



CENTRAL ELECTRICITY SUPPLY UTILITY OF ORISSA
 Registered Office : DCO TOWERS, (1st Floor), Janapath, Bhubaneswar - 751 022
 OFFICE OF THE EXECUTIVE ENGINEER(ELECT.) KHORDHA ELECTRICAL DIVISION, KHORDHA
 ☎ : 06755-220530, 9438484861, Fax : 06755 - 220530.

11.10.18 / C.E.S.U. /
 CRP-11

Letter No- SU/KED/Tech / **UM99**
 To

Date. **19.04.2018**

**The Principal Centurian Industrial Training Centre
 at Ramachandrapur, Jatni, Dist- Khordha.
 Consumer No- 46 PI.**

Sub - Permission for Net Metering / Bi-directional Metering of 150KWp Solar Roof Top PV plant at premises of **The Principal Centurian Industrial Training Centre at Ramachandrapur, Jatni, Dist- Khordha**, bearing consumer No- 46PI, under Electrical Section Jatni-II

Ref- 1) Letter No- 8116 dt-03.04.2018 of Chief General Manager (Com.) CESU, BBSR.

Sir,

With reference to the subject cited above, it is to intimate you that you have represented to installed 150KWp on grid solar power plant (roof top) at **Ramachandrapur, Jatni, Dist- Khordha**, bearing consumer No- 46PI for which you have also submitted the relevant documents to the undersigned. Accordingly this office has forwarded the same to CESU, Head Office- BBSR. As per approval of Chief General Manager (Com.) CESU, BBSR, vide letter under reference (1) the permission is hereby approved for Net Metering / Bi-directional Metering of 150KWp Solar Roof Top PV plant at premises of **The Principal Centurian Industrial Training Centre at Ramachandrapur, Jatni, Dist- Khordha**, bearing consumer No- 46PI, CD=444.44KVA subject to fulfillment of following terms & condition:

(I) Terms & condition:-

- (a) Consumer shall install modern along with all the solar meters, prior to the grid synchronization/ commissioning/ charging for remote recording of monthly generation data through GSM or GPRS to CESU.
- (b) The aforesaid Solar Rooftop PV projects shall comply with the relevant standards and guidelines specified by the MNRE/B-CEA and the OERC Net metering order No. 1131 dated 19.08.2016, its amendment order from time to time prior to its grid connectivity synchronization.
- (c) The design and installation of the aforesaid Solar Rooftop PV system should be equipped with appropriately rated protective devices to sense any abnormality in the system and carry out automatic isolation of the aforesaid Solar Rooftop PV system from the network of the CESU.
- (d) The installers shall also meet the necessary safety requirements as specified and prescribed/ allowed by the Executive Engineer, Elect., CESU, KED, Khordha before synchronization/ commissioning. The protection logic should be tested before commissioning of the aforesaid Plant.
- (e) The installation of 150 KWp Solar Rooftop PV Power System shall meet all safety standards and Consumer shall obtain safety certificate for the installations from the appropriate authorities and submit the same to the concern Divisional Engineer, prior to the grid connectivity synchronization. The applicant shall comply with the Central Electricity Authority Regulations, 2010 and its amendments from time to time for the purposes of safety.
- (f) The consumer shall comply with CEA/EGC/OGCI/OERC, CESU's requirements with respect to safe, secure and reliable function of the aforesaid solar Rooftop PV project prior to the commissioning/ synchronization.
- (g) Consumers shall Sign an agreement with CESU in the Standard Agreement Form (as per Form-2 of OERC Net Metering Order) prior to net metering and grid connectivity and submit the work completion report signed by both consumer and system Developer prior to the grid connectivity/synchronization.
- (h) You are requested to arrange for inspection of the installation from the Electrical Inspector and submit the approval of Electrical Inspector on the above to Executive Engineer(Elect.) CESU, KED, Khordha prior to grid connectivity/synchronization/ charging.

You are requested to ensure the fulfillment of the above terms and conditions(mentioned at point (I) (a) to (h)), by the consumer in coordination with Manager (E&MP) division, Khordha and Manager (MRT division) Khordha prior to the grid connectivity/ synchronization.

