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STANDING COMMITTEE ON ENERGY
(2021-22)

SEVENTEENTH LOK SABHA

MINISTRY OF POWER

[Action taken by the Government on the observations/ recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) on the subject 'Delay in Execution/Completion of Power Projects by Power Sector Companies']

THIRTIETH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

July, 2022/Sravana, 1944 (Saka)

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Presented to Lok Sabha on 02.08.2022
Laid in Rajya Sabha on 02.08.2022



सत्यमेव जयते

LOK SABHA SECRETARIAT
NEW DELHI

July, 2022/ Sravana, 1944 (Saka)

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**COMPOSITION OF THE STANDING COMMITTEE ON ENERGY
(2021-22)**

MEMBERS

LOK SABHA

Shri Rajiv Ranjan Singh *alias* Lalan Singh - Chairperson

2. Shri Gurjeet Singh Aujla
3. Shri Devendra Singh Bhole
4. Shri Harish Dwivedi
5. Shri Sanjay Haribhau Jadhav
6. Shri Kishan Kapoor
7. Dr. A. Chella Kumar
8. Shri Sunil Kumar Mondal ^
9. Shri Uttam Kumar Reddy Nalamada
10. Shri Ashok Mahadeorao Nete
11. Shri Praveen Kumar Nishad
12. Shri Velusamy P.
13. Shri Parbatbhai Savabhai Patel
14. Shri Gyaneshwar Patil@
15. Shri Jai Prakash
16. Shri Dipsinh Shankarsinh Rathod
17. Shri Gnanathiraviam S.
18. Shri Bellana Chandra Sekhar
19. Shri Shivkumar C. Udasi
20. Vacant**
21. Vacant#

RAJYA SABHA

22. Shri Ajit Kumar Bhuyan
23. Shri Rajendra Gehlot *
24. Shri Muzibulla Khan
25. Shri Maharaja Sanajaoba Leishemba

26. Shri S. Selvaganabathy *
27. Dr. Sudhanshu Trivedi
28. Shri K.T.S. Tulsi
29. Vacant[§]
30. Vacant &
31. Vacant^{^^}

SECRETARIAT

- | | | |
|----|---------------------------|---------------------|
| 1. | Dr. Ram Raj Rai | Joint Secretary |
| 2. | Shri R.K. Suryanarayanan | Director |
| 3. | Shri Kulmohan Singh Arora | Additional Director |
| 4. | Shri Manish Kumar | Committee Officer |

[^] Nominated as Member of the Committee w.e.f. 01.12.2021 vice Smt. Sajda Ahmed.

[@] Nominated as Member of the Committee w.e.f. 07.02.2022 vice Shri Ramesh Chander Kaushik.

^{**} Shri Akhilesh Yadav ceased to be Member of the Committee consequent upon his resignation from membership of the Lok Sabha on 22.03.2022.

[#] Vacant since constitution of the Committee.

^{*} Nominated as Member of the Committee w.e.f. 11.11.2021.

[§] Shri Jugalsinh Lokhandwala resigned from the membership of the Committee on 02.12.2021.

[&] Shri T.K.S. Elangovan ceased to be Member of the Committee consequent upon his retirement from the Rajya Sabha on 29.06.2022.

^{^^} Shri Sanjay Seth ceased to be Member of the Committee consequent upon his retirement from the Rajya Sabha on 04.07.2022.

INTRODUCTION

I, the Chairperson, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Thirtieth Report on action-taken by the Government on observations/recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) on the subject 'Delay in Execution/Completion of Power Projects by Power Sector Companies'.

2. The Nineteenth Report was presented to the Lok Sabha on 5th August, 2021 and was laid in Rajya Sabha on the same day. Replies of the Government to all the recommendations contained in the Report were received on 4th January, 2022.

3. The Report was considered and adopted by the Committee at their sitting held on 26th July, 2022.

4. An Analysis on the Action Taken by the Government on the recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) Report of the Committee is given at Appendix-II.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

**New Delhi
26th July, 2022
Sravana 4, 1944 (Saka)**

**Rajiv Ranjan Singh *alias* Lalan Singh,
Chairperson,
Standing Committee on Energy**

CHAPTER – I

REPORT

This Report of the Standing Committee on Energy deals with the action taken by the Government on the observations/ recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) on the subject 'Delay in Execution/Completion of Power Projects by Power Sector Companies'.

2. The Nineteenth Report was presented to Lok Sabha on 5th August, 2021 and was laid same day on the Table of Rajya Sabha. The Report contained 6 observations/recommendations.

3. Action-taken notes in respect of all the observations/recommendations contained in the Nineteenth Report have been received from the Government. These have been categorized as follows:

(i) Observations/Recommendations which have been accepted by the Government:

Serial Nos. 1,2,3,4,5 and 6	Total - 6 Chapter-II
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(ii) Observation/Recommendation which the Committee do not desire to pursue in view of the Government's reply:

- Nil -	Total - 00 Chapter-III
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(iii) Observation/Recommendation in respect of which the reply of the Government has not been accepted by the Committee and which require reiteration:

- Nil -	Total - 00 Chapter-III
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(iv) Observation/Recommendation in respect of which the final reply of the Government is still awaited:

- Nil -	Total - 00 Chapter-III
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4. The Committee desire that Action-taken Statement on the observations/recommendations contained in Chapter-I of this Report may be furnished to the Committee within three months of its presentation.

5. The Committee will now deal with action taken by the Government on some of their observations/recommendations that require reiteration or merit comments.

(Recommendation Sl. No. 1)

Dispute Avoidance Mechanism

6. The Committee, in their Report, had recommended/observed as under:

“The Committee's analysis of the information submitted to them indicates that a large number of power projects have not been completed as per the schedule which resulted in huge time and cost overrun. Sector-wise analysis reveals that 12 out of 13 hydro projects, 30 out of 34 thermal projects, 18 out of 42 Transmission projects and 01 out of 26 Renewable projects were delayed in their execution. Astonishingly, 12 delayed hydro projects with cumulative time overrun of almost 1205 month have resulted in huge cost overrun of Rs. 31,530.03 crore so far. The Committee note that out of total 34 thermal power projects in the country (both Central and State sector projects), 30 projects are delayed having total cost overrun of Rs. 41,100.20 crore and time overrun of 1776 months. As regards issues affecting the execution/completion of thermal power projects, besides law and order/ local issues, natural calamities, inadequate infrastructure facilities, shortage of skilled man-power, forest & environment clearance etc., the Committee note that contractual and land acquisition are the main impediments faced by the implementing agencies. The Committee find that contractual issues/disputes arise due to poor cost estimation of projects, poor cost management, Contractor's poor site supervision and inadequate funds or budget allocation. The Committee thus feel that a lot of contract related disputes could be

easily prevented with proper planning and diligence during the preliminary stage itself. The Committee therefore, recommend that:

- i) Due diligence and careful negotiation on contract terms and conditions between project developer and contractor be ensured during the contract formation stage;
- ii) Full presentation of all facts and information during tendering process;
- iii) Incorporate suitable measures and defining strict norms and penalties for completing each level of activities in the contract document;
- iv) Creation of sub-sectoral limit for lending to thermal power projects on priority basis by banks to overcome funds constraint.”

7. The Ministry, in their action taken reply, have stated as under:

- (i) “MoP has taken various measures with regards to improvement in contract/ bidding terms and conditions (clauses) for hydro projects and has also taken other measures to avoid contractual disputes for faster execution of works. The details are as under:
 - (a) In conformity with the aforesaid recommendations of the Committee, Ministry of Power has formulated a Dispute Avoidance Mechanism through 'Independent Engineer' for avoidance of dispute between CPSUs and contractors in respect of hydro-sector contracts at inception stage itself. Ministry of Power after inviting Expression of Interest from interested eligible candidates has empanelled Independent Engineer for dispute avoidance in hydro CPSUs under this Ministry.
 - (b) The recommendation of the Standing Committee regarding proper planning and diligence during preliminary stage, full presentation of facts during tendering process, handing over of encumbrance free land to contractor, etc. are part of the recommendations of the above Committee.
 - (c) Further, for all the complex packages, NTPC is holding pre-NIT/ pre-bid conference with all the prospective bidders on Technical and commercial aspects of contract terms and conditions, based on which, the contract terms and conditions are finalized.
 - (d) Clauses dealing with change of Wholesale Price Index, in case of change of WPI Series, would be suitably incorporated in the

contract documents for Hydro Electric Plants for Price Variation Calculation to avoid any kind of dispute at later stage.

