SYNOPSIS

The State of Odisha, with a geographical area of approximately **1.56 lakh Sq.km**, is the **10th largest State in India in terms of area** and the **11th most populous**, having a population of about **4.83 Crore**. The State has a coastline of about **482 km** along the Bay of Bengal. Nearly **83% of the population resides in rural areas**, posing significant challenges for equitable and reliable power supply across remote and tail-end regions.

The power system of the State has some Sub-stations in certain remote zones served through single source, causing system unreliable. Therefore, it has been proposed to bring out improvement in the system by way of providing multi source connectivity through construction of new transmission line in the transmission sector of the State.

Therefore, through this scheme, by **Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis"** shall ensure system reliability power supply to existing industries and upcoming industries. This will improve the socio-economic condition of the inhabitants and create many new opportunities for overall development. The implementation of the project is required for provision of uninterrupted power supply, eradication of transmission loss and low voltage profile. This will also improve the stability of the 220 KV network of the system.

Accordingly, this Transmission Project Report has been prepared for , 220/33kV Substation at Kadua (Conversion of Kadua landeihill Switching station to 220/33kV GSS) as per 15th Intrastate Transmission Plan of Odisha.

The project includes:

Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey.

The project aims to enhance system stability, ensure quality**,** reliable power supply, uninterrupted power supply and meet the increasing load demand and low voltage issues of 33KV Sub station Viz. Banka, JN Prasad, BD Pur, Gallary, Gayaganda, Tilisingi and Buguda are suffering from low voltage problem due to long distance 33KV line from the source.

The main objectives of the proposed scheme are as follows:
A) Improvement of voltage profile.
B) Minimization of interruption to power supply.
C) Enhancement of system security and reliability.
D) Strengthening of the transmission network.

INTRODUCTION

With regard to the Electricity sector, Odisha has been a **pioneer in implementing power sector reforms and restructuring**. The State has played a leading role nationally, with several other States following its reform model. As part of this restructuring, the **distribution sector was unbundled and reorganized into four distribution zones**, while the **generation sector was separated and operates as State-owned generating companies**.

The erstwhile **Grid Corporation of Odisha Limited (GRIDCO)** was initially entrusted with both **transmission and bulk power trading** functions. Subsequently, these responsibilities were bifurcated. While **GRIDCO** continues to manage **bulk power trading**, the **transmission and wheeling of power** are presently handled by the **Odisha Power Transmission Corporation Limited (OPTCL)**.

The proposed scheme comprises:

Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.

The proposed scheme will ensure stable, reliable, and quality power supply to the command area and will significantly contribute towards minimizing power interruptions**,** improving voltage profile**,** meeting future load growth, and reducing technical losses in the existing system.. This will improve the socio-economic condition of the inhabitants and create many new opportunities for overall development. The implementation of the project is required for provision of uninterrupted power supply, eradication of transmission loss and low voltage profile.

Justification of the Project:

Seven 33KV Sub stations Viz. Banka, JN Prasad, BD Pur, Gallary, Gayaganda, Tilisingi and Buguda are suffering from low voltage problem due to long distance 33KV line from the source Grid Sub station. The cumulative demand of these PSSs are around 21MW, which has overstressed the existing system and impacted supply quality.

At present NHPC is constructing a 40 MW, 220KV Pooling (Switching) Station at Landeihill. By construction of 220/33KV GSS at Landeihill by converting the under construction 220KV Switching station with 220KV LILO from 220KV Bhanjanagar – Nayagarh line will significantly improve the 33KV voltage profile and enhancing reliability of supply.

It will also relieve 11MW of load from Bhanjanagar GSS and 10MW from Aska New GSS, decongesting the upstream grid.

Load Growth and System Requirement:

In recent years, power demand of Bhanjanagar,Buguda, Belaguntha and Jagannath prasad Block of district Ganjam has increased substantially, driven by infrastructure development. This escalating demand necessitates the development of a high-capacity transmission network with uninterrupted and reliable power supply, which is critical for sustaining long-term economic growth in the region.

