



NUS181

Approval of Materials and Equipment and Network Standard Variations

April 2005

Amendments included from NSAs 1454 Mar 2008 & 1561 Mar 2010



SUMMARY

Network Universal Standard NUS181 details the approval requirements of materials and equipment used in the construction of, and which ultimately forms part of, Ausgrid's electrical network. This standard also details the approval requirements of Network Standard variations.

This document is subject to amendment by Ausgrid at any time.

ISSUE

Ausgrid staff: for issue to staff associated with the planning, design, construction, maintenance and auditing of network projects, and for reference by technical and engineering staff associated with planning of network projects

Where this standard is issued as a controlled document replacing an earlier edition; remove and destroy the superseded document.

Accredited Service Providers: document issued on an uncontrolled basis. Users are responsible for ensuring that the document they are using is current and includes any amendments issued since the date on the document. Ausgrid will not accept any liability for work carried out to a superseded standard. Ausgrid may not accept work carried out which is not in accordance with current standard requirements.

Ausgrid maintains a copy of this and other Network Standards together with updates and amendments on www.ausgrid.com.au.

Ausgrid also offers a subscription service which provides for updates and amendments to standards on payment of an annual fee.

DISCLAIMER

As Ausgrid's standards are subject to ongoing review, the information contained in this document may be amended by Ausgrid at any time.

It is possible that conflict may exist between standard documents. In this event, the most recent standard is to prevail.

Ausgrid disclaims any and all liability to any person or persons for any procedure, process or any other thing done or not done, as a result of this Network Standard.

INTERPRETATION

In the event that any user of this Standard is uncertain about any information or provision, the user should request clarification from Ausgrid. Ausgrid's interpretation shall then apply as though it was included in the Standard.

Network Universal Standard
NUS181
Approval of Materials and Equipment and Network Standard Variations
April 2005

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1 APPROVAL OF MATERIALS AND EQUIPMENT

1.1 General

All materials and equipment used in the construction of infrastructure which ultimately form part of Ausgrid's electrical network, require assessment and approval by Ausgrid.

Approved materials and equipment include those available from Ausgrid's stores, those listed in Ausgrid Network Standards, and any other materials and equipment approved by Ausgrid. The term "approved" must not be taken to permit substitution of similar approved items for a specified purpose (eg approved galvanised washers in lieu of approved stainless steel washers) unless this substitution is explicitly permitted by the relevant Ausgrid design, Standard, guideline or procedure.

This document does not apply to engineering consultancy type services from manufacturers or suppliers or customers for materials or equipment. Ausgrid is not obliged to carry out such assessments. These services are not monopoly services associated with contestable projects and a fee is available on application.

1.2 Responsibilities

Ausgrid's Manager responsible for Distribution Services in the Distribution Operations and Reliability Division (DOR) is responsible for the assessment and approval of materials and equipment used on Ausgrid's Distribution network and related Network Standard variations. In this document, Distribution Network refers to all overhead and underground mains and substation equipment with primary voltages up to and including 22 kV.

Ausgrid's Manager responsible for Plant Engineering and Procurement in the Transmission and System Operation division (T&SO) is responsible for the assessment and approval of materials and equipment used on Ausgrid's 33-132kV sub-transmission network and at major substations.

Ausgrid's Manager – Contestability (North/South) (DOR) is responsible for the management of contestable projects in their respective areas, including the provision of a single point of contact for each project.

Ausgrid's ASP Compliance Officers (DOR) are responsible for field inspection of contestable projects. They may use the Additionally Approved Materials Register accessible through Ausgrid's intranet site, together with other information, to verify compliance of contestable projects to Network's requirements.

Ausgrid's Manager responsible for Standards and Communications (T&SO) is responsible for Network Standard variations related to the sub-transmission network and major substations and for maintaining an approvals register of all additionally approved materials and equipment in accordance with this Standard.

