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ODISHA POWER TRANSMISSION CORPORATION LIMITED

(A Government of Odisha Undertaking)

OFFICE OF CHAIRMAN-cum-MANAGING DIRECTOR, OPTCL, BHUBANESWAR

Regd. Office: 9th Floor, TECH TOWER, Sahid Nagar, Janpath, Bhubaneswar-751007.

Telephone: (0674) 2545821 (EPABX-2047) Website: www.optcl.co.in

CIN: U4102OR2004SGC007553

No. ୧୮/ CMD

Dated- 21.08.2024

OFFICE ORDER

This SoP on Transmission Connectivity for RE projects in the State of Odisha is hereby issued with immediate effect. It will supersede the previous guidelines / SoP issued earlier.

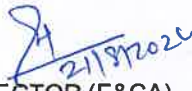
Chairman-cum-Managing Director

CC:

1. FA-cum-Special Secretary (Department of Energy), Government of Odisha for information.
2. Managing Director, GRIDCO.
3. CEO of TP Discoms.
4. ED (All Zones) of OPTCL.
5. EIC-cum-Electricity, Government of Odisha.
6. CGM (Corporate Planning), OPTCL.

Standard Operating Procedure for Transmission Connectivity for Renewable Energy Projects in the State of Odisha




21/8/2024
DIRECTOR (F&CA)
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar



DIRECTOR (OPERATION)
Director (Operation)
OPTCL, Bhubaneswar



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21/2/2024
DIRECTOR (F& CA)
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar


DIRECTOR (OPERATION)
OPTCL
Director (Operation)
OPTCL, Bhubaneswar



1. Introduction

The Government of Odisha has promulgated the Odisha Renewable Energy Policy 2022 (OREP, 2022) through Resolution No. 11757-ENG-HYD-HYDRO-0009/2022/En. dated 30 Nov 2022. The policy's overarching goals include the adoption of clean energy alternatives, decarbonisation of the energy sector, and investment in clean energy initiatives. It outlines a range of incentives and support measures, such as assistance with land procurement and fee concessions.

1.1 Background and purpose of SOP

Clause 10 (7) of OREP 2022 delineates that "Project developer is permitted to connect the RE project with State Transmission Utility (STU), subject to the evacuation feasibility. Grant of connectivity approval from OPTCL/DISCOMs will be provided preferably within 15 days from the date of receipt of requisite documents for registration".

This Standard Operating Procedure (SOP) outlines the step-by-step procedure for the transmission connectivity towards development of RE project in the state.

1.2 Applicability

This Procedure shall apply to applications received by the GRIDCO Renewable Energy Nodal Agency (RENA) by the applicants for Grant of Connectivity to the Odisha Intra-State Transmission System (InSTS) as per the provisions of Odisha Renewable Energy Policy 2022. The regulations of OERC for connectivity and open access shall be applicable.

DIRECTOR (F& CA)
GRIDCO

Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar

DIRECTOR (OPERATION)
OPTCL

Director (Operation)
OPTCL, Bhubaneswar



2. Procedure for applying and processing of connectivity proposals

The following is the step -by-step procedure for making an application and processing of applications:

2.1 Submission of application for connectivity proposals

Developer shall submit the connectivity proposal/application with GRIDCO RENA. GRIDCO RENA shall check the completeness of information provided by developer for evacuation and shall then forward the details to the concerned Zonal Head, OPTCL/DISCOMs. In case of any missing or incomplete information, GRIDCO RENA shall inform the developer to submit the revised application with required details. Upon receipt of satisfactory application, GRIDCO RENA shall forward to proposal to OPTCL/ DISCOMs.

A format indicating the following details shall be furnished by the developer:

- Capacity needed.
- Point of injection
- Point of drawl / Sale to GRIDCO/ Interstate Sale
- Scheduled Commercial Operation Date of generating plant.
- Location
- RE Technology used
- Duration of availing open access
- Any other additional information as requested by GRIDCO RENA / OPTCL / DISCOMs

2.2 Field Feasibility Assessment by OPTCL/DISCOMs

Upon receipt of information from GRIDCO RENA, Zonal Head-OPTCL/ DISCOMs shall issue advice to the concerned circle/division to assess and carry out field feasibility study of the proposal against the proposed date of connectivity.


2.3 Recommendation by OPTCL/DISCOMs

Upon conclusion of field feasibility studies, OPTCL/DISCOMs shall recommend the developer to proceed with the payment of fees for the Power System Study along with an intimation to GRIDCO RENA.

2.4 Submission of fees by Developer

The developer needs to submit the non-refundable fee for the Power System Study along with the application to RENA-GRIDCO, table of charges/fees are attached as **Annexure-2**. The application shall include the requisite information for power system study as **Annexure-4**.


DIRECTOR (F& CA)
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar


DIRECTOR (OPERATION)
OPTCL
Director (Operation)
OPTCL, Bhubaneswar



2.5 Power System Study by OPTCL/DISCOMs

OPTCL shall conduct system study periodically and update the data (i.e. regarding availability of spare bays, load and spare capacity, open space etc.) at various substation location annually at least once. OPTCL & RENA-GRIDCO should upload these transmission system data on their concerned web portal.