In view of the above, it is proposed for **Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis w**ith total project cost amounting to **₹ 63,32,25,371.00** (Rupees Sixty Three Crores Thirty Two Lakhs Twenty Five Thousands Three Hundreds Seventy One only).including GST tentative, which includes the following components:

a. Supply of 2X100MVA Power transformer.
b. Construction of 220KV Power transformer bay 2 numbers.
c. Construction of 220KV Spare (unequipped) bay 1 number.
d. Construction of 33KV power transformer (Incomer) bay 2 numbers.
e. Construction of 33KV feeder bay 5 numbers.
f. Construction of 33KV Bus Coupler bay 1 number.
g. 33KV Spare (unequipped) bay 1 number.

Proposed Scope of Works:

Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.

Key System Benefits:

1. Reliable and alternative power supply near to load centre.
2. Strengthening of regional power evacuation and redundancy.
3. Enabling connectivity to future renewable and industrial loads.
4. Reduction of loading on existing 33KV feeders.
5. Strengthen 33KV connectivity to PSSs and resolve low voltage issues.

This transmission project report broadly contains the following parameters.

- Details of works.
- Need of the Project.
- Cost estimate.
- Least cost analysis.
- Status of works.
- Constraints.
- Costs benefit analysis.
- Phasing of outlay required.

- Drawings.
- System study analysis.

The works covered in this project have been programmed for completion during FY **2029-30** and accordingly, the implementation program has been drawn up. The total Project Cost comes to **Rs. 6332.25 Lakhs** which will be funded by GoO. The Annual Revenue Return (ARR) works out to **12.02 %** considering the anticipated benefits, which accrue due to implementation of the scheme.

EXISTING SUPPLY SYSTEM

220/33KV Switching station, Landeihill (U/c):

1. 220/33KV 40MVA, Power transformer.
2. 220KV LILO from exsiting 220KV Bhanjanagar- Nayagarh line.

NEED OF THE PROJECT

220 KV switching station is being developed at Landei hills, Ganjam for the evacuation of power from 40MW Solar PV plant with OPTCL Transmission system through LILO provision in the existing 220KV Bhanjanagar- Nayagarh line. This Project is being executed by M/s NHPC. The location of the proposed switching substations at Landei Hills is situated approx. 5 KMs from the Kadua area, as originally proposed by TPSODL for the establishment of the Grid Sub-station. Consequently as per the request of OPTCL, M/s. NHPC has allocated space within the current design to accommodate the future Conversion of the switching sub-station into a full-fledged GSS. Hence by considering the above scenario scope of Works are as follows. 1. 220KV Bays- Power Tfr-2 Nos, 1 spare bay (Unequipped Bay) 2. 33KV Bays- Feeder-5 Nos, Tfr-2 Nos, B/C-1 no, 1 spare bay 3. 2 X 100MVA 220/33KV Power transformer. 4. Considering the orientation of proposed GSS, 33KV UG cable laying from LV side of power transformer to 33 KV Bus.

The project is required to establish a high-capacity power network to ensure uninterrupted and reliable power supply, sustaining long-term growth in the Bhanjanagar, Belaguntha, Buguda and Jagannathprasad Block.

Seven 33KV Sub stations Viz. Banka, JN Prasad, BD Pur, Gallary, Gayaganda, Tilisingi and Buguda are suffering from low voltage problem due to long distance 33KV line from the source. The cumulative demand of these PSSs is around is around 21MW, which has overstressed the existing system and impacted supply quality.

At present NHPC is constructing a 40 MW, 220KV Pooling (Switching) Station at Landeihill. By upgrading Landeihill to 220/33KV GSS with 220KV LILO from 220KV Bhanjanagar – Nayagarh line will significantly improve the 33KV voltage profile enhancing reliability of supply. It will also relieve 11MW of load from Bhanjanagar GSS and 10MW from Aska New GSS, decongesting the upstream grid.

Benefits after **Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No., 33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.**

- Resolution of low voltage issues **.**

- Strengthening of the 220 kV system network.
- Enhancement of overall grid reliability and load handling capability with the addition of 220KV source.
- Reduction of interruption due fault, as 33KV line length will be reduced.
- Reduction of load in the existing 33KV line from GSSs to PSSs.

