

# Specification No. 1267

## Orange 132/66kV Substation

# Civil and Electrical Works for the Replacement of 132/66kV Power Transformers and Associated Works.

# **Summary of Specification**

The following summary indicates the general nature of the work for which TransGrid desires tenders to be submitted. This summary is provided and issued to enable prospective Tenderers to assess whether the Specification documents should be obtained from TransGrid for tendering purposes. It does not form part of the Specification and must not be included as part of your offer.

The Specification documents are available for download or if requested a CD will be issued to an intending Tenderer for a non-refundable fee of \$220.

#### **Extent of Work**

The Works cover the civil and electrical work required at Orange Substation to progressively replace the existing three 30MVA transformers with two new 60MVA three-phase transformers and the replacement of the existing two 16kV/415V 100kVA auxiliary transformer with two new 11kV/415 200kVA auxiliary transformer.

The work to be carried out by the Contractor broadly involves:

- The civil and electrical work at the Orange Substation to replace the existing No.1, No.2 and No.3 132kV/66kV 30MVA three-phase transformers with new No.1 and No. 3 60MVA three-phase transformers.
- Replace the existing 66kV/415V 100kVA No.1 and No. 2 auxiliary transformers with two new 11kV/415 200kVA auxiliary transformers connected to the new No.1 and No.3 Transformers.
- The installation of flexible overhead connections, the installation of short busbars, the removal of circuit breakers, installation of current transformers and voltage transformers, and installation of Dead Tank Circuit Breakers.
- Demolition work as stated below or required by the specification.
- The construction of new transformer compounds.
- The supply and installation of new gantries and new spill oil systems.
- Associated civil and electrical work and secondary systems as stated below or required by the specification.

The Contractor shall supply all materials, labour, plant and other items to carry out all the work under the Contract unless specifically identified as being provided by the Principal in Clause 1.1.8.1 or elsewhere in the Specification

The main work activities covered by the Specification generally include, but are not limited to:

- The disconnection, dismantling, removal and disposal of the existing No.1, No.2 and No.3 Transformers and associated facilities and their compounds including associated civil works and the supply, erection and commissioning of the new 60MVA transformers;
- The replacement of the No.1 and No. 2 Auxiliary transformer;
- Install new 132kV flexible overhead connections to the transformer primary and connect the new transformers to 132kv and 66kV switchbays.
- Demolition of various compounds, runways, fencing, steelwork and foundations;
- Removal and disposal of various high voltage equipment including some equipment with non-scheduled levels of PCB's:
- The removal and replacement of circuit breakers with current transformers and voltage transformers, and the installation of a Dead Tank circuit breaker. Connect new Busbar to transformer secondary;
- Supply and installation of new Gantries, Triple Busbar Support Structures and other steel structures including the associated foundations;
- The supply and installation of new oil spill systems including modifications to and removal of parts of the existing spill oil system;
- The installation of new protection and control panels and related control cabling for the transformer and bay equipment;
- Disposal of demolished, dismantled and redundant materials from the site.

### **Mandatory Criteria**

The following criteria are mandatory for further consideration of Tenders submitted:

- Tenders are to be submitted for the whole of the Works.
- Tenderers are to attend the Mandatory Site Inspection (further details in "Site Inspection")
- Submission of a works program
- Submission of proposed organisational chart for the Works, including CV's and descriptions of roles of nominated personnel.
- Provision of evidence to support Tenderer's ability to prepare and manage site specific Occupational Health and Safety Management Plans,
- The Contractor shall have an accredited Corporate OHS Management System. The system must meet the requirements of the NSW Government Occupational Health & Safety Management Systems Guidelines 4th Edition and be accredited by TransGrid.

If the Tenderer is not already accredited by TransGrid, it must submit its Corporate OHS Management System documentation that meets the requirements of the NSW Government Occupational Health & Safety Management Systems Guidelines 4th Edition with its Tender in Schedule (11), and include:

Verification of the operation of the Corporate OHS Management System. This should also include records pertaining to any audits conducted of the system.

Health and Safety performance records including records of accidents, incidents and any WorkCover infringements or prosecutions for the last 3 years.

Specification and Contract No.1267 - Orange 132kV SubStation Augmentation and Refurbishment.

Failure to provide the necessary System documentation or achieve TransGrid accreditation will exclude the Tenderer from further consideration.

Accreditation provided by TransGrid will be issued specifically for works to be undertaken for TransGrid only.

## **Site Inspection**

A Mandatory Site Inspection for Contract 1267 will be conducted at <u>12:00 midday on Wednesday 17th December</u>, <u>2008</u>, meeting at TransGrid's Orange substation.

Tenderers **shall be suitably dressed for this inspection** (i.e. long sleeve shirts, trousers/slacks, enclosed footwear, safety helmets and high visibility shirts or vests) and that personnel wearing leisure clothing (e.g. beachwear, thongs, open footwear, singlets etc.) will not be permitted to participate in the substation switchyard portion of the inspection.

#### **Contract Period**

The Contract requires the staged completion of the Works by the Contractor to ensure the new transformers are energised and placed in predetermined sequence and timing.

The Due Date for Practical Completion of all Civil and Electrical Works within this Specification is thirty-four (34) weeks from date of initial Possession of Site.

#### **Contract Closure**

Tenders shall be lodged by utilising TransGrid's e-Tendering website at <a href="www.transgrid.com.au">www.transgrid.com.au</a>, or by hard-copy, in a sealed cover with the Specification number and title clearly endorsed thereon, including a duly signed and dated paper of the Form of Tender and <a href="mailto:all">all</a> completed Schedules in TransGrid's Tender Receptacle located in the Administration Building at Metropolitan Area Centre, 200 Old Wallgrove Road, Eastern Creek NSW 2776 before 11:00am (Sydney Time) on <a href="mailto:Tuesday">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road, Eastern Creek NSW 2776 before 11:00am (Sydney Time) on <a href="mailto:Tuesday">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road, Eastern Creek NSW 2776 before 11:00am (Sydney Time) on <a href="mailto:Tuesday">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road, Eastern Creek NSW 2776 before 11:00am (Sydney Time) on <a href="mailto:20">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road, Eastern Creek NSW 2776 before 11:00am (Sydney Time) on <a href="mailto:20">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road, Eastern Creek NSW 2776 before 11:00am (Sydney Time) on <a href="mailto:20">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road (Sydney Time) on <a href="mailto:20">Tuesday</a>, <a href="mailto:20">20 Old Wallgrove</a> Road (Sydney Time) on <a href="

## **Further Information**

Refer all requests for information in writing to TransGrid's representative:

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For enquiries of a commercial nature, refer requests for information to:

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