

# SMARTER ENERGY SOLUTION

## Preventive Maintenance Solar System



|                                       |                        |                |                  |                         |                            |                         |
|---------------------------------------|------------------------|----------------|------------------|-------------------------|----------------------------|-------------------------|
| Customer Name : <u>Punyisa Plot 3</u> |                        |                |                  | Maintenance : <u>MA</u> | Date : <u>5 April 2025</u> |                         |
| Solar Panel                           |                        |                |                  | Inverter                |                            |                         |
| Brand                                 | Model                  | Capacity       | Install          | Brand                   | Model                      | S/N                     |
| <u>Sonnax</u>                         | <u>SNX-D60HND-600M</u> | <u>20</u> kWp. | <u>60</u> Panels | <u>Solis</u>            | <u>86-CH3P20k-H</u>        | <u>1033160248180013</u> |

### Before Preventive Maintenance Solar System

| Solar Panels | Operating Voltage / Current |     |           |     | Time      | Inspection |          | Remark                |
|--------------|-----------------------------|-----|-----------|-----|-----------|------------|----------|-----------------------|
| String 1     | Panels                      | Vmp | 450.5 Vdc | Voc | 590.6 Vdc | Isc        | 12.54A.  | 10:00 ✓ Pass Not Pass |
| String 2     | Panels                      | Vmp | 414.2 Vdc | Voc | 490.7 Vdc | Isc        | 11.56A.  | ✓ Pass Not Pass       |
| String 3     | Panels                      | Vmp | 739.2 Vdc | Voc | 627.8 Vdc | Isc        | 10.20 A. | ✓ Pass Not Pass       |
| String 4     | Panels                      | Vmp | 501.2 Vdc | Voc | 970.5 Vdc | Isc        | 11.09A.  | ✓ Pass Not Pass       |
| String 5     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 6     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 7     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 8     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 9     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 10    | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 11    | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |
| String 12    | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.       | Pass Not Pass         |

### After Preventive Maintenance Solar System

| Solar Panels | Operating Voltage / Current |     |           |     | Time      | Inspection |         | Remark                |
|--------------|-----------------------------|-----|-----------|-----|-----------|------------|---------|-----------------------|
| String 1     | Panels                      | Vmp | 460.9 Vdc | Voc | 574.0 Vdc | Isc        | 13.68A. | 12:30 ✓ Pass Not Pass |
| String 2     | Panels                      | Vmp | 339.9 Vdc | Voc | 492.9 Vdc | Isc        | 13.92   | ✓ Pass Not Pass       |
| String 3     | Panels                      | Vmp | 493.1 Vdc | Voc | 642.0 Vdc | Isc        | 9.78A.  | ✓ Pass Not Pass       |
| String 4     | Panels                      | Vmp | 477.2 Vdc | Voc | 607.9 Vdc | Isc        | 9.74A.  | ✓ Pass Not Pass       |
| String 5     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 6     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 7     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 8     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 9     | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 10    | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 11    | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |
| String 12    | Panels                      | Vmp | Vdc       | Voc | Vdc       | Isc        | A.      | Pass Not Pass         |

### Inverter Inspection

| Device   | Field Measured Readings |            | Readings from Inverter Display |      | Readings from Smarter Meter |            | Field Measured Back Up |            |
|----------|-------------------------|------------|--------------------------------|------|-----------------------------|------------|------------------------|------------|
| Inverter | AC Line Voltage         |            | AC Line Voltage                |      | AC Line Voltage             |            | AC Line Voltage        |            |
|          | Phase L1 to Grd :       | 233.3 Vac. | Phase L1 to Grd :              | Vac. | Phase L1 to Grd :           | 232.0 Vac. | Phase L1 to Grd :      | 232.8 Vac. |
|          | Phase L2 to Grd :       | 231.3 Vac. | Phase L2 to Grd :              | Vac. | Phase L2 to Grd :           | 229.5 Vac. | Phase L2 to Grd :      | 231.4 Vac. |
|          | Phase L3 to Grd :       | 234.4 Vac. | Phase L3 to Grd :              | Vac. | Phase L3 to Grd :           | 232.7 Vac. | Phase L3 to Grd :      | 232.0 Vac. |
|          | AC Line Current         |            | AC Line Current                |      | AC Line Current             |            |                        |            |
|          | Phase L1 to Grd :       | 26.11 A.   | Phase L1 to Grd :              | A.   | Phase L1 to Grd :           | 23.50 A.   |                        |            |
|          | Phase L2 to Grd :       | 26.07 A.   | Phase L2 to Grd :              | A.   | Phase L2 to Grd :           | 47.50 A.   |                        |            |
|          | Phase L3 to Grd :       | 25.80 A.   | Phase L3 to Grd :              | A.   | Phase L3 to Grd :           | 15.00 A.   |                        |            |

Comment :

Inspection By :

( Bunham Libroy ) Project Engineer

Date : / /

# SMARTER ENERGY SOLUTION

## Electrical Room Inspection



| Device     | Ambient Temp | Temperature   |          |                |         |               |         | Remark |
|------------|--------------|---------------|----------|----------------|---------|---------------|---------|--------|
| Inverter   | 46.4 °C      | Inside :      | 52.1 °C  | Outside :      | 48.9 °C | Heatsync :    | 53.8 °C |        |
| AC Cabinet | 43.2 °C      | MCB Breaker : | 50.5 °C  | RCCB Breaker : | 46.9 °C | AC SPD :      | 42.7 °C |        |
|            |              |               | 40 A.    |                | 40 A.   |               | 3 Phase |        |
|            |              | Smart Meter : | 43.9 °C  | AC Terminal    | °C      | CT Ratio :    | / A.    |        |
|            |              |               | 3 Phase  | AC Cable :     | Sq.m.   | Meter Ratio : | A.      |        |
|            |              | String No.    | DC Fuse  | DC Breaker     | DC SPD  | MC4 Connector |         |        |
| DC Cabinet | 52.9 °C      | String 1      | 49.3 °C  | 47.6 °C        | 47.9 °C | 42.3 °C       |         |        |
|            |              | String 2      | 48.6 °C  | 49.5 °C        | 49.4 °C | 42.1 °C       |         |        |
|            |              | String 3      | 47.8 °C  | 48.9 °C        | 47.4 °C | 42.0 °C       |         |        |
|            |              | String 4      | 50.2 °C  | 49.2 °C        | 47.4 °C | 42.8 °C       |         |        |
|            |              | String 5      | °C       | °C             | °C      | °C            |         |        |
|            |              | String 6      | °C       | °C             | °C      | °C            |         |        |
|            |              | String 7      | °C       | °C             | °C      | °C            |         |        |
|            |              | String 8      | °C       | °C             | °C      | °C            |         |        |
|            |              | String 9      | °C       | °C             | °C      | °C            |         |        |
|            |              | String 10     | °C       | °C             | °C      | °C            |         |        |
|            |              | String 11     | °C       | °C             | °C      | °C            |         |        |
|            |              | String 12     | °C       | °C             | °C      | °C            |         |        |
| EE Room    | 46.7 °C      | AC Cable :    | 25 Sq.m. | Main Breaker : | 100 A.  | MCCB Feed :   | A.      |        |
|            |              | Wireway :     | 47.8 °C  | MDB / LC :     | 49.3 °C |               | °C      |        |

Comment :

Inspection By :

( Bunharn Libnoy )Project Engineer

Date : \_\_\_\_/\_\_\_\_/\_\_\_\_