(II) Further, you are requested to thoroughly check the entire 150KWp Solar Rooftop PV power plant and ensure the following documents (self certified by consumer) submitted by the consumer as per IEC/BIS/IS standard and MNRE/ BIS/ CEA/ the OERC regulations and CESU's requirement prior to the grid connectivity- synchronization/ charging.

- 1) Solar Rooftop PV power plant Capacity i.e. PV Module capacity and inverter Capacity
- 2) Form-I, OERC Net Metering order
- 3) Consumer self certified Single line schematic diagram in respect of system facility
- 4) Ratings, test reports and specifications of all project equipments, viz. Inverter, PV Module and Cable & Connector etc. This need to be self certified by the consumer.
- 5) One copy each of the approved drawing and diagrams showing important equipments, protection and control features shall be signed by consumer or authorized representative of the applicant and viz. (proposed) professional engineer and shall be in possession of consumer and you.
- 6) Evidence showing protection and other safety compliance of the consumer as per appropriate standards and regulations.
- 7) Work Data and record sheet signed by both consumer and solar developer.

Besides you are also requested to ensure that the overall conditions of service and supply have been strictly complied by the consumer with respect to the OERC distribution (conditions of Supply) Code 2004 and its amendments from time to time prior to the grid connectivity/ synchronization. It is also to inform you that if any changes are made in the aforesaid Solar Rooftop PV power plant or its connectivity by consumer then the drawing and diagrams shall be amended accordingly after due approval from competent authority of CESC.

Further it is to inform you that the aforesaid Solar Rooftop PV Power System should comply with OERC net metering regulation and its amendments order from time to time including the followings after its grid connectivity with CESC network.

(a) The cumulative capacity of Solar P.V. Power plant to be allowed for a particular distribution transformer shall not exceed 75% of the capacity of the distribution transformer.

(b) Electricity generated from your solar rooftop PV power system is capped cumulatively at 60% of the electricity consumption by you at the end of a settlement period which ends with the financial year to allow for seasonality in generation.

Further, consumer is requested to prepare the Site Responsibility Schedule for every interconnection point as specified by CEA (Technical Standards for connectivity of the Distributed Generation Resources) Regulations 2010 and its amendments thereto. The consumer is also requested to monitor the said Solar Rooftop PV Power Plant annually to check its compliance with the OERC Net metering order No 1131 dated 19.08.2016 and its amendments from time to time (including point No. 1) positively. Accordingly, the electricity bill should be raised as per Clause 12 of the aforesaid OERC Net metering order. Further, as per OERC Net metering order No 1131 dated 19.08.2016, consumer is also requested to furnish a copy of Solar energy generated by the eligible consumer to GRIDCO every year in the month of April for the solar energy generation of the previous financial year.

The permission shall be valid for 90 days from the date of issue of this letter.

This is for your information and necessary action.

Enc. Single Line Diagram

Yours faithfully,

- | | | |
|---|------------------------|--|
| No. <u>U500</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy submitted to Chief General Manager, Commerce, CESC, BBSR for favour of kind information and necessary action. | | |
| No. <u>U501</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy submitted to Sr. General Manager, Tech. CESC, BBSR for favour of kind information and necessary action. | | |
| No. <u>U502</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy submitted to the General Manager, E&T, Electric Division No.1 BBSR, for favour of kind information and necessary action. | | |
| No. <u>U503</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy to S.E.C. (Elect.) CESC, Dist. No.1, E&T, BBSR for information and necessary action. They are requested for day to day supervision of work and intimate the progress regularly to the undersigned for his inspection to the site & also submit the completion certificate after completion of the construction work. | | |
| No. <u>U504</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy to A.T.F. Revenue, Dist. No.1 for information and necessary action. | | |
| No. <u>U505</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy to AGV, Elect., NRT Division, CESC, BBSR, At TLC Colony, Khordha for information and necessary action. | | |
| No. <u>U506</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy to Manager, Elect. E & T, Division, CESC, BBSR, At TLC Colony, Khordha for information and necessary action. | | |
| No. <u>U507</u> | Date <u>19.04.2016</u> | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |
| Copy to Divisional Manager, NRT, Dist. No.1, Khordha for information and necessary action. | | |
| | | Executive Engineer (Elect.)
<u>K.E.D. Khordha</u> |