SCOPE OF NEW PROPOSAL

Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.

The total scope of works includes:

Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State on turnkey basis.

220KV System:

a. Supply of 2X100MVA Power transformer.
b. Construction of 220KV Power transformer bay 2 numbers.
c. Construction of 220KV Spare (unequipped) bay 1 number.

33KV System:

a. Construction of 33KV power transformer (Incomer) bay 2 numbers.
b. Construction of 33KV feeder bay 5 numbers.
c. Construction of 33KV Bus Coupler bay 1 number.
d. 33KV Spare (unequipped) bay 1 number.

PROJECT IMPLEMENTATION PLAN

The project implementation plan for the works covered is given in the Bar Chart enclosed. The activity wise implementation schedule indicates that the project is programmed for completion by **November- 2029.** The Chief General Manager (Project), OPTCL is the nodal authority for implementation of the project.

PROCUREMENT PROCEDURE

In accordance with the approved norms of OPTCL, the procurement of materials and services would be taken up by way of National Competitive Bidding. The entire work for the proposed project is treated as a single package and is awarded on turnkey basis to a single party.

STATUS OF CLEARANCES

1] TECHNO – ECONOMIC CLEARANCE:

Not required as voltage level is less than 400 KV.

2] ENVIRONMENT & FOREST CLEARANCE:

The project does not involve forest land, so, environment & forest clearance is not required.

3] STATE POLLUTION CONTROL BOARD:

Not required.

4] INVESTMENT APPROVAL FROM OERC: 2

As per the license condition 10 read with condition 23.1 of OPTCL approval of OERC is required for cost beyond 10 Cr. The proposed Project for Upgradation of 220/33KV MRSS of TATA Steel SEZ, Gopalpur has been considered essential to undertake the construction of transmission infrastructure, for development of a robust and reliable electrical network in the Industial Hub.

5] POWER & TELECOMMUNICATION CO-ORDINATION COMMITTEE (PTCC)

The clearance in respect of PTCC is not required.

SOURCE OF FUNDING.

The proposed project will funded through **MMSBY- Upgradation/Augmentation of existing Sub-stations/Transmission Lines** scheme, where **30% Equity** support will be provided by GoO and remaining 70% will be met by availing loan from suitable financial institutions.

COST OF IMPLEMENTATION

The implementation of the Project will incur an expenditure of **Rs. 6332.25 lakhs**, the details of which are indicated separately.

CERTIFICATE

Certified, that the Project report has been prepared by adopting the prevailing approved cost data of OPTCL.

PHASING OF EXPENDITURE:

Financial Year	Rs. In Lakhs
2026-27	633.2
2027-28	2849.4
2028-29	2216.2
2029-30	633.2

BENEFITS:

Physical Benefits:

1. Reliable 33KV backbone source for Seven numbers of 33KV Sub stations of TPSODL.
2. Strengthening of regional power evacuation and redundancy.
3. Reduction of loading on existing 33KV feeder.
4. Resolution of low voltage issues.
5. Reduction of interruption due fault, as 33KV line length will be reduced.
6. Facilitating future downstream connectivity at 220KV levels for industrial demand centers.
7. Improving the economic condition of the rural habitats.
8. Alternative and reliable source of power supply .

Financial Benefit:

The Project will yield gross return (ARR) of 12.02**%.**

ESTIMATED COST

SL. NO.	**DESCRIPTION**	**UNIT**	**QTY.**	**AMOUNT IN LAKHS**
1	**Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.**			6332.25
TOTAL COST OF THE PROJECT				**Rs.6332.25 Lakhs.**

The following percentages have been considered while framing the cost estimate.

Stock, storage & Insurance @ 3%
Contingency @ 3%
T&P Cost @ 2%
Transportation @ 5%

LEAST COST ANALYSIS

The proposal is based on field studies conducted by OPTCL to arrive at the least cost option of attaining the objectives aimed in the Project. In order to achieve the system reliability, stability and to minimize interruption to the consumers, alternatives were examined at various stages of planning to arrive at the optimal solution based on technical as well as financial considerations.