(e) Ministry of Power has notified guidelines dated 08.11.2019 to reduce the incidence of time and cost over-run in Hydro Power Projects by adopting various measures like preparation of realistic project schedule based on past experience of projects in vicinity, use of latest Software tools like Primavera, MS-Project etc for monitoring of projects on regular basis, seeking prior approval of competent authority if the project is not likely to be commissioned within the prescribed time limit. Following measures have also been issued in these guidelines to be followed to reduce incidences of time and cost overrun for hydro projects -

- i. Time bound resolution of disputes and timely payment mechanism to be ensured.
- ii. Review of delegation of power at project level.
- iii. Adoption of international best practice for implementation of projects.
- iv. Ensure availability of resources namely equipment and manpower.
- v. Maintenance and AMC of the equipment to OEM.
- vi. Purchase of new equipment as per the needs of the projects.
- vii. Keeping record/reports in electronic form.
- viii. Timelines to raise claims by the contractors and their settlement by the Engineer in Charge.
- ix. Timely decision by Dispute Resolution Board (DRB).
- x. Maintenance of e-diary system to keep record of all events in respect of under construction projects.
- xi. Timely decision by the Management to resolve the stalled work for any reason other than natural calamity.
- xii. Defining risk sharing mechanism in contract document
- xiii. Device mechanism of incentivizing labour on achieving project milestones in time.

(ii) In order to address contractor's queries regarding the works/supply under tender document, there is a provision of pre-bid meeting in all major contracts in hydro and thermal projects of CPSUs to address queries of the contractors. The prospective bidders can ask any question in case some facts and information is missing in the tender documents. Further, contractors are also advised to have a site visit to have an idea of the site and conditions prevalent at site and to submit a site visit report along with the bid. Further, during tendering stage, any information

asked by any bidders is duly examined and replied, based on merit.

- (iii) There is a provision for Liquidated Damages for delay in completion of the hydro projects, which are part of contracts of CPSUs and is normally about 10% of the contract value.

In case of Thermal projects of NTPC as of now, there is no provision of penalties in the contracts. However, NTPC levies the liquidated damages for delay in completion of facility and for delay in supply of spares. Further, NTPC also levies the liquidated damages for shortfall in performance of the equipment (if any).

Nevertheless, the recommendation of the Committee has been noted for consideration in future contracts.

- (iv) Current sectoral limits for lending by the banks are for Power Generation including RE generation irrespective of technology (Technology agnostic). However, Priority Loans are given to stressed projects by acceptance of all the lenders or consortium of lenders to such projects to manage liquidity and reduce stress.

For Thermal projects, NTPC generally finances its projects through internal resources and external commercial borrowings / domestic commercial borrowings. Generally, there is no delay on the part of NTPC for meeting the fund requirement.”

8. The Committee note that the Ministry of Power has taken various measures including notification of guidelines in November, 2019 to avoid time and cost overruns of power projects. However, there is no mention about any impact of all these measures in reducing the time and cost overruns. The Committee believe that the delays in the execution of power projects not only jeopardize the efforts of securing energy security for the country but also increase the cost of the projects that is eventually passed on to the end consumer in the form of enhanced tariff. The Committee, therefore, desire that the Government should keep making indefatigable efforts to prevent delays in the execution of power projects and should regularly monitor and review the impact thereof. The Committee also desire that the Ministry, at the time of furnishing Action-taken Statement, should

furnish the latest information/data related to delays in the execution of power projects corroborating the effectiveness / impact of the steps taken by them in this regard.

(Recommendation SI. No.2)

SHAKTI Policy

9. The Committee, in their Report, had recommended/observed as under:

“The Committee note that the issues related to Coal Supply is one of the major reason for stress in thermal power projects and that after the cancellation of 204 coal mines by the Hon'ble Supreme Court in 2014, many of the power projects became stranded without arrangements of adequate fuel supply. In addition, many projects were setup without firm coal linkages leading to high cost of generation. The Committee note that a High Level Empowered Committee (HLEC) was constituted by Government of India in July 2018 to address the issues of stressed thermal power projects. Based on the recommendations of Group of Ministers (GoM), the Government has inter-alia decided amendment in Scheme to Harness and Allocate Koyla (Coal) Transparently in India (SHAKTI) Policy for allowing coal linkage to power plants which either do not have PPAs or where PPAs had been terminated due to default in payment by the DISCOMs. The Committee are optimistic that the proposed amendment would be a bridge linkage to specified end-use plants both in Power as well as Non-Power sector which have been allotted coal mines/ blocks. The Committee, therefore recommend that the recommendations of the Group of Ministers (GoM) to address the issues of stressed thermal power plants may be implemented forthwith in letter and spirit and the proposed changes in SHAKTI policy may be executed at the earliest for the benefit of the end-users.”

10. The Ministry, in their action taken reply, have stated as under:

“After the CCEA approval of GoM/HLEC recommendations, certain provisions were added to existing provisions of Para B(ii) and B(iii) and a new provision under the para B(viii) has been added to the SHAKTI Policy. Under this, para B(viii)(a) allows power plants which do not have PPAs, to get coal linkage for short term for trading power in Day Ahead Market (DAM) through power exchanges and in short term PPAs through DEEP Portal. As per para B(viii)(a):

“a) All such power plants including private generators which do not have PPAs, shall be allowed Coal linkage under B (iii) and B (iv) of Shakti Policy for a period of minimum 3 months upto a maximum of 1 year, provided further that the power generated through that linkage is sold in Day Ahead Market (DAM) through power exchanges or in short term through a transparent bidding process through Discovery of Efficient Energy Price (DEEP) portal.”

At present, auctions under above provision are being held on quarterly basis covering para B(iii) of the SHAKTI Policy and till date, 06 tranches of coal linkage auction under para B(viii)(a) have been conducted in which various power plants having non-PPA capacity have availed the coal linkages. Summary of the auctions under para B(viii)(a) is as follows:

Quarterly Auction under Para B(viii)(a) of SHAKTI Policy	Non-PPA Capacity against which Coal Linkage Allotted (MW)	Coal Quantity booked in Multiple grades for a quarter (MT)	Remarks
Tranche-1 (Apr-June'20)	5990	1.34	9 plants, Premium NIL
Tranche-2 (July-Sep'20)	3901	0.63	8 plants, Premium NIL
Tranche-3 (Oct-Dec'20)	4223	0.35	6 plants, Premium NIL
Tranche-4 (Jan-Mar'21)	3476	0.64	7 plants, Max Prem. Rs. 50/ton
Tranche-5 (Apr-June'21)	3620	1.07	8 plants, Max Prem. Rs. 25/ton
Tranche-6 (July-Sep'21)	3799	0.82	8 plants, Premium NIL
Tranche-7 (Oct-Dec'21)	Process of Tranche-7 (Oct-Dec'21) has been started in which 15 applications have been received.		

(source:CEA)

11. The Committee while noting that the issues related to coal supply are one of the major reasons for stress of various thermal power projects, had recommended that the recommendations of the

Group of Ministers (GoM) to address the issues of stressed thermal power plants may be implemented forthwith in letter and spirit and the proposed changes in SHAKTI policy may be executed at the earliest for the benefit of the end-users. The Ministry in its reply has stated that the Government have added a new para in SHAKTI Policy which allows power plants which do not have PPAs, to get coal linkage for the short term for trading power in Day-Ahead Market (DAM) through power exchanges and in short term PPAs through DEEP Portal. They have further stated that till date, 06 tranches of coal linkage auction have been conducted in which various power plants having non-PPA capacity have availed the coal linkages. The Committee believe that these efforts would ameliorate the coal supply position of many power plants. The Committee, therefore, expect the Government to keep hand-holding and extending relief in the form of adequate supply of coal to the power plants especially which are under stress under the new provisions and apprise the Committee about the further progress in execution.