CENTRAL ELECTRICITY SUPPLY UTILITY OF ORISSA

Registered Office : IDCO TOWERS, (IInd Floor), Janapath, Bhubaneswar - 751 022

OFFICE OF THE EXECUTIVE ENGINEER(ELECT.) KHORDHA ELECTRICAL DIVISION, KHORDHA

☎ : 06755-220530, 9438484861, Fax : 06755-220530.

Letter No-~~CESU/KED/Tech~~ / MU90

Date: 19.01.2018

**The Principal ITOT
at Ramachandrapur, Jatni-II, Dist- Khordha,
Consumer No- 56 PI.**

Subj: - Permission for Net Metering / Bi-directional Metering of 100KWp Solar Roof Top PV plant at premises of **The Principal ITOT at Ramachandrapur, Jatni-II, Dist- Khordha**, bearing consumer No.- 46PI, under Electrical Section Jatni-II

Ref.- 1: Letter No- 8095, dt-03.04 2018 of Chief General Manager (Comm.) CESU, BBSR

Sir

With reference to the subject cited above, it is to intimate you that you have represented to installed 100KWp on grid solar power plant (roof top) at **Ramachandrapur, Jatni-II, Dist- Khordha**, bearing consumer No - 56PI for which you have also submitted the relevant documents to the undersigned. Accordingly this office has forwarded the same to CESU Head Office BBSR. As per approval of Chief General Manager (Comm.) CESU, BBSR vide letter under reference (1) the permission is hereby accorded for Net Metering / Bi-directional Metering of 100KWp Solar Roof Top PV plant at premises of **The Principal ITOT at Ramachandrapur, Jatni-II, Dist- Khordha**, bearing consumer No - 56PI, OD=111.44KVA subject to fulfillment of following terms & condition

(I) Terms & condition:-

- (a) Consumer shall install modem along with all the solar meters, prior to the grid synchronization/ commissioning/ charging, for remote recording of monthly generation data through GSM or GPRS by CESU.
- (b) The aforesaid Solar Rooftop PV projects shall comply with the relevant standards and guidelines specified by the MNRE/BIS/CEA and the OERC Net metering order No. 1131 dated 12.08.2016 (its amendment order from time to time) prior to its grid connection/ synchronization.
- (c) The design and installation of the aforesaid Solar Rooftop PV system should be equipped with appropriately rated protective devices to sense any abnormality in the system and carry out automatic isolation of the aforesaid Solar Rooftop PV system from the network of the CESU.
- (d) The inverters used, should meet the necessary safety requirements as specified and checked, allowed by the executive Engineer, Elect. CESU, KED, Khordha before synchronization. Commission, the protection logics should be tested before commissioning of the aforesaid Plant.
- (e) The installation of 100 KWp Solar Rooftop PV Power System shall meet all safety standards and Consumer shall obtain safety certificate for the installations from the appropriate authorities and submit the same to the concern Divisional Engineer prior to the grid connectivity/ synchronization. The applicant shall comply with the Central Electricity Authority Regulations, 2010 and its amendments from time to time for the purposes of safety.
- (f) The consumer shall comply with CEA/IEGCI/OERC/ CESU's requirements with respect to safe, secure and reliable function of the aforesaid solar Rooftop PV project prior to the commissioning/ synchronization.
- (g) Consumers shall Sign an agreement with CESU in the Standard Agreement Form (as per Form-2 of OERC Net Metering Order) prior to net metering and grid connectivity and submit the work completion report signed by both consumer and system Developer prior to the grid connectivity/ synchronization.
- (h) You are requested to arrange for inspection of the installation from the Electrical inspector and submit the approval of Electrical inspector on the above to Executive Engineer(Elect.) CESU, KED, Khordha prior to grid connection/synchronization/ charging.

