> </ul>		<ul style="list-style-type: none"> <li>• Castors and wheels</li> <li>• Catering supplies</li> <li>• Cleaning and janitorial</li> <li>• Clothing</li> <li>• Cutting tools</li> <li>• Electrical equipment</li> <li>• Fasteners and fixings</li> <li>• Footwear</li> <li>• Gaskets and packing</li> <li>• General hardware</li> <li>• Glass and windows</li> <li>• Hand tools</li> <li>• Hose and hose fittings</li> <li>• Hydraulic</li> <li>• Hygiene, janitorial and cleaning</li> <li>• Irrigation</li> <li>• Ladders and platforms</li> <li>• Lawn and garden</li> <li>• Lifting and rigging</li> <li>• Lighting - lamps and fittings</li> <li>• Locks</li> <li>• Lubrication equipment</li> <li>• Machinery</li> <li>• Manual handling and storage equipment</li> <li>• Oil and grease</li> <li>• Paints, markers and spray equipment</li> <li>• Pipe and tube fittings (low pressure)</li> <li>• Plumbing</li> <li>• PPE</li> <li>• Pressure gauges</li> <li>• Pumps</li> <li>• PVC pipe and fittings</li> <li>• Ropes and hawses</li> <li>• Safety - personal protective clothing and equipment</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Signage</li> <li>• Spill kits</li> <li>• Steel and aluminium</li> <li>• Steel and metals</li> <li>• Steel pipe and fittings</li> <li>• Storage and shelving</li> <li>• Tapes, packing and office stationary</li> <li>• Tarps and canvas</li> <li>• Timber</li> <li>• Tools - cutting, threading and carbide</li> <li>• Tools - hand, measuring and precision</li> <li>• Tools - machinery and workshop</li> <li>• Tools - power, pneumatic and petrol</li> <li>• Valves</li> <li>• Welding equipment and consumables</li> </ul>
General plumbing maintenance	Service of LNG facilities hydraulic systems such as: <ul style="list-style-type: none"> <li>• sewer, grease and trade waste drainage</li> <li>• sanitary plumbing</li> <li>• stormwater drainage including onsite detention and sub-soil drainage</li> <li>• hot and cold water generation and piping systems</li> <li>• fire hydrants and hose reels</li> <li>• sanitary fixtures and tapware.</li> </ul>	<ul style="list-style-type: none"> <li>• Axis Plumbing Group</li> <li>• Cooke &amp; Dowsett</li> <li>• Lyons &amp; Peirce</li> <li>• MacDonald Building &amp; Plumbing (MBPE)</li> <li>• Planet Plumbing Group</li> <li>• Sanwell</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive parts, electrical and accessories</li> <li>• CCTV monitoring</li> <li>• Concrete drainage products</li> <li>• Cutting tools</li> <li>• Drain cleaning equipment</li> <li>• Electrical contractor</li> <li>• Electrical services</li> <li>• Excavation equipment</li> <li>• Fabrication and welding services</li> <li>• Fire equipment suppliers</li> <li>• Formworker</li> <li>• General plant and equipment hire</li> <li>• General transport</li> <li>• Hand tools</li> <li>• HDPE and PVC and pipe suppliers</li> <li>• Hygiene products</li> <li>• Industrial consumables</li> <li>• Lifting and rigging</li> </ul>



