

Construction News - Engineering

Overhead Design Manual CEOM7097 Update

- > Essential Energy have updated the Overhead Design Manual CEOM7097 to Issue 17
- > The update is now available on Standards online website and internally through the Business Management System (BMS)
- > From 5 February 2019 all new Designs and Installations must comply with the updated design manual

Background – what happened?

Essential Energy's Overhead Design Manual CEOM7097 has been updated to Issue 17, recent revisions include several changes when designing, constructing and working on or near our distribution network.

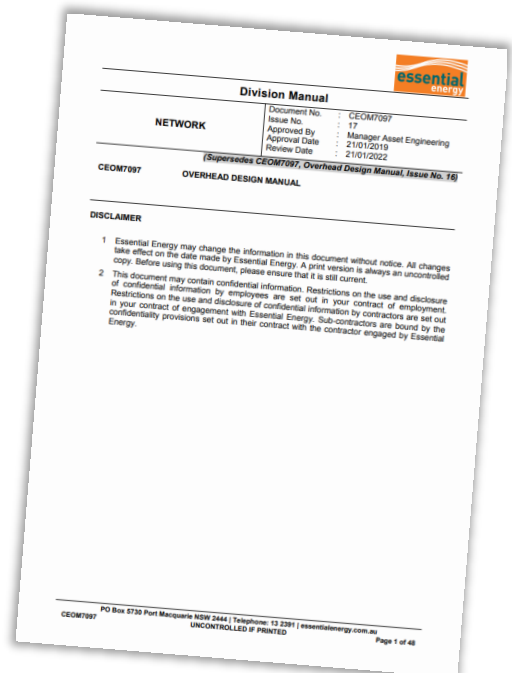
These updates are available through Standards Online and internally through Essential Energy's BMS. This information applies to Essential Energy employees, Level 1, Level 2 and Level 3 ASPs, and those undertaking non-electrical and civil works near our electrical network.

CEOM7097 Design Manual Changes

The following changes are listed in detail, in Section 6 – Revisions, of the manual:

- > Clause: 3.2 - References to Work Health and Safety Regulation 2011(NSW) updated to Work Health and Safety Regulation 2017(NSW).
- > Clause 3.5.6.7 - Standard Design Temperatures table has been revised and associated notes added:
 - The previous design philosophy required a 10°C temperature shift for AI conductors (5° for steel) by over-tensioning at site to compensate for creep (as per CEOM7108 stringing charts) and a 25°C additional design safety allowance in CEOM7097. This worked out to a combined safety allowance of 35°C for AI (30°C for steel).
 - CEOM7097 has been updated to refer to just one single design safety allowance of 35°C for AI conductors (30°C for steel) by removing two separate sections for allowances (site over-tensioning for creep and design safety allowance).
 - The designer will provide specific stringing charts for each new construction accounting for the single (total) design safety allowance, so field staff will not have to over-tension the conductors at site to compensate for conductor creep.
 - The stringing charts in CEOM7108 have been revised to remove reference to initial stringing temperature that compensates for conductor creep by over-tensioning new conductors. These stringing charts will be for assessment of existing conductors only.

The above changes limit the conductor tension to the design tension when installed rather than exceeding the limits in AS/NZS7000 Table Y1 which provides better asset performance. There is no need to over-tension the conductors at site by applying temperature shift and the possibility of incorrect use of stringing charts is minimised. The overall safety allowance will not vary from the previous design philosophy, so there will be no cost implication to construction arrangements.



- > Clause: 3.5.8 - Inter-circuit clearances and conductor blowout requirements revised.
- > Clauses: 3.5.15.3 and 3.5.15.6 - Air navigation disc markers are to be installed in accordance with AS/NZS3891.2 and Essential Energy drawing CEOM7106.10.
- > Clause: 3.6 - Node 'split phase' added to LV DROP table.
- > Overall Document - Position titles have been updated throughout the document.

What you need to do?

Familiarise yourself with the changes to the Overhead Design Manual which is now available on the Standards online portal on the Essential Energy website.

From 5 February 2019 all new Designs and Installations must comply with the updated design manual.



Work Practice Tip

Always check you are using the most current version of the Construction Standards



More information is available on [Standards Online](#). If you have any questions, please contact: Deepak Pais, on 02 6588 6783 or Stephen Palmer, on 02 6589 8712.