CONSTRAINTS

No such constaints.

ANNEXURES LIST: DOCUMENTS & DRAWINGS

The following drawings are appended to this Project Report.

Annexure-I

1] The detailed estimate.

Annexure-II

1] Project Implementation Schedule.

Annexure-III

1] Environmental Impact Assessment Study: Line & Sub-Station.

Annexure-IV

1] In principle approval.

2] Single Line Diagram.

3] Connectivity arrangement.

4] Indicative Maps

5] Power Map of Odisha.

6] EHT network & transmission map of OPTCL in the state of Odisha.

7] Load Flow Study

8] IRR

```
|:::::        LOAD FLOW ANALYSIS    :::::|
|-----CASE NO :  1     CONTINGENCY  : 0  SCHEDULE NO : 0-----|
|-----CONTINGENCY NAME : Without 220/33kV Landeihill
 RATING CONSIDERED : NOMINAL -----|
--------------------------------------------------------------------------------

|***** SUMMARY OF RESULTS *****|

TOTAL REAL POWER GENERATION                    :    17320.06 MW
TOTAL REACT. POWER GENERATION                  :   -2692.667 MVAr
TOTAL INDUCTION MACHINE GEN.                   :        0.000 MW
TOTAL INDUCTION MACHINE GEN.                   :        0.000 MVAr
TOTAL INDUCTION MACHINE MOTOR LOAD             :        0.000 MW
TOTAL INDUCTION MACHINE MOTOR LOAD             :        0.000 MVAr
TOTAL REAL POWER LOAD                          :    16415.44 MW
TOTAL REACTIVE POWER LOAD                      :     2676.773 MVAr
TOTAL SHUNT INJECTION                          :        0.000 MW
TOTAL LINE SHUNT                               :    9200.312 MVAr
TOTAL CHARGING                                 :        0.000 MW
TOTAL CHARGING                                 :    19834.93 MVAr
TOTAL LOSSES (AC)                              :      297.4011 MW
TOTAL LOSSES (AC)                              :    3669.363 MVAr
TOTAL TIE LINE FLOW                            :     608.0514 MW
TOTAL TIE LINE FLOW                            :      1245.579 MVAr
TOTAL TIES AND LOAD                            :     1352.084 MW
TOTAL TIES AND LOAD                            :     1471.409 MVAr
DESIRED INTERCHANGE                            :        0.000 MW
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|:::::        LOAD FLOW ANALYSIS    :::::|
|-----CASE NO :  1     CONTINGENCY  : 0  SCHEDULE NO : 0-----|
|-----CONTINGENCY NAME : with 220/33kV Landeihill
RATING CONSIDERED : NOMINAL -----|
```

|***** SUMMARY OF RESULTS *****|

TOTAL REAL POWER GENERATION	:	17320.06 MW
TOTAL REACT. POWER GENERATION	:	-2707.233 MVAr
TOTAL INDUCTION MACHINE GEN.	:	0.000 MW
TOTAL INDUCTION MACHINE GEN.	:	0.000 MVAr
TOTAL INDUCTION MACHINE MOTOR LOAD	:	0.000 MW
TOTAL INDUCTION MACHINE MOTOR LOAD	:	0.000 MVAr
TOTAL REAL POWER LOAD	:	16413.57 MW
TOTAL REACTIVE POWER LOAD	:	2675.802 MVAr
TOTAL SHUNT INJECTION	:	0.000 MW
TOTAL LINE SHUNT	:	9200.651 MVAr
TOTAL CHARGING	:	0.000 MW
TOTAL CHARGING	:	19817.09 MVAr
TOTAL LOSSES (AC)	:	298.4766 MW
TOTAL LOSSES (AC)	:	3664.33 MVAr
TOTAL TIE LINE FLOW	:	608.0514 MW
TOTAL TIE LINE FLOW	:	1245.579 MVAr
TOTAL TIES AND LOAD	:	1353.475 MW
TOTAL TIES AND LOAD	:	1472.051 MVAr
DESIRED INTERCHANGE	:	0.000 MW