1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Metals</li> <li>• Packaging and tapes</li> <li>• Painting services</li> <li>• Personnel protective equipment</li> <li>• Pipe freezing</li> <li>• Plumbing suppliers</li> <li>• Power tools</li> <li>• Pump out trucks</li> <li>• Pump repairs</li> <li>• Pump suppliers</li> <li>• Road surface repairs</li> <li>• Steelfixer</li> <li>• Storage tanks</li> <li>• Supplementary personal</li> <li>• Surveyors</li> <li>• Testing equipment</li> <li>• Thermal and acoustic insulation and lagging</li> <li>• Traffic management</li> <li>• Transport of plant</li> <li>• Valve maintenance</li> <li>• Valve suppliers</li> <li>• Waste water treatment plant</li> <li>• Water treatment plant</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
<b>Hire plant, equipment and associated services</b>	<p>Supply hire plant and equipment for maintenance activities, major events such as shutdowns, brownfield projects and maintenance campaigns, which may include the following types of activities:</p> <ul style="list-style-type: none"> <li>• supply tool store operations during major events</li> <li>• supply and manage other 3rd party hire plant and equipment</li> <li>• management of maintenance tool stores</li> <li>• major event plant and equipment planning</li> <li>• light maintenance of plant and equipment</li> <li>• some provision of testing, certification, calibration etc. for plant and equipment</li> <li>• consumable supply</li> <li>• record management.</li> </ul>	<ul style="list-style-type: none"> <li>• Coates Hire</li> <li>• Global Construction Services</li> <li>• Onsite Rental Group Operations</li> <li>• Select Plant Hire</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation and travel services</li> <li>• Courier services</li> <li>• Equipment calibration services</li> <li>• Heavy transport services</li> <li>• Industrial consumables</li> <li>• Medical services</li> <li>• Packing materials</li> <li>• Plant repair and overhaul services</li> <li>• PPE</li> <li>• Quarantine services</li> <li>• Signage (marketing)</li> <li>• Supply of construction plant, equipment and tools</li> <li>• Supply of supplementary personnel</li> <li>• Temporary site facilities (remote compound)</li> <li>• Training services</li> <li>• Transport</li> </ul>
<b>Hydraulic services and materials</b>	<p>Service, engineering and testing of an LNG facility hydraulic systems.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• Hydraulic power unit service and overhaul</li> <li>• Strip, assess and testing of hydraulic components</li> <li>• Provision of hoses and fittings</li> <li>• Pressure testing/certification</li> <li>• Hydrostatic testing</li> <li>• Flushing services</li> <li>• Hose audits</li> <li>• Pipe and tube installations.</li> </ul>	<ul style="list-style-type: none"> <li>• Aussie Fluid Power</li> <li>• Custom Fluid Power</li> <li>• EnerMech</li> <li>• Pressure Dynamics</li> </ul>	<ul style="list-style-type: none"> <li>• Cylinder and valve refurbishment</li> <li>• Hazardous waste disposal</li> <li>• Honeing</li> <li>• Hose and hose fittings</li> <li>• Machining</li> <li>• Motor repair</li> <li>• NDT</li> <li>• Oil sampling and testing</li> <li>• Pipe and pipe fittings</li> <li>• Pump repair</li> <li>• Welding</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>International freight forwarding service</b>	<p>Provide a door-to-door freight collection, expediting and delivery service on a global basis, services could include items such as:</p> <ul style="list-style-type: none"> <li>• freight tracking</li> <li>• item/packages inspection</li> <li>• shipment labeling</li> <li>• transportation</li> <li>• custom clearance</li> <li>• warehousing/storage facilities</li> <li>• delivery to warehouse or other nominated delivery points.</li> </ul>	<ul style="list-style-type: none"> <li>• Agility Project Logistics</li> <li>• Altus Logistics</li> <li>• DB Schenker</li> <li>• Depth Logistics</li> <li>• Hellmann Worldwide Logistics</li> <li>• Kuehne + Nagel</li> <li>• Pentagon Freight Services</li> <li>• SDV Australia</li> <li>• Toll Global Forwarding Division</li> <li>• Trans Global Projects</li> </ul>	<ul style="list-style-type: none"> <li>• Casual labour</li> <li>• Charter services air freight</li> <li>• Charter services ocean freight</li> <li>• Consumable supplies (plastic wrap etc.)</li> <li>• Crane hire</li> <li>• Crate and packaging manufacturing</li> <li>• Road, sea and air transport</li> <li>• Hazardous goods packaging</li> <li>• HR recruitment</li> <li>• QHSE consultants</li> <li>• Road transport containerized</li> <li>• Security services</li> <li>• Specialised equipment hire (forklifts etc.)</li> <li>• Stevedoring</li> <li>• Survey certifications, marine, lashing, sgs etc.</li> <li>• Warehousing and storage facilities</li> <li>• Waste disposal</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
<b>IT and telecommunication services</b>	<p>Provision of ad hoc electrical, data and minor mechanical works specifically to meet the needs of an LNG plant's information services (IT and telecommunications).</p> <p>Services can include:</p> <ul style="list-style-type: none"> <li>• mounting and fixing of wireless access points and antennas</li> <li>• installation of data cabling as per plant's data cabling standards</li> <li>• installation of electrical and earth cabling</li> <li>• design and supply of mounting brackets, antenna mounts and other fabrication activities as needed to achieve the tasks required</li> <li>• working at heights therefore elevated work platform use, rigging, dogging, height rescue and working on communications towers</li> <li>• working in data centres and communications rooms required including installation of computing hardware and communications racks.</li> </ul>	<ul style="list-style-type: none"> <li>• Downer Infrastructure West</li> <li>• Harris CapRock Communications</li> <li>• Kentz</li> <li>• KLM Group</li> <li>• Optus</li> <li>• Telstra</li> <li>• Thiess</li> </ul>	<ul style="list-style-type: none"> <li>• Aerial work platform equipment</li> <li>• Cable and marker locating</li> <li>• Cloud solutions</li> <li>• Data centres</li> <li>• Electrical supplies (cable, conduit, switches etc.)</li> <li>• Entertainment and content providers</li> <li>• Internet access</li> <li>• IT and telecommunications hardware.</li> <li>• IT supplies (enclosures, racks etc.)</li> <li>• Metal component fabrication</li> <li>• Personnel protective equipment</li> <li>• Riggers</li> <li>• Rope access services</li> <li>• Satellite system providers</li> <li>• Scaffolding</li> <li>• Storage area networks</li> <li>• Telephone systems</li> <li>• Test equipment</li> <li>• UHF and VHF radio systems</li> <li>• Wireless networking, onsite paging systems, pagers and other messaging platforms</li> </ul>
<b>Laboratory services</b>	<p>Provision of laboratory testing services.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• offsite analytical services for gas, dust, soil, sediment and water analysis in accordance with government guidelines</li> <li>• provision of onsite LNG plant staff to undertake laboratory analytical services</li> <li>• potential analyses may include TPH, BTEX, metals, VOCs, SVOCs, asbestos, PAHs, phenols, pesticides, PCBs, in-organics, nutrients, microbes, radionuclides and process monitoring requirements</li> <li>• management including QA/QC of third party</li> </ul>	<ul style="list-style-type: none"> <li>• Australian Laboratory Services (ALS)</li> <li>• Chemistry Centre (WA)</li> <li>• Emission Assessments</li> <li>• Intertek Moody</li> <li>• National Measurement Institute</li> <li>• SGS Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment maintenance</li> <li>• Microbiological analysis</li> <li>• Overflow and specialist laboratory services</li> <li>• Radiological analyses (radionuclides).</li> <li>• Specialist courier services</li> <li>• Specialist laboratory gas pipework orbital welding.</li> <li>• Specialist sensitive freight companies</li> <li>• Suppliers of laboratory consumables (e.g. chemical gas, reagents, sampling devices)</li> <li>• Suppliers of laboratory equipment</li> <li>• Suppliers of standards, i.e. ASTM, AS, UOP, etc.</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	laboratories where required <ul style="list-style-type: none"> <li>• data management of samples</li> <li>• provision of sampling supplies and consumables including but not limited to jars, bottles, eskies, etc.</li> </ul>		
<b>Machinery lube oil analysis services</b>	<p>Provision of machinery lube oil analysis services for the LNG Plant during operations.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• supply of clean sample bottles for sample collection</li> <li>• analysis of samples</li> <li>• training of maintenance specialists, engineers, and technicians in oil sampling, methods of analysis and interpretation of results</li> <li>• spectroscopy for wear, additive and contaminant elements</li> <li>• viscosity</li> <li>• total acid number or total base number as appropriate</li> <li>• Karl Fischer water titration</li> <li>• flash point analysis</li> <li>• particle count analysis</li> <li>• direct read ferrography as back-up to emission spectroscopy</li> <li>• fourier transform infrared (FTIR) for GTand GTG samples</li> <li>• microscopic particle examination</li> <li>• filter analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Australian Laboratory Services (ALS)</li> <li>• Bureau Veritas Asset Integrity and Reliability Services</li> <li>• Oilcheck</li> <li>• SGS Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Direct read ferrography</li> <li>• Laboratory testing equipment and consumables</li> <li>• Oil sampling equipment (sampling vacuum pumps, oil sampling ports, pilot tubes, etc.)</li> <li>• Sampling supplies and consumables</li> </ul>
<b>Maintenance and repair of emergency diesel generators</b>	<p>Provision of on-site routine inspection and maintenance of emergency diesel generators.</p>	<ul style="list-style-type: none"> <li>• Diverse Engineering (WA)</li> <li>• Drivetrain Power and Propulsion</li> <li>• MPower Group</li> <li>• MTU Detroit Diesel Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Diesel generator silencers</li> <li>• Electrical and instrumentation calibration and servicing</li> <li>• Emission monitoring</li> <li>• Emissions testing</li> <li>• Heavy lifts logistics and craneage</li> <li>• Inlet air filtration system and outlet exhaust system maintenance</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Maintenance of UPSs, rectifiers, DC/DC converters and batteries</li> <li>• Non-destructive testing and inspection services</li> <li>• Oil analysis</li> <li>• Oils and coolants</li> <li>• Onsite insulation replacement and maintenance</li> <li>• Painting and protective coatings</li> <li>• Personnel protection equipment</li> <li>• Pressure testing</li> <li>• Servicing of fire and gas suppression and detection equipment</li> <li>• Spill response kits</li> <li>• Strainers, filters, expansion joints, hose and fittings.</li> <li>• Transformers and HV switchgear</li> <li>• Water treatment systems</li> </ul>
<b>Maintenance coating services</b>	<p>Provide maintenance coating services to LNG plant. Coating repairs and services (either spot or full re-coat) may be required for the following types of equipment:</p> <ul style="list-style-type: none"> <li>• piping (carbon steel and stainless steel, above ground and below ground)</li> <li>• carbon steel vessels and tanks</li> <li>• stainless steel, high alloy, non ferrous vessels and tanks</li> <li>• rotating equipment</li> <li>• linings (i.e. potable water)</li> <li>• structural steel</li> <li>• provisions of coating applicators, supervisors and coating inspectors</li> <li>• provision of blasting services (dry abrasive, wet abrasive, high pressure water blast)</li> <li>• provision of QA coating services (pre-blast inspection, post blast inspection, inspection of coating systems)</li> <li>• provision of all required paint systems</li> <li>• fireproofing systems.</li> </ul>	<ul style="list-style-type: none"> <li>• AGC Industries</li> <li>• Cape – Australia</li> <li>• Duratec Australia</li> <li>• Giovenco Industries</li> <li>• Hertel Modern</li> <li>• Kaefer Novacoat</li> <li>• Orontide</li> <li>• P&amp;C Maintenance</li> <li>• Savcor</li> <li>• Veolia Environmental Services (Australia)</li> </ul>	<ul style="list-style-type: none"> <li>• Abrasive blasting</li> <li>• Access equipment</li> <li>• Blasting equipment suppliers</li> <li>• Cladding and insulation services</li> <li>• Coating applications</li> <li>• Coating times and curing mechanisms</li> <li>• Composite repair</li> <li>• Corrosion monitoring and corrosion protection</li> <li>• CUI monitoring and repair</li> <li>• De humidifiers</li> <li>• Elastomeric urethane/polyurea coatings</li> <li>• Environmental testing</li> <li>• EWP (elevated work platform) supply/hire</li> <li>• Film thickness measurement instrumentation</li> <li>• General transport</li> <li>• Generators</li> <li>• HP and UHP water jetting</li> <li>• High and low voltage testing instrumentation</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Hose and fitting suppliers</li> <li>• Hydro blasting</li> <li>• Industrial spray painting equipment</li> <li>• Inspection project documentation</li> <li>• Intrinsically safe equipment</li> <li>• Material suppliers</li> <li>• NACE inspection services</li> <li>• NACE inspectors</li> <li>• OH&amp;S and related standards</li> <li>• Plant and structure fabric maintenance</li> <li>• Product technical data sheets and MSDS</li> <li>• Pump suppliers</li> <li>• Rope access services</li> <li>• Scaffolding</li> <li>• Surface preparation</li> <li>• Surface preparation instrumentation</li> </ul>
<b>Maintenance services</b>	<p>Provision of maintenance services to LNG Plants. The services normally support permanent LNG Plant personnel and can include items such as:</p> <ul style="list-style-type: none"> <li>• trades to supplement permanent LNG plant personnel - short term and long term</li> <li>• maintenance and operational support functions</li> <li>• non-core trades roles</li> <li>• vehicle maintenance</li> <li>• equipment and plant hire</li> <li>• inspection services.</li> </ul>	<ul style="list-style-type: none"> <li>• AGC Industries</li> <li>• Ativo</li> <li>• Clough AMEC</li> <li>• Downer Infrastructure West</li> <li>• Monadelphous</li> <li>• Thiess</li> <li>• Transfield Services</li> <li>• UGL</li> <li>• Wood Group PSN</li> <li>• WorleyParsons Services</li> </ul>	<ul style="list-style-type: none"> <li>• 3rd party logistics</li> <li>• Actuator field servicing and site machining</li> <li>• Breathing apparatus servicing</li> <li>• Building maintenance</li> <li>• Civil and formwork, concreting</li> <li>• Communication</li> <li>• Condition monitoring and non destructive testing</li> <li>• Cranes and lifting equipment</li> <li>• Cryogenic insulation and cladding services</li> <li>• Data cleansing</li> <li>• Fabrication (pipework)</li> <li>• Fabrication (sub structures, handrails and gratings etc.)</li> <li>• Fabrication, welding and pipe fitting</li> <li>• Fibre optic termination</li> <li>• Fire protection systems</li> <li>• Flange management</li> <li>• Flange torque equipment and services</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Gasket supplies.</li> <li>• General civil works</li> <li>• General transport</li> <li>• Grounds and facility maintenance</li> <li>• Hand tools.</li> <li>• HDPE membrane liner installation</li> <li>• High voltage testing</li> <li>• Hire equipment.</li> <li>• Hire vehicles.</li> <li>• HV substation equipment</li> <li>• HVAC and refrigeration</li> <li>• Hydro testing services.</li> <li>• Inspection and chemical analysis</li> <li>• Inspection services.</li> <li>• Instrument, test equipment calibration and certification</li> <li>• Insulation and protective coatings</li> <li>• Leak testing</li> <li>• Lifting equipment statutory inspection</li> <li>• LNG marine loading arm service</li> <li>• Lubricant supplies</li> <li>• Major equipment spare part suppliers</li> <li>• Manpower agencies</li> <li>• Mechanical services (site vehicles etc.)</li> <li>• NDT</li> <li>• Nitrogen purging and testing services.</li> <li>• Noise and sound monitoring</li> <li>• On site machining</li> <li>• Oxygen and acetylene gas supplies</li> <li>• Painting and blasting</li> <li>• Pipe fittings supplies.</li> <li>• Pipe pigging</li> <li>• Plant and equipment hire</li> <li>• Plumbing</li> <li>• Portable appliance testing</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Process controls – PSV and valve maintenance</li> <li>• Pumps and valves (refurbish metal works)</li> <li>• Repairs (pipework and supports)</li> <li>• Rope access</li> <li>• Rotating equipment alignment</li> <li>• Scaffolding</li> <li>• Security</li> <li>• Short term plant hire</li> <li>• Spare part analysis</li> <li>• Specialist cleaning</li> <li>• Specialist torquing equipment servicing</li> <li>• Storage and laydown facilities</li> <li>• Supply of instrument valves</li> <li>• Supply of pneumatic instrument fittings</li> <li>• Surveyors</li> <li>• Telecommunications and tower inspection</li> <li>• Thermoscan S/C HV buz bar thermal image work</li> <li>• Training facilities</li> <li>• Training providers</li> <li>• Transport</li> <li>• Turbine repairs</li> <li>• Valve machining</li> <li>• Valve testing (hydrstatic and flow)</li> <li>• Vehicle maintenance</li> <li>• Vibration analysis</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Mechanical Inspection Services</b>	<p>Provision of inspection resources for static pressure equipment in accordance with functional design, regulatory requirements and the safety case.</p> <p>Services could include items such as the inspection of the following equipment:</p> <ul style="list-style-type: none"> <li>Pressure equipment covered by AS/NZS 1200 including: <ul style="list-style-type: none"> <li>pressure vessels and associated pressure parts, controls and pipework covered by AS1210, NZS/BS5500, ANSI/ASME BPV-VIII-1 and as 2971 (serially produced vessels)</li> <li>pressure piping covered by AS 4041, ASME B 31.1, ASME B 31.3 and ASME B 31.8.</li> </ul> </li> <li>Storage tanks built to ANSI/API 620 or equivalent</li> <li>Coating inspections, including QA/QC of maintenance activities associated with coating repair</li> <li>QC of PSVs</li> <li>Witness activities associated with maintenance activities on pressure equipment</li> <li>Provision of project management personnel for inspection activities</li> </ul>	<ul style="list-style-type: none"> <li>Applus RTD</li> <li>Australian Pressure Testing Services</li> <li>BIE International</li> <li>Bureau Veritas Asset Integrity and Reliability Services</li> <li>Inspecta International</li> <li>Intertek Moody</li> <li>QA Management – Velosi</li> <li>SGS Australia</li> <li>Stork Technical Services</li> <li>TRAC Oil &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>4WD mine vehicles</li> <li>Aerial work platform equipment</li> <li>Cultural awareness training</li> <li>Industrial consumables</li> <li>Metallurgical services</li> <li>NDT</li> <li>NDT consumables</li> <li>NDT equipment</li> <li>Personnel protective equipment</li> <li>Rope access service</li> <li>Scaffolding</li> <li>Specialised inspection services</li> <li>Testing equipment</li> <li>Testing equipment calibration</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>NDT services</b>	<p>Provision of non destructive testing (NDT) services to the LNG facility. NDT could be required on the following types of equipment:</p> <ul style="list-style-type: none"> <li>Pressure equipment covered by AS/NZS 1200 including: <ul style="list-style-type: none"> <li>pressure vessels and associated pressure parts, controls and pipework covered by AS1210, NZS/BS5500, ANSI/ASME BPV-VIII-1 and as 2971 (serially produced vessels)</li> <li>pressure piping covered by AS 4041, ASME B 31.1, ASME B 31.3 and ASME B 31.8</li> </ul> </li> <li>Storage tanks built to ANSI/API 620 or equivalent</li> <li>Rotating equipment (i.e. pumps, compressors)</li> <li>Ad-hoc NDT services for workshop (fabricated spooling, welder qualifications)</li> <li>Magnetic particle inspection (MT)</li> <li>Liquid penetrant examination (PT)</li> <li>Radiographic examination (RT)</li> <li>Ultrasonic examination (UT), including time of flight diffraction (TOFD), phased array, long range UT (guided wave) of equipment outlined above</li> <li>Acoustic emission (AE)</li> <li>Eddy current testing (ET)</li> <li>Electromagnetic examination (ACFM, SLOFAC)</li> <li>Visual examination (VT)</li> </ul>	<ul style="list-style-type: none"> <li>Applus RTD</li> <li>Australian Laboratory Services (ALS)</li> <li>BIE International</li> <li>Bureau Veritas Asset Integrity and Reliability Services</li> <li>Inspecta International</li> <li>Intertek Moody</li> <li>QA Management – Velosi</li> <li>SGS Australia</li> <li>Stork Technical Services</li> <li>TRAC Oil &amp; Gas</li> </ul>	<ul style="list-style-type: none"> <li>4DW mine vehicles</li> <li>Aerial work platform equipment</li> <li>Cultural awareness training</li> <li>Industrial consumables</li> <li>Mechanical testing</li> <li>Metallurgical services</li> <li>NDT consumables</li> <li>NDT equipment</li> <li>Personnel protective equipment</li> <li>Rope access</li> <li>Rope access service</li> <li>Scaffolding</li> <li>Specialised inspection services</li> <li>Testing equipment</li> <li>Testing equipment calibration</li> </ul>
<b>Occupational hygiene services</b>	<p>Provision of occupational health and hygiene services to anticipate, recognise, assess, communicate and control workplace environmental stressors in the area of operations that may result in injury, illness, impairment or any other ill affect to any person.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>occupational hygiene monitoring and sampling;</li> <li>occupational hygiene services, education and training</li> </ul>	<ul style="list-style-type: none"> <li>Bureau Veritas Asset Integrity and Reliability Services</li> <li>Coffey Environments</li> <li>GCG Health Safety &amp; Hygiene</li> <li>Industrial Hygiene Management</li> <li>SGS Australia</li> <li>South West Occupational Health Services</li> </ul>	<ul style="list-style-type: none"> <li>Analytical services</li> <li>Audiometric assessments</li> <li>Corporate health audits</li> <li>Dangerous goods audits and advice</li> <li>Drinking water management plan development</li> <li>Environmental noise surveys</li> <li>Environmental services including specialised contaminated land advice</li> <li>Medical equipment hire</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
	<ul style="list-style-type: none"> <li>occupational hygiene consultancy.</li> </ul>		<ul style="list-style-type: none"> <li>Fall protection engineered solutions</li> <li>Hearing and eye testing</li> <li>Laboratory analysis</li> <li>Laboratory drug and alcohol screen</li> <li>Large project requirements for safety services</li> <li>Mechanical vibration</li> <li>OHS services</li> <li>Physiotherapy assessments</li> <li>Pre-employment medicals</li> <li>Respiratory fit test service</li> <li>Safety audit systems</li> <li>Specialised radiation assessments</li> <li>Specialist engineering controls</li> <li>Spirometry</li> </ul>
<b>Onsite machining services</b>	<p>Provision of onsite machining services, bolt tensioning and leak sealing and associated engineering support functions for the LNG facility.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>flange facing – raised face, full face, ring groove (RTJ), blinds, exchanger bundle sheet face and irregular shaped flange faces</li> <li>drilling – stud drilling, screw cutting, clearance holes, reamed holes and stud removal</li> <li>boring – bearing housings, cylinders and line boring</li> <li>turning - journal turning, shaft turning and modification, repair of worn shaft areas</li> <li>milling - bed plate milling, HE division plates, bearing surfaces, man way and inspection covers and shaft keyways (internal and external)</li> <li>online hot/cold tapping</li> <li>online high pressure leak sealing – valve glands, pipes and pipe fittings and bolted flanges</li> <li>engineering support for all services offered.</li> </ul>	<ul style="list-style-type: none"> <li>BLJ In-Situ Solutions</li> <li>Camco Engineering</li> <li>Cameron Services</li> <li>Furmanite Australia</li> <li>Hofmann Engineering</li> <li>Hydratight Asia Pacific</li> <li>Onsite Machining &amp; Pipeline Services</li> <li>WGE Group</li> </ul>	<ul style="list-style-type: none"> <li>Cultural awareness training</li> <li>Industrial consumables</li> <li>Personnel protective equipment</li> <li>Scaffolding</li> <li>Cranage</li> <li>Specialised fabrication and welding</li> <li>Onsite machining equipment</li> <li>Pressure testing services</li> </ul>