(Recommendation Sl. No. 3)

Hydropower

12. The Committee, in their Report, had recommended/observed as under:

“The Committee note that there are 24 under construction hydroelectric projects (above 25 MW) having aggregate capacity of 11,342 MW having either time or cost over-run in 11 States/UT. The time overrun in these delayed hydro projects ranges from 12 months to 189 months and cost overrun up to 472.92%. The Committee further observe that there are 13 hydroelectric projects being developed in the Central Sector by CPSUs and most of these projects have been badly delayed. Although, the works have started in 11 projects, construction of 02 projects is still held up. The Committee note that the main issues involved in execution/completion of hydro-electric projects are bottlenecks in land acquisition, environment and forest issues, rehabilitation &

resettlement issues, inadequate infrastructural facilities, law & order/local issues, geological surprises, natural calamities, funds constraints, contractual issues, inter-state issues, etc. Among these issues, fund constraints followed by geological uncertainties and law & order/local issues are more dominant. The Committee are of the view that the aforesaid issues are common and generally occur in large construction projects, which can be addressed and managed by having firm contractual guidelines in place prior to the start of the projects and with adequate policy and regulatory support. As all the hydro power projects, regardless of the capacity, have as per recommendation of this Committee, now been included in the "Renewable Energy" segment, the Committee are hopeful that this will give further impetus to the Hydro Sector and facilitate commissioning of Hydro Power Projects as per stipulated timeline. The Committee therefore, recommend that:

- i) Due to long construction period of hydro power projects, interest on loan plays a very critical role in the operation period and higher interest on outstanding loan leads to higher yearly tariff. A review of the financing policies for hydro power projects is thus required with a view to provide longer tenure debt with softer interest rates.
- ii) Inadequate infrastructure like roads, bridges, etc. particularly in Arunachal Pradesh and North-Eastern States result in longer construction period thereby increasing the project cost. Agencies, like BRO, State PWD, etc., implementing the road sector projects need to be provided adequate support to complete the projects expeditiously. National Clean Energy Fund (NCEF) could be used for development of roads, bridges and infrastructure common for hydro power projects.
- iii) Considering the long gestation period and large investment involved, a single window clearance mechanism becomes necessary to reduce the cost and time overrun by a considerable margin. This will encourage Developers to undertake projects and make large investment in hydro power sector."

13. The Ministry, in their action taken reply, have stated as under:

"A number of measures have been taken by the Government for lowering the tariff of hydro projects. In this regard, consultations were held with financial institutions/ banks under the Chairmanship of Hon'ble Minister of Power & NRE for increasing the tenure of the loan as well as lowering the rate of interest. In addition, Guidelines for reducing the incidence of Time and Cost Overruns have also been issued by Ministry of Power in 2019. Further, on the advice of Central Government, the State Governments of hydro-rich states like H.P.

have also made efforts to push the sector by deferment/ staggering the free power during the initial years apart from other measures like allotting projects for longer period of 70 years, 50% reimbursement of State GST and booking of Local Area Development Fund (LADF) to any head other than project cost to bring down Tariff, etc.

All these measures are expected to help in reducing the tariff of hydro projects especially during initial years.

PFC and REC have reported that they generally offer longer loan tenure for Hydro Electric Projects (HEP). The loan tenure offered by PFC/REC ranges up to 85% of economic life of the project i.e. up to 40 years. Considering the risk involved in HEPs, PFC/REC contend that interest rates offered by them are reasonably competitive.

ii) The construction of roads and bridges in North-Eastern States has always been challenging due to various reasons including remote areas, mountainous terrain, limited working window due to heavy rains for almost six months etc. In spite of these constraints, there have been significant efforts by both central and state agencies to construct the roads and bridges. BRO and NHIDCL have completed many roads and bridges connecting remote areas and work on other projects is going on.

Use of National Clean Energy Fund (NCEF) will be certainly helpful in speedy completion of such infrastructure. As regards the support for implementing the road sector projects in order to complete the projects expeditiously, it is to mention that Government has approved a number of measures for promoting and expediting the hydro power sector in March 2019 which includes, inter-alia, Budgetary Support towards the Cost of Enabling Infrastructure, i.e. roads/bridges @ Rs. 1.5 crore per MW for projects up to 200 MW and @ Rs. 1.0 crore per MW for projects above 200 MW. As a result of the measures, the works are expected to be completed expeditiously.

iii) However in case of hydro projects, various stakeholders including State Governments are involved to deal with issues relating to Land acquisition, R&R issues, inadequate infrastructure facilities, Law & order / Local issues involved.

However, for concurrence of DPR of Hydro projects, single window system is in place in CEA. Project developer is required to upload their DPR at CEA web portal after obtaining pre-DPR Clearances from CEA/CWC/GSI/CSMRS. The DPR is easily accessed by appraising Groups of CEA and CWC on this portal. After examining the DPR, appraising groups of CEA and CWC upload their comments on portal, which developer can access and submit their replies. Further, clarification, if any, is also raised on the portal. In this

way, this portal provides two-way communication platform and avoids procedural delay to expedite the process of clearance of the DPR of Hydroelectric projects. This system saves significant time in transmission of documents among Developers and Appraising Groups. This system has eased the DPR examination process drastically.

National Single Window System (NSWS) has been launched by the Government of India for approval of clearances by the Ministries Departments. The web portal of CEA is getting integrated with the NSWS.”

14. The Committee are happy that the Government have started giving due attention to the hydropower sector. It is expected that the measures taken by the Ministry in the form of increasing the tenure of loans as well as lowering the rate of interest leading to reduction in tariff of hydro projects, speedy development of infrastructure and launching of National single window system for approval of clearances would ensure speedy development of hydropower projects. The Committee would like to be apprised of the progress and impact of all these measures at the stage of furnishing of Action-taken Statement by the Ministry.

(Recommendation Sl. No. 6)

Hydropower

15. The Committee, in their Report, had recommended/observed as under:

“The Committee are informed that Central Electricity Authority (CEA) monitors the progress of under-construction hydro power projects (above 25 MW) through frequent site visits and interaction with the developers and other stake holders and also holds review meetings periodically with them to identify and resolve issues critical for commissioning of Projects. They are also informed that Ministry of Power undertakes regular reviews to identify the constraint areas and facilitate faster resolution of inter-ministerial and other outstanding issues. The Committee are also

informed that in case of Central Power Sector Undertakings (CPSU's) projects, the project Implementation parameters / milestones are incorporated in the annual MoU signed between respective CPSU's and the Ministry of Power and the same are monitored during the Quarterly Performance Review meetings of CPSU's. The Committee further note that to coordinate and synchronize all the support functions of project management, the NTPC relies on a three-tiered project management system known as the Integrated Project Management Control System (IPMCS), which integrates its engineering management, contract management and construction management control centres. Notwithstanding the monitoring mechanism in place, the Committee are confronted with the fact that a large number of projects are delayed, causing huge time and cost over-run. As timely completion of power projects is very crucial to the growth of other sectors of the economy, the Committee recommend that apart from regular review meetings, an IT based project management, monitoring and follow-up system may be introduced at all the project sites with online connectivity with all stake holders, i.e., suppliers, project developers, contractors, CEA, etc. with clear cut fixation/ demarcation of responsibilities at every level. The need of the hour is to pin down the onus of action on the concerned agency/group/individual so that project management becomes more focused, vigorous and meaningful.”

16. The Ministry, in their action taken reply, have stated as under:

“The Ministry of Power has issued Guidelines to reduce the incidence of time and cost overruns in Hydro Power Projects in November, 2019 for strict compliance in Hydro CPSUs. As per the guidelines, web based e-diary system is to be maintained to keep record of all events in respect of under construction projects for purpose of capturing data, events, progress of activities, etc. The guidelines also stipulate use of latest software tools for project monitoring on regular basis at CPSU level. This will help in better project management and also help in providing archive data, if required, for resolution of disputes between the Employer and the Contractor.

Regarding IT based project management, monitoring and follow-up system in respect of Thermal project sites, a letter has been issued to all under construction Thermal power plants (पत्रसं. के.वि.प्रा./ टी.पी.एम./ एस.सी./जन-3/2021/दिनांक:27.08.2021) for compliance to the recommendations of The Standing Committee on Energy (2020-21) and the same is attached as Annexure - II.

