**SOP-011: Site Visit Maintenance Report**

|  |  |
| --- | --- |
| **Date of Site Visit** |  |
| **Conducted by:** |  |
| **Name of Site** |  |
| **UP Field Manager present:** |  |
| **UP Site Agent(s) Present:** |  |
| **Issues raised by UP Staff:** |  |
| **Actions:** |  |

|  |  |  |
| --- | --- | --- |
| **Action** | **Complete (Y/N)** | **Comments** |
| ***General*** | | |
| Capture Images of the Site as received on arrival, including Solar Array plant room including battery rack. Take any additional photos of damage, wear and tear, or points of interest regarding the microgrid. |  |  |
| ***PV array, mounting and external areas to shipping container*** | | |
| Cleaning of PV Panels and remove any debris in installation area. |  |  |
| Check general condition of panels |  |  |
| Check wiring under panels looking for worn cables and UV damage |  |  |
| Check MC4 connectors and any other wiring connections from panels to shipping container |  |  |
| Check general state of shipping container including signs of damage, rust or theft attempt, In particular penetration points. Check under the container for any rodents. |  |  |
| Check the cable entry. This should be sealed with a sealant (for electrical conduits) after commissioning. Re-seal if seal is broken. |  |  |
| Check container is watertight and no rain ingress is occurring, seal gaps if noted |  |  |
| Check mounting structure for damage, rust or wear. Check status of locktight on bolts holding mounting structure. Retighten and re-apply locktight if loose. |  |  |
| ***Plant Room inside Shipping container*** | | |
| Ensure generation system is working at optimum performance by conducting a detailed inspection of all equipment. |  |  |
| Check battery state of health and holding capacity |  |  |
| Verify all battery connections and replace any connection not correct. |  |  |
| Verify general state of the combiner boxes and measure the Polarity and voltage of the PV cable feeding the inverter(s) |  |  |
| Check switching in inverter is all working correctly. This can be achieved by turning the inverter manual disconnection switch off and on and listening for the relays. |  |  |
| Ensure inverter settings are correct. A back-up of all inverter setting to be saved and kept on a flash drive. When changed are made, the new configurations must also be saved, so Service Provider can revert to a dated configuration. |  |  |
| Ensure proper functioning of inverter and perform routine preventive maintenance on inverter, per manufacturer's operating guidelines |  |  |
| Check Inverter history performance, load, current. |  |  |
| Check dust contents in the container. Use a vacuum cleaner to remove dust surrounding any electronics if required. |  |  |
| Test loads to the inverter |  |  |
| Check air conditioning system |  |  |
| Check filters are not broken, as this may leads to insects entering the container. |  |  |
| Inspect all mounting and racking hardware for cracks and premature failure. |  |  |
| Check load with clamp meters, check system compatibility, online monitoring system Manually check for updates and confirm that they system is updated. |  |  |
| Check power generation by solar panels and distribution |  |  |
| Make recommendations on how to maximize the system or increase efficiency |  |  |
| Check general connects and ensure everything is working and clean everything before leaving |  |  |
| Leave the system charging and under load. |  |  |
| ***Distribution*** | | |
| Any tampering and illegal connection to the system must be highlighted to UP. |  |  |
| Check overhead distribution lines for any damage or wear and tear, check for vegetation or plant growth |  |  |
| Check conditions of distribution poles and supply wires |  |  |
| Check voltage levels at different line points |  |  |
| Prune and line clearing where required |  |  |
| Checking the wiring of customer premises both household and businesses to include internal and external lights, light switches, one AC socket, metering components and appropriate protection equipment for each premises is not required. However, any premises wiring faults should be reported to Service Provider by UP field managers or site agents and dealt with during the site visit. |  |  |
| Check wiring to, and condition of Smart Meters, both EDGES and CORE. |  |  |
| Checking the smart meter mounting brackets for the meters |  |  |
| Check the smart meter CORE antenna and antenna mounts |  |  |
| ***Customer Wiring*** | | |
| Visit a sample of 5 customers to conduct an inspection of premises wiring. Check for signs of tampering or interference with internal wiring. Check quality of all internal wiring, breakers, earthing, appliances and wiring entering the house |  |  |

|  |
| --- |
| ***General Comments*** |
|  |