1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
<b>Planning system for LNG production</b>	<p>Provision of a production planning process and associated tools to deliver hydro carbon products to LNG customers safely, reliably and efficiently.</p> <p>Services may include technical design, architecture and implementation of a proven medium, short term and tactical planning/scheduling system for LNG which has the ability to:</p> <ul style="list-style-type: none"> <li>• optimise production plan against market demands, reservoir and facility constraints</li> <li>• simulate the end-to-end product supply chain process and apply 'what-if' scenarios in the simulated product supply chain process; and compare simulations to identify impacts/variances</li> <li>• automatically receive accurate and quality data from selected systems to minimise manual interfaces</li> <li>• determine facility capacity and produce rolling forecast of available daily plant capacity to process raw gas</li> <li>• create and publish the annual delivery plan (ADP)</li> <li>• create and operate the specific delivery schedule (SDS) used for cargo planning.</li> </ul>	<ul style="list-style-type: none"> <li>• 3ESI Australia Pty Ltd</li> <li>• Paradigm</li> <li>• Quintiq</li> <li>• Telvent Australia (Schneider Electric)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Primarily an in-house consultancy service</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Predictive maintenance and condition monitoring program</b>	<p>Providing definition and implementation of a risk based predictive maintenance and condition monitoring program that facilitates availability and optimizes maintenance program efficiency and enables proactive planning of maintenance tasks.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>contracting strategy for techniques determined by maintenance strategies - in house, out-source or hybrid</li> <li>definition and selection of hardware, software</li> <li>data storage and analysis for each technique</li> <li>application of techniques determined by maintenance strategies</li> <li>guidelines for condition monitoring (CM) techniques .</li> </ul>	<ul style="list-style-type: none"> <li>Applus RTD</li> <li>Australian Laboratory Services (ALS)</li> <li>Bureau Veritas Asset Integrity and Reliability Services</li> <li>Emerson Process Management</li> <li>K2 Technology</li> <li>LogiCamms</li> <li>Lycopodium Asset Management</li> <li>SVT Engineering</li> </ul>	<ul style="list-style-type: none"> <li>Primarily an in-house consultancy service</li> <li>Drafting services - drawing conversion, upgrading, as-building and back-drafting</li> </ul>
<b>Provision of health care services</b>	<p>Provision of integrated health services (occupational health, wellness, fitness for duty and injury/illness management services) to ensure the appropriate programs, services and systems are implemented to eliminate or reduce employee health risks. services could include items such as:</p> <ul style="list-style-type: none"> <li>fitness for duty – medical exams, functional capacity evaluations, drug and alcohol screening, consultations and recommendations for fitness for duty, injury treatment and management, emergency responders, business travellers, offshore</li> <li>occupational health and medical services –audiometric testing, medicals for truck drivers, diving, pilot, maritime, RSI prevention program</li> <li>health and wellness promotion and awareness programs.</li> </ul>	<ul style="list-style-type: none"> <li>Aspen Medical</li> <li>CBD West Medical Centre</li> <li>Hard Hat Health</li> <li>Hostile Environment Services (HES)</li> <li>Immediate Assistants</li> <li>International SOS (Australasia)</li> <li>Jobfit Health Group</li> <li>Kinetic Health</li> <li>Link Health</li> <li>Medibank Health Solutions</li> <li>Nursing Australia</li> <li>OSH Group</li> <li>St John Ambulance</li> </ul>	<ul style="list-style-type: none"> <li>Air ambulance services</li> <li>Ambulance vehicles</li> <li>Aviation medicals</li> <li>Biomedical maintenance</li> <li>Blood supply service</li> <li>Contaminated waste bins</li> <li>Courier of goods to site i.e. medical consumables</li> <li>Dangerous goods assessment</li> <li>Disaster response</li> <li>Drug and alcohol testing</li> <li>Education</li> <li>Emergency responder equipment</li> <li>Environmental hazard management</li> <li>Ergonomic assessment</li> <li>Executive health checks</li> <li>Fitness for work assessments</li> <li>GCMS laboratory confirmations</li> <li>Health and wellbeing programs</li> <li>Hygiene</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Injury management</li> <li>• Instant drug cup supplier</li> <li>• Medical consumables</li> <li>• Medical equipment</li> <li>• Medical transfers</li> <li>• Mental health counselling</li> <li>• Nutrition advice</li> <li>• Onsite audiometric testing</li> <li>• Oxygen supply and servicing</li> <li>• Pathology services</li> <li>• Pharmaceutical supply</li> <li>• Pre-employment medical exams</li> <li>• Psychological profiling</li> <li>• Rescue vehicles</li> <li>• Servicing of medical equipment</li> <li>• Supply of emergency response officers</li> <li>• Supply of occupational physicians and doctors</li> <li>• Supply of sleep physiologist services</li> <li>• Transportable medical centre options</li> <li>• Travel advice</li> <li>• Underwater medicals</li> <li>• Vaccinations</li> <li>• Vector management</li> <li>• WA work cover testing</li> <li>• Water, food quality testing</li> </ul>
<b>Provision of maintenance systems</b>	<p>Provision of assistance in the maintenance system build tasks.</p> <p>Services could include items such as:</p> <ul style="list-style-type: none"> <li>• providing subject matter expert advisory services in the areas of reliability centred maintenance; equipment criticality assessment; and LNG plant maintenance</li> <li>• compiling, building, consolidating, optimising reoccurring planned maintenance job plans using LNG</li> </ul>	<ul style="list-style-type: none"> <li>• Assetivity</li> <li>• Bureau Veritas Asset Integrity and Reliability Services</li> <li>• iicorr</li> <li>• K2 Technology</li> <li>• LogiCamms</li> <li>• Lycopodium Asset Management</li> </ul>	<ul style="list-style-type: none"> <li>• Drafting</li> <li>• Electronic parts books</li> <li>• Risk consulting</li> <li>• Supply and logistics consulting.</li> <li>• Spare parts cataloguing</li> <li>• Work instructions writing</li> <li>• Engineering data cleansing</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	<p>operator provided tools and processes</p> <ul style="list-style-type: none"> <li>authoring, reviewing 'work instructions' using LNG operator provided templates, tools and processes which will ultimately be used in the field to support the execution of maintenance tasks</li> <li>gathering, vetting, cleansing, compiling, maintenance and engineering data associated with equipment that is part of the LNG facility using operator provided data sources and databases</li> <li>carrying out spare parts assessments, compiling spare parts catalogue data using operator provided tools and processes</li> <li>compiling equipment 'bills of materials' for use within the maintenance system and maintenance job plans</li> <li>building, reviewing, and editing the LNG facility asset register based on equipment tag information supplied by the operator.</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance and Project Engineering</li> <li>Nihar Associates</li> <li>Rylson Group</li> <li>Wood Group PSN</li> </ul>	
<b>Pump repair</b>	<p>Pump repair service can cover all of an LNG facilities pumps, both process and auxiliary, to ensure the integrity, reliability, and efficiency of the equipment. Multiple service agreements can be required in order to cover the technical variation in equipment, and provide sufficient capacity as required for a large pump population.</p> <p>The scope of the pump repair can include the repair and overhaul of pumps both onsite and offsite.</p> <p>Should work be required on site, the scope may include:</p> <ul style="list-style-type: none"> <li>isolation and blanking by mechanical trades personnel</li> <li>removal of the pump from the process unit</li> <li>fault identification</li> <li>root cause of failure identification and report.</li> <li>machine overhaul</li> <li>re-installation, de-isolation, and handover to operations.</li> </ul>	<ul style="list-style-type: none"> <li>Blakers Pump Engineers</li> <li>Cooper Fluid Systems</li> <li>Dynapumps</li> <li>Flowserve FSG - Pumps</li> <li>Orontide</li> <li>Pump Technology Services</li> <li>Stork Technical Services</li> <li>Sulzer Pumps ANZ</li> <li>United Pumps Australia</li> <li>Westralian Engineering</li> </ul>	<ul style="list-style-type: none"> <li>Electric motor repair and rewind</li> <li>Foundry - castings</li> <li>Heat treatment</li> <li>Machining</li> <li>Metallurgical assessment</li> <li>NATA accredited balancing</li> <li>Non-destructive testing</li> <li>Oil analysis</li> <li>Painting</li> <li>Sand blasting</li> <li>Seal refurbishment</li> <li>Specialised coatings</li> <li>Specialised welding</li> <li>Valve maintenance</li> <li>Vibration monitoring</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
	<p>Repairs completed at an offsite workshop can include:</p> <ul style="list-style-type: none"> <li>• fault identification</li> <li>• root cause of failure identification and reporting</li> <li>• machine overhaul</li> <li>• liaison with mechanical seal vendors for overhaul of seals</li> <li>• fabrication of parts, such as shafts, wear rings etc. (supplier licence permitting)</li> <li>• preparation for transport, including quarantine inspection and certification.</li> </ul>		
<b>Rigging and lifting supply and service</b>	<p>Provision of general rigging equipment supply and inspection including slings; chains; chain blocks; shackles, etc.</p> <p>Services can include:</p> <ul style="list-style-type: none"> <li>• perform inspections on general lifting equipment</li> <li>• keep records as required</li> <li>• maintain tagging system.</li> </ul>	<ul style="list-style-type: none"> <li>• A Noble &amp; Son</li> <li>• Bullivants</li> <li>• Hoisting Equipment Specialists WA</li> <li>• Jeyco</li> <li>• Robertsons Lifting and Rigging</li> <li>• The Rigging Shed</li> </ul>	<ul style="list-style-type: none"> <li>• Cranes and derricks, crane lifts assistance</li> <li>• Demolition rigging</li> <li>• Fabrication (including painting or galvanising) of spreader bars, lifting beams, baskets, goods cages and personnel cages</li> <li>• Helicopter lifting</li> <li>• Industrial safety nets</li> <li>• Inspection and testing of rigging equipment</li> <li>• Plant, equipment and structures</li> <li>• Powered or mechanical lifting and hoisting system</li> <li>• Risers, spools and pipes</li> <li>• Steel erection</li> </ul>
<b>Rope access inspection services</b>	<p>Provision of rope access inspection services. Services can include the provision of trained, qualified and competent personnel to undertake rope access inspections of plant which cannot be readily inspected from the ground or via elevated work platforms.</p>	<ul style="list-style-type: none"> <li>• Atlas Access</li> <li>• Bureau Veritas Asset Integrity and Reliability Services</li> <li>• Giovenco Industries</li> <li>• Global Construction Services</li> <li>• MAS Australasia</li> <li>• Neptune Marine Services</li> <li>• SGS Australia</li> <li>• TRAC Oil &amp; Gas</li> <li>• Vertech Group</li> <li>• Vertical Services</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation and travel services</li> <li>• Borescope inspection</li> <li>• Calibrations of testing equipment</li> <li>• Coating condition</li> <li>• Corrosion monitoring</li> <li>• Courier and freight services</li> <li>• Current height safety system audits and annual inspections to AS/NZS, OHS regulations.</li> <li>• Dropped object surveys</li> <li>• Engineering assistance</li> <li>• Fall arrest and rope access systems</li> </ul>