For thermal projects, NTPC has established a state-of-the-art IT-enabled Project Monitoring Centre (PMC) for the facilitation of fast-track project implementation and the monitoring of key project milestones of various NTPC projects. It also acts as a decision support system for the NTPC's management. PMC is integrated across the NTPC's network as a web based collaborative system, used to facilitate the consolidation of project-related issues and their resolution. IP Cameras are also installed at the project sites which give real time live streaming to monitor the critical activities.

NTPC has provided following interfaces to various stake holders for Project management:

- NTPC has given access of its Project management tool (Web-miles) to Ministry and other Govt. agencies, where the project progress can be seen.
- An online platform for Engineering Management- "DREAMS" has been provided by NTPC to agencies. It is an interface between NTPC & agencies for carrying out engineering of the various packages. Agencies submit Engineering documents on this portal for approval. The Engineering progress of the packages can be reviewed from this platform.
- Further, the processing of payments to all the vendors is being done through NTPCs PRADIP portal (A Paperless initiative by NTPC). All the activities from invoice submission to payments are done through this portal.

In addition to above, in order to make monitoring of projects more effective, NTPC is now adopting Integrated Software monitoring tool for integrating progress of Engineering, Supplies and Erection at one place, and capturing progress online. Features like mobile app based updation of progress and role-based access make the tool more user-friendly which will result into regular updation of progress. It will help in taking timely remedial actions. This tool has been included in the bid documents of EPC packages of upcoming thermal projects of NTPC.

In addition, the status of the implementation of power projects is being monitored through a number of IT-enabled Web-based platforms viz.:

- a. PRAGATI Portal
- b. UrjaDarpan
- c. E-Samiksha Portal
- d. PMG Portal
- e. NIP Portal
- f. OCMS Portal"

17. Regarding the recommendation of the Committee that apart from regular review meetings, an IT-based project management, monitoring and follow-up system may be introduced at all the project sites with online connectivity with all stakeholders, i.e., suppliers, project developers, contractors, CEA, etc. with clear cut fixation/ demarcation of responsibilities at every level, the Ministry have stated that a letter has been issued to all under construction thermal power plants for compliance to the recommendations of the Committee. They have further stated that in order to make monitoring of projects more effective, NTPC is now adopting Integrated Software monitoring tool for integrating progress of Engineering, Supplies and Erection at one place, and capturing progress online. Features like mobile app-based updation of progress and role-based access have made the tool more user-friendly which will result in regular updation of progress and in taking timely remedial action. This tool has been included in the bid documents of EPC packages of upcoming thermal projects of NTPC. The Committee believe these tools would help in effective monitoring of the progress of power projects and enable prompt remedial action in case of any deviation. The Committee may be apprised about the status of compliance to the recommendations of the Committee.

CHAPTER II

OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation No.1

The Committee's analysis of the information submitted to them indicates that a large number of power projects have not been completed as per the schedule which resulted in huge time and cost overrun. Sector-wise analysis reveals that 12 out of 13 hydro projects, 30 out of 34 thermal projects, 18 out of 42 Transmission projects and 01 out of 26 Renewable projects were delayed in their execution. Astonishingly, 12 delayed hydro projects with cumulative time overrun of almost 1205 month have resulted in huge cost overrun of Rs. 31,530.03 crore so far. The Committee note that out of total 34 thermal power projects in the country (both Central and State sector projects), 30 projects are delayed having total cost overrun of Rs. 41,100.20 crore and time overrun of 1776 months. As regards issues affecting the execution/completion of thermal power projects, besides law and order/ local issues, natural calamities, inadequate infrastructure facilities, shortage of skilled man-power, forest & environment clearance etc., the Committee note that contractual and land acquisition are the main impediments faced by the implementing agencies. The Committee find that contractual issues/disputes arise due to poor cost estimation of projects, poor cost management, Contractor's poor site supervision and inadequate funds or budget allocation. The Committee thus feel that a lot of contract related disputes could be easily prevented with proper planning and diligence during the preliminary stage itself. The Committee therefore, recommend that:

- i) Due diligence and careful negotiation on contract terms and conditions between project developer and contractor be ensured during the contract formation stage;
- ii) Full presentation of all facts and information during tendering process;
- iii) Incorporate suitable measures and defining strict norms and penalties for completing each level of activities in the contract document;
- iv) Creation of sub-sectoral limit for lending to thermal power projects on priority basis by banks to overcome funds constraint.

Reply of the Government

- (i) MoP has taken various measures with regards to improvement in contract/ bidding terms and conditions (clauses) for hydro projects

and has also taken other measures to avoid contractual disputes for faster execution of works. The details are as under:

(a) In conformity with the aforesaid recommendations of the Committee, Ministry of Power has formulated a Dispute Avoidance Mechanism through 'Independent Engineer' for avoidance of dispute between CPSUs and contractors in respect of hydro-sector contracts at inception stage itself. Ministry of Power after inviting Expression of Interest from interested eligible candidates has empaneled Independent Engineer for dispute avoidance in hydro CPSUs under this Ministry.

(b) The recommendation of the Standing Committee regarding proper planning and diligence during preliminary stage, full presentation of facts during tendering process, handing over of encumbrance free land to contractor, etc. are part of the recommendations of the above Committee.

(c) Further, for all the complex packages, NTPC is holding pre-NIT/ pre-bid conference with all the prospective bidders on Technical and commercial aspects of contract terms and conditions, based on which, the contract terms and conditions are finalized.

(d) Clauses dealing with change of Wholesale Price Index, in case of change of WPI Series, would be suitably incorporated in the contract documents for Hydro Electric Plants for Price Variation Calculation to avoid any kind of dispute at later stage.

(e) Ministry of Power has notified guidelines dated 08.11.2019 to reduce the incidence of time and cost over-run in Hydro Power Projects by adopting various measures like preparation of realistic project schedule based on past experience of projects in vicinity, use of latest Software tools like Primavera, MS-Project etc for monitoring of projects on regular basis, seeking prior approval of competent authority if the project is not likely to be commissioned within the prescribed time limit. Following measures have also been issued in these guidelines to be followed to reduce incidences of time and cost overrun for hydro projects -

- i. Time bound resolution of disputes and timely payment mechanism to be ensured.
- ii. Review of delegation of power at project level.
- iii. Adoption of international best practice for implementation of projects.
- iv. Ensure availability of resources namely equipment and manpower.
- v. Maintenance and AMC of the equipment to OEM.
- vi. Purchase of new equipment as per the needs of the projects.
- vii. Keeping record/reports in electronic form.
- viii. Timelines to raise claims by the contractors and their settlement by the Engineer in Charge.
- ix. Timely decision by Dispute Resolution Board (DRB).

- x. Maintenance of e-diary system to keep record of all events in respect of under construction projects.
 - xi. Timely decision by the Management to resolve the stalled work for any reason other than natural calamity.
 - xii. Defining risk sharing mechanism in contract document
 - xiii. Device mechanism of incentivizing labour on achieving project milestones in time.
- (ii) In order to address contractor's queries regarding the works/supply under tender document, there is a provision of pre-bid meeting in all major contracts in hydro and thermal projects of CPSUs to address queries of the contractors. The prospective bidders can ask any question in case some facts and information is missing in the tender documents. Further, contractors are also advised to have a site visit to have an idea of the site and conditions prevalent at site and to submit a site visit report along with the bid. Further, during tendering stage, any information asked by any bidders is duly examined and replied, based on merit.
- (iii) There is a provision for Liquidated Damages for delay in completion of the hydro projects, which are part of contracts of CPSUs and is normally about 10% of the contract value. In case of Thermal projects of NTPC as of now, there is no provision of penalties in the contracts. However, NTPC levies the liquidated damages for delay in completion of facility and for delay in supply of spares. Further, NTPC also levies the liquidated damages for shortfall in performance of the equipment (if any). Nevertheless, the recommendation of the Committee has been noted for consideration in future contracts.
- (iv) Current sectoral limits for lending by the banks are for Power Generation including RE generation irrespective of technology (Technology agnostic). However, Priority Loans are given to stressed projects by acceptance of all the lenders or consortium of lenders to such projects to manage liquidity and reduce stress.