1.3 Approved Materials and Equipment

Approved materials and equipment are either:

- available from Ausgrid's stores, sourced through Ausgrid's procurement processes including open tenders, or
- listed in a Network Standard, or
- listed in Ausgrid's Additionally Approved Materials and Equipment Register. Items recorded in the Register as currently approved will be listed in NSA 1343, which is on Ausgrid's website in the list of Network Standards, immediately below NUS181.

1.4 Additionally Approved Materials and Equipment

In addition to already approved materials and equipment, Accredited Service Providers (ASPs), manufacturers and suppliers may request Ausgrid to consider approval of other materials and equipment, which fall into two categories.

1.4.1 Category A

Category A refers to materials and equipment that have not been previously assessed by Ausgrid but are believed to comply with current Ausgrid requirements.

ASPs have the option to choose a supplier other than Ausgrid and if none are listed in other Network Standards or NSA 1343, Ausgrid may carry out the assessment by application. However, Ausgrid may also deem some alternatives as suitable during tender evaluation, and list them in NSA 1343. If alternatives are already available through this process or via previous approvals under NUS181, Ausgrid may elect not to conduct further assessments. Assessment work is a monopoly service and Australian Energy Regulator (AER) rates apply.

Other excluded services have special arrangements in place and are outside the scope of Category A.

Street lighting equipment used on Ausgrid maintained lighting schemes is determined by agreement between Ausgrid and the street lighting customers and is not covered by this Network Standard.

1.4.2 Category B

Category B refers to materials and equipment which have not been previously assessed by Ausgrid and are believed to be non-compliant with current Ausgrid requirements.

Ausgrid is not obliged to carry out these assessments. The fee associated with this work is available on application.

1.4.3 Form of Approval

Approval of additional materials and equipment is represented by written approval from Ausgrid's DOR or ET&T Division as appropriate (see Clause 1.2).

1.4.4 Validity of Approval

Approval may be granted for a material or equipment:

- on a project only basis, or
- for a set period of time.

A validity period is set for approved materials and equipment to cater for project specific requirements, Ausgrid's changing specifications and changes in technology and industry standards eg Australian Standards. The typical validity period is three years.

1.5 Assessment Criteria

1.5.1 Categories 'A' and 'B' Materials and Equipment

Categories 'A' and 'B' materials and equipment assessment criteria may include, but are not limited to:

- Compliance with Network Standards and Ausgrid specifications which include applicable Australian and International Standards
- Compliance with any other Ausgrid technical requirements
- Current NATA or equivalent accreditation of the testing facilities
- Current ISO quality accreditation of the design and manufacturing facilities
- The environmental and occupational health and safety (OHS) impacts of the material or equipment
- Warranty and guarantee
- Life cycle costs associated with the material or equipment

1.5.2 Category 'B' Materials and Equipment

In addition, Category 'B' materials and equipment assessment criteria may include, but are not limited to:

- Technical performance requirements (electrical, physical, structural, mechanical) and any unique requirements
- Cost of energy losses
- Interchangeability of materials and equipment and implications for spare holdings
- Compatibility with other Ausgrid equipment and work practices
- Cost penalties that may be applied for reduced life or performance. The ASP may be asked to pay an up-front offset amount equivalent to the life cycle cost shortfall. Standard methodologies shall be used to assess life cycle costs and these will be made transparent to the ASP.
- Warranties and guarantees to at least an equivalent standard and period of coverage as standard materials and equipment. The warranty and guarantee must be backed by the manufacturer who may also be subject to due diligence assessment to ensure that the warranty and guarantee are enforceable, and that Quality Assurance (QA) is in place.
- Category 'B' materials and equipment must be at least equivalent to the Ausgrid approved standard items in terms of total life cycle performance.

1.5.2.1 Unacceptable Category 'B' Materials and Equipment

Category 'B' materials and equipment will be deemed unacceptable where:

- they have reduced life expectancies compared to standard materials (or otherwise a cost reflective penalty may be applied)
- there is physical/dimensional non-compliance
- there is non-interchangeability with standard materials and equipment
- dimensions are sufficiently different so that they warrant a significant design change by Ausgrid
- there is no accreditation or evidence of QA in the design and manufacturing processes
- manufacture of equipment would create a significant environmental impact, or result in a public or occupational health and safety risk

- special tools or other non-standard action such as training in equipment is required.

