सत्यमेव जयते

CEA ANNUAL REPORT
2025-26

CENTRAL ELECTRICITY AUTHORITY
MINISTRY OF POWER
GOVERNMENT OF INDIA

THE AUTHORITY (As on 31.03.2026)



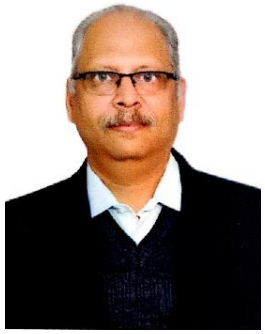
Sh. Ghanshyam Prasad
Chairperson



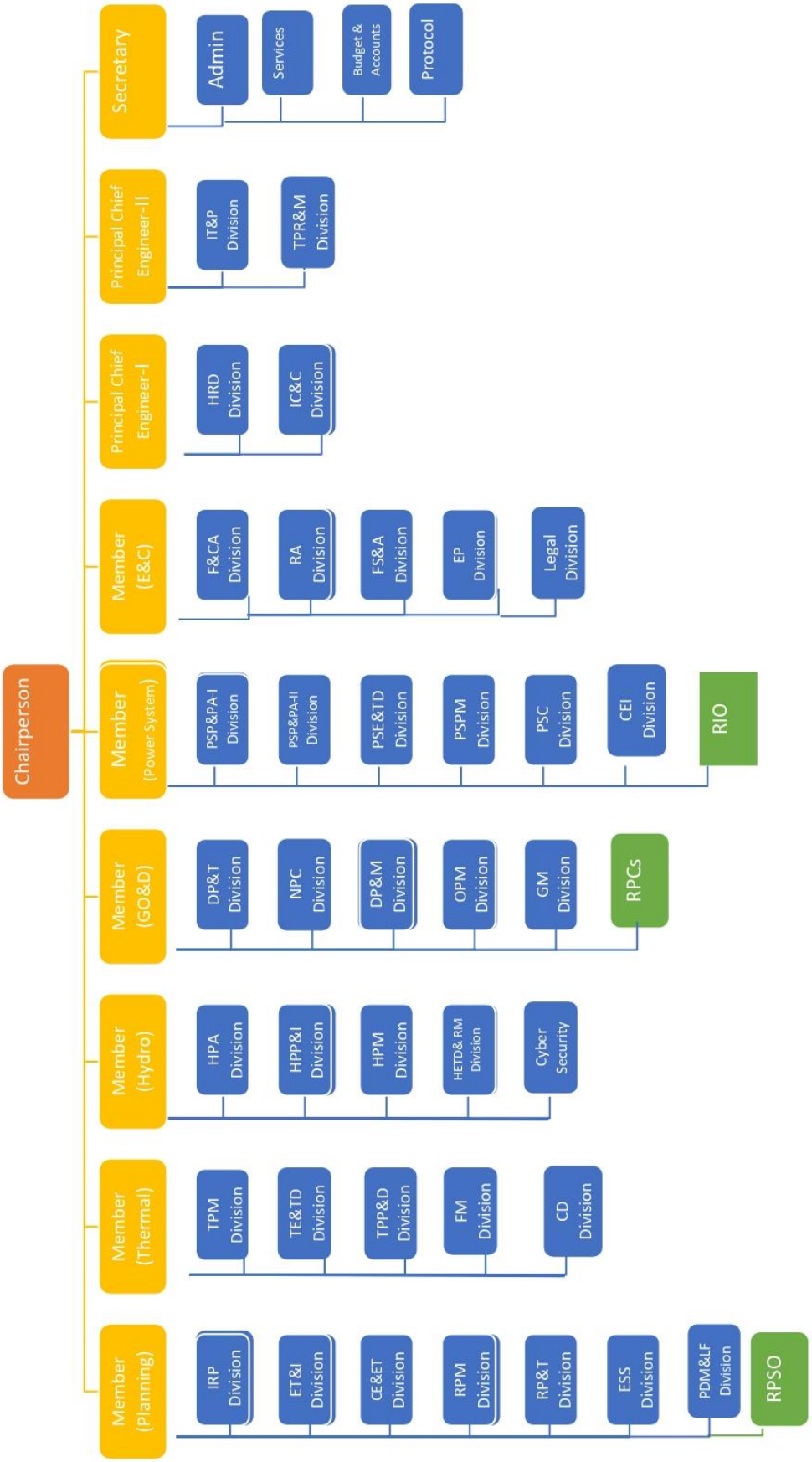
Sh. Praveen Gupta
Member (Thermal)



Sh. Hemant Jain
Member (GO&D)

 **Sh. V. K. Singh** Member (Power System)	 **Sh. Praveen Gupta** Member (E&C)
 **Sh. A. Balan** Member (Planning)	 **Sh. M. G. Gokhale** Member (Hydro)

ORGANIZATION CHART OF CEA



CENTRAL ELECTRICITY AUTHORITY
Sewa Bhawan, R.K. Puram, New Delhi – 110066 CEA
Website: www.cea.nic.in

Sub-ordinate Offices

Regional Power Committees

1. Member Secretary, Eastern Regional Power Committee, ERPC Building, 14 Golf Club Road, Tollygunge, Kolkata – 700033.
2. Member Secretary, **Northern Regional Power Committee,** NRPC Building, 18-A, Shaheed Jeet Singh Marg, New Delhi – 110016.
3. Member Secretary, **Southern Regional Power Committee,** 29 Race Course Cross Road, Near Anand Rao Circle, Bangaluru – 560009.
4. Member Secretary, Western Regional Power Committee, Plot No. F-3, Opposite SEEPZ Complex, MIDC Area Marol, Andheri (East), Mumbai – 400093.
5. Member Secretary, **North-Eastern Regional Power Committee,** Meghalaya NERPC Complex, 3rd Floor, Dong Parmaw, Lapulang, Shillong-793006.

Regional Power Survey Offices (RPSOs)

1. Deputy Director, Regional Power Survey Office (East), ERPC Building, 14 Golf Club Road, Tollygunge, Kolkata - 700033.
2. Deputy Director, Regional Power Survey Office (North), West Block-II, Wing V, R.K. Puram, Sector-1, New Delhi– 110066.
3. Deputy Director, Regional Power Survey Office (South), Post Box No. – 38, 6th Floor, 'F' – Wing, Kendriya Sadan, Koramamgala, Bangaluru – 560034.
4. Deputy Director, Regional Power Survey Office (West), 5th Floor, Plot No. F-3, Opposite SEEPZ Complex, MIDC Area Marol, Andheri (East), Mumbai – 400093.

Regional Inspectorial Organisations

1. Superintending Engineer, Regional Inspectorial Organisation (East), ERPC Building, 14 Golf Club Road, Tollygunge, Kolkata – 700033.
2. Superintending Engineer, Regional Inspectorial Organisation (North), NRPC Building, 18-A, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi – 110016.
3. Superintending Engineer, Regional Inspectorial Organisation (South), Block-IV, Floor-III, Shastri Bhawan, Chennai – 600006.
4. Superintending Engineer, Regional Inspectorial Organisation (West), Ground Floor, WRPC Building, F-3, MIDC Area Marol, Andheri (East), Mumbai – 400093.
5. Superintending Engineer, Regional Inspectorial Organisation (North-East), NERPC Complex, 3rd Floor, Dong Parmaw, Lapalang, Shillong - 793006.

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From the Chairperson

Electricity is one of the most vital components of infrastructure for inclusive economic growth and development of the nation. The sustained growth with continuous transformation according to new challenges has been characteristic of Indian power sector. Central Electricity Authority (CEA) has played key role in this process since many decades. The journey of power sector on growth trajectory has continued in the year 2025-26 with focus on reliable, economic and quality power to all. CEA, as one of the apex organizations in the country, has been carrying out statutory functions including planning, specifying technical regulations, facilitating timely completion of schemes and advising Central Government, State Governments, Electricity Regulatory Commissions as well as other stakeholders on technical matters to ensure sustainable power sector development.

It is our pleasure to bring out this Annual Report of CEA for the year 2025-26. The Report gives an insight into the organization structure, functions and activities of CEA highlighting the contributions made in the development of power sector in the country during the year 2025-26.

The key developments during the year 2025-26 are highlighted below:

- Report on Roadmap for 100 GW Nuclear Capacity by 2047 was prepared.
- Report on "Roadmap for 100 GW of Hydro Pumped Storage Projects by 2035-36" was released on January 2026 by Hon'ble Minister of Power and Urban Development to expedite planning and construction of 100GW of PSPs over the next decade.
- Transmission Planning: Published Transmission Resource Adequacy Plans for 17 States to guide coordinated transmission development up to 2034–35.
- Renewable Energy Evacuation: Published the transmission plan for evacuation of power from over 900 GW of non-fossil generation by 2035–36.
- Report on scope of cost reduction in different segments of power sector including generation, transmission and distribution was prepared in consultation with stakeholders and shared with MoP.
- Island-wise integrated Report for UT of Lakshadweep was submitted in July, 2025.
- Report of the Status of Feeder, Distribution Transformer and consumer metering was issued in October, 2025.
- Report on Chandigarh Distribution System Assessment and Infrastructure Improvement Plan was issued in October, 2025.
- Amendment in Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 was notified on 1st April, 2026.
- Report of the Committee to evolve mechanism for ensuring Thermal Generation at Technical Minimum level for Grid Stability and RE Integration has been submitted in June 2025 and circulated to all RPCs for implementation.
- Annual report titled "Electricity Tariff & Duty and Average rates of electricity supply in India-March 2025" for FY 2024-25 was published.
- Report on Weighted Average Rate of Sale of Power (WARSP) of conventional power plants for the year 2024-25 was prepared.

