

# NEP RSD Retrofit Projects; Upgrading installed RSD's with NEP Products



## Typical steps and considerations

**#1 - select which PVG**... often dual PV and sometimes single... to use same wiring, customers usually pick same as installed. Our PVG-2-20Amp would work in most cases, is downward compatible to the 15Amp installed products, is an upgrade with metal enclosure. It has MC4 Staubli standard... it is ideal to have mating OEM connectors, so NEP can make jumpers or custom configured RSD's with perfect mating connector... if this customized action is taken, then you can also consider the cable lengths and omit jumpers if the original site has such. This is another way to make the site 'better'.

**#2 - Transmitter solution** - Normally customers add our PVG-O-D enclosure, one per inverter, adjacent to the inverters. When this is done, the existing transmitter must be defeated, typically by disconnecting the power wire to the transmitter in the CPS wire-box. The Transmitter enclosure from NEP datasheet is here: <https://northernep.com/wp-content/uploads/2024/04/NEP-PVG-O-Datasheet-March-2024.pdf>

Options to consider for this product; a. transformer may be added for 480Vac applications if the Neutral AC connection is not in place. The transformer goes in the PVG-O-D and drops 480Vac to 277Vac for the Gateway/Transmitter power. Also, the standard PVG-O-D is for wifi/Ethernet connections. We have a cellular (-CK) option.

If using Internet from the ALSO ENERGY DAS box, there is a procedure of arrangement with Also Energy to enabling the internet connection to the NEP Gateways.

**#3 - Data Gateway**; part of the NEP upgrade, and with the PVG-O-D enclosure, is that you get RSD performance and temperature data. This is available via PLC communication to the Gateway - thus the reason for the Gateway to be internet connected. The RSD installation process includes making a serial number sticker map for each inverter. With this the performance data can be seen in 3 ways; a. on the gateway LCD, b. NEPViewer smart phone app, c. Web portal. CPS FlexOM inverter data would remain in place, independent of the NEP RSD data flow.

**#4 – Don't forget critical tools** – a. **“PVG-T”** string tester is for testing the string voltages to ensure exact expected voltage as indicator of correct installation, b. **“Scanner”** of the RSD device bar codes for uploading into the associated Gateway.