For Thermal projects, NTPC generally finances its projects through internal resources and external commercial borrowings / domestic commercial borrowings. Generally, there is no delay on the part of NTPC for meeting the fund requirement.

[Ministry of Power, OM No.2/8/2016-P&P, dated: 04.01.2022]

Comments of the Committee
(Please see Para No. 8 of Chapter – I of the Report)

Recommendation No. 2

The Committee note that the issues related to Coal Supply is one of the major reason for stress in thermal power projects and that after the cancellation of 204 coal mines by the Hon'ble Supreme Court in 2014, many of the power projects became stranded without arrangements of adequate fuel supply. In addition, many projects were setup without firm coal linkages leading to high cost of generation. The Committee note that a High Level Empowered Committee (HLEC) was constituted by Government of India in July 2018 to address the issues of stressed thermal power projects. Based on the recommendations of Group of Ministers (GoM), the Government has inter-alia decided amendment in Scheme to Harness and Allocate Koyla (Coal) Transparently in India (SHAKTI) Policy for allowing coal linkage to power plants which either do not have PPAs or where PPAs had been terminated due to default in payment by the DISCOMs. The Committee are optimistic that the proposed amendment would be a bridge linkage to specified end-use plants both in Power as well as Non-Power sector which have been allotted coal mines/ blocks. The Committee, therefore recommend that the recommendations of the Group of Ministers (GoM) to address the issues of stressed thermal power plants may be implemented forthwith in letter and spirit and the proposed changes in SHAKTI policy may be executed at the earliest for the benefit of the end-users.

Reply of the Government

After the CCEA approval of GoM/HLEC recommendations, certain provisions were added to existing provisions of Para B(ii) and B(iii) and a new provision under the para B(viii) has been added to the SHAKTI Policy. Under this, para B(viii)(a) allows power plants which do not have PPAs, to get coal linkage for short term for trading power in Day Ahead Market (DAM) through power exchanges and in short term PPAs through DEEP Portal. As per para B(viii)(a):

“a) All such power plants including private generators which do not have PPAs, shall be allowed Coal linkage under B (iii) and B (iv) of Shakti Policy for a period of minimum 3 months upto a maximum of 1 year, provided further that the power generated through that linkage is sold in Day Ahead Market (DAM) through power exchanges or in short term through a transparent bidding process through Discovery of Efficient Energr Price (DEEP) portal.”

At present, auctions under above provision are being held on quarterly basis covering para B(iii) of the SHAKTI Policy and till date, 06 tranches of coal linkage auction under para B(viii)(a) have been conducted in which various

power plants having non-PPA capacity have availed the coal linkages. Summary of the auctions under para B(viii)(a) is as follows:

Quarterly Auction under Para B(viii)(a) of SHAKTI Policy	Non-PPA Capacity against which Coal Linkage Allotted (MW)	Coal Quantity booked in Multiple grades for a quarter (MT)	Remarks
Tranche-1 (Apr-June'20)	5990	1.34	9 plants, Premium NIL
Tranche-2 (July-Sep'20)	3901	0.63	8 plants, Premium NIL
Tranche-3 (Oct-Dec'20)	4223	0.35	6 plants, Premium NIL
Tranche-4 (Jan-Mar'21)	3476	0.64	7 plants, Max Prem. Rs. 50/ton
Tranche-5 (Apr-June'21)	3620	1.07	8 plants, Max Prem. Rs. 25/ton
Tranche-6 (July-Sep'21)	3799	0.82	8 plants, Premium NIL
Tranche-7 (Oct-Dec'21)	Process of Tranche-7 (Oct-Dec'21) has been started in which 15 applications have been received.		

(Source CEA)

[Ministry of Power, OM No.2/8/2016-P&P, dated: 04.01.2022]

Comments of the Committee
(Please see Para No. 11 of Chapter - I of the Report)

Recommendation No. 3

The Committee note that there are 24 under construction hydroelectric projects (above 25 MW) having aggregate capacity of 11342 MW having either time or cost over-run in 11 States/UT. The time overrun in these delayed hydro projects ranges from 12 months to 189 months and cost overrun up to 472.92%. The Committee further observe that there are 13 hydroelectric projects being developed in the Central Sector by CPSUs and most of these projects have been badly delayed. Although, the works have started in 11 projects, construction of 02 projects are still held up. The Committee note that the main issues involved in execution/completion of hydro-electric projects are bottlenecks in land acquisition, environment and forest issues, rehabilitation & resettlement issues, inadequate infrastructural

facilities, law & order/local issues, geological surprises, natural calamities, funds constraints, contractual issues, inter-state issues, etc. Among these issues, fund constraints followed by geological uncertainties and law & order/local issues are more dominant. The Committee are of the view that the aforesaid issues are common and generally occur in large construction projects, which can be addressed and managed by having firm contractual guidelines in place prior to the start of the projects and with adequate policy and regulatory support. As all the hydro power projects, regardless of the capacity, have as per recommendation of this Committee, now been included in the "Renewable Energy" segment, the Committee are hopeful that this will give further impetus to the Hydro Sector and facilitate commissioning of Hydro Power Projects as per stipulated timeline. The Committee therefore, recommend that:

- i) Due to long construction period of hydro power projects, interest on loan plays a very critical role in the operation period and higher interest on outstanding loan leads to higher yearly tariff. A review of the financing policies for hydro power projects are thus required with a view to provide longer tenure debt with softer interest rates.
- ii) Inadequate infrastructure like roads, bridges, etc. particularly in Arunachal Pradesh and North-Eastern States result in longer construction period thereby increasing the project cost. Agencies, like BRO, State PWD, etc., implementing the road sector projects need to be provided adequate support to complete the projects expeditiously. National Clean Energy Fund (NCEF) could be used for development of roads, bridges and infrastructure common for hydro power projects.
- iii) Considering the long gestation period and large investment involved, a single window clearance mechanism becomes necessary to reduce the cost and time overrun by a considerable margin. This will encourage Developers to undertake projects and make large investment in hydro power sector.

Reply of the Government

i) A number of measures have been taken by the Government for lowering the tariff of hydro projects. In this regard, consultations were held with financial institutions/ banks under the Chairmanship of Hon'ble Minister of Power & NRE for increasing the tenure of the loan as well as lowering the rate of interest. In addition, Guidelines for reducing the incidence of Time and Cost Overruns have also been issued by Ministry of Power in 2019. Further, on the advice of Central Government, the State Governments of hydro-rich states like H.P. have also made efforts to push the sector by deferment/ staggering the free power during the initial years apart from other measures like allotting projects for longer period of 70 years, 50% reimbursement of State GST and booking of Local Area Development Fund (LADF) to any head other than project cost to bring down Tariff, etc. All these measures are expected to help in reducing the tariff of hydro projects especially during initial years.

PFC and REC have reported that they generally offer longer loan tenure for Hydro Electric Projects (HEP). The loan tenure offered by PFC/REC ranges up to 85% of economic life of the project i.e. up to 40 years. Considering the risk involved in HEPs, PFC/REC contend that interest rates offered by them are reasonably competitive.

ii) The construction of roads and bridges in North-Eastern States has always been challenging due to various reasons including remote areas, mountainous terrain, limited working window due to heavy rains for almost six months etc. In spite of these constraints, there have been significant efforts by both central and state agencies to construct the roads and bridges. BRO and NHIDCL have completed many roads and bridges connecting remote areas and work on other projects is going on.

Use of National Clean Energy Fund (NCEF) will be certainly helpful in speedy completion of such infrastructure. As regards the support for implementing the road sector projects in order to complete the projects expeditiously, it is to mention that Government has approved a number of measures for promoting and expediting the hydro power sector in March 2019 which includes, inter-alia, Budgetary Support towards the Cost of Enabling Infrastructure, i.e. roads/bridges @ Rs. 1.5 crore per MW for projects up to 200 MW and @ Rs. 1.0 crore per MW for projects above 200 MW. As a result of the measures, the works are expected to be completed expeditiously.

iii) However in case of hydro projects, various stakeholders including State Governments are involved to deal with issues relating to Land acquisition, R&R issues, inadequate infrastructure facilities, Law & order / Local issues involved.

