Date: 6th November 2022

To: PM

summary table for Scope of Work table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Specification  | Quantity | Unit | Prize | Total |
| 1 | Electrical work |
| 1.1 | supply and install Ac cable for grid connection(3face armed 35mm) | 60 | Ml |  |  |
| 1.2 | supply and install AC breaker for grid connection(molded case 3face 100A) | 2 | NU |  |  |
| 1.3 | supply and install network cables | 50 | ML |  |  |
| 1.4 | run AC cables from container to the main Distribution Board | JOB |  |
| 1.5 | supply and install the DC cable strings(10mm2) | 40 | ML |  |  |
| 1.6 | shall connect the DC strings on the PV arrays into the string groups | JOB |  |
| 1.7 | Shall run the DC cables from the container to the PV arrays | JOB |  |
| 1.8 | commission and testing of electrical work | JOB |  |
| 2 | PV structure |
| 2.1 | Assembling the mounting structure for the ground mounted PV panels.(include concrete base(40\*40\*40) | JOB |  |
| 2.2 | Assembling the mounting structure for the container roof mounted PV panels. | JOB |  |
| 2.3 | Erect the free Sustain Solar issued FS Duo Module Mounting Structure | JOB |  |
| 2.4 | Install the free Sustain Solar issued 455Wp Solar panels on the FS Duo Module Mounting Structure | JOB |  |
| 2.5 | Laying DC cables from the PV mounting structures to the PV combiner box | JOB |  |
|  | Total  |  |  |
|  |  |
|  |  |

General :

This scope of work ,in conjunction with the documents and drawing describe the work that must be completed for Kosti Craft school ,to integrate 1\* SUSTAIN COMPACT turnkey –solution, the system is designed for a PV capacity 31.85 KWp PV and equipped with 51,8 kWh Life PO4 battery storage

the Contractor supplies appropriate and suitable skills to provide the Services in accordance with this Scope.

**Electrical scope**

Scope of work include supply ,installation of the switchgear to connect the container to the main AC distribution board and termination of the DC strings to the container. Necessary cabling along with cable required for the same shall be in the scope electrical contractor

**TOR of contractor :**

* Shall supply and install the DC cable strings
* Shall connect the DC strings on the PV arrays into the string group for the ground mount PV and container roof top PV .
* Shall run the DC cable from the ground mount PV and container roof top PV arrays to the container DC combiner box
* Shall supply and install the Ac cable form container to main Distribution Board for the grid connection for the school
* Shall supply and install network cables

For the electrical and network diagram please refer to mounting instruction document.

**The scope of work for the Mudale mounting structure**

* Assembling the mounting structure for the ground mounted PV panels
* Assembling the mounting structure for the container roof mounted PV panels
* Erect the free sustain solar issued FS Duo Module Mounting Structure
* Install the free Sustain Solar issued 455Wp Solar panels on the FS Duo Module Mounting Structure
* Laying DC cables from the PV mounting structures to the PV combiner box

Please refer to the mounting structure documents

Scope of the installation manual

 These mounting instructions explicitly only provide instructions for the mechanical mounting of the FS Duo. They expressly do not give instructions for working procedures in connection with electrical or electronic components! Please note that any work in connection with electrical or electronic components may only be carried out by appropriately qualified personnel.

**Obligation of the Operator:**

It is the obligation of the operator to ensure that all parts of the mounting instructions are kept within easy reach on the PV-plant for the fitters at any time.

**The operator is obligated to only allow persons to work on and in the area of the plant who:**

* are qualified for the respective activity and have read and understood the relevant parts of the mounting instructions ν
* are aware of the essential regulations on work safety, accident prevention and environment protection ν
* have been briefed on the safe handling of the installation (instruction)

Obligation of the personnel:

As personnel, only persons who can be expected to carry out their work reliably can be admitted. Persons whose responsiveness is affected, e.g. by narcotics, alcohol or medication, are NOT permitted.

* Any person involved in the installation of the FS Duo must have read and understood these mounting instructions, especially the chapter "1.5. safety instructions", as well as all relevant chapters relating to the respective activity.
* These mounting instructions must be kept accessible and at hand for all persons involved at any time.
* Only trained and instructed personnel may perform the activities specified in this document.
* Auxiliary personnel may only work on the installation of the FS Duo under the supervision of an experienced person.

**Qualification of the personnel:**

* Based on their professional training, experience, knowledge and the knowledge of the applicable regulations, the qualified personnel are able to carry out the work assigned to them and to independently recognize and avoid potential risks
* The qualified personnel have the necessary knowledge of the safety, accident prevention and environmental protection guidelines applicable at the relevant construction site, as well as the regulations for loading and unloading.
* The qualified personnel is sufficiently trained for the respective tasks.

Abuelgasim Elhadi Gasmelseed

 CEC