

# **NSW Department of Commerce**

## **RIVERINA/WESTERN REGION – WAGGA WAGGA OFFICE**

### **SECTION 3 - EXTENT OF WORK**

#### **1. GENERAL**

##### **Project Details**

Location: Gundagai High School  
Description: LPG to Natural Gas Conversion and Associated Works  
Contract Number: 0802191

##### **Generally**

NSW Department of Commerce, on behalf of Gundagai High School and the Department of Education and Training, is calling for tender costs based on the following specifications for the conversion of an LPG gas supply to a natural gas supply.

The works shall consist of the investigation, design and construction to complete the conversion of Gundagai High School's current LPG gas supply, to a natural gas system, as well as the conversion of a number of gas appliances within the school.

The contractor may use existing on-site power and water, provided by the Department of Education and Training from existing service points, at no cost to the contractor. However, DET will not modify any services to facilitate the contract works. The contractor shall supply all other site services and amenities as required by the contractor.

The works shall be carried out in accordance with the requirements of the contract document specifications, relevant Australian Standards, Local Authorities and to the entire satisfaction of the Principal's Representative.

The contractor shall arrange for all inspections by local authorities and pay all fees as required.

The contractor shall provide Works as Executed documentation, manufacturer's manuals and warranties for all works on completion.

##### **Trade Qualifications**

The Contractor must only use qualified tradespersons who hold a current trade licence for any trade works carried out under this Contract. The Principals Representative must approve any exception to this requirement.

### **Contract Documents**

The Contractor is to notify the Contact Officer before the tender closing date and time of any discrepancy, error or omission if found in the documents for clarification.

### **Timing of Works**

The works under this contract shall not disrupt the normal operation of the school. All internal building works must be carried out within the April 2009 school holiday period from 13<sup>th</sup> April 2009 to 24<sup>th</sup> April 2009 inclusive.

## **2. SCOPE OF WORKS**

The scope of works for the conversion of LP gas to natural gas includes but is not limited to the following activities.

- Conduct site investigation to locate gas reticulation and services affected by this contract.
- Submit application to Country Energy for natural gas supply, new meter and first stage regulator.
- Submit application to LP gas supplier to decommission and removal of existing LP gas tanks.
- Site investigation to identify all gas appliances and complying conversion kits.
- Supply and install conversion kit to all gas appliances for new natural gas supply.
- Replace all gas turrents for Bunsen Burners in Block A.
- Remove existing, supply and install complying second stage gas regulator and ball type isolation valve within each existing regulator enclosure for new natural gas supply.
- Diversion of gas reticulation from LP gas tanks to Country Energy's new gas meter.
- Submit completed design at least 7 days prior to commencement of work for Principal's endorsement.
- Testing and commissioning.
- Submission of test reports and certificates

Preliminary site investigations conducted in 2008 have verified that all gas appliances at Gundagai High School can be converted to accept natural gas supply. Existing gas demand has been calculated and the existing gas reticulation having sufficient capacity to deliver the natural gas supply.

To facilitate the Contractor's investigations, the school's layout plan, existing services drawing H1 Part Site Plan South, and drawing H2 Part Site Plan North are included under Appendix A. Contractors are advised that these drawings may be incomplete, may contain errors and therefore must be validated by the Contractor prior to intended application.

### **Natural Gas Supply**

The Contractor is to liaise with Country Energy and submit an application on behalf of the Department of Education and Training for the provision of natural gas supply to Gundagai High School. The application form must be signed and approved by DET for submission to Country Energy.

Preliminary negotiations with Country Energy have determined that a new natural gas meter and first stage regulator will be installed by Country Energy within the existing LP gas tank enclosure. The first stage regulator will limit the natural gas supply to 100 kPa.

The extension of natural gas into the school boundary, new gas meter and first stage regulator will be supplied and installed by Country Energy. The Tenderer shall make an allowance of \$600 for payment to Country Energy for payment of the application fee and associated meter installation cost.

### **Gas Demand and Reticulation Network**

Gas demand by existing appliances has been calculated at approximately 2100 megajoules per hour. The existing gas reticulation system has been reviewed for delivery of natural gas and is deemed capable to meet current gas demand when a 100kPa reticulation pressure is maintained downstream of the first stage regulator.

The natural gas reticulation system for Gundagai High School is to maintain a 100 kPa high pressure supply to school buildings. Gas pressure on entry to buildings shall be regulated by a second stage regulator providing 5 kPa low internal building pressure.