However, for concurrence of DPR of Hydro projects, single window system is in place in CEA. Project developer is required to upload their DPR at CEA web portal after obtaining pre-DPR Clearances from CEA/CWC/GSI/CSMRS. The DPR is easily accessed by appraising Groups of CEA and CWC on this portal. After examining the DPR, appraising groups of CEA and CWC upload their comments on portal, which developer can access and submit their replies. Further, clarification, if any, is also raised on the portal. In this way, this portal provides two-way communication platform and avoids procedural delay to expedite the process of clearance of the DPR of Hydroelectric projects. This system saves significant time in transmission of documents among Developers and Appraising Groups. This system has eased the DPR examination process drastically.

National Single Window System (NSWS) has been launched by the Government of India for approval of clearances by the Ministries Departments. The web portal of CEA is getting integrated with the NSWS.

[Ministry of Power, OM No.2/8/2016-P&P, dated: 04.01.2022]

Comments of the Committee

(Please see Para No. 14 of Chapter - I of the Report)

Recommendation No. 4

The Committee note that the Power Grid Corporation of India Ltd. is implementing 42 power transmission projects, out of which 18 projects are delayed. The reasons attributed to delays are issues in land acquisition, Right of Way (RoW), difficult terrain, natural obstacles, geological surprises, contractual disputes, environmental and forest issues, financially stressed contractors, limited availability of skilled manpower and material, etc. The Committee however, are not satisfied with the reply of the Ministry that delay in transmission project is having only minimal effect on power sector due to robust power transmission network in the country and electricity demand being lower than the projected demand. The Committee observe that although India is a power surplus country but electricity does not equitably reach all regions due to network constraints in some States. Transmission within the States remains a major issue leading to intermittent power cuts and shortages of power in localized area. Further, the Committee believe that cost and time overrun in transmission projects will inevitably have its implications on the cost of power. The Committee, therefore, desire that the Ministry should not remain complacent and must expedite the completion of delayed transmission projects by utilizing the existing institutional mechanism, while ensuring that alternative arrangements are made to evacuate the power by transmission implementing agency so that no bottling-up of power generated occurs due to lack of transmission network.

Reply of the Government

18 transmission projects were delayed as on Oct'20 due to various issues. The issues had been addressed with support of MoP& the State Govt. and meetings at various levels with State Govt. officials. 9 Projects have since been completed and 6 projects are on the verge of completion. Balance 3 projects are delayed by more than 3 months. Detailed status enclosed at Annexure-I. Transmission projects cover large distances across different geographies/terrain, facing various social-environmental challenges such as:

- Right of Way (RoW);
- Forest Clearance & Land Acquisitions;
- Requirement of Shutdown for commissioning activities;
- Contractual Issues and Supply issues;
- Restrictions due to COVID-19 Pandemic.

Close coordination is maintained among MoP, MNRE and CEA to closely monitor progress of all elements to implement the inter-state transmission matching with system requirement. If required, issues are escalated with MOP for taking up with senior officers of concerned state/ Ministry. Many issues have been resolved with active support from MOP and state officials. Presently, there are adequate transmission lines and as such no power is bottled up for want of commissioning of remaining transmission lines out of 18 nos. of transmission lines, above mentioned.

[Ministry of Power, OM No.2/8/2016-P&P, dated: 04.01.2022]

Recommendation No: 5

The Committee would also recommend that issues arising out of the transmission line corridor passing through natural obstacles, adverse terrain, Government land, forest land, private land etc. should be foreseen and taken care of by methodical route planning, proactive measures, coordination with State administration and perpetual follow-up by the project management team.

Reply of the Government

For implementation of transmission lines, detailed route survey is carried out by the implementing agency. Several alternative routes are surveyed and the most feasible route is chosen for implementation of transmission line. The implementing agency tries to avoid the natural obstacles, adverse terrain, forest land etc. along the route. However, sometimes all of these may not be avoidable as it may result in increase in the length of transmission line thereby increasing the cost.

As per the Tariff Policy, generally, the transmission schemes are to be implemented through Tariff Based Competitive Bidding (TBCB) route. These schemes have well defined implementation timeline and the transmission tariff is fixed beforehand. Non implementation of the scheme in the scheduled timeline results in levy of penalties/ recovery of compensation from the Implementing agency. This puts the entire onus on the project developer to choose the route of the transmission line with minimum natural obstacles.

Close coordination is maintained among MoP, MNRE and CEA to closely monitor progress of all elements to implement the inter-state transmission matching with system requirement. Whenever required, issues are taken up with senior officers of concerned state Government.

[Ministry of Power, OM No.2/8/2016-P&P, dated: 04.01.2022]

Recommendation No. 6

The Committee are informed that Central Electricity Authority (CEA) monitors the progress of under-construction hydro power projects (above 25 MW) through frequent site visits and interaction with the developers and other stake holders and also holds review meetings periodically with them to identify and resolve issues critical for commissioning of Projects. They are also informed that Ministry of Power undertakes regular reviews to identify the constraint areas and facilitate faster resolution of inter-ministerial and other outstanding issues. The Committee are also informed that in case of Central Power Sector Undertakings (CPSU's) projects, the project Implementation parameters / milestones are incorporated in the annual MoU signed between respective CPSU's and the Ministry of Power and the same are monitored during the Quarterly Performance Review meetings of CPSU's. The Committee further note that to coordinate and synchronize all the support functions of project management, the NTPC relies on a three-tiered project management system known as the Integrated Project Management Control System (IPMCS), which integrates its engineering management, contract management and construction management control centres. Notwithstanding the monitoring mechanism in place, the Committee are confronted with the fact that a large number of projects are delayed, causing huge time and cost over-run. As timely completion of power projects is very crucial to the growth of other sectors of the economy, the Committee recommend that apart from regular review meetings, an IT based project management, monitoring and follow-up system may be introduced at all the project sites with online connectivity with all stake holders, i.e., suppliers, project developers, contractors, CEA, etc. with clear cut fixation/ demarcation of responsibilities at every level. The need of the hour is to pin down the onus of action on the concerned agency/group/individual so that project management becomes more focused, vigorous and meaningful.

Reply of the Government

The Ministry of Power has issued Guidelines to reduce the incidence of time and cost overruns in Hydro Power Projects in November, 2019 for strict compliance in Hydro CPSUs. As per the guidelines, web based e-diary system is to be maintained to keep record of all events in respect of under construction projects for purpose of capturing data, events, progress of activities, etc. The guidelines also stipulate use of latest software tools for project monitoring on regular basis at CPSU level. This will help in better project management and also help in providing archive data, if required, for resolution of disputes between the Employer and the Contractor.

Regarding IT based project management, monitoring and follow-up system in respect of Thermal project sites, a letter has been issued to all under construction Thermal power plants (पत्रसं .के.वि.प्रा./टी.पी.एम./एस.सी./जन /2021/3-दिनांक2 : 708.2021.) for compliance to the recommendations of The Standing Committee on Energy (2020-21) and the same is attached as Annexure - II.

For thermal projects, NTPC has established a state-of-the-art IT-enabled Project Monitoring Centre (PMC) for the facilitation of fast-track project implementation and the monitoring of key project milestones of various NTPC projects. It also acts as a decision support system for the NTPC's management. PMC is integrated across the NTPC's network as a web based collaborative system, used to facilitate the consolidation of project-related issues and their resolution. IP Cameras are also installed at the project sites which give real time live streaming to monitor the critical activities.

NTPC has provided following interfaces to various stake holders for Project management:

- NTPC has given access of its Project management tool (Web-miles) to Ministry and other Govt. agencies, where the project progress can be seen.
- An online platform for Engineering Management- "DREAMS" has been provided by NTPC to agencies. It is an interface between NTPC & agencies for carrying out engineering of the various packages. Agencies submit Engineering documents on this portal for approval. The Engineering progress of the packages can be reviewed from this platform.
- Further, the processing of payments to all the vendors is being done through NTPC's PRADIP portal (A Paperless initiative by NTPC). All the activities from invoice submission to payments are done through this portal.