- A report on Ash Generation and Utilisation at coal/lignite-based Grid Connected thermal power stations for 2024-25 was released at the valedictory session of the Bharat Electricity Summit 2026 held in Mar'26 at Yashobhoomi, New Delhi. The report provides data on fly ash generation and utilization in coal and lignite-based grid-connected thermal power plants in India for 2024-25.
- India-Bhutan Cooperation: Established an enhanced institutional framework through the constitution of the Joint Steering Committee (JSC) and Joint Working Group (JWG) to strengthen bilateral power sector cooperation.
- India–Nepal Power Trade: Finalized electricity export tariffs for FY 2026-27, further strengthening cross-border power trade with Nepal.
- Quality Standards: Issued revised Type Test Guidelines and Model Quality Assurance Plan (MQAP) for major power sector equipment.
- Grid Resilience: Issued a Standard Operating Procedure (SOP) for restoration of the transmission system to enhance grid reliability.
- UHV Transmission: Released a technical report to facilitate the deployment of 1150 kV transmission systems in India.
- Electrical Safety: Notified the CEA Safety Amendment Regulations, 2026, incorporating enhanced safety provisions for Battery Energy Storage Systems (BESS).
- Safety Awareness: Organized the 6th Lineman Diwas and All-India Electrical Safety Awareness Programme to recognize linemen and promote electrical safety nationwide.
- Make in India and Aatmanirbhar Bharat initiatives by identifying 73 critical imported power sector items, prioritizing 16 items for indigenization, and supporting policy measures to enhance domestic manufacturing capabilities.
- Promoted emerging technologies and indigenous capability development, including formulation of a roadmap for indigenization of SCADA systems.
- Strengthened power sector standardization efforts by proposing 12 new BIS standards and 4 revisions of existing standards, besides issuing recommendations on standardization of power and distribution transformers.

Ghanshyam Prasad
Chairperson, CEA

CHAPTER – 1

CEA AS AN ORGANIZATION

1.1 Organization of CEA

1.1.1 The Central Electricity Authority (CEA) is a statutory organization originally constituted under Section 3(1) of the repealed Electricity (Supply) Act, 1948 since substituted by Section 70 of the Electricity Act, 2003. CEA was founded in October, 1974 after carved out of erstwhile Central Water and Power Commission.

1.1.2 As per Section 70(3) of the Electricity Act, 2003, the Authority shall consist of not more than fourteen members (including its Chairperson) of whom not more than eight shall be full-time Members to be appointed by the Central Government.

1.1.3 CEA is headed by a Chairperson who as the Chief Executive of the Authority largely oversees the development of Power Sector in the country. A Secretary, appointed by the Authority with the approval of the Central Government under Section 72 of the Electricity Act 2003, assists the Chairperson in discharging of CEA's statutory functions. The Secretary also assists the Chairperson in all matters pertaining to administration and technical matters including concurrence of hydro power projects etc. There are six (6) Wings in CEA namely Planning, Hydro, Thermal, Grid Operation & Distribution, Economic & Commercial and Power System each headed by a Member of the Authority. Under each Member, there are technical Divisions, headed by an officer of the rank of Chief Engineer. At present, there are forty Divisions in CEA headquarter at New Delhi.

1.1.4 Sub-ordinate offices of CEA

There are 14 subordinate offices of CEA viz. five (5) Regional Inspectorial Organizations, four (4) Regional Power Survey Offices and five (5) Regional Power Committees located in various parts of the country.

A) Regional Inspectorial Organization (RIO)

Under Chief Engineer (CEI) in Power System Wing, five (5) Regional Inspectorial Organization (RIO) offices, each headed by an officer of the rank of Superintending Engineer, function at New Delhi, Mumbai, Chennai, Kolkata and Shillong to inspect the HV/MV installations of the Central Government.

B) Regional Power Survey Offices (RPSOs)

Four (4) Regional Power Survey Offices (RPSOs), each headed by an officer of the rank of Deputy Director, function at New Delhi, Mumbai, Bengaluru and Kolkata under Chief Engineer (PS&LF) in the Planning Wing to carry out surveys to forecast the demand of power in their respective regions and are entrusted with the work of gathering information for Captive Power Plants.

C) Regional Power Committees (RPCs)

Five (5) Regional Power Committees (RPCs), each headed by a Member Secretary, an officer of the rank of the Chief Engineer, are functioning at New Delhi, Mumbai, Bangalore, Kolkata and Shillong to facilitate the integrated operation of the Regional Electricity Grids.

1.2 Functions of CEA

The functions and duties of the Authority are delineated under Section 73 of the Electricity Act, 2003. Besides, CEA has to discharge various other functions as well under Sections 3, 8, 34, 53, 55 and 177 of the Act.

Section 73 - Functions and Duties of the Authority

(a) advise the Central Government on the matters

relating to the national electricity policy, formulate short- term and perspective plans for development of the electricity system and coordinate the activities of the planning agencies for the optimal utilization of resources to sub serve the interests of the national economy and to provide reliable and affordable electricity to all consumers;

(b) specify the technical standards for construction of electrical plants, electric lines and connectivity to the grid;

(c) specify the safety requirements for construction, operation and maintenance of electrical plants and electric lines;

(d) specify the Grid Standards for operation and maintenance of transmission lines;

(e) specify the conditions for installation of meters for transmission and supply of electricity;

(f) promote and assist in the timely completion of schemes and projects for improving and augmenting the electricity system;

(g) promote measures for advancing the skills of persons engaged in electricity industry;

(h) advise the Central Government on any matter on which its advice is sought or make recommendation to that Government on any matter if, in the opinion of the Authority, the recommendation would help in improving the generation, transmission, trading, distribution and utilization of electricity;

(i) collect and record the data concerning the generation, transmission, trading, distribution and utilization of electricity and carry out studies relating to cost, efficiency, competitiveness and such like matters;

(j) make public from time to time the information secured under this Act, and provide for the publication of reports and investigations;

(k) promote research in matters affecting the generation, transmission, distribution and trading of electricity;

(l) carry out, or cause to be carried out, any investigation for the purpose of generating or transmitting or distributing electricity;

(m) advise any State Government, licensees or the generating companies on such matters which shall enable them to operate and maintain the electricity system under their ownership or control in an improved manner and where necessary, in coordination with any other Government, licensee or the generating company owning or having the control of another electricity system;

(n) advise the Appropriate Government and the Appropriate Commission on all technical matters relating to generation, transmission and distribution of electricity; and

(o) Discharge such other functions as may be provided under this Act.

In addition to above functions and duties, CEA has to perform the following functions in terms of the under mentioned Sections of the Electricity Act, 2003: -

Section 3 - National Electricity Policy and Plan

(1) The Central Government shall, from time to time, prepare the National Electricity Policy and Tariff Policy, in consultation with the State Governments and the Authority for development of the power system based on optimal utilization of resources such as coal, natural gas, nuclear substances or materials, hydro and renewable sources of energy.

(2) The Central Government shall publish the National Electricity Policy and Tariff Policy from time to time.

(3) The Central Government may, from time to time, in consultation with the State Governments and the Authority, review or revise the National Electricity Policy and Tariff Policy referred to in sub-section (1).

(4) The Authority shall prepare a National Electricity Plan in accordance with the National Electricity Policy and notify such plan once in five years.

Provided that the Authority while preparing the National Electricity Plan shall publish the draft National Electricity Plan and invite suggestions and objections thereon from licensees, generating companies and the public within such time as may be prescribed;

Provided further that the Authority shall –

(a) notify the plan after obtaining the approval of the Central Government;

(b) Revise the plan incorporating therein directions, if any, given by the Govt. while granting approval under clause (a).

(5) The Authority may review or revise the National Electricity Plan in accordance with the National Electricity Policy.

Section 8 - Hydro-Electric Generation

(1) Notwithstanding anything contained in Section 7, any generating company intending to set up a hydro-generating station shall prepare and submit to the Authority for its concurrence, a scheme estimated to involve a capital expenditure exceeding such sum, as may be fixed by the Central Government, from time- to time, by notification**.**

(2) The Authority shall, before concurring in any scheme submitted to it under sub-section (1) have particular regard to, whether or not in its opinion:-

(a) the proposed river-works will prejudice the prospects for the best ultimate development of the river or its tributaries for power generation, consistent with the requirements of drinking water, irrigation, navigation, flood- control, or other public purposes, and for this purpose the Authority shall satisfy itself, after consultation with the State Government, the Central Government, or such other agencies as it may deem appropriate, that an adequate study has been made of the optimum location of dams and other river- works;

(b) The proposed scheme meets, the norms regarding dam design and safety.

(3) Where a multi-purpose scheme for the development of any river in any region is in operation, the State Government and the generating company shall co-ordinate their activities with the activities of the person responsible for such scheme insofar as they are inter-related.

Section 34 – Grid Standards

Every transmission licensee shall comply with such technical standards, of operation and maintenance of transmission lines, in accordance with the Grid Standards, as may be specified by the Authority.

Section 53 Provision relating to Safety and Electricity Supply

The Authority may, in consultation with the State Governments, specify suitable measures for-

(a) protecting the public (including the person engaged in the generation, transmission or distribution or trading) from dangers arising from the generation, transmission or distribution or trading of electricity, or use of electricity supplied or installation, maintenance or use of any electric line or electrical plant;

(b) eliminating or reducing the risks of personal injury to any person, or damage to property of any person or interference with use of such property;

(c) prohibiting the supply or transmission of electricity except by means of a system which conforms to the specification as may be specified;

(d) giving notice in the specified form to the Appropriate Commission and the Electrical Inspector, of accidents and failures of supplies or transmission of electricity;

(e) keeping by a generating company or licensee the maps, plans and sections relating to supply or transmission of electricity;

(f) inspection of maps, plans and sections by any person authorized by it or by Electrical Inspector or by any person on payment of specified fee;

(g) Specifying action to be taken in relation to any electric line or electrical plant, or any electrical appliance under the control of a consumer for the purpose of eliminating or reducing the risk of personal injury or damage to property or interference with its use.

Section 55 Use, etc. of Meters

For proper accounting and audit in the generation, transmission and distribution or trading of electricity, the Authority may direct the installation of meters, by a generating company or licensee at such stages of generation, transmission or distribution or trading of electricity and at such locations of generation, transmission or distribution or trading, as it may deem necessary.

Section 177 Powers of Authority to make Regulations

(1) The Authority may, by notification, make regulations consistent with this Act and the rules generally to carry out the provisions of this Act.