COST BENEFIT ANALYSIS		
A. BENEFITS DUE TO ADDITIONAL SALE OF ENERGY ON ACCOUNT OF CONVERSION OF SWITCHING STATION AT LANDEIHIL TO GRID SUBSTATION		
1	Transformation Capacity considered for revenue calculation with N-1 contigency.	100.00
2	Power factor (PF)	0.90
3	Diversity factor	1.43
4	Load factor	0.60
5	Additional Avg. power available for sale on account of construction of conversion of switching station at Landeihill to grid sub station.	37.76
6	Additional energy available for sale in LU	3307.97
7	With 3% transmission losses in the Grid, the energy available for sale per annum in LU	3208.73
8	Anticipated revenue at a cost of Rs.0.24/ Unit in Lakhs	770.10
B. BENEFITS OF THE SCHEME DUE TO REDUCTION IN LOSSES		-
1	Total losses before implementation of the scheme in MW	297.40
2	Total losses after implementation of the scheme in MW	298.48
3	Total reduction in losses in MW	-1.08
4	Load factor	0.60
5	Loss load factor (0.8 LF^2 **+ 0.2 LF)**	0.41
6	The energy available for sale per year in LU	-38.44
7	With 3% transmission losses in the Grid, the energy available for sale per annum in LU	-37.29
8	Anticipated revenue due to reduction in losses in lakhs @ Rs. 0.24/Unit	-8.95
C. CALCULATION OF REVENUE RETURN		
1	Anticipated revenue due to reduction in losses [Rs. Lakhs]	-8.95
2	Anticipated revenue due to sale of additional energy [Rs. Lakhs]	770.10
3	Total anticipated annual revenue [Rs. Cr.]	7.61
4	Estimated Cost [Rs. Cr.]	63.32
5	**Average Annual Rate of Return in %**	**12.02**
6	**IRR**	**14.51%**

LIST OF FORMATS

SL. NO.	DESCRIPTION	FORMAT NO.
1.	CLEARANCE FROM CEA AND INVESTMENT AUTHORISATION	FORMAT - I
2.	SURVEY	FORMAT - II
3.	ACQUISITION OF LAND FOR SUB-STATION	FORMAT - III
4.	FOREST AND ENVIRONMENT CLEARANCE	FORMAT - IV
5.	FINANCIAL BENEFITS	FORMAT – V
6.	ANNUAL PLAN PROVISION	FORMAT – VI
7.	EXPENDITURE INCURRED	FORMAT – VII
8.	PROCUREMENT OF MATERIALS FOR SUB-STATION	FORMAT - VIII
9.	PROCUREMENT OF MATERIALS FOR LINE	FORMAT - IX

FORMAT - I

SANCTION AND CLEARANCES

SL. NO.	NAME OF THE SCHEME	NAME OF FIVE-YEAR PLAN IN WHICH INCLUDED	TECHNO-ECONOMIC CLEARANCE BY CEA	INVESTMENT APPROVAL	REMARKS
1	2	3	4	5	6
1.	Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.	15th Intra-state Transmission plan in case no. 71/2026.	Not required	Would be obtained from OERC.	

FORMAT - II

SURVEY

SL. NO.	EHT LINE	DATE OF TAKING UP SURVEY WORKS ORIGINAL DATE / REVISED DATE	COMPLETION OF SURVEY/ ORIGINAL DATE / REVISED DATE	WHETHER PTCC CLEARANCE RECEIVED	REMARKS
1	2	3	4	5	6
1.	N.A				

FORMAT - III

ACQUISITION OF LAND FOR SUB-STATION

SL. NO.	NAME OF THE SUB-STATION	WHETHER APPLICATION FOR ACQUISITION OF LAND FORWARDED TO COMPETENT AUTHORITY	WHETHER ORDERS ISSUED BY THE STATE GOVERNMENT	FINALLY, WHETHER LAND HAS BEEN ACQUIRED	SPECIFY IF LAND IS AVAILABLE
1	2	3	4	5	6
1.	Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.	Land available within the vicinity of under construction 220KV switching station of NHPC at Landeihill.			