For any proposal of the developer on transmission connectivity, OPTCL/DISCOMs shall undertake the Power System Study, to ascertain the network adequacy to accommodate such proposed power injection/drawl, considering the peak generation/demand, N-1 contingency conditions in the state grid and whether the connectivity can be permitted without any additional system strengthening. The following scenarios may emerge after conducting power system study:

i. Adequate capacity is available at the desired substation:

In this scenario, OPTCL/DISCOMs shall communicate to the developer that adequate capacity is available at the desired substation.

ii. Network augmentation / Addition of new substation required as adequate capacity not available at the desired substation:

In this case, OPTCL/DISCOMs shall conduct a power system study for network augmentation/addition of new substation. It shall identify the scope of work for system strengthening or addition of new substation, the estimated cost and the probable date from which the open access can be allowed, and the developer shall be informed accordingly.

iii. Adequate capacity available at alternate substation in close proximity:

In this case, OPTCL/DISCOMs shall suggest the alternate substations to developer. The developer shall be required to provide consent after which the application shall be processed further.

In addition to above, OPTCL will conduct an annual system study to monitor available bays, capacity and open space at various locations and RENA-GRIDCO will ensure that the transmission system data is made live on the RENA web portal.


DIRECTOR (F&CA),
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar


DIRECTOR (OPERATION)
OPTCL
Director (Operation)
OPTCL, Bhubaneswar



The details of the minimum capacity to be considered for various voltage level is as follow:

SL No.	Voltage Level	Capacity
1	11 KV	3 MW
2	33 KV	15 MW
3	132 KV	50 MW
4	220 KV	180 MW
5	400 KV	>300 MW

2.6 Grant of Connectivity Clearance/Permission

Based on the field feasibility and power system study report, connectivity clearance/permission shall be issued to the developer along with an intimation to GRIDCO RENA. In case of network augmentation, the timelines established during the feasibility study and mutually agreed upon by OPTCL and the developer must be adhered.

In case of DISCOMs, please refer to **Clause No. – 2.3.**

2.7 SWC/SLFC Approval

The developer proposal shall be placed before RE SLFC along with technical and financial report, PFR/DPR, connectivity permission.

Recommendations of the RE SLFC shall be placed in SWC with due approval of MD, GRIDCO.

Projects up to 50 MW will be process and cleared by SWC. Projects above 50 MW shall be recommended to State Level Single Window Clearance Authority (SLSWCA) and High-Level Clearance Authority (HLCA)

2.8 Submission of bank guarantee as commitment fees by developer

The developer shall submit the required Bank Guarantee amount (attached as **Annexure-3**) post SWC approval of the project. This bank guarantee is to submit for reservation of desired capacity at the substation or OPTCL's/DISCOMs investment in capital expenditure for network augmentation/strengthening or development of a new substation. The bank guarantee shall be in force upto the date when the developer begins with grant of open access / GNA.

2.9 Execution of connectivity agreement

A connectivity agreement shall be signed with the developer post SWC approval of the project.

The execution of connectivity agreement shall render the developer as the Connectivity

DIRECTOR (F&CA)
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar

DIRECTOR (OPERATION)
OPTCL
Director (Operation)
OPTCL, Bhubaneswar



Guarantee. If the developer failed to meet the specified timeline, the connectivity guarantee will be considered cancelled, and deposit shall be forfeited.

2.10 Responsibility Matrix

Following Responsibility matrix has been prepared for project conceptualization to project commissioning.

Sl.	Event	Responsibility	Tentative timeline
1	Submission of Application along with supporting documents and deposit of power system study fees	Developer	0 th Day
2	Scrutinization of Application	GRIDCO RENA	3 Days
3	Forwarding to OPTCL/DISCOMs regarding field feasibility assessment and power system study	GRIDCO RENA	1 Day
4	Field Feasibility Assessment and Power System Study	OPTCL/DISCOMs	10 Days
7	Information to Developer and GRIDCO RENA regarding status of power system study	OPTCL	1 Day
8	Placement of project for SWC approval	SWC	15 Days
9	Execution of Connectivity Agreement and Submission of the Commitment Bank Guarantee	Developer	30 Days
10	Permission for Grant of Connectivity	OPTCL/DISCOMs	7 Days
11	Inspection Approval after construction of Transmission lines	Office of EIC-cum-Electricity	7 Days


2.11 Inspection Approval

The Office of EIC-cum-Electricity shall inspect and grant safety clearance upon the completion of construction of Transmission lines.

2.12 Development of Online Facilitation for Connectivity

RENA-GRIDCO shall develop an online process flow in its RE web portal for transmission/DISCOMs connectivity.