(2) In particular and without prejudice to the generality of the power conferred in sub-section (1), such regulations may provide for all or any of the following matters, mainly: -

(a) the Grid Standards under section 34;

(b) suitable measures relating to safety and electricity supply under section 53;

(c) the installation and operation of meters under section 55;

(d) the rules of procedure for transaction of business under sub- section (9) of section 70;

(e) the technical standards for construction of electrical plants and electric lines and connectivity to the grid under clause (b) of section 73;

(f) the form and manner in which and the time at which the State Government and licensees shall furnish statistics, returns or other information under section 74;

(g) any other matter which is to be, or may be, specified;

(3) All regulations made by the Authority under this Act shall be subject to the conditions of previous publication.

1.3 Broad Functional Areas of work of Chairperson and the Members of the Authority

- **Chairperson**

Chairperson is the Chief Executive of the Authority.

- **Member (Planning)**

Formulation of National Electricity Plan; integrated resource planning; coordinating the activities of planning agencies for optimization of resource utilization; formulation of short, medium and long term power plans; long and short term demand forecast and sensitivity studies; material and manpower planning; surveys for power demand growth; identification and testing of co-lateral parameters for economic model for demand forecasting; collection, compilation and publication of statistics of Power Sector; securitization of resources/fuel availability and fuel efficiency with the support of emerging technologies; modernization of project management; concepts of skill development; pro-active technology forecasting approaches; research and development in Power Sector, co-ordination with multiple agencies involved in research and development activities, coordination of fuel oil/liquid fuel supplies; coal quantity and quality control; development of renewable energy resources for electricity generation etc.

- **Member (Thermal)**

Overall thermal power development in the country; updating, development and evaluation of thermal technologies; design and engineering of thermal projects; quality assurance standards and plans; preparation of model documents and standards; thermal projects investigation and ash utilization; coal, oil and gas linkages to power projects; energy conservation; energy auditing;

monitoring of construction and stabilization of thermal projects and suggesting remedial measures to problems involved; making operating norms for thermal generating stations.

- **Member (Hydro)**

Overall hydro power development in the country; technical appraisal of hydro-electric projects; integrated planning for utilization of water resources; assessment of hydro potential; assistance to States on investigation and project report preparation; construction & investigation, monitoring of hydro projects and suggesting remedial measures to problems involved; updating, development and evaluation of hydro technologies; environmental aspects of hydro projects; quality assurance plans and standardization, design and engineering of hydro projects; renovation, modernization and up rating of hydro stations; co-operation with neighboring countries of Nepal, Bhutan and Myanmar for development of water resources for mutual benefits; etc.

- **Member (Power System)**

Planning and development of transmission system consistent with national power plans; studies for the purpose of appraisal of transmission projects; transmission technology development; design and engineering; standardization and preparation of model document; renovation and modernization of transmission schemes; construction monitoring of transmission projects; coordination of telecommunication system and power lines; matters related to communication, data acquisition and software support in power sector; inspection of existing electrical installations in Union Territories and Central Government Departments; investigation of accidents on electrical installations and suggesting remedial measures for their minimization and prevention etc.

- **Member (Grid Operation & Distribution)**

Formulation of policies for safe, secure and economic operation of regional grids; integrated operation, co-ordination of five regional grids through Regional Power Committees(RPCs); monitoring of delivery of shares from Central Sector projects; intra and inter- regional exchange of power; regional energy accounting; load generation balance; investigation of grid disturbances; matters related to distribution planning, policy and regulations; monitoring of rural electrification programme and distribution schemes of the Central Government; all matters relating to power development in union territories; operation monitoring and performance review of thermal power stations; updating of maintenance procedures; generation data collection; performance analysis; maintenance monitoring etc.

- **Member (Economic & Commercial)**

Economic evaluation of power policies and projects; appraisal of tariff for Nuclear Power Stations; analysis of financial packages; financial parameters; interest during construction and completed cost; performance of power sector utilities, Examination of Power Purchase Agreement, advice and legal matters, amendments in Electricity Act, 2003 National Electricity Policy, Tariff Policy and Electricity Rules, etc.

- **Secretary**

The Secretary (CEA) appointed by the Authority with the approval of the Government of India, assists the Authority in discharge of CEA's statutory functions. The Secretary also assists the Chairperson (CEA) in all matters pertaining to administration and technical matters including techno-economic appraisal and concurrence of hydro power projects, planning of budget and expenditure control etc.

1.4 Personnel and Administration

1.4.1 Staff strength of CEA

The staff strength of CEA as on 31.03.2026 was 767 as against the sanctioned strength of 1141 leaving 374 posts vacant. The summarized position of staff strength is shown in the table below:

Category	No. of Govt. Employees	No. of Women employees In position	% age
Group-A	406	61	15.02%
Group-B	127	32	25.19%
Group-C	234	55	23.50%
Total	**767**	**148**	**19.29%**

1.4.2 Representation of Scheduled Castes, Scheduled Tribes, OBC &Physically Handicapped Employees

Category	No. of Govt. Employees	No. of SC Govt. employees in position		No. of ST Govt. employees in position		No. of OBC Govt. employees in position		No. of Phy. H. Govt. employees in position
		SCs	SCs%	STs	STs%	OBCs	OBCs%	PWDs
Group-A	406	67	16.50	32	7.88	75	18.47	08
Group-B	127	20	15.75	05	3.94	34	26.77	03
Group-C	234	38	16.23	11	4.70	68	29.06	09
Total	**767**	**125**	**16.30**	**48**	**6.26**	**177**	**23.08**	20

1.4.3 Representation of Physically Handicapped employees

Group	Total employees as on 31.03.2025	Physically Challenged Employees				Percentage of Physically Challenged
		VD	HD	OD	Total	
Group A	406	-	03	05	08	1.97
Group B	127	01	01	01	03	2.36
Group C	234	04	03	02	09	3.85
Total	**767**	**05**	**07**	**08**	**20**	**2.61**

1.5 Annual Budget

1.5.1 Budget of CEA during the year 2025-26.

Rs. In Crores			
BUDGET OF CENTRAL ELECTRICITY AUTHORITY (CEA)			
Budget Estimate of CEA for the Year 2025-26		**Revised Estimate of CEA for the year 2025-26**	
Salary	132.58	Salary	132.82
Non-Salary	22.47	Non-Salary	28.31
Total	**155.05**	**Total**	**161.13**
Allocation of Budget Estimate 2025-26		**Allocation of Revised Estimate 2025-26**	
Admin. Of Electricity Act	130.19	Admin. of Electricity Act	135.94
Hydel Generation	6.76	Hydel Generation	6.84
Transmission & Distribution	18.10	Transmission & Distribution	18.35
Total	**155.05**	**Total**	**161.13**
Expenditure Status as on 31.03.2026			
Salary		123.40	
Non-Salary		26.80	
Total		**150.2**	
Budget utilization %			**93.22%**

1.5.2 Consultancy services by CEA

CEA renders Consultancy Services for design and Engineering of hydro projects to various utilities. Bill raised towards consultancy services render to various utilities during the financial year 2025-26 is **Rs. 1.22 crore**/- and payment received is **Rs.3.48 crore.**

1.5.3 Pension and Retirement Benefits Overview:

All pension cases were processed within the stipulated timeframe through the online Bhavishya portal, ensuring seamless and efficient service delivery to retiring employees. For timely processing of pension cases, two pension mitras have been nominated to help the retiree officers, who may take suitable assistance from respective prension mitras facilitating timely release of pension.

1.6 Progressive use of Hindi in Official work of CEA

Central Electricity Authority was notified in the Official Gazette in pursuance of sub-rule 4 of Rule 10 of the Official Language Rules 1976 and under sub-rule 4 of rule 8, officers possessing proficiency in Hindi were specified to do all their official work in Hindi.

1.6.1 Quarterly Meetings of Official Language Implementation Committee:

During the year following four meetings of Official Language Implementation Committee were held:

- 1st meeting - 27 June, 2025
- 2nd meeting – 19 August, 2025
- 3rd meeting – 12 November, 2025
- 4th meeting– 16 March, 2026

During these meetings, action are taken for implementation of official language policy.

i. All works such as noting, drafting, office orders, letters, etc. in all the divisions/sections throughout the year were done as per Section 3(3) of the Official Language Act.

ii. Full efforts were also made to meet the goal of Hindi correspondence in all divisions/sections.

iii. All the letters received in Hindi were answered in Hindi itself. Thus, Rule 5 of the Official Language Rules, 1976 was complied with.

1.6.2 Letters sent in Hindi during the financial year 2025-26:

Quarterly percentage of Letters sent in Hindi during the year 2025-26 is as follows : –

Quarter	Letters sent in Hindi Region ('A' + 'B')	% of Hindi letters
1st	8118	98.90%
2nd	8505	98.83%
3rd	7703	99.40%
4th	9059	99.17%

- In the 'C' Region, the target of the letter sent in Hindi was 100 percent.

1.6.3 During the year, following Reports/ Documents were issued in bilingual form :

1. केविप्रा की वार्षिक रिपोर्ट 2024-25
   Annual Report 2024-25 of CEA.
2. आर इ निर्माण मानक
   RE construction standard
3. विद्युत मंत्रालय द्वारा शुरू किये गए सुधारों का संकलन
   Compilation of reforms undertaken by MOP.
4. ऊर्जा संबंधी स्थायी समिति – अनुदान मांगों की जांच के संबंध में अनुपूरक बिंदुओं की सूची (2026-27)
   Standing Committee on Energy- Supplementary List of Points in connection with examination of the Demands for Grants (2026-27).
6. रोजगार में ओबीसी (अन्य पिछड़ा वर्ग) के प्रतिनिधित्व को सुनिश्चित करने के लिए उठाए गए उपायों पर सीईए का नया पृष्ठभूमि नोट
   CEA new background note on Measures under taken to secure representation of OBCs in Employment.
7. केन्द्रीय विद्युत प्राधिकरण में विभिन्न पदों के लिए भर्ती नियमों के हिंदी अनुवाद के लिए अनुरोध
   Request for Hindi translation of Recruitment Rules for various posts in Central Electricity Authority.
8. आगामी अधिसूचित होने वाले केविप्रा (विद्युत संयंत्रों और विद्युत लाइनों के निर्माण के लिए तकनीकी मानक) संशोधन विनियम, 2025 का हिंदी अनुवाद
   Hindi Translation of the Soon-to-be Notified CEA (Technical Standards for Construction of Electrical Plants & Electrical Lines) Amendment Regulations, 2025.
9. केविप्रा के विभागीय कैंटीन में रिक्ति परिपत्र का हिंदी संस्करण
   Hindi version of the vacancy circular in departmental canteen of CEA.
10. केविप्रा के मीटरिंग विनियमों में अंतिम अनुमोदित संशोधन
    Final approved amendment in Metering Regulations of CEA.
11. केविप्रा में विभिन्न पदों के लिए भर्ती नियमों का हिंदी अनुवाद
    Hindi translation of Recruitment Rules for various posts in CEA.