You are requested to ensure the fulfillment of the above terms and conditions(mentioned at point (I) (a) to (j)), by the consumer in coordination with Manager (E&MR, division) Khordha and Manager (MRT division) Khordha prior to the grid connectivity / synchronization.

(II) Further, you are requested to thoroughly check the entire 150KWp Solar Rooftop PV power plant and ensure the following documents (self certified by consumer) submitted by the consumer as per IEC/BIS/IS standard and MNRE / BIS/ CEA/ the OERC regulations and CESU's requirement prior to the grid connectivity/ synchronization/ charging.

- 1) Solar Rooftop PV power plant Capacity, PV Module capacity and inverter Capacity)
- 2) Form-I OERC Net Metering order
- 3) Consumer self certified Single line schematic diagram in respect of system facility
- 4) Ratings, test reports and specifications of all project equipments (viz. inverter, PV Module and Cable & Connector etc.) This need to be self certified by the consumer.
- 5) One copy each of the approved drawing and programs showing important equipment, protection and control features shall be signed by consumer (or) authorized representative of the applicant) and you concerned divisional engineer and shall be in possession of consumer and you.
- 6) Earthing, lightning protection and other safety compliance by the consumer as per applicable standards and regulations.
- 7) Work Completion report signed by both the consumer and solar developer.

Besides, you are also requested to ensure that the overall conditions of service and supply have been strictly complied by the consumer with respect to the OERC distribution (conditions of Supply) Code, 2004 and its amendments from time to time prior to the grid connectivity synchronization. It is also to inform you that if any changes are made in the aforesaid Solar Rooftop PV power plant or in its connectivity, by consumer then the drawing and diagrams shall be amended accordingly after due approval from competent authority of CESU.

Further, it is to inform you that the aforesaid Solar Rooftop PV Power System should comply with OERC net metering regulation and its amendments order from time to time, including the followings, after its grid connectivity with CESU network.

- (a) The cumulative capacity of Solar PV Power projects to be allowed for a particular distribution transformer shall not exceed 75% of the capacity of the distribution transformer.
- (b) Electricity generated from your solar rooftop PV power system is capped cumulatively at 90% of the electricity consumption by you at the end of a settlement period which ends with the financial year to allow for seasonality in generation.

Further, consumer is requested to prepare the Site Responsibility Schedule for every interconnection point as specified by CEA (Technical Standards for connectivity of the Distributed Generation Resources) Regulations 2013 and its amendments thereto. The consumer is also requested to monitor the said Solar Rooftop PV Power Plant annually to check its compliance with the OERC Net metering order No 1131 dated 19.05.2016 and its amendments from time to time (including point No III) positively. Accordingly, the electricity bill should be raised as per Clause 12 of the aforesaid OERC Net metering order. Further, as per OERC Net metering order No 1131 dated 19.08.2016, consumer is also requested to furnish a copy of Solar energy generated by the eligible consumer to GRIDCO every year in the month of April for the solar energy generation of the previous financial year.

The permission shall be valid for 90 days from the date of issue of this letter.

This is for your information and necessary action.

Encl. Single Line Diagram

Yours faithfully,

- No. UY91 /Date 19.01.2018
 Copy submitted to Chief General Manager, Commerce, CESU, BBSR for favour of kind information and necessary action.
 Executive Engineer (Elect.)
 K.E.D. Khordha.
- No. UY92 /Date 19.01.2018
 Copy submitted to Sr. General Manager, Tech., CESU, BBSR for favour of kind information and necessary action.
 Executive Engineer (Elect.)
- No. UY93 /Date 19.01.2018
 Copy submitted to Sr. General Manager, Elect. Equip. & Distribution, CESU, BBSR for favour of kind information and necessary action.
 Executive Engineer (Elect.)
- No. UY94 /Date 19.01.2018
 Copy to S.M.O. Elect. CESU, Jajpur, S.M. Elect. Unit No.1 for information and necessary action. They are requested for day to day supervision of works and intimate the progress regularly to the undersigned for his inspection to the site & also submit the completion certificate after completion of the construction work.
 Executive Engineer (Elect.)
- No. UY95 /Date 19.01.2018
 Copy to A.M.F. Revenue of this Division for information and necessary action.
 Executive Engineer (Elect.)
- No. UY96 /Date 19.01.2018
 Copy to AGM (Elect.) MRT Division-II, CESU, BBSR, At TLC Colony, Khordha for information and necessary action.
 Executive Engineer (Elect.)
- No. UY97 /Date 19.01.2018
 Copy to Manager (Elect.) E & MR, Division-II, CESU, BBSR, At TLC Colony, Khordha for information and necessary action.
 Executive Engineer (Elect.)
- No. UY98 /Date 19.01.2018
 Copy to Divisional Manager, M.E. Field, Khordha for information and necessary action.
 Executive Engineer (Elect.)