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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• Height safety equipment</li> <li>• Height safety system design and installation</li> <li>• Hose pressure testing</li> <li>• Industrial rope access training</li> <li>• Ladder systems</li> <li>• Lifting and rigging equipment</li> <li>• Lifting gear inspection and testing</li> <li>• Lifting registers</li> <li>• Load testing and certification to AS/NZS 4488.2-1997 and AS/NZS 1891.4-2000</li> <li>• Manufacturing of specialised and designed equipment (project specific)</li> <li>• Non-destructive testing (MPI, DPI, eddy, UT, RT)</li> <li>• Occupational health services</li> <li>• Porosity (holiday) detection</li> <li>• PPE and safe work wear</li> <li>• Signage and marketing</li> <li>• Supply of supplementary personnel</li> <li>• Tagging supplies (plastic, aluminium)</li> <li>• Thermal imaging</li> <li>• Training services</li> <li>• Vertical and horizontal static lines</li> </ul>
<b>Scaffold supply and/or hire</b>	<p>Supply scaffolding as required including:</p> <ul style="list-style-type: none"> <li>• tube and clip</li> <li>• Kwikstage</li> <li>• aluminium</li> <li>• mobile scaffolds.</li> </ul> <p>Manage Scaffold on site. Inspect scaffolding after use and confirm suitability for continued use.</p>	<ul style="list-style-type: none"> <li>• BLH Group of Companies</li> <li>• Caledonia Scaffolding</li> <li>• Cape - Australia</li> <li>• Giovenco Industries</li> <li>• Global Construction Services</li> <li>• KAEFER Integrated Services</li> <li>• MAS Australasia</li> <li>• Pilbara Access Group</li> <li>• ScafWest</li> </ul>	<ul style="list-style-type: none"> <li>• Accommodation and travel services</li> <li>• Barricading designs</li> <li>• Barricading products</li> <li>• Conveyor guarding solutions</li> <li>• Courier services</li> <li>• Drafting and engineering</li> <li>• Dropped object prevention systems</li> <li>• Equipment software (stock)</li> <li>• Fall arrest systems</li> <li>• FIFO skilled labour hire</li> <li>• FRP flooring</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
			<ul style="list-style-type: none"> <li>• FRP hand railing</li> <li>• Guarding designs</li> <li>• Guarding products</li> <li>• Hand railing systems</li> <li>• Heavy transport i.e. Transportation of material over long distance</li> <li>• Mechanical and chemical fixings</li> <li>• Mechanical maintenance services</li> <li>• Medical services</li> <li>• PPE</li> <li>• Project insurance services</li> <li>• Safety solutions</li> <li>• Scaffolding containment systems</li> <li>• Shutdown labour hire</li> <li>• Signage (marketing)</li> <li>• Skilled labour hire</li> <li>• Structural fabrication</li> <li>• Structural installation services</li> <li>• Supply of supplementary personnel</li> <li>• Tagging equipment and services</li> <li>• Temporary facilities connection i.e. Plumbing, electrical etc.</li> <li>• Temporary site facilities (remote compound)</li> <li>• Third party testing of equipment</li> <li>• Training services</li> <li>• Workshop fabrication and installation services</li> </ul>
Security services	Provision of security services for LNG assets. Scope of work can include: <ul style="list-style-type: none"> <li>• provision of sufficient number of guards, specifically trained and licensed in accordance with legislation</li> <li>• provision of transport and communication equipment being compliant to HSE standards</li> <li>• provision of consultancy services in relation to safety management</li> </ul>	<ul style="list-style-type: none"> <li>• Global Security</li> <li>• Gold Security Group (International)</li> <li>• ISS Facility Services Australia</li> <li>• Lockforce</li> <li>• MSS Security</li> <li>• Omega Security Services</li> <li>• Unity Resources Group</li> </ul>	<ul style="list-style-type: none"> <li>• Access control and CCTV installation</li> <li>• Alarm monitoring and installation</li> <li>• Provision of locksmith services</li> <li>• Provision of medical personnel and ambulances.</li> <li>• Reception-security desk services</li> <li>• Vehicle supply</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Specialist compressor services – air compressors</b>	<p>Provision of maintenance and repair services for instrument air compressors and emergency instrument air compressors.</p> <p>Services may include:</p> <ul style="list-style-type: none"> <li>• specified maintenance and repair tasks for each unit including auxiliary systems</li> <li>• machine overhaul</li> <li>• fault identification, root cause analysis and reporting</li> <li>• coordination with the electric motor and diesel motor maintenance and repair contract vendors .</li> </ul> <p>Potential items that may also be included are:</p> <ul style="list-style-type: none"> <li>• routine maintenance</li> <li>• training of LNG facility technicians and engineers</li> <li>• procurement and storage of spares parts.</li> </ul>	<ul style="list-style-type: none"> <li>• CAPS Australia</li> <li>• Hoerbiger Australia</li> <li>• Industrial Plant &amp; Service Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Aftercoolers</li> <li>• Compressor Lubricants</li> <li>• Connectors</li> <li>• Control Panels</li> <li>• Cranage</li> <li>• Desiccant</li> <li>• Dry Ice Blast Cleaning</li> <li>• Dynamic Balancing</li> <li>• Electric Motor and Diesel Motor Maintenance</li> <li>• Fabrication and Welding</li> <li>• Filter Elements</li> <li>• Flex Hose</li> <li>• Inlet Filters</li> <li>• Machining</li> <li>• Mag Particle NDT</li> <li>• Metallic-Ceramic Corrosion Protective Coatings</li> <li>• Moisture Separators</li> <li>• Oil analysis</li> <li>• Packing materials</li> <li>• Polymeric antifouling coatings</li> <li>• Pressure gauges</li> <li>• Pressure regulators</li> <li>• Pressure testing</li> <li>• Receiver tanks</li> <li>• Road, air and sea transport</li> <li>• Safety relief valves</li> <li>• Vacuum gauges</li> <li>• Vacuum lubricants</li> </ul>
<b>Supply of personal protective equipment</b>	<p>Provision of personal protective equipment and other HSE related materials as related to protection of head, face and eye, foot, hand, respiratory and fall protection, as well as flameproof and protective clothing.</p>	<ul style="list-style-type: none"> <li>• Atom Supply</li> <li>• Blackwoods</li> <li>• BOC Limited</li> <li>• Cova Parts</li> <li>• Heatleys Safety &amp; Industrial</li> </ul>	<ul style="list-style-type: none"> <li>• Assorted rehydration</li> <li>• Bollards</li> <li>• Breathing apparatus</li> <li>• Bunting</li> <li>• Disposable coveralls various</li> </ul>