1.6.4 Hindi Fortnight Celebrations, 2025:

As per the instructions given by the Department of Official Language, Ministry of Home Affairs, Government of India a Hindi fortnight was organized at Central Electricity Authority Headquarters from 14th September 2025 to 29th September 2025. Five (5) competitions namely Hindi Essay Writing, Hindi Noting & Drafting, Hindi paragraph writing (Only for MTS), Official Language Rules/Acts and Hindi Language/Literature General Knowledge Competition, and Hindi poetry Competition for Officers were organized during Hindi fortnight. A total of 127 officers and employees participated enthusiastically in these competitions.

In this function, 15 winners were given cash prizes and certificates. Also, ten personnel, who did noting and drafting originally in Hindi, were awarded under the incentive scheme for the year 2024-25. Apart from this, two divisions of CEA performing best in the promotion of Hindi in official work was awarded the "Rajbhasha Trophy".

1.6.5 Publication of "Vidyut Vahini":-

During the last year, 4 issues of CEA's official Hindi quarterly magazine "Vidyut Vahini" were published and distributed and for the next issue, efforts are being made.

1.7 Welfare Activities in CEA

1.7.1 Recreation and Sports:

The employees of CEA are actively participating in the Sports & Cultural Tournaments/Competitions at All India Civil Services (A National Status), Inter-Ministry and Inter-CPSU levels every year regularly. For the year 2025-26, the following Sports Team/Individuals of CEA are participated in the AICS/Inter-Ministry/Inter-CPSU Tournaments and brought laurels to CEA by winning the medals. The achievements of these Sports/Cultural Teams/Individuals are as under:

1. VOLLEYBALL:

CEA Volleyball Team has been participated in the 29th Inter-CPSU Volleyball Tournament 2025-26 held from **10.11.2025 to 12.11.2025** at Nangal Township (Punjab), which is organized by Bhakra Beas Management Board (BBMB) under the aegis of Power Sports Control Board, Ministry of Power. CEA Volleyball Team stood Runners-up in the tournament. Team members are as under: -

S. No.	Name & Designation S/Shri	Section /Division
1.	Sachin, Section Officer----------**(Playing Manager)**	IFD
2.	Anish, JSA----------**(Captain)**	NRPC(N)
3.	Piyush Meena, Assistant Director	HRD Division
4.	Ramesh Kumar, Assistant Section Officer	Cash-II Section
5.	Nitin Deshwal, Deputy Director	PSPA-I Division
6.	Pankaj, Halwai	CEA Canteen
7.	Sunny Mann, JSA	NRPC(N)
8.	Mausam, JSA	RPSO(N)
9.	Vikas Yadav, MTS	APAR Section
10.	Mohakam Singh, MTS	O/o DD (IFD& Pension
11.	Braham Singh, JSA	General Section
12.	Ravi Raj, Assistant Section Officer	Admn.I Section

2. BADMINTON:

Ms. Archana, PPS, PSPA-II Division, CEA has won the following Medals in the Inter-Ministry Badminton Tournament 2025-26 organised by CCSCSB, DoPT from 29.12.25 to 09.01.2026 at AIIMS Gymkhana, New Delhi:

i) Women Veterans Doubles (50+) - Bronze Medal

ii) Shri Vikas Yadav, MTS, APAR has also won Gold Medal in Men Para Singles Event. He has also selected to represent the Delhi Para Badminton Team in the 7th National Para Badminton Championship, 2026 was held from 06th to 10th March, 2026 at Heartfulness Gopichand Academy, Ranga Reddy District, and Telangana.

3. CARROM:

CEA Men & Women Carrom Team has been participated in the Inter CPSU Carrom Tournament 2025-26, which was organized by REC Ltd. under the aegis of Power Sports Control Board, M/o Power from **21.12.2025 to 24.12.2025** at Radisson Blu Plaza, Banjara Hills, Hyderabad and won the following medals:

i) Men Team Championship: Winners

ii) Women Team Championshiip: Runners-up

iii) Men Singles: Shri Saurabh Parth Sarthi, AD-I (Runners-up)

iv) Women Doubles:
Smt. Nisha Aatil, MTS (2nd

Km. Apoorva Jain, Steno (2nd)

Smt. K. Neetu, PS, (3rd)

Smt. Swati Rawat, SO (3rd)

Team Members are as under:

S. No.	Name & Designation S/Shri/Smt./Km.	Section/Division
MEN TEAM		
1.	Thakur Kishore Singh-------**(Non Playing Manager)**	Adm.(Coord.) Section
2.	Saurabh Parth Sarthi, AD-I----------**(Captain)**	RIO(West), Mumbai
3.	Rahul, Steno.	Admn.II Section
4.	Rohit Bisht, Section Officer	Admn.I Section
5.	Sanjeev Kumar Beri, PPS	ET&I Division
6.	Jitendra Singh, MTS	Protocol
7.	Farooque Iqbal, Director	PSPA-II Division
WOMEN TEAM		
1.	Veni Hariharan, PPS----------**(Playing Manager)**	O/o Member (Thermal)
2.	K. Neetu, Private	GM

	Secretary----------**(Captain)**	Division
3.	Nisha Aatil, MTS	GM Division
4.	Swati Rawat, Section Officer	Adm.I Section
5.	Sonia Rani, MTS	PDM&LF Division
6.	Apoorva Jain, Steno.	Adm.II Section

4. TABLE TENNIS:

The following officers of CEA has been participated in the Inter-Ministry Table Tennis Tournament 2025-26 and won the following medals:

i) Shri Rahul Kumar, DD won the Bronze Medal in Men Team Championship.
ii) Shri Manish Sharma, DD won the Bronze Medal in Men Team Championship
iii) Shri Sudanshu Mahlwal, DD won the Bronze Medal in Men Team Championship
iv) Shri Rahul Kumar, DD won the Gold Medal in the Men Doubles Event.

5. ATHLETICS:

i) Km. Anjali, MTS, Sub-offices Section has won the Bronze Medal (1:30.60) in the 400 mtr race in the 15th Inter-CPSU Athletics Meet 2025-26 held at Shillong (Meghalaya) from 27-29 January, 2026.
ii) Km. Harshika Soni, Steno., HRD Division get the 4th Position in the 800 mtr race (3:44.05) in the 15th Inter-CPSU Athletics Meet 2025-26 held at Shillong (Meghalaya) from 27-29 January, 2026.
iii) Km. Muskan, Steno. IRP Division get the 4th Position in the High Jump (0.90m) in the 15th Inter-CPSU Athletics Meet 2025-26 held at Shillong (Meghalaya) from 27-29 January, 2026.
iv) Km. Deepti Gupta, Steno. IRP Division get the 4th Position in the High Jump (0.90m) in the 15th Inter-CPSU Athletics Meet 2025-26 held at Shillong (Meghalaya) from 27-29 January, 2026.
v) Shri Rahul Singh Rawat, MTS, ET&I Division get the 4th Position in the Javelin Throw in the 15th Inter-CPSU Athletics Meet 2025-26 held at Shillong (Meghalaya) from 27-29 January, 2026.

6. Other Recreational activities:

a) To celebrate **"Fit India"** initiative by Government of India, a Gymnasium has been set up in CEA premises at ground floor (near SBI ATM) for the officers/officials of CEA, where CEA Men and Women officers/officials use/exercise on the gym machines such as Tread Mill, Cycling, Bench press, different kg weights/dumbbells, work station, Pull string, gym balls etc.

b) CEA/BEE Recreation Club has also been running at Ground Floor, West Block-II, R.K. Puram, and New Delhi. At present Carrom, Chess, Bridge and Table Tennis facilities are available for recreation of CEA officers/officials during the lunch hours.

c) A Sports & Cultural Laurels function is being organised to felicitate the officers/officials, who bring the laurels to CEA by winning the medals/merit at various sports tournament once in every two year.

d) Various observance days have also been organised in CEA as per the details given below:

- Swachhta Pahwada (16th – 31st May)
- Swachhta Hi Seva (17th September to 02nd October)
- Constitution Day Celebration (20th November)
- '#एक पेड़ माँ के नाम #Plant4Mother'
- Mission Life
- International Yoga Day (21st June)
- Anti-Terrorism Day (21st May)
- Sadbhavna Diwas (20th August)
- Rashtriya Ekta Diwas – National Unity Day (31st October*)
- International Women's Day
- Fit India

- Fire Service Week (commencing from 14th April)
- Meri Maati Mera Desh
- Celebration of World Environment Day (05th June)
- Azadi ka Amrit Mahotsav
- Observance of Martyers Day (30th January)
- Arms Force Flag Day (07th December)
- Dr. B.R. Ambedar Birth Celebration (01st April)
- Communal Harmony Campaign Week (19th to 25th Nov.)
- No Tobacco Day (31st May)
- Jan Jatiya Gaurav Diwas (15th November)
- Observance of Har Ghar Tiranga-AKAM (13th to 15th August)
- Swacch Diwali Shubh Diwali (06th to 12th November)
- National Sports Day (NSD) (29th August).
- 150 years of Vande Mataram Campaign. Year-long commemorative Activities across the country from 7th November, 2025 to 7th November, 2026.

e) Apart from above, various sports team like Athletics, Badminton, Bridge, Carrom, Chess, Cricket, Football, Kabbadi, Table Tennis, Volleyball and Cultural has been selected every year to their participation in the Power Sports Control Board and Inter-Ministry Sports Tournaments.