1.6 Records

1.6.1 Application for Approvals Register

ET&T's Standards & Communications Section currently maintains a register of applications for materials and equipment submitted for additional approval. Each record consists of:

- Ausgrid's reference number
- material description, manufacturer, supplier, part number
- contact details of the person and organisation seeking approval
- whether the application has been approved or rejected, and the reason for rejection
- approval date
- project ID (for project specific approval) or validity period (for non project specific approval)
- tender number (if the material was submitted as part of the tendering process)

A letter of approval or rejection is issued to the applicant.

1.6.2 Additionally Approved Materials Register

A register of additionally approved materials and equipment is maintained by the Standards and Communications Section and broadcast via NSA1343 as amended. Each record consists of:

- Ausgrid's reference number
- material description, manufacturer, supplier, part number
- approval date
- project ID (for project specific approval) or validity period (for non project specific approval)
- tender number (if the material was approved as part of the tendering process)

1.7 Process

1.7.1 Process

1. Ausgrid's Manager – Contestability (North/South), is the single point of contact for Category A material approval requests associated with specific contestable projects in their region. (Managers – Contestability (North/South) may then refer the request to DOR or ET&T as appropriate, for action)
2. For non contestable works, contestable works not related to a specific project and Category B requests, ET&T is the single point of contact. Preliminary enquiries or requests for consideration should be made via email to approvals@ausgrid.com.au.
3. For a Category 'A' material approval request associated with a specific contestable project, the request for approval (and supporting evidence) must be submitted prior to, or at the Design Information stage of the process. If the request is submitted for approval at the Design Certification stage, the design certification process may be delayed by up to 6 weeks.
4. A request for approval is submitted by the applicant using the Request for Approval Form. See Appendix B.
5. Ausgrid gives a quotation for approval assessment and a summary of the main assessment criteria applicable to the particular application.

For a Category 'A' material approval request associated with a specific contestable project, the material approval process is part of the Design Information/Design Certification processes detailed in Ausgrid's Electrical Standard ES 9.

For any other approval request, an Ausgrid short-form contract is used to provide the quotation. See Appendix C.

For a Category 'A' assessment, the quotation is based on standard AER hourly rates [Electrical Standard ES5 Table 2 Design Certification and Table 3 Engineer labour rate].

For a Category 'B' assessment, AER rates do not apply and the quotation is based on commercial rates determined by Ausgrid.

Ausgrid will quote the estimated time for processing the approval request.

6. The applicant agrees to proceed with the approval request.
7. Ausgrid provides a table of compliance criteria and the applicant provides details to demonstrate compliance, or indicate non-compliance, with any supporting documentation as to why non-compliance should be accepted.
The applicant gathers and submits (on the one occasion) all of the required documentation (eg test report, accreditation certificate) to support the application. Manuals, installation instructions and drawings shall also be submitted. Samples shall also be submitted where requested by Ausgrid.
8. Ausgrid assesses the material or equipment for compliance.
9. Ausgrid notifies the outcome of assessment via a letter (if the application is rejected, the reason for rejection is given to the applicant). See Appendix D. The details of the application are noted on the Application for Approvals Register. See Clause 1.6.1. If the application is successful, details of the approved material are noted on the Additionally Approved Materials Register. See Clause 1.6.2.
10. Ausgrid bills the applicant for the work before undertaking the assessment (in the case of a specific contestable project), or otherwise bills for the work on completion of assessment.

The process is summarised in flowchart format in Appendix A.

2 APPROVAL OF NETWORK STANDARD VARIATIONS

2.1 General

This Section details the approval process for Network Standard variations. These variations include alternative standards, procedures and methods in the design, construction and maintenance of Ausgrid's network.

Approval of materials and equipment is separately detailed in Section 1.

2.2 Approval of Variations

All project quotations should be prepared in accordance with the relevant design and construction requirements and Network Standards.

