

New requirements for WA

During the course of 2020/21 two major reviews were undertaken of the WA Electrical Requirements (WAER) and the WA Distribution Connections Manual (WADCM).

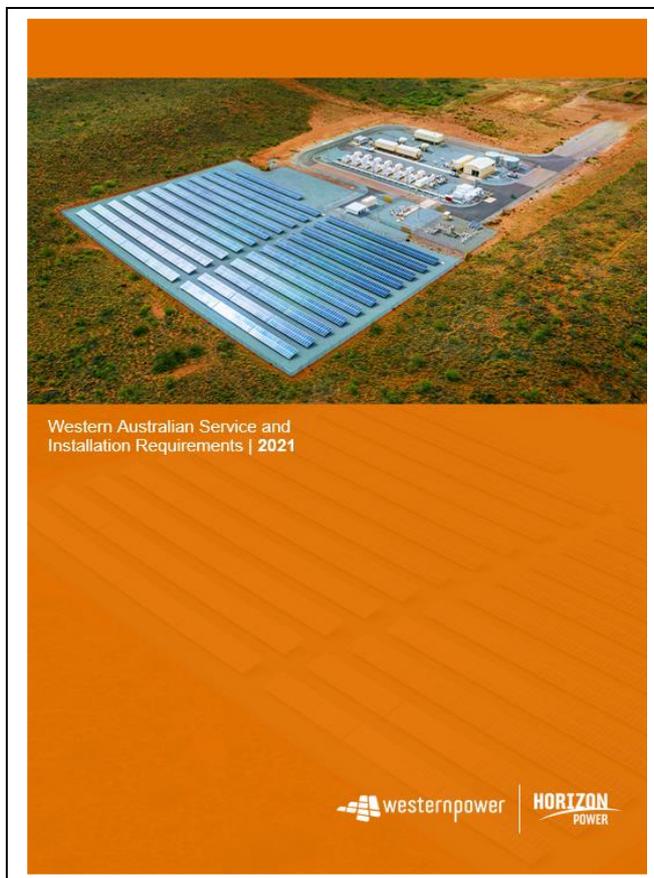
In July 2021 Horizon Power and Western Power finalised the WADCM review resulting in the publication of an updated and rebadged edition, entitled the Western Australian Services and Installation Requirements (WASIR).

The drivers for change and the review were critically important to ensure the technical requirements applicable to consumer network connections, aligned with an evolving renewable energy market and state/national compliance frameworks.

With updated content, the new WASIR, provides a detailed roadmap as well as links to a range of existing and new Horizon Power and Western Power published technical manuals, standards and guidelines associated with both traditional and emerging connection configurations.

The update requirements are aligned with the pending introduction of the new 2021 WAER network embedded generation/stand-alone power system standards and technical rules.

Sections 11, 12, 13, 14 and 15 of the WASIR should be studied in detail given the number of changes.



Updates

Section 11: While network metering options have not changed, connection methodologies, capacity, protection, control and monitoring requirements have been modified to account for current and future consumer energy profiles. These changes are applicable to both direct (whole current) and CT connected arrangements with new mandatory testing and reporting requirements introduced for the larger systems.

All new and altered consumer connections or supply arrangements, must comply with these revised requirements and applicable current network/industry requirements. The installation and connection of renewable energy and storage systems is deemed to be an alteration, therefore classified as a new connection.

Additionally, all new and or altered Western Power consumer connections require the installation's main-switch to be a circuit breaker rated in accordance with the network operators Technical Rules, EG Requirements and the WASIR. The installation of electric vehicle charging systems may also require the modification of the consumers main protection arrangements where the capacity of the existing supply arrangement is or may be exceeded.

Section 12: There are a number of changes including new distributed energy resource criteria for consumer installations with multiple points of supply arrangements. Easement and restricted covenant conditions have been updated and amalgamated with Section 6.

The requirements associated with exclusion zones, encroachments and redundant assets have been amended to clearly define responsibilities, as has the criteria for separation and excavation near network assets.

Section 13: This Section has been updated and restructured to incorporate large scale consumer electrical installations, including PV systems exceeding 200kVA, battery energy storage systems exceeding 200 kWh and wind turbine installations larger than 200kW.

New requirements are now in place to ensure large scale consumer electrical installations and HV connections are managed through the same submission processes. There is a new requirement in this section to ensure that consumer sites with multiple points of supply are maintained as the same voltage.

Section 14: A large part of the engineering content has been replaced with specific directional references to the relevant public network technical requirements to remove the potential for duplication. Content on substation oil containment, fire/noise clearances and responsibilities for substation screening/construction can now be found in the respective network operator substation design documents.

Section 15: Reviewed along similar lines to Section 14, in that embedded generation content can or will be available via each network operator's suite of public technical documents. Information on alternative, normal, supplementary and uninterruptible power supplies together with high level information on stand-alone power systems, distributed energy resources and embedded generation system types/categories has been retained in this Section.

This article is not a comprehensive description of the changes or the transitional path from the now superseded WA Distribution Connection Manual 2015 (WADCM) to the new WA Service and Installation Requirements 2021 (WASIR).

Consumers and industry are encouraged to read and apply these requirements to all new consumer electrical installations as soon as practical but no later than six months from the date of publication. (1st August 2021). WASIR clause 2.4 provides additional specific detail on the date of compliance and exemption criteria options.

Should you require further information please contact Horizon Power or Western Power. (See Section 5 for contact details) .