1.8 Vigilance Activities/Disciplinary Cases in CEA

1. The Vigilance Division, CEA is headed by Chief Vigilance Officer (CVO) and is the nodal point in Vigilance set up of the Authority and its Subordinate Offices. The Division deals with various facets of vigilance mechanism and functions for carrying out investigations into complaints, suggesting corrective measures for improving the control system, compliance of the laid down procedures and also for carrying out preventive vigilance exercise.

2. As part of preventive vigilance, the Vigilance Division conducts Periodic inspections of Subordinate offices under CEA from time to time. Scrutiny of Immovable Property Returns (IPRs) filed by Officers of CEA are being carried out by this Division at regular intervals. Workshop/ training were conducted for CEA employees. Vigilance Awareness Week – 2025 was observed in Central Electricity Authority and its subordinate offices from 27.10.2025 to 02.11.2025. The Vigilance Awareness Week was observed to highlight the theme "Vigilance Our Shared Resposibility" "सर्तकता हमारी साझाा जिममेदारी"

3. Complaints other than anonymous / pseudonymous were taken for investigation promptly and after completion of investigations, reports submitted to the prescribed competent authority. Prescribed periodical returns were sent to Ministry of Power and Central Vigilance Commission in time.

1.9 Electric Power Information Society

The Electric Power Information Society (EPIS) was established in June, 1996 under the aegis of Central Electricity Authority on no-loss-no profit basis for bringing out various CEA publications. These are also available for sale for general public.

1.10 Grievance Cell

Chief Engineer (TPR&M) has been entrusted with the task of Grievance Officer of Ministry of Power. In this regard, the Progress Report of the grievances handled for the period 01/04/2025 to 31/03/2026 is as below:

Total grievances received during the period: **252**
Total grievances disposed during the period: **248**

1.11 Right to Information Act, 2005

Under the Right to Information Act, 2005, the Chief Engineer (Coordination) acts as the Nodal

Officer for RTI for CEA.774 applications were received during the year 2025-26 (i.e. up to 31.03.2026), under the Act and were disposed of by various CPIOs in CEA. Out of 774 applications, 21 applications were received in hard copy format while the remaining were received through RTI MIS portal. Further, 57 applicants filed appeal to the First Appellate Authority (FAA), 05 of which were received in hard copy format while remaining were received through RTI MIS portal. All 57 appeals have been disposed off.

Section 4 of the RTI Act provides a comprehensive framework for promoting openness in the functioning of the public authorities. RTI suo moto disclosure in the format specified by the Central Information Commission (CIC) and approved by the Chairperson, CEA was uploaded on the website of CEA. The detailed information as per the specified format was also forwarded to CIC for transparency audit.

Third Party Audit on "Proactive Disclosures" of CEA, as mandated by Central Information Commission for facilitation of suo moto disclosure of information under section 4 of RTI Act 2005, was conducted in the month of Aug, 2025 in CEA Head Quarter by Indian Institute of Public Administration (IIPA), Puducherry.

1.12 Parliament Questions/Assurances, VIP references

(A) Works relating to various assignments given below were carried out:

1. Parliament Questions
2. Parliamentary Assurances
3. Oral evidence
4. PMO/VIP/MOP references
5. Consultative Committees
6. Standing Committee on Energy
7. Material for Calling Attention Motion
8. Material for Economic Survey 2024-25
9. Major Achievements in Power Sector
10. Annual Report of the MOP for 2024-25
11. Material for interview of Power Minister and Secretary (power) to various press media
12. Monitor able targets for the year 2024-25 and Achievements
13. Power Ministers' Conference
14. Material for various speeches.
15. International Cooperation with various countries
16. Inputs for regional meeting relating to power matters of the regions
17. Action taken reports were prepared based on the inputs received from various divisions.
18. Niti Aayog Dashboard
19. Examination of DPRs
20. Material for President's Address to both the Houses of Parliament and Finance Minister's Budget Speech.
21. Compilation and processing of material for matters such as:

i) Power sector reform,

ii) Private Sector participation including action taken reports, and

iii) Ministers meeting on power scenario etc.

1.13 During the year 2025-26 (till 02.04.2026) there were three Parliament Sessions and the Admitted version of Questions were dealt with as follows:

Sr. No.	Session	Starred	Un-starred
1.	Monsoon Session 2024	01	68
2.	Winter Session 2024	02	51
3.	Budget Session 2025	07	89

1.14 Reports Prepared in IC&C Division

The CEA receives data regularly on various aspects of Indian Power Sector, such as generation, transmission and distribution of power. The information received is incorporated in the following regular reports:

- Monthly Executive Summary
- Annual Report of CEA

CHAPTER – 2

PLANNING FOR POWER DEVELOPMENT

2.1 Power Planning

2.1.1 Generation Planning Studies

Ministry of Power had notified the Electricity (Amendment) Rules in December 2022. As per Rule 16 of the Electricity (Amendment) Rules, the Ministry of Power has notified Resource Adequacy (RA) Guidelines dated 28th June 2023. In fulfilment of the guidelines, CEA is hand holding / assisting the states and the Distribution Licensees in carrying out the Long-Term Distribution Licensee Resource Adequacy Plan (LT-DRAP) to reliably meet its peak and energy requirements.

Following studies were/are being carried out using the state of the art, sophisticated energy system planning Software "ORDENA" modeling tool:

i) Resource Adequacy studies for 28 States, 4 UTs, and 7 Distribution Licensees for the period 2026-27 to 2035-36 were carried out and the results were finalized after due consultation with the States and UTs. The detailed report on the results of the study was shared with the respective states.

ii) The state of the art "*Strategic Expansion for Long Term Load Adequacy and Resilience* (STELLAR)" modelling tool was provided to States for carrying out Resource Adequacy Studies.

iii) To facilitate effective use of the STELLAR tool, region-wise capacity building programmes were carried out for all the distribution utilities, SLDCs etc.

iv) To facilitate SLDCs in carrying out short-term Resource Adequacy studies using the indigenously developed STELLAR tool, a user manual "*Manual for ST-DRAP in STELLAR*" providing detailed guidance on data requirements, model inputs, execution methodology, and interpretation of outputs for preparation of short-term Resource Adequacy Plans was prepared and a manual titled User Manual for Short Term Discom Resource Adequacy Plan (ST-DRAP) in STELLAR was published.

v) A long-term National Generation Adequacy Study was carried out to determine optimal generation capacity mix from 2026-27 to 2035-36 in order to reliably meet the projected electricity demand and report titled "*National Generation Adequacy Plan (2026-27 to 2035-36)*" was published.

vi) Detailed Report on "*Power Sector in Mauritius*" was prepared highlighting the present power scenario and the remedial measures to be taken by Government of Mauritius to achieve energy transition and reliably meet the projected electricity demand.

2.1.2 Generation Capacity addition during the Year 2025-26 and 2024-25

i) For the Year 2025-26, against a schedule of capacity addition of 20,965 MW, Capacity addition of 13,790 MW was achieved comprising of 3,620 MW Hydro (HEPs-1190 MW + PSPs-2430 MW), 9,470 MW Thermal and 700 MW of Nuclear.

ii) For the Year 2024-25, against a schedule of capacity addition of 19,880 MW, Capacity addition of 5,330 MW was achieved comprising of 800 MW Hydro, 4,530 MW Thermal.

2.1.3 Participation of CEA as Committee Member /Interaction Meets etc.

i) DEA under 'INDO Danish energy partnership': CEA is jointly working with DEA in the field of energy planning, modelling and forecasting scenarios.

ii) Chief Engineer (IRP) is a member of the committee constituted by Department of Economic Affairs (DEA) to examine the cost of electricity generated from different sources considering generation cost, transmission cost, reliability cost etc.

2.1.4 Reports Published

2.2 National Level Data Registry System

Section 74 of Electricity Act, 2003 and Regulation 4 & 5 of CEA (Furnishing of statistics, returns and information) Regulations, 2007, mandates every licensee, generating company, or person(s) generating electricity for its or his own use to furnish the statistics, returns or other information relating to generation, transmission, distribution, trading to CEA.

In accordance with the above provisions, a framework of National Level Data Registry System (NLDRS) has been devised to collate the statistics of the power generation projects. The framework provides for mandatory registration of each power generating unit of the country having installed capacity of 0.5 MW or above with CEA.

In order to facilitate the registration process, a web portal (https://egen.cea.gov.in) has been developed that is now operational in public domain. The registration with the portal is now one of the mandatory conditions for availing grid connectivity w.e.f. 20.11.2020 as per CEA Regulations "Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019" issued vide Notification No. 12/X/STD (CONN)/GM/CEA/2018 dated 06.02.2019 and CEA Order No. No. CEA-PL-15-13(11)/1/2020-PSLF dated 05.11.2020.

2.3 Electricity Demand Forecasts

The electricity demand of the country is reassessed periodically, once in five years, for the medium term and long term period. The demand projection exercise is carried out by obtaining inputs from Regional Power Survey Offices located in various regions, along with data obtained from various organizations/ utilities. The electricity demand forecast is the basic input for the formulation of Developmental Plans and Programmes & Schemes concerning generation, transmission, trading, distribution and utilization of electricity.

The Volume –I report of 20th EPS covering the year-wise electricity demand projection for each Discom/State/ UT/ Region and the all-India for the years 2021-22 to 2031-32 as well as the perspective electricity demand projection for the year 2036-37 and 2041-42 was published in November, 2022.

The electricity demand projection of the National Capital Region (Volume-II of 20th EPS) was published in August 2023.

The Volume-III of 20th EPS report covering electricity demand forecasts of Mega was published in December 2024.

The report titled "Report on Twentieth Electric Power Survey of India (Econometric Method)", i.e. Volume-IV of EPS Report was published in January 2023.

The report of 21st EPS covering the year-wise electricity demand projection for each Discom/State/ UT/ Region and the all-India for the years 2027-28 to 2036-37 as well as the perspective electricity demand projection for the year 2041-42 and 2046-47 is under preparation.

