

# / SolarEdge Commercial Installation Checklist

Version 2.0 - Aug 2022

Project Name:

Site Address:

System Size (DC):

AC/DC Oversizing:

Commissioned by:

## COMMISSIONING PREREQUISITES:

Coordinate site access to the array, inverters, AC and communications equipment.

Verify SolarEdge user access to SetApp and the site in SolarEdge monitoring portal.

Verify DC strings properly terminated.

Verify and record all string polarity and correct safety voltages.

Verify AC conductors properly terminated.

Verify AC grid voltages within range (measured at the inverters).

All SolarEdge equipment mounted per specifications.

Verify communications are established with the SolarEdge monitoring portal.

## RECOMMENDED PHOTOS:

Main service interconnection.

Inverter & AC equipment Installation.

Inverter AC & DC wiring.

Sample of power optimizer mounting

Communications cabinet or method.

RS485 terminations at Inverters and gateways.

Arrays/sub-arrays.

## SITE MAPPING:

Yes

No

SolarEdge monitoring portal Site ID:

Inverter (and SolarEdge Gateways if present) placard number is consistent with monitoring portal IDs.

Monitoring portal's physical layout reflects as-built conditions.

Power optimizer serial numbers scanned to module locations (Use SolarEdge SiteMapper app).

Power optimizer stringing completed in the monitoring portal (as built conditions).

Notes:

## POWER OPTIMIZER INSTALLATION & DC WIRING:

Yes

No

Inverter Installation Checklist:

Power optimizers bonded/grounded properly to the mounting structure

Spot check for correct PV connections at the module, between arrays and in home runs:

All mated connectors are compatible. Yes [ ] No [ ]

Field-made MC4 connections are installed correctly. Yes [ ] No [ ]

All jumpers and adaptors meet SolarEdge guidelines. Yes [ ] No [ ]

Adequate wire management to ensure long term system integrity & safety. (free from water intrusion, pests, abrasion, or other hazards)

DC strings terminated at inverter in accordance with installation manual:

Verify and record all String Polarity and correct Safety Voltages (free air test-not landed on inverter terminals)

Notes:

<b>INVERTER INSTALLATION CHECKLIST:</b>	Yes	No
Inverters are mounted in accordance with installation manual.		
Inverter AC voltages are verified to be within range prior to energizing the inverters.		
Firmware is upgrade via SetApp (verify and record same DSP version on all inverter units)		
Country code configuration verified.		
Special grid requirement configuration verified (if applicable). (Special grid requirements if applicable).		
All power optimizers paired.		
All inverters achieve expected production.		

Notes:

<b>THREE PHASE INVERTER WITH SYNERGY TECHNOLOGY INSTALLATION CHECKLIST (IF APPLICABLE):</b>	Yes	No
AC Terminations are properly completed in accordance with inverter manual.		
Tongue Lugs are crimped in accordance with lug manufacturer specifications		
Lugs are compatible with AC conductors and inverter terminals.		
Lugs are insulated with properly rated heat-shrink or equivalent.		
Verify all connections to Synergy units are properly connected and safety rings are installed.		
Verify in SetApp all Synergy unit serial numbers and expected production.		

Notes:

<b>COMMUNICATION CHECKLIST:</b>	Yes	No
Leader device connected to the SolarEdge server and displays "S_OK"		
RS485 properly wired. (Strongly recommend shielded three conductor twisted pair plus a drain)		
All follower inverters detected (if applicable).		
If a third-party communications setup is being used.		
Verify Modbus ID for each SolarEdge device is set correctly.		
Verify baud rate is the same between platforms.		
Sensors (if installed) are reporting expected values.		
Modbus energy meters (if installed) are reporting expected values.		

Checklist completed by:

Notes/Issues/Concerns/Photos

[Appendix 1 String Voltages](#)

[Appendix 2 Inverter Measurements](#)

## About SolarEdge

SolarEdge is a global leader in smart energy technology. By deploying world-class engineering capabilities and a relentless focus on innovation, we create smart energy products and solutions that power our lives and drive future progress.

