NPU Guidance for SolShare Installations

Version A.1

DISCLAIMER

This document is intended to provide guidance on how to design a safe and effective shared solar system requiring network protection units (NPUs) with the SolShare. This document does not override the local electrical safety standards and wiring rules. It is the responsibility of the installer to ensure the shared solar installation meets the relevant electrical safety and wiring standards in the installation locality.

NPU GUIDANCE FOR SOLSHARE INSTALLATIONS

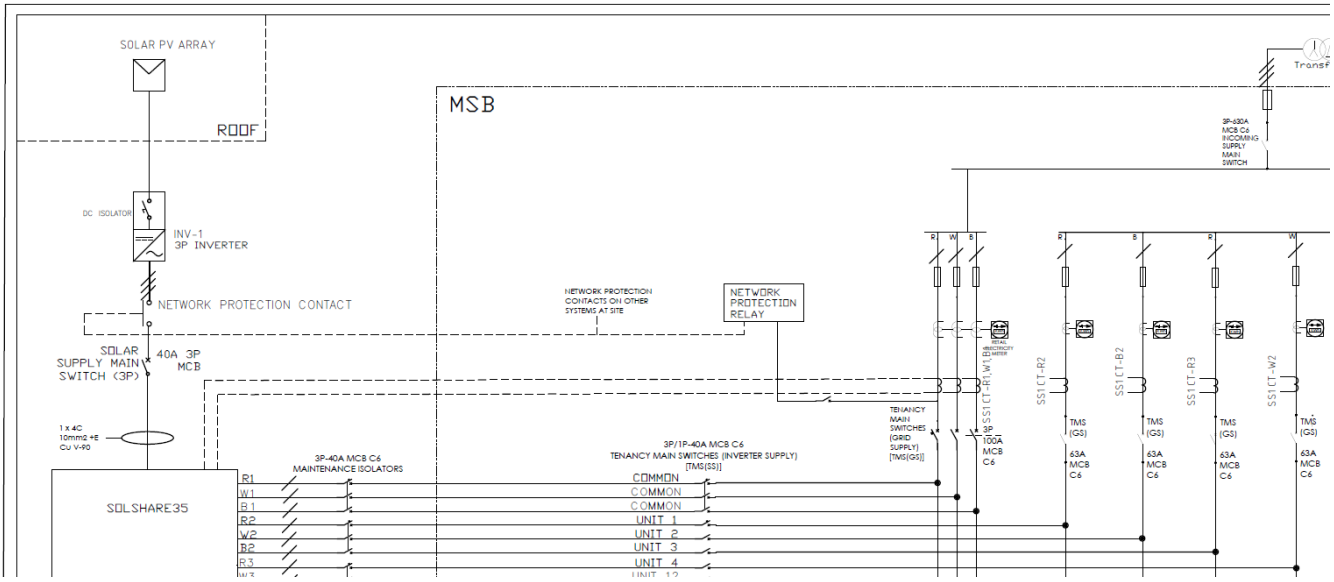
As with other solar installations more generally, NPUs may be required in installations involving a SolShare, based on rules set out by the relevant DNSP, Australian Standards or other regulations. Below is some guidance surrounding the design of a system with SolShares and NPUs to complement what is provided in standards and other official guidance.

An NPU is typically required when the total system size behind a single grid connection point exceeds 30kVA. Each site typically has a single connection point to the grid, even if it is unmetered. A connection point does not correspond to an NMI. Therefore, if a there are multiple systems that sum to greater than 30kVA, even if their generation is spread across multiple NMIs, an NPU is typically required.

A. AUSTRALIA (NOT INCLUDING SAPN)

When installing an NPU with 1 or more SolShares, a network protection contactor should be placed between the inverter and the SolShare for each Solshare unit. A network protection relay is included to monitor the incoming supply and control the network protection contactor(s). To save cost, it isrecommended that a single network protection relay is used to control multiple contactors, forming a multichannel NPU. Multichannel NPUs can be used in installations with more than 1 SolShare. With the exception of South Australia, the contactor and network protection relay do not have to be co-located.

This configuration is shown in the snippet below of an example site – please note that some of the aspects of this drawing will be different to your projects.



B. SAPN

Projects in the SAPN territory have additional NPU requirements. In South Australia, installers are required to use certified NPUs (as oppose to the certification only being required on the network protection relay). This makes it more challenging to install a distributed multi-channel NPU like the one described above. Allume recommends you reach out to an NPU manufacturer (e.g. CleanTech Controls or Greenwood) for information on certified multi-channel NPUs suitable for use in South Australia.