2.4 Crisis and Disaster Management Plan

CEA prepares "Disaster Management Plan" for the whole Power Sector on behalf of Ministry of Power to fulfil its obligations under the provisions of section 37 of the Disaster Management Act, 2005 and revises it on regular basis to keep it abreast with the new challenges and issues coming up with changing time. The document has recently been revised in accordance with the National Disaster Management Plan 2019 prepared by National Disaster Management Authority (NDMA). The plan is consistent with the three landmark global agreements reached in 2015 – (i) the Sendai Framework for Disaster Risk Reduction, (ii) Sustainable Development Goals of United Nations and (iii) Climate Change Agreement (COP21) that together represent a nearly complete agenda for Disaster Risk Reduction. The plan also aims at achieving the contemporary national priorities set within Prime Minister's Ten Point Agenda for Disaster Risk Reduction.

Also, as per the Crisis Management Plan (CMP) of the Government of India prepared by the Cabinet Secretariat, each Central Nodal Ministry is required to prepare a detailed Crisis Management Plan for dealing with crisis situations falling in the areas of their responsibility. The plan indicates Ministry of Power as the nodal ministry for crisis situations arising out of disruption in generation, transmission, distribution and supply of electricity. Accordingly, CEA has also prepared "Crisis Management Plan for the Power Sector" on behalf of Ministry of Power. Apart from that, sector-specific generic documents on crisis and disaster management for thermal, hydro, renewable, transmission and distribution sector are also prepared and updated periodically by CEA. Crisis Management Plans for Cyber Security for each such sector have also been prepared separately.

These crisis and disaster management plans provide broad guidelines to the power utilities to prepare their own documents for crisis and disaster management encompassing the emergency situations to which their establishments are vulnerable. Crisis Management Plan and Disaster Management Plants for Power Sector have been reviewd in January, 2026.

2.5 Publications on All India Electricity Statistics – General Review & Growth Electricity Sector in India

In fulfillment of its duties and functions under section 73 (i) & (j) and exercising powers vested under Section 74 of the Electricity Act, 2003, CEA publishes following documents containing annual electricity statistics.

2.5.1 All India Electricity Statistics – General Review

In General Review- 2025, Nationwide electricity statistics relating to Generation, Transmission, Distribution, Consumption and Trading are included along with important information relating to growth of the Indian Electricity Sector, organizational structure of Electricity Supply Industry in India and reforms carried out by Utilities are incorporated.

The General Review incorporates important statistics/ data on installed capacity, electric energy generation and utilization of electric energy along with the transmission and distribution losses, per capita consumption.

This publication also contain energy utilization by various categories of electricity consumers like domestic, commercial, irrigation, industries (LV /MV, HV /EHV), public lighting, public water works, etc. The various Chapters/Tables of the publication indicate the above Information State wise/ Sector wise/ Category wise/ Mode wise etc.

In addition to the above, the GR-2025 containing information regarding Installed Capacity and generation of captive power plants (about 9991 Nos. of Industries having Captive Power Plants). General Review-2025 containing data for the year 2023-24 was published in November 2025.

General Review-2026 for publishing data for the year 2024-25 is under the finalization.

2.5.2 Growth of Electricity Sector in India

Publication titled "Growth of Electricity Sector in India from 1947-2025" was published in November, 2025 containing data up to 2023-24 and provisional /estimated data for the year 2024-25 in respect of Indian Electricity Sector. The data for these publications has been sourced from various Utilities and Non-utilities and various National & International sources. This publication illustrates the growth of vital development indicators like installed generating capacity, electrical energy production, transmission and distribution network, captive power plants in industries and pattern of consumption of electricity etc. The important statistics have been compared with the International data with respect to some of the developed and developing nations. The publication also contains charts indicating state of basin wise and region wise Hydro Electric Potential development in the country.

The booklet contains maps and charts presenting a panoramic view of the growth of Indian Electricity Sector.

2.6 Standing Committee on Derating, Uprating and Retirement of installed capacity of Generating Stations

A Standing Committee is constituted under the chairmanship of Member (Planning) for considering the proposals of de-rating, uprating & retirement of electricity generating units. The Committee considers the performance of the units for de-rating & uprating, analyses the performance data and the overall generation throughout the life of the plant/unit and carries out detailed scrutiny of technical parameters of proposed units.

A total of 20287.24 MW have been retired from 10th Plan onwards. Out of which 701.50 MW during 10th Plan, 2398 MW during 11th Plan, 5082.44 MW during 12th Plan and 12105.30 MW after 12th Plan (out of which 2550.38 MW during the year 2017- 18, 2409 MW during the year 2018-19, 2462.92 during 2019-20, 797.50 MW during 2020-21, 1604.5 MW during 2021-22, 356 MW during 2022-23, 220 MW during 2023-24, 875 MW during 2024-25, 830 MW during 2025-26 was retired).

The list of the generating units retired during the year 2025-26 is given below: -

Sl. No.	Name of Station/Plant	State	Unit No.	Retired (MW)	Retired on
1.	SATPURA TPS	Madhya Pradesh	6,7,8,9	830	26.05.2025
	Total		**4**	**830**	

Plan wise and Fuel wise summary of retired capacity:-

Plan	Coal		Lignite		Gas		Diesel		Plan wise Total	
	No.of Units	MW	No.of Units	MW	No.of Units	MW	No.of Units	MW	No.of Units	MW
10th Plan	9	629.5	0	0	2	72	0	0	**11**	**701.5**
11th Plan	38	2135	0	0	11	261	5	2	**54**	**2398**
12th Plan	49	4721.5	0	0	7	205	9	155.94	**65**	**5082.44**
After 12th Plan	91	9809.38	11	740	33	1228	10	327.92	**145**	**12105.30**
Total	**187**	**17295.38**	**11**	**740**	**53**	**1766**	**24**	**485.86**	**275**	**20287.24**

2.8 Progress of Grid connected Renewable Energy Projects:

As on 31.03.2026, India has successfully achieved installed capacity of 274.68 GW in respect of Renewable Energy (including Large Hydro) generation projects comprising of 56.09 GW of Wind Power, 150.26 GW of Solar Power (including Ground Mounted Solar, Rooftop Solar, Hybrid Solar Comp. and Off-grid Solar/ KUSUM), 11.74 GW of Bio Power (including Bio-mass Power, Waste to Energy and Waste to Energy (Off-grid)), 5.17 GW of Small Hydro and 51.41 GW of Large Hydro.

2.9 Generation from Renewable Energy Sources:

As on 31.03.2026, India has successfully achieved installed capacity of 274.68 GW in respect of Renewable Energy (including Large Hydro) generation projects comprising of 56.09 GW of Wind Power, 150.26 GW of Solar Power, 11.75 GW of Bio Power, 5.17 GW of Small Hydro and 51.41 GW of Large Hydro

Generation from Renewable Energy (RE) Sources (including Large Hydro) and Conventional sources, for the years 2020-21, 2021-22, 2022-23, 2023-24, 2024-25 & 2025-26 and the share of RE to total generation for the above period, are as under:

Year	Conventional Generation	RE Generation (excluding Large Hydro and Bhutan Imports)	Large Hydro Generation including Bhutan Imports	Total Renewable Energy Generation (including Large Hydro and Bhutan Imports)	Total Generation	% of RE Generation (including Large Hydro and Bhutan Imports) w.r.t. Total Generation
	(MU)	(MU)	(MU)	(MU)	(MU)	
2020-21	1075542.62	147247.51	159065.02	306312.53	1381855.15	22.17
2021-22	1161826.54	170912.3	159120.53	330032.83	1491859.37	22.12
2022-23	1252071.76	203552.68	168841.17	372393.85	1624465.61	22.92
2023-24	1374486.34	225834.82	138770.02	364604.84	1739091.18	20.96
2024-25	1420570.59	255009.19	154118.16	409127.35	1829697.94	22.36
2025-26	1362321.13	310585.28	175035.02	485620.30	1847941.43	26.28

Renewable energy generation share during the year 2025-26 was about 26.28 % of total energy generation in the country. Year wise generation from renewable energy sources (RES) indicating the growth rates is given below:

Year	Generation from RE (including Large Hydro and Bhutan Imports) (BU)	Year-wise growth (%)
2019-20	299.94	
2020-21	306.31	2.12
2021-22	330.03	7.74
2022-23	372.39	12.84
2023-24	364.60	(-)2.09
2024-25	409.12	12.21
2025-26	485.62	18.7

The graphical representation of the Source-wise All India Energy Generation and the source-wise breakup of RE generation (excluding Large Hydro), for the year 2025-26 is attached as **Annexure I**. The details of State/UT-wise and Source-wise RE Generation (excluding Large Hydro) for the year 2024-25 are given at **Annexure II**.

2.10 Development of Renewable Energy (RE) Sources:

For sustainable development and economic growth, focus of the Government of India is towards de-carbonization of Indian Power Sector and shifting from the fossil fuels based energy to the renewable sources based energy which is cleaner, safer, environment friendly and more sustainable. The Renewable Planning and Technology (RP&T) Division in the Planning Wing of the CEA has been entrusted with responsibility to assist in promotion of renewable sources of energy, development of new RE technologies, preparation of Construction Standards for RE power plants, to make Regulations and Guidelines for the smooth and rapid integration of RE in Indian Power Grid and to assist MoP, MNRE, States and other stakeholders on policy and regulatory matters. CEA is actively participating in faster development of RE sources and reduction of dependency of power sector on fossil fuels to ensure smooth energy transition and contributing to achieve India's international commitments. To achieve the aforesaid objectives, the tasks accomplished by RP&T Division of CEA during the year 2024-25 are as under:

2.10.1 Formulation of Renewable Energy Power Plants Construction Standards:

Central Electricity Authority (CEA), in exercise of powers conferred by subsection (2) of Section 177 of the Electricity Act, 2003, is formulating "Technical Standards for construction of Electrical Plants and Electric Lines" Amendment Regulations, 2026 to facilitate smooth development of RE capacity in the country. The proposed technical provisions for Renewable Energy Power Plants and Battery Energy Storage Systems establish a comprehensive framework to ensure that such facilities are designed, constructed, and operated in a manner that maintains grid reliability, operational safety, and long-term performance efficiency.

A Committee in this regard has been constituted in CEA under the Chairmanship of Member (Planning), CEA for the preparation of draft for the aforesaid Technical Standards. The final draft has been submitted to MoP for gazette notification.