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Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
		<ul style="list-style-type: none"> <li>• Integrated Industrial Mining Supply</li> <li>• Mercury Firesafety</li> <li>• NOV Wilson</li> <li>• Pacific Safety Wear</li> <li>• Worksense Workwear &amp; Safety</li> </ul>	<ul style="list-style-type: none"> <li>• Drink bottles</li> <li>• Electrical and valve lockout kits</li> <li>• Embroidery services</li> <li>• Emergency showers</li> <li>• Eskies</li> <li>• Eye protection</li> <li>• Eye wash station</li> <li>• Face protection</li> <li>• Fall arrest equipment</li> <li>• Fall protection</li> <li>• Fire extinguishers</li> <li>• First aid</li> <li>• Footwear</li> <li>• Gas detectors</li> <li>• Hand protection</li> <li>• Hearing protection</li> <li>• Knives and blades</li> <li>• Lanyards, harness, anchorage and fall arrestors</li> <li>• Personal insect repellent</li> <li>• Reflective tape</li> <li>• Respiratory protection</li> <li>• Safety clothing</li> <li>• Safety step</li> <li>• Shovels</li> <li>• Signage</li> <li>• Spill kits</li> <li>• Spot marking paint</li> <li>• Stickers</li> <li>• Sun protection</li> <li>• Supply of head protection – hard hats</li> <li>• Tapes</li> <li>• Truck spill kits</li> <li>• Uniforms and clothing</li> <li>• Welding gear</li> </ul>

1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
<b>Supply pump spares</b>	Provision of OEM pumps spares to support the LNG operations. Type of pumps included controlled volume pumps, cryogenic pumps, progressive cavity pumps, sea water supply pumps, centrifugal fire water pumps and well head injection pumps.	<ul style="list-style-type: none"> <li>• Aussie Fluid Power</li> <li>• Australian Fluid Handling</li> <li>• Dynapumps</li> <li>• Global Pumps</li> <li>• Peerless Australia</li> <li>• Sulzer Pumps ANZ</li> <li>• Superior Pump Technologies</li> <li>• Weir Minerals Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Customs formality management and customs clearance including quarantine</li> <li>• Fabrication and welding</li> <li>• Machining</li> <li>• NDT</li> <li>• Packing materials</li> <li>• Pump parts including impellers, wear discs, wear rings, casings, shaft sleeves, shaft seals, bearing covers, o-rings, radial shaft, seals, seal housings, coupling elements, etc.</li> <li>• Pump repair and overhaul services</li> <li>• Quarantine wrapping services</li> <li>• Reverse engineering services</li> <li>• Road, air and sea transport</li> <li>• Root cause analysis</li> </ul>
<b>Temporary personnel</b>	Provision of temporary personnel in the following types of categories: <ul style="list-style-type: none"> <li>• clerical and administrative</li> <li>• engineering, technical and tradespeople</li> <li>• professional and executives</li> <li>• information and communications technology.</li> </ul>	<ul style="list-style-type: none"> <li>• AES Recruitment Services</li> <li>• Chandler Macleod</li> <li>• Credo Group</li> <li>• Drake International</li> <li>• Fircroft</li> <li>• Hays Specialist Recruitment</li> <li>• Kelly Australia</li> <li>• Manpower Services (Australia)</li> <li>• Nursing Australia</li> <li>• Oneforce Group Australia</li> <li>• Priority People Solutions</li> <li>• Skilled Group</li> <li>• Supply Connections</li> <li>• Swan Contract Personnel</li> </ul>	<ul style="list-style-type: none"> <li>• HSE inductions</li> <li>• Industry training, e.g various tickets such as dangerous goods, bosiet, survival at sea courses etc.</li> <li>• Cultural awareness training</li> <li>• Pre-employment medical examinations</li> <li>• Psychometric testing and assessment of personnel</li> </ul>



















1	2	3	4
Examples of prime contract opportunities	Example work scope descriptions	Types of supplier that may pursue prime contracts	List of potential sub tier opportunities
<b>Valve maintenance</b>	<p>Provision of suitably qualified and experienced personnel and appropriate equipment and/or instrumentation, on an as required basis, to repair and overhaul of all surface valve makes and models, including:</p> <ul style="list-style-type: none"> <li>• pressure relief valves</li> <li>• check valves</li> <li>• ball valves</li> <li>• butterfly valves</li> <li>• gate valves</li> <li>• globe valves</li> <li>• control valves.</li> </ul> <p>The materials, pressure ratings and flange types associated with these types of valves may cover a wide range of variations. Other services may include:</p> <ul style="list-style-type: none"> <li>• storage and warehousing</li> <li>• recordkeeping</li> <li>• performing of root cause analysis on failed valves</li> <li>• engineering support</li> <li>• determination of valve criticality</li> <li>• delivery of training.</li> </ul>	<ul style="list-style-type: none"> <li>• Austral-Powerflo Solutions</li> <li>• Callidus Process Solutions</li> <li>• Cameron Services</li> <li>• Furmanite Australia</li> <li>• Specialised Welding Australia</li> <li>• Stace</li> <li>• Total Valve Services</li> <li>• Vicon Control Valve Solutions</li> <li>• Western Process Controls</li> </ul>	<ul style="list-style-type: none"> <li>• Ball grinding</li> <li>• Certified corrosion control (painting/coating)</li> <li>• Crane hire</li> <li>• Crating and boxing</li> <li>• Cryogenic testing</li> <li>• Decontamination of valves</li> <li>• Fugitive emissions testing</li> <li>• General and specialised machine work and fabrication</li> <li>• Heat treatment services</li> <li>• Hot tapping and line stopping services</li> <li>• Leak sealing services</li> <li>• Non-destructive testing</li> <li>• Pipework and structural composite repair services</li> <li>• Positive material identification</li> <li>• Root cause analysis and engineering design</li> <li>• Sandblasting and painting</li> <li>• Specialist coating (ENP, TCC)</li> <li>• Transportation (including quarantine if required)</li> <li>• Waste water removal and treatment</li> <li>• Welding of exotic materials</li> </ul>
<b>Waste Management Services</b>	<p>Provision of 'cradle to grave' waste management (i.e. handling, transportation, reuse, recycling, treatment and final disposal) of various wastes generated by LNG Plant activities.</p> <p>The types of wastes generated by these activities may include:</p> <ul style="list-style-type: none"> <li>• solid waste (both hazardous and non-hazardous) e.g. putrescible, construction, medical and recyclable wastes</li> <li>• liquid waste (both hazardous and non-hazardous) e.g. sludges, septage, chemical, aqueous and hydrocarbon wastes</li> </ul>	<ul style="list-style-type: none"> <li>• Instant Waste Management</li> <li>• KIS Environmental Services</li> <li>• KMH Waste Engineering Solutions</li> <li>• Toll Energy Logistics</li> <li>• Tox Free Solutions</li> <li>• Transpacific Industries Group</li> <li>• Veolia Environmental Services (Australia)</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental and Biological Services</li> <li>• Handling Equipment</li> <li>• Industrial Cleaning</li> <li>• Landfill and Waste Compliance Consulting</li> <li>• Landfill Cell and Cap Design</li> <li>• Liner Bags</li> <li>• Liquid Cartage Skidmount Units</li> <li>• Manual Handling Equipment</li> <li>• Metal Fabrication and Welding</li> <li>• Mobile Waste Bins</li> <li>• Pest Control</li> <li>• Public place collection bins</li> <li>• Quarantine fumigation</li> </ul>










