#### **TRC CHECKLIST**

|  |  |  |
| --- | --- | --- |
| **SN** | **Description** | **Remarks** |
| 1 | Were all the Technical Review Committee members present | Yes  No |
| 2 | Technical Review Committee members Present | 1. ……………………………. 2. ……………………………. 3. ……………………………. 4. ……………………………. 5. ……………………………. 6. ……………………………. 7. ……………………………. 8. ……………………………. |
| 3 | Were there any invitee | Yes  No |
| 4 | Invitee present | 1. ……………………………. 2. ……………………………. 3. ……………………………. |
| 5 | Minutes prepared (name) |  |
| 6 | The meeting date/Place mentioned | Yes  No |
| 7 | Agenda of the meeting |  |
| 8 | Brief background of the project mentioned | Yes  No |
| 9 | Are the details of the approved program for the fiscal year ......... shown | Yes  No |
| 10 | Approved budget heading/activity number |  |
| 11 | Program name |  |
| 12 | Budget amount (NPR) |  |
| 13 | Target (kW) |  |
| 14 | Agenda 1: Description mentioned |  |
| 15 | Agenda 2: Description mentioned |  |
| 16 | Project summary |  |
| 17 | Salient features of the project discussed | Yes  No |
| 18 | Load profile discussed | Yes  No |
| 19 | Design consideration and design of solar mini-grid systems | Yes  No |
| 20 | Design of transmission and distribution | Yes  No |
| 21 | BoQ of goods present | Yes  No |
| 22 | BoQ of service present | Yes  No |
| 23 | Financial calculation present | Yes  No |
| 24 | Product and component details present | Yes  No |
| 25 | The technical standard of each component is compatible | Yes  No |

## Salient Features of the Project

Site address :

Village :

Ward No. :

R/Municipality :

Coordinates : ......................."N, ..................."E

Contact person name :

Mobile number :

Target Households :

Enterprise loads :

Institutional Loads (For eg: schools, health posts, ward offices):

Household loads :

Street lights :

Proposed power plant land ownership and area:

Distance of the nearest road head (km):

Distance to the nearest NEA T&D line (km):

Designed solar plant size :

Max daily energy demand :

Max battery DoD :

Days of autonomy :

Maximum peak Load :

Peak sunshine hours :

**Major System Component: For .............kWp system**

|  |  |  |
| --- | --- | --- |
| System components | **Type of PV module** |  |
| Capacity of each module | ........... Wp |
| Module efficiency | ........... % |
| Total PV array capacity | ............kWp |
| **Type of inverter (PV inverter)** |  |
| Capacity of each inverter | ........kW |
| Inverter peak efficiency | ..........% (min) |
| No. of inverters | .......... Nos. |
| Total inverter capacity | ............kW |
| **Type of inverter (Battery inverter)** |  |
| Capacity of each inverter | .............. kVA |
| Inverter peak efficiency | ............% (min) |
| No. of inverters | ............ Nos. |
| Total inverter capacity | .......... kVA |
| **Type of battery** |  |
| Capacity of each battery | ...........V, ...........Ah |
| No. of battery | .........Nos. |
| Total battery capacity | ............ kWh |

**Power Transmission & Distribution**

Total T&D Length : ............ km

400V three-phase : ............ km

230V single-phase : ............ km

ACSR Conductor (Squirrel) : ............ km

ACSR Conductor (Weasel) : ............ km

ACSR Conductor (Rabbit) : ............ km

ACSR Conductor (Dog) : ............ km

Service Cable : ............ km (6 square mm)

System Voltage : 230V (1- phase), 400V (3- Phase), 11kV HT

Max voltage drop allowed : .......... %

Pole Type & number : MS Pole (11m) - ............ numbers

: MS Pole (9m) - ............ numbers

: MS Pole (8m) – ............ numbers

Insulator type & number : Large size shackle insulator - ............. Set

: Medium-size shackle insulator - ........ Set

: Pin insulator - ............ set

: Disc insulator - ............ set

Stay set with accessories : LT stay set: ........ set

: HT stay set- ........set

Transformer : .......... kVA step up- .......... set

: .......... kVA step down- ............ set

Earthing number : ............ set

Lighting arrester : 9 kV, 3-phase-..... set

: 0.5 kV, 3-phase-.......... set

: 0.5 kV, 1-phase- ..........set

MCB for households : 6 Amp MCB- ........... number

: 16 Amp MCB - ........ Nos.

: 32 Amp MCB - .........Nos.

Pre-paid energy meter : ........ Nos.

Street light : ........ Nos.

## Cost summary of the project (detail of the cost estimation of the project)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Description** | **Cost without VAT** | **VAT Amount** | **% Cost** |
| 1 | Generation cost |  |  |  |
| 2 | T&D cost |  |  |  |
| 3 | Transportation cost |  |  |  |
| 4 | Total cost without VAT |  |  |  |
| 5 | VAT 13% |  |  |  |
| 6 | Insurance 1% |  |  |  |
| 7 | Contingency 4% |  |  |  |
| 8 | **Total cost including VAT** |  |  |  |
| 9 | **Cost per kWp** |  |  |  |

**In words:**

The Cost Estimate includes

* 13% VAT as applicable
* All associated goods and services cost
* Cost of mini-grid system operation, maintenance and management for 5 years
* Rate extracted based on TRC meeting minutes, consultant report, expert views and supportive documents attached herewith

## Decision

The committee evaluated the DFS of Project Name (……………….) as per the Sub-Rule 4 of Rule 9 of “Minigrid Bishesh Karyakram Sanchalan Niyamawali”, 2076 and decided to recommend the project (name………..) for further implementation as per the design and BoQ attached with this minute.