2.10.2 RE Policy/Guidelines/references related matters:

RP&T Division has handled various references pertaining to Policy/Regulation/Guidelines in respect of RE Sector and provided its valuable inputs on the same. Some of these are as below:

i. Draft Tender Document (RfS) & PPA for Selection of Solar Power Developer (SPD) through Tariff-Based Competitive Bidding for setting up of 30 MW Rooftop Solar Project in RESCO mode across entire A&N Islands along with Draft PPA.
ii. Draft Tender Document (RfS) of 20.95 MW Grid Connected SPV Power Plant with BESS along with Draft PPA.
iii. PPR ID - 12514, Indo German Energy Programme - Achieve India's Renewable Energy Target
iv. PPR ID 22615/22628 IGEN – Solar in Rural Areas
v. PPR ID 12010: PTX Hub India Phase I
vi. PPR ID - 22667: Innovative 500 MW Floating Solar Power Plant in West Bengal, India
vii. Letter requesting approval of Preliminary Project Report (PPR) (Temporary PPR ID - T22879) on DEA website-REC Limited
viii. Draft Expenditure Finance Committee (EFC) Memorandum for Scheme for incentivizing Polysilicon and Ingot-Wafer manufacturing in India.
ix. Expenditure Finance Committee (EFC) Memo on the proposed scheme for Development of Floating Solar PV Projects with storage

2.10.3 Establishment of Renewable Energy Management Centres (REMCs) in RE Rich States and other parts of the Country:

Ministry of Power (MoP) has entrusted the task of third-party evaluation/ inspection of all commissioned/upcoming Renewable Energy Management Centres (REMCs)/EMCs across the Country to CEA. Accordingly, RP&T Division is collecting the monthly status report from all REMCs regularly.

Further, it was observed during examination of the monthly progress reports being submitted by various REMCs that certain key data points and information were either missing or inconsistently reported. To ensure uniformity and completeness of submissions, the following points were incorporated in the reports:

i. CUF (%), separately for Wind and Solar
ii. A pooling substation wise telemetry status list
iii. Renewable (Wind and Solar) curtailment details

Most of the REMCs have incorporated the above-mentioned points in their monthly reports, while the remaining REMCs are in the process of making the necessary changes in their reporting formats.

2.10.4 Core Group for more precise weather data collection and forecasting for improving Renewable Energy (RE) forecast.

A Core Group had been constituted in February, 2023 by Central Electricity Authority under the Chairmanship of Sh. H. S. Sawhney, Scientist-E from India Meteorological Department (IMD) comprising other Members from Government Organizations/ CPSUs, Indian Wind Power Association (TWPA) and Solar Power Developers Association (SPDA). This Group has been given a task to devise a methodology for more precise weather data collection and forecasting for improving Renewable Energy (RE) forecast. Subsequently, Members from IITM, Pune, NISE, NIWE and one member

from CEA has been incorporated in the group.

CEA has issued guidelines for the installation of Automatic Weather Stations (AWS) for Solar and Wind Power Plants for measurement of critical meteorological parameters to ensure accurate, real-time weather monitoring and enable optimization of renewable energy generation, as mandated under the Construction Standards Plant.

2.10.5 Collection of monthly power consumption details of Electric Vehicles-Public Charging Stations (PCS) and publication of Monthly Report.

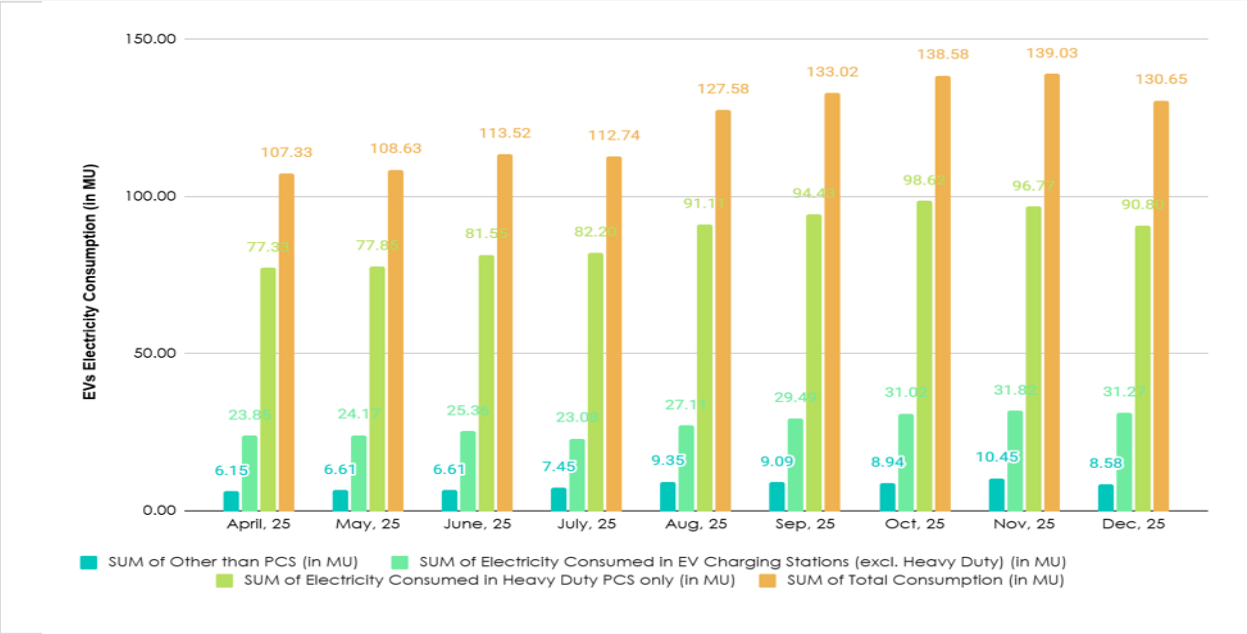
The data of energy consumption in the EV charging stations is important for the load forecasting, distribution system planning and integrated resource planning in the country. Hence, CEA is collecting data from all DISCOMs regarding monthly power consumption details of Public Charging Stations (PCS) under their area of supply. Currently, EV Power Consumption report covers data received from 53 ~~33~~ major DISCOMS and the follow up with the remaining is in progress.

As per information received so far, total power consumed by PCS of various DISCOMs during the period from 01.04.2025 to 31.12.2025 is 1111.08 Million-units (MUs).

Month-wise power consumption details are tabulated below: -

Month	Total Electricity Consumption (in MU)
Apr-25	107.33
May-25	108.63
Jun-25	113.52
Jul-25	112.74
Aug-25	127.58
Sep-25	133.02
Oct-25	138.58
Nov-25	139.03
Dec-25	130.65
Total*	1111.08

**The actual consumption is more than the given figure as consumption details of few utilities are not received yet.*



2.11 Works related to Clean Works related to Clean Energy, Energy Transition and International Matters

CE&ET Division was formed in CEA keeping in view of the increasing importance of promotion of **Clean Energy and Energy transition from fossil fuel to non-fossil** fuel-based Power.

In this pursuit, the reports published by CE&ET division are as follows: -

i. Annual CO_2 baseline data-base for FY 2024-25.

Brief details of the report are given below:

2.11.1 CO_2 baseline data base for FY 2024-25:

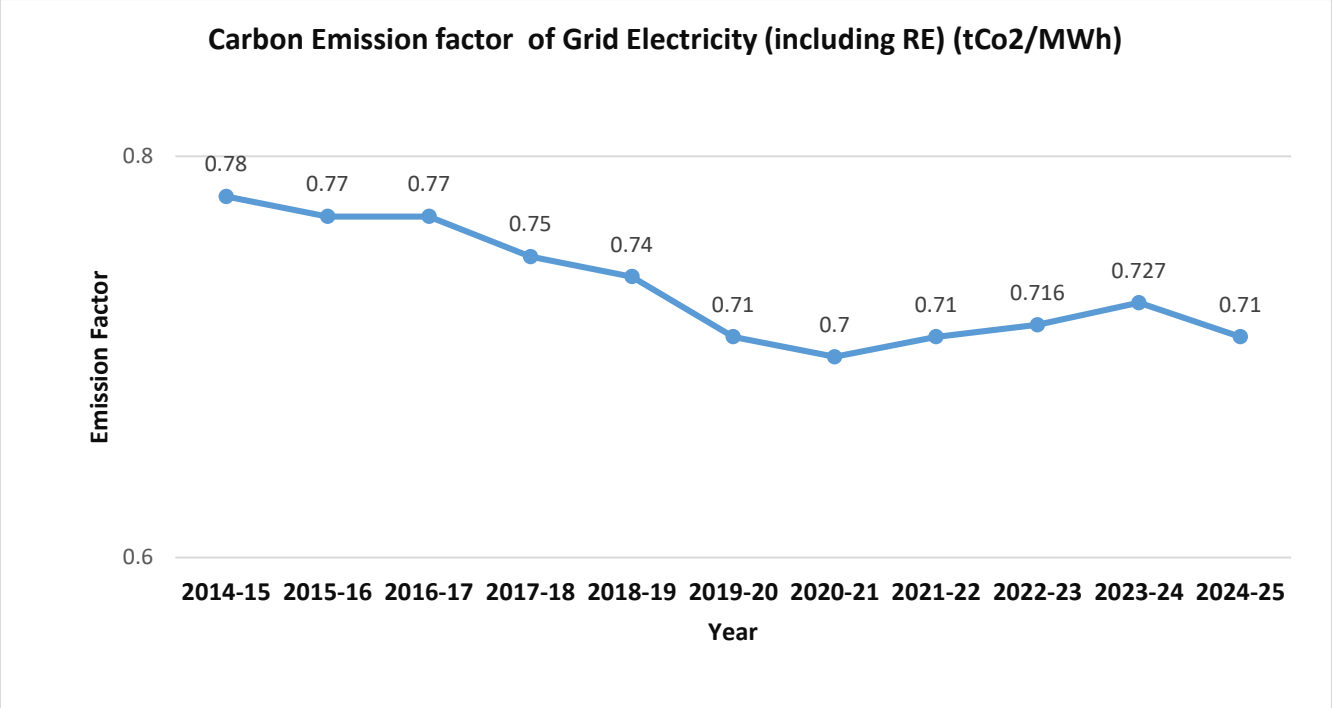
CEA has been compiling and publishing database containing data on CO_2 emissions for all grid-connected power stations in India since 2006.