Where it is obvious from the outset that the project requirements cannot be practically complied with, the issues should be highlighted immediately and approval sought from the project manager from Ausgrid responsible for the project before the preparation of a final quote or offer.

2.2.1 Point of Contact

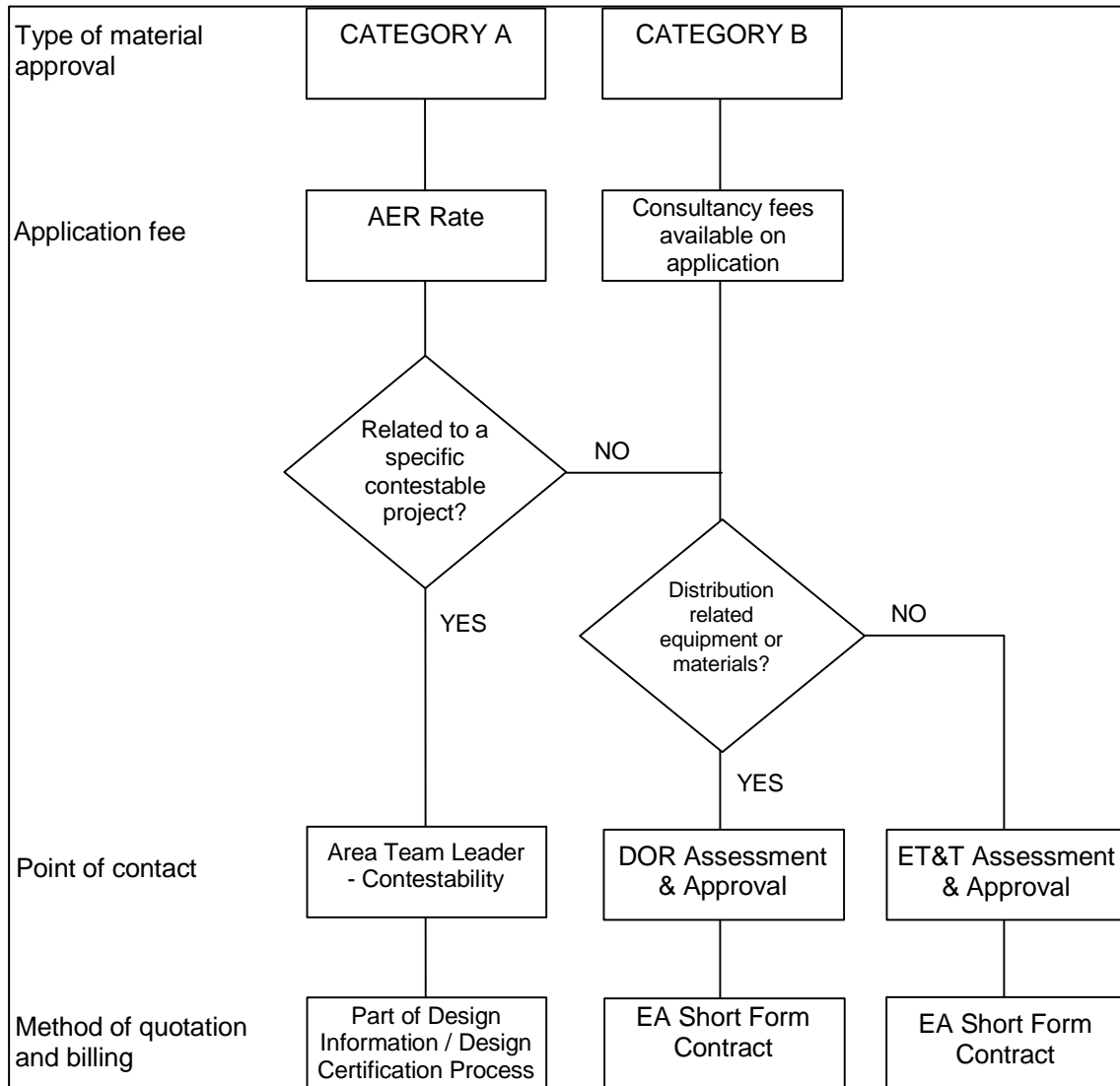
For contestable work and connection work, the single point of contact for the approval of Network Standard variations is the Manager – Contestability (North/South).