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# / Appendix 1\_String Voltages

Inverter ID		Inverter ID		Inverter ID	
String Number		String Number		String Number	
VDC + to G		VDC + to G		VDC + to G	
VDC - to G		VDC - to G		VDC - to G	
VDC + to -		VDC + to -		VDC + to -	

Inverter ID		Inverter ID		Inverter ID	
String Number		String Number		String Number	
VDC + to G		VDC + to G		VDC + to G	
VDC - to G		VDC - to G		VDC - to G	
VDC + to -		VDC + to -		VDC + to -	

Inverter ID		Inverter ID		Inverter ID	
String Number		String Number		String Number	
VDC + to G		VDC + to G		VDC + to G	
VDC - to G		VDC - to G		VDC - to G	
VDC + to -		VDC + to -		VDC + to -	

Inverter ID		Inverter ID		Inverter ID	
String Number		String Number		String Number	
VDC + to G		VDC + to G		VDC + to G	
VDC - to G		VDC - to G		VDC - to G	
VDC + to -		VDC + to -		VDC + to -	

Inverter ID		Inverter ID		Inverter ID	
String Number		String Number		String Number	
VDC + to G		VDC + to G		VDC + to G	
VDC - to G		VDC - to G		VDC - to G	
VDC + to -		VDC + to -		VDC + to -	

Inverter ID		Inverter ID		Inverter ID	
String Number		String Number		String Number	
VDC + to G		VDC + to G		VDC + to G	
VDC - to G		VDC - to G		VDC - to G	
VDC + to -		VDC + to -		VDC + to -	

Notes:

# / Appendix 2\_Inverter Measurements

- i. CAUTION : Approach the lines with caution, and use safe practice when measuring live AC voltages
- ii. CAUTION : Vac measurements should be taken inside Synergy Manager/DC Disconnect -- do not open upper inverter cabinets for measuring AC voltage

\* Vac N to G measurement is applicable for interconnection to 4-wire + Ground (Wye) grid configuration only

\*\* "Left", "Center", and "Right" cells in the Synergy Unit section only apply to SolarEdge Synergy Inverters.  
For Single-Unit inverters, you can utilize just one of these three cells for recording Pac and Vdc

INV ID			
Serial #			
kW Rating			
Vac L1 to L2			
Vac L1 to L3			
Vac L2 to L3			
Vac L1 to G			
Vac L2 to G			
Vac L3 to G			
*Vac N to G			
**Synergy Unit	Left	Center	Right
Pac			
Vdc			

INV ID			
Serial #			
kW Rating			
Vac L1 to L2			
Vac L1 to L3			
Vac L2 to L3			
Vac L1 to G			
Vac L2 to G			
Vac L3 to G			
*Vac N to G			
**Synergy Unit	Left	Center	Right
Pac			
Vdc			

INV ID			
Serial #			
kW Rating			
Vac L1 to L2			
Vac L1 to L3			
Vac L2 to L3			
Vac L1 to G			
Vac L2 to G			
Vac L3 to G			
*Vac N to G			
**Synergy Unit	Left	Center	Right
Pac			
Vdc			

INV ID			
Serial #			
kW Rating			
Vac L1 to L2			
Vac L1 to L3			
Vac L2 to L3			
Vac L1 to G			
Vac L2 to G			
Vac L3 to G			
*Vac N to G			
**Synergy Unit	Left	Center	Right
Pac			
Vdc			

INV ID			
Serial #			
kW Rating			
Vac L1 to L2			
Vac L1 to L3			
Vac L2 to L3			
Vac L1 to G			
Vac L2 to G			
Vac L3 to G			
*Vac N to G			
**Synergy Unit	Left	Center	Right
Pac			
Vdc			

INV ID			
Serial #			
kW Rating			
Vac L1 to L2			
Vac L1 to L3			
Vac L2 to L3			
Vac L1 to G			
Vac L2 to G			
Vac L3 to G			
*Vac N to G			
**Synergy Unit	Left	Center	Right
Pac			
Vdc			