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(Incorporated under the Companies Act, 1956)
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ABSTRACT

Annual Plan 2024-25 – Prioritization of works - Principles and system for Transmission works - Orders issued

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Office Order (CMD) No.785/2024 [D(T&SO)/T1/Annual Plan 24-25/Prioritisation/24-25] Thiruvananthapuram — Dated: 22-05-2024

Read: 1.Note No. CMD/107/Expenditure/2024 dated 24.01.2024 of the CMD

2. Note No. D(T&SO)/T1/Expenditure cut/23-24/1100 dated 6.02.2024 of the Director (T,SO&P)
3. Note No. CMD/107/RDSS-Trans-Procurement/2024 dated 27.02.2024 of the CMD
4. Note No. D(T&SO)/T1/Annual Plan 24-25/Prioritised/23-24/1929 dated 12.03.2024 of the Director (T,SO&P)
5. Note No. D(T,SO&P)/T1/AP 24-25/Prioritisation dated 21.04.2024 of the Director (T,SO&P)
6. Note No. D(T,SO&P)/T1/Expenditure cut/23-24/150 dated 09.05.2024 of the Director (T,SO&P)
7. Note No. D(T,SO&P)/T1/Expenditure cut/23-24/190 dated 17.05.2024 of the Director (T,SO&P)

Introduction:

1. In order to have efficient Transmission grid, especially during the severe power position shortage period, to mitigate the adversities experienced in few areas, needs specific attention. Therefore, it is of paramount importance to have transparent technical indexing system to arrive at prioritization of the projects.

2. The resources are always finite. It warrants an intelligent system to ensure deployment resources to the most needy areas. The regional imbalances have to be tackled properly. The system of project specific investment needs corrections by studying the technical parameters, which gives clarity regarding the gap areas in the transmission grid. Once such deficiencies are identified, it is important to grade them based on weightage and working out index. This will ensure the appropriate decisions regarding financing of projects to mitigate the most severely affected areas first.

3. The outlay provided for Transmission SBU in the Annual Plan for the year 2024-25 as per B.O. (DB) No. 5/2024 (CP/Plg.1/AP/23-24) dated 04.01.2024 was Rs.1069.86 crore, out of which Rs.155.6 crore is for the RDSS sub-transmission works.

4. In view of the financial crisis faced by KSEBL it was decided to revise the plan outlay for transmission SBU for the year 2024-25 to Rs.663 crore inclusive of an amount of Rs.125 crore exclusively for RDSS works. Further, the works covered in the reduced outlay of Rs.663 crore were prioritized based on their importance, essentiality and benefits. It was decided that as per the availability of funds, the works as per the prioritization shall be taken up in batches.

ORDER

1. This order is issued stipulating the guidelines to follow while deciding the Transmission Projects budget allocation by finalizing the priority of projects.

2. The order of prioritisation of works, is given below:

Priority 1 - RDSS Phase I works (1st priority)

Works totalling Rs.125 crore included under RDSS Phase-I is given the top priority, as realisation of these works is essential for ensuring RDSS funding. Execution of works included in this category is very much essential even if RDSS funding is not available, in view of the criticality of these works. All the works in this category are already tendered, awarded and are in progress.

Priority 2 - RDSS Phase I works (2nd priority)

Works totalling Rs.41.95 crore included under RDSS Phase-I is given the second priority for implementation, as the funding for RDSS Phase-I is already approved by MoP. The works in this category are to be executed as such, if RDSS fund is available, else to be re-routed. Since RDSS fund is confirmed now, the works are to be proceeded as such. These works are also tendered and awarded and can be proceeded with once direction is given to the contractors.

Priority 3 - RDSS Phase I (3rd priority)

Works totalling Rs.22.97 crore included under RDSS Phase-I is given the third priority for implementation. These works were proposed to be executed only if RDSS funding available. Since RDSS fund is now confirmed, these works can also be proceeded with. All works under this category are already awarded, except for Idukki package for which the tender is under finalisation. The works can be proceeded with once direction is given to the contractors.

Priority 4 - Deposit works

These works are to be executed under work deposit scheme using the funds provided by the beneficiaries. The total outlay given for the deposit works is Rs.42.05 crore. Since the work deposit amount is remitted in advance by the beneficiaries, execution of these works is to be completed within timelines agreed with the beneficiaries. Hence, these works are given the next priority after RDSS projects.

Priority 5 - Funded works (RKI, PSDF, KIFBII, KFW & MNRE)

Works funded fully or partially by various funding agencies with/without grants such as the substations/lines under Kuttanad Package with RKI funding, reliable communication project and SAMAST with PSDF funding, various Transgrid projects with KIIFB funding, GEC projects with MNRE grant/KfW loan etc. are included in this category. An outlay of Rs.281.14 crore is provided for the various funded works. These works are to be completed within the timelines specified by the respective agencies

and hence given the next priority after deposit works.