Besides you are also requested to ensure that the overall conditions of service and supply have been strictly complied by the consumer with respect to the OERC distribution (conditions of Supply) Code, 2004 and its amendments from time to time prior to the grid connectivity/ synchronization. It is also to inform you that if any changes are made in the aforesaid Solar Rooftop PV power plant or in its connectivity by consumer then the drawing and diagrams shall be amended accordingly after due approval from competent authority of CESU.

(iii) Further it is to inform you that the aforesaid Solar Rooftop PV Power System should comply with OERC net metering regulation and its amendments order from time to time including the followings, after its grid connectivity with CESU network.

(a) The cumulative capacity of Solar PV Power projects to be allowed for a particular distribution transformer shall not exceed 75% of the capacity of the distribution transformer.

(b) Electricity generated from your solar rooftop PV power system is capped cumulatively at 90% of the electricity consumption by you at the end of a settlement period which ends with the financial year to allow for seasonality in generation.

Further consumer is requested to prepare the Site Responsibility Schedule for every interconnection point as specified by CEA (Technical Standards for connectivity of the Distributed Generation Resources) Regulations 2013 and its amendments thereto. The consumer is also requested to monitor the said Solar Rooftop PV Power Plant annually to check its compliance with the OERC Net metering order No 1131 dated 19.08.2016 and its amendments from time to time (including point No. (b)) positively. Accordingly, the electricity bill should be raised as per Clause 12 of the aforesaid OERC Net metering order. Further, as per OERC Net metering order No 1131 dated 19.08.2016, consumer is also requested to furnish a copy of Solar energy generated by the eligible consumer to GRIDCO every year in the month of April for the solar energy generation of the previous financial year.

The permission shall be valid for 90 days from the date of issue of this letter.

This is for your information and necessary action.

Yours faithfully,

Enc: - Single Line Diagram

- No. U.509 /Date 19.04.2018
 Copy submitted to Chief General Manager (Commerce) CESU, BBSR for favour of kind information and necessary action.
- No. U.510 /Date 19.04.2018
 Copy submitted to Sr. General Manager Tech. CESU BBSR for favour of kind information and necessary action.
- No. U.511 /Date 19.04.2018
 Copy submitted to the General Manager, Elect. Electrical Circle No-II BBSR for favour of kind information and necessary action.
- No. U.512 /Date 19.04.2018
 Copy to S.D.O. Elect. CESU, (at) J.M. Elect. (at) No-II for information and necessary action. They are requested for day to day supervision of works and intimate the progress regularly to the undersigned for his inspection to the site & also submit the completion certificate after completion of the construction work.
- No. U.513 /Date 19.04.2018
 Copy to A.M.F. (Revenue) of this Division for information and necessary action.
- No. U.514 /Date 19.04.2018
 Copy to AGM (Elect.) MRT Division-II, CESU, BBSR, At- TLC Colony, Khordha for information and necessary action.
- No. U.515 /Date 19.04.2018
 Copy to Manager (Elect.) E & MR, Division-II, CESU BBSR, At- TLC Colony, Khordha for information and necessary action.
- No. U.516 /Date 19.04.2018
 Copy to Divisional Manager, W.S. Fedoa, Khordha for information and necessary action.

Executive Engineer (Elect.)
 K.E.D. Khordha.

Executive Engineer (Elect.)

Executive Engineer (Elect.)