In addition to above, in order to make monitoring of projects more effective, NTPC is now adopting Integrated Software monitoring tool for integrating progress of Engineering, Supplies and Erection at one place, and capturing progress online. Features like mobile app based updation of progress and role-based access make the tool more user-friendly which will result into regular updation of progress. It will help in taking timely remedial actions. This tool has been included in the bid documents of EPC packages of upcoming thermal projects of NTPC.

In addition, the status of the implementation of power projects is being monitored through a number of IT-enabled Web-based platforms viz.:

- a. PRAGATI Portal
- b. UrjaDarpan
- c. E-Samiksha Portal
- d. PMG Portal
- e. NIP Portal
- f. OCMS Portal

[Ministry of Power, OM No.2/8/2016-P&P, dated: 04.01.2022]

Comments of the Committee

(Please see Para No. 17 of Chapter - I of the Report)

CHAPTER-III

OBSERVATION/RECOMMENDATION WHICH THE COMMITTEE DO NOT
DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLY

-NIL-

CHAPTER-IV

OBSERVATION/ RECOMMENDATION IN RESPECT OF WHICH THE
REPLY OF THE GOVERNMENT HAS NOT BEEN ACCEPTED BY THE
COMMITTEE AND WHICH REQUIRE REITERATION

-NIL-

CHAPTER-V

OBSERVATION/ RECOMMENDATION IN RESPECT OF WHICH THE FINAL
REPLY OF THE GOVERNMENT IS STILL AWAITED

-NIL-

**New Delhi
26th July, 2022
Sravana 4, 1944 (Saka)**

**Rajiv Ranjan Singh *alias* Lalan Singh,
Chairperson,
Standing Committee on Energy**

ANNEXURE-I

Details of Ongoing Projects Being Implemented by POWERGRID (>₹150 crore)

Sl. No.	Project	Project Approval Date	Completion Schedule as per Revised Time Extension Approval	Actual / Anticipated Completion	Original Schedule	Approved Cost (₹ in crore)	Cumulative expenditure incurred till date (Dec'21) (₹ in crore)	Cost Overrun (₹ in crore)	Time overrun with respect to revised Time Extension approval	Issues	Steps taken to mitigate the issues
1	HVDC Bipole link between Western Region (Raigarh, Chattisgarh) and Southern Region (Pugalur, Tamil Nadu)'North Trichur (Kerala)' Scheme1: Raigarh ' Pugalur 6000 MW HVDC System	May'16	Jul'21	Oct-21	Nov-19	14,733	13,696	--	3 Months		Project completed. After intervention of MoP, support of Govt. of TN and local administration Main HVDC Line along with Pole1 (1500 MW) was commissioned in Sep'20, Pole 2, Pole 3 and Pole 4 (1500 MW each) commissioned in Mar'21, Jul'21 and Oct'21 respectively.
2	HVDC Bipole link between Western Region (Raigarh, Chhattisgarh) and Southern Region (Pugalur, Tamil Nadu) ' North Trichur (Kerala)' Scheme#3: Pugalur'Trichur 2000 MW VSC based HVDC System	Feb'17	Sep'21	Jun'21	Apr-20	5,070	5,222	152	--		Project completed. After intervention of MoP, support of Govt. of TN & Kerala and assistance by local administration, 1 Monopole along with 320kV HVDC line commissioned in Mar'21 & balance 1 Monopole commissioned in Jun'21.

3	HVDC Bipole link between Western Region (Raigarh'Chhattisgarh) and Southern Region (Pugalur, Tamil Nadu) ' North Trichur (Kerala) ' Scheme#2: AC System Strengthening at Pugalur end	Aug'17	Oct'21	Oct'21	Feb-20	1,931	2,065	133.61	--		Project completed. After intervention of MoP, support of Govt. of TN and assistance by local administration, 2 no. 400kV AC lines commissioned in Sep'20 & 2 no. 400kV AC lines commissioned in Jul'21 and last line commissioned in Oct'21.
4	POWERGRID Medinipur Jeerat Transmission Limited	Mar'17	Dec'20	Aug'21- Feb'22	Jul-20	3,500	3,463	--	14 months	--Severe RoW issue & rainfall.	Phase -I comprising of : 765kV Ranchi-Medinipur line, 765kV Medinipur SS, 400kV LILLO at Medinipur, Commissioned on 09.02.2021 765kV D/C Medinipur - Jeerat T/L+ 400kV D/C Jeerat (New) - Jeerat (WBSETCL) line along with Jeerat S/s commissioned in Sep'21. 400kV Jeerat-Subhashgram line facing severe RoW issues expected to be completed by Feb'22. RoW problem Being resolved with the help of local administration.

5	System Strengthening Scheme at Tuticorin'II (etstwhile Tirunelveli GIS) and Bhuj PS	Nov'18	Jul'21	Dec'21	Jun-20	496	383	--	5 months	-- Progress affected due to delay in supply of Gas Insulated Bushings from China during COVID-19 pandemic. Now all supplies completed.	Bhuj (PS) Substation commissioned. Transformer No 3 at Tirunelveli completed. All major works completed. Common facility at Bays is likely to be completed by Dec, 21.
6	Transmission System for Ultra Mega Solar Power Park at Tumkur (Pavagada), Karnataka'Phase'II (Part'B)	May'17	Feb'21	Feb'21	Feb-19	675	548	--	--		<u>Project completed.</u> With support of MoP & Govt of KN, line charged in Feb'21.
7	System Strengthening Scheme in Northern Region-XXXVII (NRSS-XXXVII)	Mar'17	Sep'21	Jan'22	Dec-19	380	338	--	4 months	--Progress affected due to transportation & weather issue; --Progress also affected due to COVID-19 pandemic.	On completion of damaged road/road widening by NHAI, .all transformers & reactors (kept at temporary stores at Chalthi) have been transported at Jauljivi site. Civil aviation clearance and as per clearance route has been converted from overhead to underground cable. Laying work under progress. System expected to be commissioned by Jan,22
8	Transmission System Strengthening in Indian System for Transfer of power from Mangdechhu Hydroelectric Project in	Mar'16	Jul'21	Jun'21	Jan-18	809	848	39.37	--		<u>Project completed.</u> Commissioned on 24.06.2021

	Bhutan										
9	POWERGRID works associated with North Eastern Region Strengthening Scheme-VI	May'18	Jul'21	May'21	May-20	216	173	--	--		Project completed. Completed in May'21
10	Eastern Region Strengthening Scheme-XX (ERSS-XX)	Nov'17	Aug'21	Jan'22	May-20	359	318	--	5 months	--Progress also affected due to COVID-19 pandemic. Progress affected due to Non- availability of Shutdown	All major works completed, testing is under progress. Expected completion Jan'22.
11	Eastern Region Strengthening Scheme - XV (ERSS-XV)	Apr'16	Mar'21	Jun'21	Apr-18	454	398	--	3 months	--Corridor constraint at Jeerat S/s for bays. -- Progress also affected due to COVID-19 pandemic.	Project completed. Commissioned.
12	Creation of 400/220kV Substations in NCT of Delhi during 12th Plan Period (Part-A)	Mar'15	Dec'21	Mar'22	May-17	1,395	793	--	3 months	--Delay in Forest clearance; --Progress also affected due to COVID-19 pandemic and construction ban.	Working permission received in Aug'21 after lot of persuasion at Ministry level and raised in PMG portal. Construction ban lifted on 21.12.21.
13	Eastern Region Strengthening Scheme-XVII - Part-B [ERSS-XVII (Part-B)]	Feb'17	Nov'21	Feb'22	Jun-19	236	184	--	3 months	--Non availability of Shutdown ; -- Progress also affected due to COVID-19 pandemic.	Shutdown provided w.e.f. 10.12.21, Work under progress.

