

# NP001.10

## Documentation Requirements

This document is extracted from Network Policy NP 001, Design and Construction of Network Assets.

Other documents in this series include:

- NP001.1 Design and Construction of Network Assets – General Requirements
- NP001.2 General Specification for Underground Electrical Reticulation
- NP001.3 General Specification for Overhead Electrical Reticulation
- NP001.4 General Specification for Overhead Rural Residential Subdivisions
- NP001.5 General Specification for Overhead Commercial and Industrial Subdivisions
- NP001.6 General Specification for URD Subdivisions
- NP001.7 Reliability Criteria for Distribution Networks
- NP001.8 Handover Documentation
- NP001.9 Conditions of Supply to Large Customers

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**Further Information:** For additional information or advice regarding this document, please contact the Manager Network Engineering on 1800 245 092

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| Bertram Birk<br>General Manager Power Networks | Chris Pemberton<br>Manager Network Projects | File No:<br>F2007/6260     | Version: 2          |

## 1 Production of Drawings

All drawings shall be produced by Computer Aided Design Drafting (CADD) methods.

CADD drawings shall be submitted on MS-DOS formatted CD ROM disks, as Microstation "\*.dgn" files. Refer to the Standards Manual Volume 20 (Drawing Procedures). Where the designer uses another CADD package, it is necessary to check with Network Drawing Services that the version in use can be translated by the version of Microstation in use.

All prints originating from CADD files shall be clear and legible and shall be suitable for reduction to A3 size and/or microfilming – with all text at least 2.5 mm high. Drawings which in the opinion of Power and Water are of an inadequate standard shall be rejected. In particular, drawings that are not clear and legible at A3 size will be rejected.

## 2 Design Documentation

The designer shall submit the following design documentation to Power and Water for review and approval by Power and Water:

### 2.1 Design Report:

- (A) Overhead Subdivision:
  - Allocated kVA per lot
  - Voltage drop calculations in easily read format
  - Pole/guy selection, detailing design criteria, calculation of forces on poles, ground clearance calculations
- (B) Underground Subdivision:
  - Supply alternatives
  - Allocated kVA per lot
  - Voltage drop calculations in easily read format

**2.2 Master plan** showing proposed points of supply of electricity, water and sewerage services, as applicable.

### 2.3 The Project Quality Plan.

Under normal circumstances, two copies of the design document shall be required for retention by Power and Water. However, three copies may be required for works of a complex or large scale nature.

## 3 Design Drawings

One set of A1 and one set of A3 sized drawings are to be submitted for approval, and shall contain the following:

**3.1 Title Lots** for the designer, developer and Power and Water

### 3.2 Overhead Line Subdivision:

- (1) Locality, subdivision cadastral layout, pole location and alignment, legends and notes
- (2) High/low voltage/street lighting reticulation
- (3) Tension, sag, conductor and pole schedules
- (4) Size of lots and location of driveways (where known)

### 3.3 Underground Subdivision:

- |   |                      |
|---|----------------------|
| (1) High voltage reticulation   | Scale 1 : 1000       |
| (2) Low voltage reticulation  | Scale 1 : 1000       |
| (3) Street lighting and associated reticulation   | Scale 1 : 1000       |
| (4) Conduit layout  | Scale 1 : 1000       |
| (5) Master services plan/s showing the location of all power, water and sewerage services | Scale 1 : 1000       |
| (6) High and low voltage single line diagrams   |                      |
| (7) Locality, trench details, service alignments  | Scale as appropriate |

Note that the scales shown above are those recommended for drawing preparation. Alternative scales may be used to suit specific circumstances subject to prior approval of Power and Water.

#### **4 As Constructed Information**

As assets are completed, they are to be recorded as such by the installing contractor. On completion of the works, "As Constructed" drawings are to be submitted to Power and Water. The "As Constructed" drawings shall reflect any changes made to the works from the original design plan.

The following "As Constructed" drawings shall be submitted:

- (1) One A1 sized set of paper prints of all project drawings, signed in red coloured pen by the designer, and indicating the AS CONSTRUCTED nature of the drawing.
- (2) One A3 sized set of paper prints of all project drawings, signed in red coloured pen by the designer, and indicating the AS CONSTRUCTED nature of the drawing.
- (3) CD ROM containing files of all project drawings, indicating the AS CONSTRUCTED nature of the drawings and the signatory of the original "As Constructed" drawings.

Power and Water will not release titles on any lot until AS CONSTRUCTED drawings are received for the assets servicing that lot. Because an interruption to supply is normally required to connect new assets to the network, AS CONSTRUCTED drawings shall be provided not less than 14 days prior to the proposed date of connection.

Where the development does not involve subdivision, Power and Water may refuse connection of the new assets until AS CONSTRUCTED drawings are received. Power and Water will also not clear the Development Permit until AS CONSTRUCTED drawings are received (which allows a Certificate of Occupancy to be issued). In any event, the developer shall provide such drawings within 14 days of completion of work; Power and Water may require a bond or other guarantee to ensure that this is provided.

#### **G5 Standard Drawings**

The design shall adopt details as shown on current Power and Water standard drawings where practicable:

- |          |                        |
|----------|------------------------|
| Volume 1 | Overhead Line Manual   |
| Volume 2 | Underground Manual     |
| Volume 3 | Street Lighting Manual |