1 Examples of prime contract opportunities	2 Example work scope descriptions	3 Types of supplier that may pursue prime contracts	4 List of potential sub tier opportunities
	<p>Services may include:</p> <ul style="list-style-type: none"> <li>• provision of all necessary personnel and equipment for the handling and transportation of waste from the point of generation to final disposal</li> <li>• provision of necessary personnel and equipment for the general management of all waste from the point of generation to final disposal, including but not limited to, sorting consolidation and containment</li> <li>• providing, or making appropriate arrangements for, reuse, recycling, treatment and final disposal of all waste at LNG plant's approved facilities</li> <li>• compliance with all applicable government regulations, including dangerous goods and controlled waste requirements</li> <li>• recording and management of data to meet LNG plant's waste tracking and reporting requirements (internal and statutory).</li> </ul>		<ul style="list-style-type: none"> <li>• Quarantine wrapping services</li> <li>• Skip bins</li> <li>• Specialty containment bins (e.g. clinical, secure document)</li> <li>• Spill containment products</li> <li>• Static compactors</li> <li>• Sump trucks</li> <li>• Used oil reprocessing equipment</li> <li>• Vacuum loading equipment</li> <li>• Vehicle servicing</li> <li>• Washdown systems</li> <li>• Waste collection vehicles</li> <li>• Waste compaction equipment repairs</li> <li>• Waste processing machinery</li> <li>• Waste reduction and recycling equipment</li> <li>• Waste tracking, compliance and reporting systems</li> <li>• Waste transfer equipment and pump kits</li> <li>• Waste water treatment plant</li> </ul>









# APPENDIX

Following is a list of contract providers of the notional operational and maintenance work scopes who provided information for this report.









	Types of company that may tender for prime contracts	Website
	360 Environmental	<a href="http://www.360environmental.com.au">www.360environmental.com.au</a>
	3esi Australia Pty Ltd	<a href="http://www.3esi.com">www.3esi.com</a>
	A Noble & Son	<a href="http://www.nobles.com.au">www.nobles.com.au</a>
	AAM Group	<a href="http://www.aamgroup.com">www.aamgroup.com</a>
	ABS Group Australia	<a href="http://www.absconsulting.com">www.absconsulting.com</a>
	AECOM Australia	<a href="http://www.aecom.com">www.aecom.com</a>
	AES Recruitment Services	<a href="http://www.aes.org.au">www.aes.org.au</a>
	AGC Industries	<a href="http://www.agc-ausgroup.com">www.agc-ausgroup.com</a>
	Agility Project Logistics	<a href="http://www.agilitylogistics.com">www.agilitylogistics.com</a>
	Altus Logistics	<a href="http://www.altusholdings.com">www.altusholdings.com</a>
	AME	<a href="http://www.amepl.com.au/">www.amepl.com.au/</a>
	Applus RTD	<a href="http://www.applusrtd.com">www.applusrtd.com</a>
	Asia-Pacific ASA	<a href="http://www.asascience.com">www.asascience.com</a>
	Aspen Medical	<a href="http://www.aspenmedical.com.au">www.aspenmedical.com.au</a>
	Assetivity	<a href="http://www.assetivity.com.au">www.assetivity.com.au</a>
	Astron Environmental Services	<a href="http://www.astron.com.au">www.astron.com.au</a>
	Ativo	<a href="http://www.ativo.com.au">www.ativo.com.au</a>
	Atkins Australasia	<a href="http://www.atkinsglobal.com">www.atkinsglobal.com</a>











	Atlas Access	<a href="http://www.atlasaccess.com.au">www.atlasaccess.com.au</a>
	Atom Supply	<a href="http://www.atomsupply.com.au">www.atomsupply.com.au</a>
	Aurecon	<a href="http://www.aurecongroup.com">www.aurecongroup.com</a>
	Auscor	<a href="http://www.auscor1.com.au">www.auscor1.com.au</a>
	Aussie Fluid Power	<a href="http://www.aussiefluidpower.com.au">www.aussiefluidpower.com.au</a>
	Australian Crane Engineering	<a href="http://www.austcrane.com.au/">www.austcrane.com.au/</a>
	Australian Fluid Handling	<a href="http://www.afhpl.com.au">www.afhpl.com.au</a>
	Australian Laboratory Services	<a href="http://www.alsglobal.com">www.alsglobal.com</a>
	Australian Pressure Testing Services	<a href="http://www.apt.com.au">www.apt.com.au</a>
	Australian Safety Engineers (ASE)	<a href="http://www.ase.net.au">www.ase.net.au</a>
	Austral-Powerflo Solutions	<a href="http://www.australeng.com.au">www.australeng.com.au</a>
	Aveva Proprietary Limited	<a href="http://www.aveva.com">www.aveva.com</a>
	Axis Plumbing Group	<a href="http://www.axisplumbing.com.au">www.axisplumbing.com.au</a>
	Baker Hughes - Process and Pipeline Services	<a href="http://www.bakerhughes.com/pps">www.bakerhughes.com/pps</a>
	Banlaw	<a href="http://www.banlaw.com">www.banlaw.com</a>
	Bentley Systems	<a href="http://www.bentley.com.au">www.bentley.com.au</a>
	BGC Contracting	<a href="http://www.bgc.cc">www.bgc.cc</a>
	BIE International	<a href="http://www.bie-international.com">www.bie-international.com</a>
	Biota Environmental Sciences	<a href="http://www.biota.net.au">www.biota.net.au</a>
	Blackwoods	<a href="http://www.blackwoods.com.au">www.blackwoods.com.au</a>
	Blakers Pump Engineers	<a href="http://www.blakerspumps.com.au">www.blakerspumps.com.au</a>
	BLH Group of Companies	<a href="http://www.blhgroupservices.com">www.blhgroupservices.com</a>
	BLJ In-Situ Solutions	<a href="http://www.bljinsitusolutions.com.au">www.bljinsitusolutions.com.au</a>








	BOC Limited	<a href="http://www.boc.com.au">www.boc.com.au</a>
	Boltstress Ultrasonics	<a href="http://www.boltstress.com.au">www.boltstress.com.au</a>
	Boom Logistics	<a href="http://www.boomlogistics.com.au">www.boomlogistics.com.au</a>
	Bullivants	<a href="http://www.bullivants.com">www.bullivants.com</a>
	Bureau Veritas Asset Integrity and Reliability Services	<a href="http://www.bureauveritas.com.au">www.bureauveritas.com.au</a>
	Caledonia Scaffolding	<a href="http://www.caledoniascaffolding.com.au">www.caledoniascaffolding.com.au</a>
	Callidus Process Solutions	<a href="http://www.callidusgroup.com.au">www.callidusgroup.com.au</a>
	Camco Engineering	<a href="http://www.camcoeng.com.au">www.camcoeng.com.au</a>
	Cameron Services	<a href="http://www.c-a-m.com">www.c-a-m.com</a>
	Cape – Australia	<a href="http://www.capeplc.com.au">www.capeplc.com.au</a>
	CAPS Australia	<a href="http://www.capsaustralia.com.au">www.capsaustralia.com.au</a>
	Catalyst Interactive	<a href="http://www.catalystinteractive.com.au">www.catalystinteractive.com.au</a>
	Cater Care Services	<a href="http://www.catercare.com.au">www.catercare.com.au</a>
	CBD West Medical Centre	<a href="http://www.cbdwest.com.au">www.cbdwest.com.au</a>
	Chandler Macleod	<a href="http://www.chandlermacleod.com">www.chandlermacleod.com</a>
	Chemistry Centre (WA)	<a href="http://www.chemcentre.wa.gov.au">www.chemcentre.wa.gov.au</a>
	Chubb Fire and Security	<a href="http://www.chubb.com.au">www.chubb.com.au</a>
	Clough	<a href="http://www.clough.com.au">www.clough.com.au</a>
	Clough AMEC	<a href="http://www.cloughamec.com.au">www.cloughamec.com.au</a>
	Coates Hire	<a href="http://www.coateshire.com.au">www.coateshire.com.au</a>
	Coffey Environments	<a href="http://www.coffey.com.au">www.coffey.com.au</a>
	Compass Group	<a href="http://www.compass-group.com.au">www.compass-group.com.au</a>
	Compliance Monitoring	<a href="http://www.compliancemonitoring.com.au">www.compliancemonitoring.com.au</a>

	Cooke & Dowsett	<a href="http://www.cookedowsett.com.au">www.cookedowsett.com.au</a>
	Cooper Fluid Systems	<a href="http://www.cooperfluidsystems.com.au">www.cooperfluidsystems.com.au</a>
	Corrosion Control Engineering	<a href="http://www.cceng.com.au">www.cceng.com.au</a>
	Corrosion Specialists	<a href="http://www.corrosionspecialists.com.au">www.corrosionspecialists.com.au</a>
	Covs Parts	<a href="http://www.covsparts.com.au">www.covsparts.com.au</a>
	Credo Group	<a href="http://www.credogroup.com.au">www.credogroup.com.au</a>
	Custom Fluid Power	<a href="http://www.custom.com.au">www.custom.com.au</a>
	DB Schenker	<a href="http://www.dbschenker.com.au">www.dbschenker.com.au</a>
	Depth Logistics	<a href="http://www.depthlogistics.com">www.depthlogistics.com</a>
	Destec Engineering	<a href="http://www.destec.com.au">www.destec.com.au</a>
	Diverse Engineering (WA)	<a href="http://www.diversewa.com.au/">www.diversewa.com.au/</a>
	Downer Infrastructure West	<a href="http://www.downergroup.com">www.downergroup.com</a>
	Drake International	<a href="http://au.drakeintl.com">au.drakeintl.com</a>
	Drivetrain Power and Propulsion	<a href="http://www.drivetrainpower.com">www.drivetrainpower.com</a>
	DTE Fluid Systems	<a href="http://www.dtegroup.com.au">www.dtegroup.com.au</a>
	Duratec Australia	<a href="http://www.duratecaustralia.com.au">www.duratecaustralia.com.au</a>
	Dynamapumps	<a href="http://www.dynamapumps.com.au">www.dynamapumps.com.au</a>
	Dynamiq	<a href="http://www.dynamiq.com.au">www.dynamiq.com.au</a>
	Eco Logical Australia	<a href="http://www.ecoaus.com.au">www.ecoaus.com.au</a>
	Ecologia Environmental Consultants	<a href="http://www.ecologia.com.au">www.ecologia.com.au</a>
	Eilbeck Cranes	<a href="http://www.eilbeckcranes.com">www.eilbeckcranes.com</a>
	Emerson Process Management	<a href="http://www2.emersonprocess.com/en-AU/">www2.emersonprocess.com/en-AU/</a>
	Emission Assessments	<a href="http://www.emissionassessments.com.au">www.emissionassessments.com.au</a>
	EmQ	<a href="http://www.emq.com.au">www.emq.com.au</a>


