FORMAT - IV

FOREST AND ENVIRONMENT CLEARANCE

SL. NO.	DETAILS OF SCHEME	WHETHER SURVEY COMPLETED	WHETHER APPLICATION FOR CLEARANCE FORWARDED TO STATE GOVT.	WHETHER APPLICATION FORWARDED TO CENTRAL GOVT.	RECEIPT OF FOREST AND ENVIRONMENTAL CLEARANCE
1	2	3	4	5	6
1.	Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis	N.A (Order placed)	NO (Order not placed)	NO (Order not placed)	NO (Order not placed)

FORMAT - V

FINANCIAL BENEFITS

SL. NO.	NAME OF SCHEME	TOTAL LOSSES BEFORE IMPLEMENTATION OF THE SCHEME (MW)	TOTAL LOSSES AFTER IMPLEMENTATION OF THE SCHEME (MW)	REDUCTION IN TRANSMISSION LOSSES (MW)	ADDITIONAL UNITS TO BE SUPPLIED TO THE SYSTEM (LU)	1] REVENUE DUE TO SUPPLY OF ADDITIONAL UNITS 2] REVENUE DUE TO REDUCTION OF LOSSES [Rs. IN LAKHS]	REMARKS
1	2	3	4	5	6	7	8
1.	Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis	**297.40**	**298.48**	**-1.08**	**3208.73-37.29 = 3171.45**	**1) 770.10** 2) -8.95	**Total Revenue: 761** **Rs. Lakhs**

FORMAT - VI

ANNUAL PLAN PROVISION

SL. NO.	NAME OF SCHEME	WHETHER NECESSARY PROVISIONS HAS BEEN MADE IN CURRENT FINANCIAL YEAR	IF NOT WHETHER PROVISION IS BEING MADE IN THE NEXT YEAR	REMARKS (ANNUAL PLAN PROVISION)
1	2	3	4	5
1.	Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis.	Provision made for: FY 2026-27 ,FY 2027-28 ,FY 2028-29 and FY 2029-30		

FORMAT - VII

EXPENDITURE STATEMENT

SL. NO.	NAME OF THE SCHEME	ANTICIPATED EXPENDITURE TO BE INCURRED DURING THE FINANCIAL YEARS (Rs. IN LAKHS)				
		FY 2026-27	FY 2027-28	FY 2028-29	FY 2029-30	Total
1	2	3	4	5	6	7
1.	Construction of Conversion of 220KV Switching substation at Landeihill into a 2X 100MVA 220/33KV Grid substation with 220KV 100 MVA Trf bays-02 Nos., 220 KV Spare bay-01 No.,33KV Fdr. Bays- 5 Nos, I/C Tfr.Bays-2 Nos, B/C bay-01 No. and 33 KV spare bay-01 No. scope of work in Odisha State of India on turnkey basis	633.2	2849.4	2216.2	633.2	6332.25

FORMAT – VIII

PROCUREMENT OF MATERIAL FOR SUB-STATION

SL. NO.	NAME OF MATERIAL	TOTAL QUANTITY	DETAILS OF ORDER	SUPPLY SCHEDULE FOR BALANCE QUANTITY
		220kV Bay to be equipped.	**220kV**	**220kV**
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12.	• Circuit Breaker • L.A • C.T • IVT • Panels • Relays • Cables • Structures • Isolators • Clamps and connectors. • Insulators and Hardware fittings • Conductors and other materials	As per estimate	The contract shall be awarded to a single party on turn-key basis.	

FORMAT - IX

PROCUREMENT OF MATERIALS FOR LINE.

SL. NO.	NAME OF MATERIAL	TOTAL QUANTITY	DETAILS OF ORDER	POSITION OF RECEIPT OF MATERIALS	SUPPLY SCHEDULE FOR BALANCE QUANTITY
N.A	N.A	N.A	N.A		