SYSTEM DESIGN CHECKLIST FOR EXPORT LIMITING

Design checklist incorporating Enphase best practises for multiphase sites:

1. PRELIMINARY DESIGN

- ☐ DNSP embedded generation requirements confirmed.
- ☐ Site voltage rise calculations assessed.
- ☐ Bill of materials list compiled.
- ☐ Mechanical and electrical layouts with circuit wiring confirmed.
- ☐ Enphase export limit grid profile chosen for site DNSP requirements.

2. MICROINVERTER CIRCUITS

- ☐ Three-phase Q Cable and Q Relay(s) for primary protection specified.
- ☐ 25A circuits installed with microinverters not exceeding the maximum number of microinverters per circuit.
- ☐ 25A microinverter circuits branch paralleled with each circuit to minimise AC voltage rise.

3. PV LOAD CENTRE

- ☐ PV load centre located within 50 metres wiring length of microinverter circuits.
- ☐ One Envoy specified and located in PV load centre for powerline communications.
- ☐ PV load centre installed in suitable location to enable best powerline signal outcome.
- ☐ PV load centre located for maximum wiring distance away from Main DB and any upstream sub-distribution boards.
- ☐ Line filter located immediately adjacent to PV load centre DB for powerline signal quality.
- ☐ Network protection (if required) and Q Relay(s) installed as per system size and circuit requirements.

4. CURRENT TRANSFORMERS

☐ Consumption CTs to be located at site Main switchboard, required for site export limiting.

☐ CT wires extended, twisted pairs with correctly rated minimum CSA, and LV rating.

☐ Solar production CTs installed on dedicated solar PV main AC cabling and measuring all solar generation on site.

5. INTERNET

☐ Internet connection from Envoy to modem/router using Ethernet LAN.

Refer to the Enphase IQ Commercial Design Guide for more detailed design information.