	EnerMech	<a href="http://www.enermech.com">www.enermech.com</a>
	Environmental Resources Management	<a href="http://www.erm.com">www.erm.com</a>
	Ertech	<a href="http://www.ertech.com.au">www.ertech.com.au</a>
	Extrin	<a href="http://www.extrin.com.au">www.extrin.com.au</a>
	Favelle Favco Cranes	<a href="http://www.favellefavco.com/main-australia.php">www.favellefavco.com/main-australia.php</a>
	Fircroft	<a href="http://www.fircroft.com/au">www.fircroft.com/au</a>
	Fire & Safety WA	<a href="http://www.fireandsafetywa.com.au">www.fireandsafetywa.com.au</a>
	Firesafe Resources & Industrial	<a href="http://www.firesafegroup.com.au">www.firesafegroup.com.au</a>
	Flowserve FSG - Pumps	<a href="http://www.tkl.com.au">www.tkl.com.au</a>
	Fluor Australia	<a href="http://www.fluor.com">www.fluor.com</a>
	Freo Group	<a href="http://www.freogroup.com.au">www.freogroup.com.au</a>
	Fuelco	<a href="http://www.fuelco.com.au">www.fuelco.com.au</a>
	Fuelfix	<a href="http://www.fuelfix.com.au">www.fuelfix.com.au</a>
	Fugro Spatial Solutions Pty Ltd	<a href="http://www.fugrospatial.com.au">www.fugrospatial.com.au</a>
	Furmanite Australia	<a href="http://www.furmanite.com">www.furmanite.com</a>
	GCG Health Safety & Hygiene	<a href="http://www.gcg.net.au/">www.gcg.net.au/</a>
	GE Group Australia	<a href="http://www.ge.com/au/">www.ge.com/au/</a>
	GE Oil & Gas	<a href="http://www.ge-energy.com">www.ge-energy.com</a>
	Geographe Energy	<a href="http://www.geographe-energy.com.au/">www.geographe-energy.com.au/</a>
	Georgiou Group	<a href="http://www.georgiou.com.au">www.georgiou.com.au</a>
	GHD Pty Ltd	<a href="http://www.ghd.com/australia">www.ghd.com/australia</a>
	Giovenco Industries	<a href="http://www.giovencoind.com">www.giovencoind.com</a>

	Global Construction Services	<a href="http://www.gcs-group.com.au">www.gcs-group.com.au</a>
	Global Pumps	<a href="http://www.globalpumps.com.au">www.globalpumps.com.au</a>
	Global Security	<a href="http://www.globalsec.com.au">www.globalsec.com.au</a>
	Gold Security Group (International)	<a href="http://www.goldsec.com.au">www.goldsec.com.au</a>
	Golder Associates	<a href="http://www.golder.com.au">www.golder.com.au</a>
	Greening Australia	<a href="http://www.greeningaustralia.org.au">www.greeningaustralia.org.au</a>
	Hard Hat Health	<a href="http://www.hardhathealth.com">www.hardhathealth.com</a>
	Harris CapRock Communications	<a href="http://www.harriscaprock.com">www.harriscaprock.com</a>
	Hatch	<a href="http://www.hatch.com.au">www.hatch.com.au</a>
	Hays Specialist Recruitment	<a href="http://www.hays.com.au">www.hays.com.au</a>
	Heatley Safety & Industrial	<a href="http://www.heatleys.com.au">www.heatleys.com.au</a>
	Hellmann Worldwide Logistics	<a href="http://www.hellmann.net">www.hellmann.net</a>
	Hertel Modern	<a href="http://www.modern.net.au">www.modern.net.au</a>
	Hoerbiger Australia	<a href="http://www.hoerbiger.com">www.hoerbiger.com</a>
	Hofmann Engineering	<a href="http://www.hofmannengineering.com">www.hofmannengineering.com</a>
	Hoisting Equipment Specialists WA	<a href="http://www.heswa.com.au">www.heswa.com.au</a>
	Hostile Environment Services (HES)	<a href="http://www.hes1.com.au">www.hes1.com.au</a>
	Hydratight Asia Pacific	<a href="http://www.Hydratight.com">www.Hydratight.com</a>
	IBM Australia	<a href="http://www.ibm.com.au">www.ibm.com.au</a>
	iicorr	<a href="http://www.iicorr.com.au">www.iicorr.com.au</a>
	Immediate Assistants	<a href="http://www.ias.com.au">www.ias.com.au</a>
	Industrial Hygiene Management	<a href="http://www.ihm.com.au">www.ihm.com.au</a>
	Industrial Plant & Service Australia	<a href="http://www.ipsaus.com.au">www.ipsaus.com.au</a>












	Inmaco	<a href="http://www.inmaco.com">www.inmaco.com</a>
	Inspecta International	<a href="http://www.inspectaint.com">www.inspectaint.com</a>
	Instant Waste Management	<a href="http://www.instantwaste.com.au">www.instantwaste.com.au</a>
	Integrated Fuel Services	<a href="http://www.integratedfuel.com.au">www.integratedfuel.com.au</a>
	Integrated Industrial Mining Supply	<a href="http://www.iims.com.au">www.iims.com.au</a>
	Intergraph Corporation	<a href="http://www.intergraph.com/global/au">www.intergraph.com/global/au</a>
	International SOS (Australasia)	<a href="http://www.internationalsos.com">www.internationalsos.com</a>
	Intertek Moody	<a href="http://www.moodyint.com">www.moodyint.com</a>
	Industrial Plant & Service Australia	<a href="http://www.ipsaus.com.au/">www.ipsaus.com.au/</a>
	ISS Facility Services Australia	<a href="http://www.au.issworld.com">www.au.issworld.com</a>
	Jacobs E&C Australia	<a href="http://www.jacobstechnology.com/australia">www.jacobstechnology.com/australia</a>
	Jeyco	<a href="http://www.jeyco.com.au">www.jeyco.com.au</a>
	Jobfit Health Group	<a href="http://www.jobfit.com.au">www.jobfit.com.au</a>
	K2 Technology	<a href="http://www.k2techno.com.au">www.k2techno.com.au</a>
	KAEFER Integrated Services	<a href="http://www.kaefer.com.au">www.kaefer.com.au</a>
	Kaefer Novacoat	<a href="http://www.kaefernc.com.au">www.kaefernc.com.au</a>
	Kelly Australia	<a href="http://www.kellyservices.com.au">www.kellyservices.com.au</a>
	Kempe Engineering Services	<a href="http://www.kempe.com.au">www.kempe.com.au</a>
	Kentz	<a href="http://www.kentz.com">www.kentz.com</a>
	Kidde Australia	<a href="http://www.kidde.com.au">www.kidde.com.au</a>
	Kinetic Health	<a href="http://www.kinetichealth.com.au">www.kinetichealth.com.au</a>
	KIS Environmental Services	<a href="http://www.kisindustrieswa.com.au">www.kisindustrieswa.com.au</a>
	KLM Group	<a href="http://www.klmgroup.com.au">www.klmgroup.com.au</a>
	KMH Waste Engineering Solutions	<a href="http://www.kmh.com.au">www.kmh.com.au</a>







	Kuehne + Nagel	<a href="http://www.kn-portal.com">www.kn-portal.com</a>
	Kulin Group	<a href="http://www.kulingroup.com">www.kulingroup.com</a>
	L&H Group	<a href="http://www.landhgroup.com.au">www.landhgroup.com.au</a>
	Laing O'Rourke	<a href="http://www.laingorourke.com">www.laingorourke.com</a>
	Land Management Systems	<a href="http://www.lmsonline.com.au">www.lmsonline.com.au</a>
	Leighton Contractors	<a href="http://www.leightoncontractors.com.au">www.leightoncontractors.com.au</a>
	Link Health	<a href="http://www.linkhealth.com.au">www.linkhealth.com.au</a>
	Lockforce	<a href="http://www.lockforce.com.au">www.lockforce.com.au</a>
	Logic Services	<a href="http://www.logicservices.com.au">www.logicservices.com.au</a>
	LogiCamms	<a href="http://www.logicamms.com.au">www.logicamms.com.au</a>
	Lycopodium Asset Management	<a href="http://www.lycopodium.com.au">www.lycopodium.com.au</a>
	Lyons & Peirce	<a href="http://www.lpk.com.au">www.lpk.com.au</a>
	MacDonald Building & Plumbing (MBPE)	<a href="http://www.mbpe.com.au">www.mbpe.com.au</a>
	Mahindra Satyam	<a href="http://www.mahindrasatyam.com">www.mahindrasatyam.com</a>
	Maintenance and Project Engineering	<a href="http://www.mpe.com.au">www.mpe.com.au</a>
	Manpower Services (Australia)	<a href="http://www.manpower.com.au">www.manpower.com.au</a>
	MAS Australasia	<a href="http://www.mas-asiapacific.com">www.mas-asiapacific.com</a>
	McCoy Engineering	<a href="http://www.mccoyengineering.com.au">www.mccoyengineering.com.au</a>
	Medibank Health Solutions	<a href="http://www.medibankhealth.com.au">www.medibankhealth.com.au</a>
	Mercury Firesafety	<a href="http://www.mercfire.com.au">www.mercfire.com.au</a>
	Monadelphous	<a href="http://www.monadelphous.com.au">www.monadelphous.com.au</a>
	Morris Corporation	<a href="http://www.morriscorp.com.au">www.morriscorp.com.au</a>
	MPower Group	<a href="http://www.mpower.com.au">www.mpower.com.au</a>
	MRC Global	<a href="http://www.mrcglobal.com/">www.mrcglobal.com/</a>
	MSS Security	<a href="http://www.msssecurity.com.au">www.msssecurity.com.au</a>