14	Establishment of 220/66kV, 2X160MVA GIS at UT Chandigarh along with 220kV D/c line from 220kV Chandigarh GIS Substation to 400/220kV Panchkula (PG) Substation	Feb'17	Sep'21	Mar'22	Feb-19	322	278	--	6 months	--RoW issues.	Matter taken up with district administration and raised in PMG portal. Meeting held with Chief Secretary and additional Chief secretary for resolution of RoW issues. Case in High court , Next hearing on 17.01.2022 after number of adjournments
15	Transmission system for evacuation of power from 2x500 MW Neyveli Lignite Corp. Ltd. TS-I (Replacement) (NNTPS) in Neyveli, Tamil Nadu	May'17	Jul'21	Jul'20	Jul-19	220	205	--			<u>Project completed.</u> With support of admin., line charged in Jul'20 by connecting to one ckt of LILo section of Pugalur - Kalivandapattu 400 kV D/C line near Ariyalur S/s (as bays by TANTRANCO on Deposit work Basis are expected by Mar'22).
16	Transmission System Associated with Mundra Ultra Mega Power Project	Oct'08	Mar'21	Mar'21	Sep-12	5,072	4,793	--			<u>Project completed.</u>
17	Eastern Region Strengthening Scheme - XII (ERSS-XII)	May'14	Dec'21	Feb'22	Nov-16	546	532	--	2 months	--Transportation issue resolved --Progress affected due to COVID-19 pandemic.	ICT under water transportation through Farakka feeder Canal, reached near to NTPC switch yard. Commissioning expected in Feb'22

18	Phase-I Unified Real Time Dynamic State Measurement (URTDSM) Project	Jan'14	Dec'17	Dec'21	Apr-16	375	312	--	48 months	<p>1) Non-availability of test laboratories worldwide for type testing of PMU in accordance with the Latest IEEE C37.118 Standard as per the Specifications.</p> <p>2)Space constraint at ERLDC (POSOCO) for commissioning of backup NLDC. Backup NLDC commissioned on 05.03.2021</p> <p>3) Development of Six analytical applications in consultation with IIT Bombay is also part of URTDSM project. All six analytical applications have been developed and as it involves lot of R&D work so development of the same has taken substantial amount of time.</p> <p>4) Progress also got affected due to COVID-19 pandemic.</p>	<p>The Type Testing was done in guidance of International Consultants appointed by Powergrid at Virginia tech University and Consumer Energy Laboratory,USA.</p> <p>2)Rigorous follow ups done with ERLDC,POSOCO for providing space.</p> <p>3)Follow ups with IIT Bombay done.</p> <p>All major physical works have been completed, project closure / documentation activities are under progress.</p>
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Note: As per Ministry of Power, Govt. of India circular no. 3/1/2020-Trans dated 12th June, 2021, all inter-state transmission projects which are under construction with SCOD coming after 01 April, 2021 have been given an extension of 3 months in respect of their SCOD.



भारत सरकार/Government of India
विद्युत मंत्रालय/Ministry of Power
केन्द्रीय विद्युत प्राधिकरण/ Central Electricity Authority
तापीय परियोजना प्रबंधन प्रभाग/Thermal Project Monitoring Division

पत्र सं. : के.वि.प्रा./टी.पी.एम./एस.सी./जन-3/2021/

दिनांक: 27.08.2021

To,

As per list attached.

विषय: ऊर्जा पर स्थायी समिति की 19वीं रिपोर्ट (2020-21) - परियोजना स्थल पर एक आई.टी. आधारित प्रबंधन, निगरानी और अनुवर्ती प्रणाली के कार्यान्वयन के सम्बंध में ।

Subject: 19th Report of Standing Committee on Energy (2020-21) – Implementation of an IT based management, monitoring and follow-up system at Project site – regarding.

Sir,

MoP vide letter No. 2/8/2016-P&P dated 19.08.2021 has forwarded the Office Memorandum No. SCE024(15)/3/2021-SCOE dated 6th August, 2021 received from Lok Sabha Secretariat along with the 19th Report of Standing Committee on Energy (2020-21) on the subject "Delay in Execution / completion of Power Projects by Power Sector Companies". In part II (Observations/Recommendations) of the report, the committee at point No. 6 has recommended the following :

"As timely completion of power projects is very crucial to the growth of other sectors of the economy, the Committee recommend that apart from regular review meetings, an IT based management, monitoring and follow-up system may be introduced at all the Project sites with online connectivity with all stake holders, i.e. suppliers, project developers, contractors, CEA, etc. with clear cut fixation / demarcation of responsibilities at every level. The need of the hour is to pin down the onus of action on the concerned agency/group/individual so that project management becomes more focused, vigorous and meaningful."

In view of the above, it is requested that in compliance to the point No. 6 of the recommendations of Standing Committee on Energy (2020-21), necessary action may be taken at your end at the earliest under intimation to this office.

Yours' faithfully,

(राजेश कुमार कोहली)
निदेशक

APPENDIX-I

**MINUTES OF THE THIRTEENTH SITTING
OF THE STANDING COMMITTEE ON ENERGY (2021-22)
HELD ON 26th JULY, 2022 IN HON'BLE CHAIRPERSON'S CHAMBER, ROOM
NO. 111, PARLIAMENT HOUSE ANNEXE EXTENSION, NEW DELHI**

The Committee sat from 1530 hours to 1615 hours

MEMBERS

LOK SABHA

Shri Rajiv Ranjan Singh alias Lalan Singh - Chairperson

2. Shri Gurjeet Singh Aujla
3. Shri Sanjay Haribhau Jadhav
4. Dr. A. Chellakumar
5. Shri Sunil Kumar Mondal
6. Shri Ashok Mahadeorao Nete
7. Shri Velusamy P.
8. Shri Gyaneshwar Patil
9. Shri Bellana Chandra Sekhar
10. Shri Shivkumar C. Udasi

RAJYA SABHA

11. Shri Ajit Kumar Bhuyan
12. Shri Rajendra Gehlot
13. Shri Muzibulla Khan
14. Shri Maharaja Sanajaoba Leishemba
15. Shri S. Selvaganabathy
16. Dr. Sudhanshu Trivedi

SECRETARIAT

- | | |
|------------------------------|---------------------|
| 1. Dr. Ram Raj Rai | Joint Secretary |
| 2. Shri R.K. Suryanarayanan | Director |
| 3. Shri Kulmohan Singh Arora | Additional Director |

2. At the outset, the Chairperson welcomed the Members and apprised them about the agenda of the sitting. The Committee then took up for consideration and adoption the following draft Reports:

- (i) Report on the subject 'Review of Power Tariff Policy - Need for uniformity in tariff structure across the Country'.
- (ii) Report on the subject 'Evaluation of Wind Energy in India'.
- (iii) Report on action-taken by the Government on observations/recommendations contained in Seventeenth Report (17th Lok Sabha) on the subject 'Action Plan for Achievement of 175 GW Renewable Energy Target'.
- (iv) Report on action-taken by the Government on observations/recommendations contained in Eighteenth Report (17th Lok Sabha) on the subject 'Development of Coal Blocks allocated to Power Sector Companies'.
- (v) Report on action-taken by the Government on observations/recommendations contained in Nineteenth Report (17th Lok Sabha) on the subject 'Delay in Execution/Completion of Power Projects by Power Sector Companies'.

3. After discussing the contents of the Reports, the Committee adopted the aforementioned draft Reports without any amendment/modification. The Committee also authorized the Chairperson to finalize the above-mentioned Reports and present the same to both Houses of the Parliament.

The Committee then adjourned.

(Vide Introduction of Report)

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE
OBSERVATIONS/RECOMMENDATIONS CONTAINED IN THE NINETEENTH
REPORT (SEVENTEENTH LOK SABHA) OF THE STANDING COMMITTEE
ON ENERGY

(i)	Total number of Recommendations	6
(ii)	Observations/Recommendations which have been accepted by the Government:	
	Sl. Nos. 1,2,3,4,5 and 6	
	Total:	06
	Percentage	100%
(iii)	Observation/ Recommendation which the Committee do not desire to pursue in view of the Government's reply:	
	- Nil -	
	Total:	00
	Percentage	00%
(iv)	Observation/ Recommendation in respect of which the reply of the Government has not been accepted by the Committee and which require reiteration:	
	- Nil -	
	Total:	00
	Percentage	00%
(v)	Observation/Recommendation in respect of which final reply of the Government is still awaited:	
	- Nil -	
	Total:	00
	Percentage	00%