Priority 6 - Ongoing works

The works under this category include spill over works carried from last year and other works that are already started and in progress. Since considerable expenditure is already incurred in these projects, their execution needs to be continued. Hence, these works are given the next priority. The total outlay given for ongoing works is Rs.272.71 crore

Priority 7 – Replacement/Renovation works

Replacement of aged/deteriorated major equipments such as transformers/panels/bay equipments etc. based on recommendations of various technical audit teams, works that are necessitated due to space constraints in existing stations, works to be carried out based on safety aspects and reliability are included in this category.

Priority 8 - New works

All new capital works such as construction substations & lines, upgradation of existing substations & lines etc., which are not included in the above categories, are included in this priority. These works are essential to meet the increasing power demand, improve the reliability of network, increase the power import capability, meet the power evacuation requirements of new generating stations etc.

3. The technical criteria considered for prioritizing these works and the weightage for each criteria are given below:

1. **Transformer loading** (maximum demand recorded in the transformers of existing substations/nearby substations feeding the area)
   - Maximum weightage – 25points
   - Weightage for transformer loading > 80% – 25 points
   - Weightage for transformer loading 60 to 80% – 20 points
   - Weightage for transformer loading 40 to 60% – 15 points
   - Weightage for transformer loading < 40% – 10 points

2. **Feeder loading** (maximum demand recorded in the EHT feeders to existing substations/nearby substations feeding the area)
   - Maximum weightage – 25 points
   - Weightage for feeder loading > 65% – 25 points
   - Weightage for feeder loading 50 to 65% – 20 points
   - Weightage for feeder loading 40 to 50% – 15 points
   - Weightage for feeder loading < 40% – 10 points

3. **Additional demand to be met** (additional capacity that is built up due to the new project and the capacity that is freed up in the adjacent substations due to shifting of load to the new project, which can be utilized for meeting any pending power allocation requests or the emerging demand in the area)
   - Maximum weightage – 20 points
   - Weightage for additional demand > 10MW – 20 points
   - Weightage for additional demand 5 MW to 10 MW – 15 points

- Weightage for additional demand upto 5 MW – 10 points

4. Loss reduction (reduction of transmission loss in the EHT network and in the 11kV feeders connected to the new project/existing projects)
   - Maximum weightage – 20 points
   - Weightage for loss reduction > 1 MW – 20 points
   - Weightage for loss reduction 500 kW to 1 MW – 15 points
   - Weightage for loss reduction upto 500 kW – 10 points

5. Need to ensure N-1 reliability (whether redundancy of transformers/feeders could be established due to the new project)
   - Maximum weightage – 10 points
   - Weightage if the project improves reliability – 10 points
   - Weightage for no improvement in reliability – No weightage

The overall grading of the new projects included in Priority-8 are calculated based on the above weightage matrix.

4. The complete list of works proposed in the Annual Plan 2024-25, which are prioritised as per the above principles, for the amount Rs 663 cr is attached as Annexure.

5. Check list - Transmission improvement work

- Addition of 11kV feeders and dedicated feeders to far-off areas.
- Addition of 110/33kV GIS station in the Right of Way of existing 110kV /33kV feeders where less space is only consumed along with less amount for built up as investment.
- 33/11kV substation may be at the load center to share the load equally.
- Adding of additional 11kV/33kV substation in rural and remote areas for better supply rearrangement where less and easier availability of space.
- Upgradation of 66kV substations to 110kV and 110kV substations to 220kV along with expansion of bays and 11kV panels etc.
- New proposals may include 33/11KV system and bay for future expansions.

6. Other guidelines

A. The prioritization principles, technical criteria and weightage to arrive at index shall be strictly followed by the respective officers for taking up Transmission projects in future.

B. Based on the analysis, annually the framework of technical parameters and weightage may be adjusted.

C. A Technical Committee shall be constituted to study the technical parameters and weightage annually. The Committee shall file the report with suggestions to take appropriate decisions.

Orders are issued accordingly.

By Order of the Chairman & Managing Director

Sd/-
SABITHA S
Secretary

To:

Chief Engineer (Transmission South)
Chief Engineer (Transmission North)
Chief Engineer (TransGrid)
Chief Engineer (Transmission System Operation)

Copy to:

Chief Engineer (IT,CR&CAPs)
Deputy Chief Engineer, Corporate Planning
Deputy Chief Engineers, All Transmission Circles
Deputy Chief Engineers, All System Operation Circles
Deputy Chief Engineers, TransGrid South/ TransGrid North
Executive Engineer, Transmission Division, Pathanamthitta
TA to Chairman & Managing Director)
TA to Director (Transmission, System Operation & Planning)
CA to Secretary Administration
Stock file

Forwarded / By Order

Assistant Executive Engineer