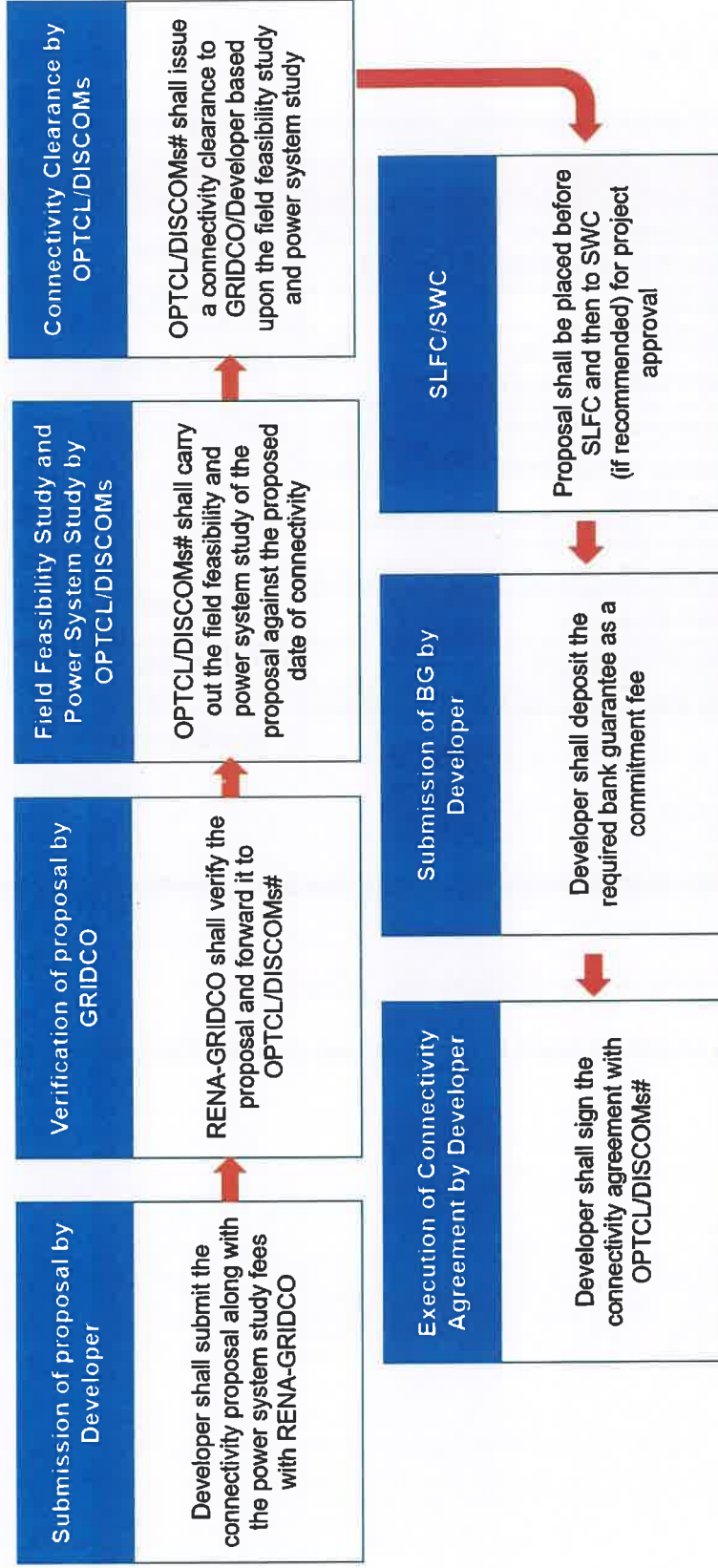

DIRECTOR (F& CA)
GRIDCO
 Director (Finance & Corporate Affairs)
 GRIDCO Ltd., Bhubaneswar


DIRECTOR (OPERATION)
Director (Operation)
OPTCL, Bhubaneswar



Flowchart for grant of Transmission Connectivity

Annexure-1



In case of voltage level 33 KV and below on transmission connectivity

DIRECTOR (F&CA)
GRIDCO (Finance & Corporate Affairs)
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar

DIRECTOR (OPERATION)
OPTCL (Operation)
Director (Operation)
OPTCL, Bhubaneswar



(I) Table of Power System Study Fees

Annexure-2

SL No.	Transmission Network	Amount (in INR, Exclusive of GST)
1	Discom Network	As and when decided by DISCOMs
2	OPTCL Network	INR 75,000

NOTE: GST as applicable

(II) Commitment Fees

Annexure-3

Connectivity Bank guarantee (Conn-BG) shall be submitted by the developer in two parts:

- Conn-BG1 amounting to INR 50 Lakhs
- Conn-BG2 amounting to INR 2 Lakhs/MW

DIRECTOR (F& CA)
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar

DIRECTOR (OPERATION)
OPTCL
Director (Operation)
OPTCL, Bhubaneswar



GOVERNMENT OF ODISHA
Bhubaneswar

List of Supporting Documents

Annexure-4

- Brief highlight of the project, mentioning the location etc.
- The phase wise (month and year) requirement of power
- Proposed years of study
- Details of the load profile (Constant/Variable)
- Single Line diagram depicting only the connecting voltage level in KV, number of circuits (SC or DC) and circuit distance in km.

DIRECTOR (F& CA)
GRIDCO
Director (Finance & Corporate Affairs)
GRIDCO Ltd., Bhubaneswar

DIRECTOR (OPERATION)
Director (Operation)
OPTCL, Bhubaneswar