### **Existing Appliances**

The existing gas appliances at Gundagai High School are presented below. The Contractor is to investigate, supply and install complying natural gas converters for all heaters, stoves and hot water systems. Replace all gas turrents for Bunsen Burners in Block A for natural gas supply. The supply of new Bunsen Burners is not part of this contract.

<b>Building</b>	<b>Appliances</b>
Multipurpose Centre	6 x 36 MJ Pyrox Overhead Heaters 2 x 260 Litre 50 MJ Internal Rheem Hot Water Units all with Flame Failure Devices

<b>Building</b>	<b>Appliances</b>
Block A	3 x 16 MJ Modern Aire Heaters LB 90F with no fan 40 double Gas Turrents for Bunsen Burners
Block B	11 x 22 MJ Modern Aire LB90 F Heaters with no fans 20 double Gas Turrents for Bunsen Burners (No work required for these gas turrents)
Block C	16 x 16 MJ Modern Aire Heaters with no fans 2 x 30 MJ Modern Aire Heaters with no fans 3 x 50 MJ Upright Gas Stoves 1 x 100 MJ Commercial Gas Stove
Block D	5 x 12 MJ Modern Aire LB90 F Heaters with no fans (not as per plan)
Block F	5 x 32 MJ Modern Aire LB90 F Heaters with no fans
All Buildings	2 <sup>nd</sup> Stage Regulator Built into Recess Locked Box

### **Second Stage Regulator**

Under the existing LPG system, the second stage gas regulators are installed within lockable metal enclosures at each building. The Contractor is to investigate, locate and decommission all existing second stage regulators.

Supply and install new complying natural gas second stage gas regulator and ball type isolation valve within each existing regulator enclosure box for all buildings.

### **LPG Gas Tanks**

Elgas is the current LP gas supplier and owner of the existing LPG storage tanks. The Contractor is to notify Elgas and arrange for Elgas to decommission and remove the existing LPG storage tanks from the site.

The Contractor shall disconnect and divert the existing gas reticulation from the LPG tanks to the new natural gas meter and regulator.

The removal of existing LPG tanks will be carried out by Elgas at no cost to the project. Contact James Rath or Andrew Cheney of Elgas on 02 6280 6355.

### **3. SITE RESTORATION**

The Contractor must keep the site clean and tidy and dispose of all rubbish and surplus materials promptly. Existing facility waste management reciprocals are not to be used for site waste or debris.

Unless stated otherwise, allow to restore all disturbed surfaces following construction works to at least equal to the pre-construction conditions and/or matching with surrounding finishes as appropriate.

### **4. AUSTRALIAN STANDARDS**

It is a mandatory requirement of this tender that all deliverables supplied and install under any resultant agreement shall comply with all current relevant Australian Standard(s).

Where Australian Standards do not exist, appropriate International Standards (where available) shall apply.

In addition to compliance with relevant Australian and International standards, deliverables offered should comply with other relevant standards and codes, as appropriate, to ensure supply and installation of products, under the resultant agreement, is fit for the intended purpose. Tenderers should provide details of any other relevant standards and codes that deliverables offered comply with.

All subsequent amendments/revisions to applicable standards and codes and any new standards and codes developed during the period of the agreement, shall apply with immediate effect.

Where this specification requires standards that exceed those applicable under relevant Australian or International Standards and codes, this specification shall take precedence.

### **5. CERTIFICATION**

Tenderers are required to provide certification by a qualified gasfitter or other appropriately specialised engineer, registered with the Australian Institute of Engineers.

The Contractor is to submit the completed design, comprising all relevant drawings, specifications, calculations and any other statutory certificates, in accordance with the project requirements, prior to the commencement of work.

The Contractor is solely responsible for ensuring the completed design is fit for purpose and complies with all relevant regulations, codes and standards.

The Principal is not bound to check design plans, or other relevant documentation, for works undertaken in the resultant agreement, for errors, omissions or compliance with the requirements of the Contract.

The Principal is not liable to the Contractor for any claim due to the Principal not detecting or notifying the Contractor of any errors, omissions or non-compliance with the requirements of the Contract, or non-compliance with any relevant regulations, standards and codes, in the completed design.

At the completion of the contract, submit to the Principal all test results and certification to validate the works in full compliance with relevant regulations, standards and codes.

**End of Section 3 – Extent of Works**

**Gundagai High School Layout Plan**