For non-contestable work, the point of contact for the approval of Network Standard variations is the Manager responsible for Standards & Communications. Preliminary enquiries or requests for consideration should be made via email to approvals@ausgrid.com.au.

2.2.2 Amendment to Network Standards

Where repeat requests for variations from a Network Standard are received, either internally or externally, the appropriate manager (refer to Section 1.2) will consider whether the Network Standard requires amendment.

Appendix A - Materials Approval Process Flowchart



Appendix B - Request for Approval of Materials and Equipment Form

Ausgrid Reference Number (Project Number)	
Ausgrid's Point of Contact	
Date of Request	
Name and Contact Details of Applicant	
Description of the Material or Equipment for which approval is sought	
Manufacturer's Name	
Manufacturer's Part Number	
Supplier's Name	
Category A or B Approval Request?	
Reason for Approval Request	

Appendix C - Quotation Form

[Contact Phone Number]

[Date]

[Applicant's Address]

Dear [Applicant],

Re: Application for approval of [Material Description]

Ausgrid Ref: [Reference Number]

I am in receipt of your application dated [Request Date] for approval of the above [Material] for installation on Ausgrid's electrical network in [Project Reference or 'unspecified projects'].

If your application is successful, Ausgrid is not obliged to contract with you, nor to consider your [Material] for any future [Material] supply contracts on a preferred basis. If approved, the approval is expected to be valid for [3 years/this Project only]. This will be confirmed in the approval letter.

Your application will be assessed in accordance with the following criteria:

- Compliance with Ausgrid's Technical Specification [Specification Number]
- NATA (or equivalent) accreditation of testing facilities
- ISO 9001 accreditation of design and manufacturing facilities

Further information on the approval process is contained in Ausgrid's Network Standard NUS181 *Approval of Materials and Equipment, and Network Standard Variations*, available on www.ausgrid.com.au.

I have attached a copy of Ausgrid's current specification [Specification Number] covering the above [Material]. Ausgrid reserves the right to change its specification at any time.

The fee for assessing your application for approval is [Price] (inclusive of GST) as prescribed by the Australian Energy Regulator (AER) for monopoly services associated with contestable work. Refer to Ausgrid's Electrical Standard ES 5 for further information.

Please respond in writing stating that you agree to pay the above fee in order to proceed with your application. [[You should respond by completing the customer acceptance section of the attached short-form contract. Please note that payment is not required until the assessment work has been completed.]]

It is anticipated that the assessment will be completed within [Number] weeks of your confirmation to proceed.

If you require any further information, please contact [EA Officer] on [Phone Number].

Yours faithfully,

[Name]

[Job Title]

[Branch]

[Division]

Appendix D - Approval/Rejection Letter

Ausgrid Ref: [Reference Number]
[Contact Phone Number]

[Date]

[Applicant's Address]

Dear [Applicant],

Please be advised that your application for the approval of

[Material Description], manufactured by [Manufacturer's Name],

for installation on Ausgrid's electrical network in [Project Reference or 'unspecified projects'], has been approved subject to the following:

- Ausgrid is not obliged to contract with you, nor to consider your [Material] for any future [Material] supply contracts on a preferred basis.
- The [Material] approved is the [Material] described and detailed in your application and test report [Test Report Number].
- The [Material] shall pass routine tests in [AS/NZS number, Table number] before being installed on Ausgrid's electrical network. Test reports shall be available to Ausgrid on request.

This approval is valid until [Date]. After this time, if the [Material] specification and design have not changed, and if all other Ausgrid requirements continue to be met, the approval may be extended for another specified period of time.

If you require any further information, please contact [EA Officer] on [Phone Number] and quote the Reference Number at the top of this letter.

Yours faithfully,

[Name]
[Job Title]
[Branch]
[Division]



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