	MTU Detroit Diesel Australia	<a href="http://www.mtudda.com.au">www.mtudda.com.au</a>
	National Fire Solutions	<a href="http://www.natfire.com.au">www.natfire.com.au</a>
	National Measurement Institute	<a href="http://www.measurement.gov.au">www.measurement.gov.au</a>
	National Tools	<a href="http://www.national-tools.com.au">www.national-tools.com.au</a>
	Neptune Marine Services	<a href="http://www.neptunems.com">www.neptunems.com</a>
	Ngarda Civil & Mining	<a href="http://www.ngarda.com.au">www.ngarda.com.au</a>
	Nihar Associates	<a href="http://www.niharassociates.com">www.niharassociates.com</a>
	NOV Wilson	<a href="http://www.iwilson.com/safety/services">www.iwilson.com/safety/services</a>
	Nursing Australia	<a href="http://www.nursingaustralia.com.au">www.nursingaustralia.com.au</a>
	Oilcheck	<a href="http://www.oilcheck.com.au">www.oilcheck.com.au</a>
	Omega Security Services	<a href="http://www.compass-group.com.au/companies/omega">www.compass-group.com.au/companies/omega</a>
	Oneforce Group Australia	<a href="http://www.oneforce.com.au">www.oneforce.com.au</a>
	Onsite Machining & Pipeline Services	<a href="http://www.onsitemachining-omt.com.au">www.onsitemachining-omt.com.au</a>
	Onsite Rental Group Operations	<a href="http://www.onsite.com.au">www.onsite.com.au</a>
	Optus	<a href="http://www.optus.com.au">www.optus.com.au</a>
	Oracle Australia	<a href="http://www.oracle.com/au">www.oracle.com/au</a>
	Orion Safety Industries	<a href="http://www.orionsafety.com.au">www.orionsafety.com.au</a>
	Orontide	<a href="http://www.orontide.com.au">www.orontide.com.au</a>
	OSH Group	<a href="http://www.oshgroup.com.au">www.oshgroup.com.au</a>
	Outback Ecology Service	<a href="http://www.outbackecology.com">www.outbackecology.com</a>
	Outline Imagery	<a href="http://www.outlineglobal.com.au">www.outlineglobal.com.au</a>
	OverNite Software Inc	<a href="http://www.overnitecbt.com">www.overnitecbt.com</a>
	P&C Maintenance	<a href="http://www.pandcmaintenance.com">www.pandcmaintenance.com</a>
	Pacific Safety Wear	<a href="http://www.pacificsafetywear.com.au">www.pacificsafetywear.com.au</a>

	Paradigm	<a href="http://www.pdgm.com">www.pdgm.com</a>
	Peerless Australia	<a href="http://www.peerlessaustralia.com.au">www.peerlessaustralia.com.au</a>
	Pentagon Freight Services	<a href="http://www.pentagonfreight.com">www.pentagonfreight.com</a>
	Pilbara Access Group	<a href="http://www.pilbaraaccess.com.au">www.pilbaraaccess.com.au</a>
	Planet Plumbing Group	<a href="http://www.planetplumbing.com.au">www.planetplumbing.com.au</a>
	Plexal Group	<a href="http://www.plexalgroup.com">www.plexalgroup.com</a>
	Pressure Dynamics	<a href="http://www.pressuredynamics.com.au">www.pressuredynamics.com.au</a>
	Priority People Solutions	<a href="http://www.ppspl.com.au">www.ppspl.com.au</a>
	Pump Technology Services	<a href="http://www.pumptech.com.au">www.pumptech.com.au</a>
	QA Management – Velosi	<a href="http://www.qamanage.com.au">www.qamanage.com.au</a>
	Quintiq Australia & New Zealand	<a href="http://www.quintiq.com">www.quintiq.com</a>
	RDW Electrical Engineering	<a href="http://www.rdweng.com">www.rdweng.com</a>
	Robertsons Lifting and Rigging	<a href="http://www.lifting.com.au">www.lifting.com.au</a>
	Ross Industries	<a href="http://www.rossindustries.com.au">www.rossindustries.com.au</a>
	RPS Environmental & Planning	<a href="http://www.rpsgroup.com">www.rpsgroup.com</a>
	Rylson Group	<a href="http://www.rylson.com.au">www.rylson.com.au</a>
	Sanwell	<a href="http://www.sanwell.com.au">www.sanwell.com.au</a>
	Savcor	<a href="http://www.savcor.com">www.savcor.com</a>
	ScafWest	<a href="http://www.scafwest.com">www.scafwest.com</a>
	SDV Australia	<a href="http://www.sdv.com">www.sdv.com</a>
	Select Plant Hire	<a href="http://www.selectplanthire.com.au">www.selectplanthire.com.au</a>
	SGS Australia	<a href="http://www.sgs.com">www.sgs.com</a>
	Sinclair Knight Merz	<a href="http://www.globalskm.com">www.globalskm.com</a>



	Skilled Group	<a href="http://www.skilled.com.au">www.skilled.com.au</a>
	Sodexo Remote Sites Australia	<a href="http://www.sodexo.com">www.sodexo.com</a>
	Solar Turbines Australia	<a href="http://www.mysolar.cat.com">www.mysolar.cat.com</a>
	South West Occupational Health Services	<a href="http://www.swohs.com.au">www.swohs.com.au</a>
	Sparrows Group	<a href="http://www.sparrowsgroup.com">www.sparrowsgroup.com</a>
	Specialised Welding Australia	<a href="http://www.specialisedwelding.com.au/">www.specialisedwelding.com.au/</a>
	Spotless	<a href="http://www.spotless.com">www.spotless.com</a>
	St John Ambulance	<a href="http://www.stjohnambulance.com.au">www.stjohnambulance.com.au</a>
	Stace	<a href="http://www.stace.com.au">www.stace.com.au</a>
	Stork Technical Services Australia	<a href="http://www.storktechnicalservices.com">www.storktechnicalservices.com</a>
	Sulzer Pumps ANZ	<a href="http://www.sulzerpumps.com">www.sulzerpumps.com</a>
	Supercrane	<a href="http://www.supercrane.com.au">www.supercrane.com.au</a>
	Superior Pump Technologies	<a href="http://www.sptaust.com.au">www.sptaust.com.au</a>
	Supply Connections	<a href="http://www.supplyconnections.com.au">www.supplyconnections.com.au</a>
	Survey Graphics	<a href="http://www.surveygraphics.com.au">www.surveygraphics.com.au</a>
	SvB ExTech	<a href="http://www.svbextech.com.au">www.svbextech.com.au</a>
	SVT Engineering	<a href="http://www.svt.com.au">www.svt.com.au</a>
	Swan Contract Personnel	<a href="http://www.swanpersonnel.com.au">www.swanpersonnel.com.au</a>
	TBF Oceania (Tutt Bryant Crane Hire)	<a href="http://www.tuttbryantcranehire.com.au">www.tuttbryantcranehire.com.au</a>
	Technip Oceania	<a href="http://www.technip.com">www.technip.com</a>
	Technofast Services	<a href="http://www.technofast.com">www.technofast.com</a>
	Telstra	<a href="http://www.telstra.com">www.telstra.com</a>

	Telvent Australia (Schneider Electric)	<a href="http://www.telvent.com">www.telvent.com</a>
	The Rigging Shed	<a href="http://www.theriggingshed.com.au">www.theriggingshed.com.au</a>
	Thiess	<a href="http://www.thiess.com.au">www.thiess.com.au</a>
	Toll Energy Logistics	<a href="http://www.tollenergy.com">www.tollenergy.com</a>
	Toll Global Forwarding Division	<a href="http://www.tollglobalforwarding.com">www.tollglobalforwarding.com</a>
	Torque Tension Systems	<a href="http://www.spxboltingsystems.com">www.spxboltingsystems.com</a>
	Total Valve Services	<a href="http://www.totalvalveservices.com.au">www.totalvalveservices.com.au</a>
	Tox Free Solutions	<a href="http://www.toxfree.com.au">www.toxfree.com.au</a>
	TRAC Oil & Gas	<a href="http://www.tracoilandgas.com">www.tracoilandgas.com</a>
	Trans Global Projects	<a href="http://www.tglobal.com">www.tglobal.com</a>
	Transfield Services	<a href="http://www.transfieldservices.com">www.transfieldservices.com</a>
	Transpacific Industries Group	<a href="http://www.transpacific.com.au">www.transpacific.com.au</a>
	Tutt Bryant	<a href="http://www.tuttbryant.com.au">www.tuttbryant.com.au</a>
	UGL	<a href="http://www.ugllimited.com">www.ugllimited.com</a>
	United Pumps Australia	<a href="http://www.unitedpumps.com.au">www.unitedpumps.com.au</a>
	Unity Resources Group	<a href="http://www.unityresourcesgroup.com">www.unityresourcesgroup.com</a>
	URS Australia	<a href="http://www.urs.com.au">www.urs.com.au</a>
	Vekta	<a href="http://www.vekta.net.au">www.vekta.net.au</a>
	Veolia Environmental Services (Australia)	<a href="http://www.veoliaes.com.au">www.veoliaes.com.au</a>
	Vertech Group	<a href="http://www.vertech.com.au">www.vertech.com.au</a>
	Vertical Services	<a href="http://www.verticalservice.com">www.verticalservice.com</a>
	Vicon Control Valve Solutions	<a href="http://www.vicon.net.au">www.vicon.net.au</a>
	Weir Minerals Australia	<a href="http://www.weirminerals.com">www.weirminerals.com</a>
	WESCO Australia Pty Ltd	<a href="http://www.wesco.com">www.wesco.com</a>

	Western Process Controls	<a href="http://www.wpc.com.au">www.wpc.com.au</a>
	Westralian Engineering	<a href="http://www.weseng.com.au">www.weseng.com.au</a>
	WGE Group	<a href="http://www.wgegroup.com">www.wgegroup.com</a>
	Wood Group PSN	<a href="http://www.woodgroup-psn.com">www.woodgroup-psn.com</a>
	Worksense Workwear & Safety	<a href="http://www.worksense.com.au">www.worksense.com.au</a>
	WorleyParsons Services	<a href="http://www.worleyparsons.com">www.worleyparsons.com</a>
	Wormald	<a href="http://www.wormald.com.au">www.wormald.com.au</a>
	WSP Environmental	<a href="http://www.wspenvironmental.com">www.wspenvironmental.com</a>