Purpose of CO_2 baseline database:

i. Projects involving CO_2 displacement or CO_2 saving relating to grid electricity must calculate their emission reduction based on a grid emission factor, which needs to be determined in accordance with the rules set by CDM Executive Board.

Key points from CO_2 baseline database for FY 2024-25:

Emission Intensity Reduction: - India's power sector has witnessed a lowest CO_2 emission factor of grid connected power plants (Grid Emission Factor) in last one decade declining from 0.78 tCO_2/MWh in FY 2014-15 to 0.71 tCO_2/MWh in FY 2024-25. This reflects an approximate 9% reduction in the grid emission factor, driven by a higher integration of Renewable Energy (RE) and a corresponding decrease in thermal power generation.



2.11.2 Details of other Activities/ Reports:

i. Monthly Compilation of Environmental Emission data of Thermal Power Plants

CEA has notified "Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007" on 19th April, 2007 under Section 74 and Sub-Section (3) of Section 177 of Electricity Act, 2003 to collect and record the data concerning generation, transmission, trading, distribution and utilization of electricity and to carry out studies relating to environmental issues and competitiveness and such like matters.

CEA, in fulfillment of its statutory obligations, collects the monthly environment emission data from thermal power plants as per FORMAT-60 and compiles the Monthly Environmental Stack Emission Status Report of Indian Power Sector.

The purpose of this report is to analyze the broad trends of emission of Pollutant from various units of Indian Thermal Power Stations, while ensuring the compliance of the emission standards specified by MoEF&CC vide notification dated 07.12.2015 and subsequent amendments thereof under Environment (Protection) Act, 1986 is under the domain of CPCB/SPCB.

Such analysis helps in identifying various emissions from Thermal Units, so that concerned Thermal generators can be sensitized to take immediate corrective and necessary action to reduce the emission below specified normative standards. Thus, it helps in achieving the broader objective of ensuring clean & healthy environment and reducing global warming.

ii. Tracking Energy Transition from Fossil fuel to non-Fossil:

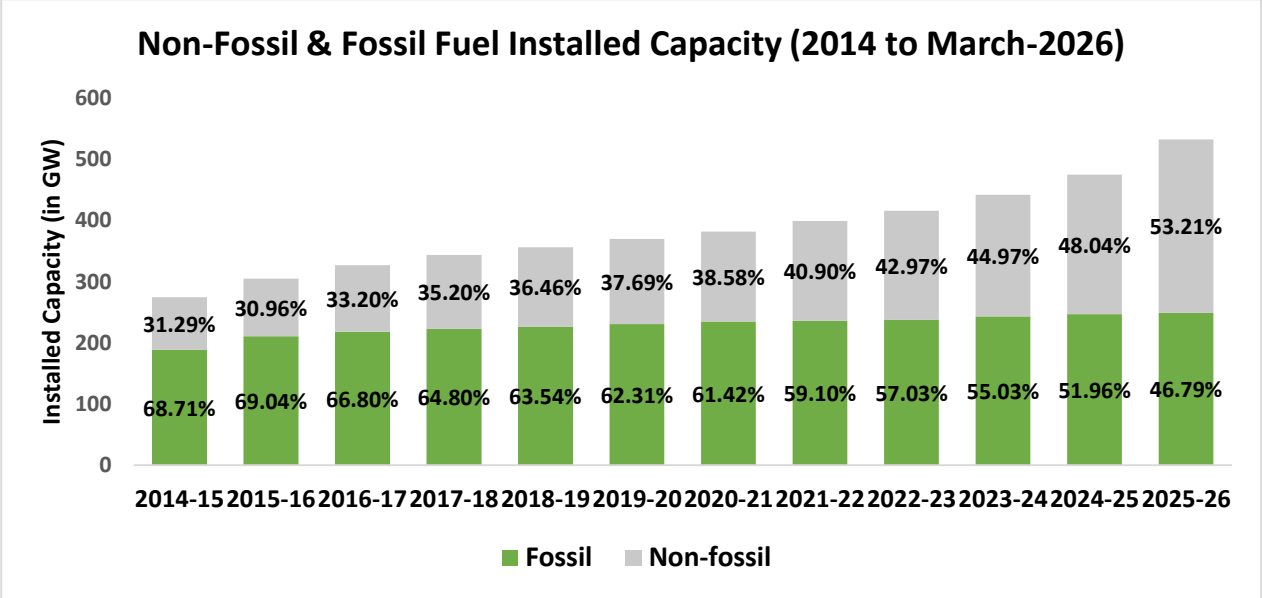
1) India has overachieved its commitment made at COP 21- Paris Summit by already meeting 40% of its installed power capacity from non-fossil fuels- almost nine years –ahead of its commitment. India communicated its updated

NDC to UNFCCC in August 2022, which includes-

- 'LIFE'– Lifestyle for Environment
- Reduction in Emissions Intensity of its GDP by 45 percent by 2030, from 2005 level.
- To achieve about 50 percent cumulative electric power installed capacity from non-technology and low-cost international finance including from Green Climate Fund (GCF). fossil fuel-based energy resources by 2030, with the help of transfer of technology.

India has reached a major milestone in its energy transition by achieving the NDC goal of 50% of its installed electric power capacity from non-fossil fuel sources in June 2025; five years ahead of the committed timeline of 2030. The share of solar and wind in India's energy mix have grown phenomenally. The non-fossil fuel installed capacity as on 31.03.2026 is about 53.21% (283.468 GW out of total 532.740 GW).

2) A depiction chart of Year-wise % share of non-Fossil based Power is tabulated below**:** -



iii Monitoring and monthly reporting of status of actions as per policy formulated by CAQM to abate air pollution in Delhi NCR

To address air pollution in Delhi-NCR and adjoining areas CAQM has been provided powers under the Act (Commission for Air Quality Management in NCR and Adjoining Areas Act, 2021) to take measures and issue directions to the various agencies in the National Capital Region for protecting and improving air quality.

In respect of abating pollution from Coal Based Thermal Power stations within 300 Km Delhi-NCR for the specified actions of Biomass co-firing with Coal, installation of Pollution Control Equipment and Fly Ash Utilization compilation status, CEA under MoP monitors and furnishes monthly report of 14 TPPs within 300 km of Delhi-NCR to MoP for onward submission to CAQM as below: -

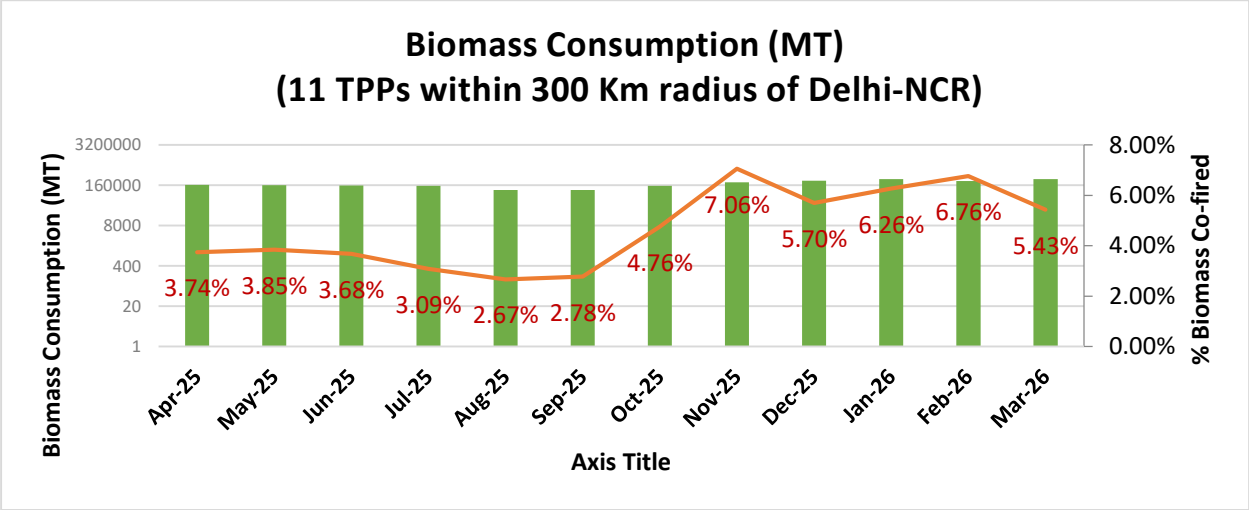
- Status of measures taken for compliance with MoEF&CC Emission Norms & fly ash utilization, of 14 TPPs, which are situated within 300 km of Delhi-NCR.

-Plant/Unit wise status of co-firing of biomass with coal in TPPs

As on March 2026, in all of the 14 TPPs (within 300 km of Delhi-NCR), Electrostatic Precipitators (ESPs) were either upgraded or newly installed.

Out of the monitored 14 nos. thermal power plants for the 2025–26 period, the vast majority demonstrated high efficiency, with 13 plants achieving over 80% fly ash utilization including seven that exceeded 100%. Conversely, only one plant underperformed with a utilization rate below 60%.

Further, according to data collected for the period from 01.04.2025 to 31.03.2026, cumulative 2153276 MT biomass has been co-fired in 14 TPPs (within 300 km of Delhi-NCR).
As per the details furnished by National Biomass Mission, % biomass co-fired in 14 TPPs near Delhi-NCR in FY 2025-26 is shown below: -



iv. <u>International and Bilateral Co-operation for development of affordable, reliable & sustainable Power Sector by way of promoting Clean Energy and Energy Transition in the country.</u>

1. CEA is participating on various international platforms like COP, G-20, BRICS meetings and sharing valuable inputs on the allocated COP30 agenda topics and the proposed principles, themes of the G-20 Presidency. We have supported global south ideology on multilateralism in the international processes by reflecting equity and common but differentiated responsibilities (CBDR&RC) in the light of different national circumstances and prioritizing economic development and eradication of poverty.

2. For these meeting, CEA shared to the MoEF&CC a comprehensive background, India's positions, identified red flags and decisions of various COPs on agenda items particularly on Technology development and Transfer. CEA being a part of Indian delegation, led the group on agenda item Technology Development and Transfer for COP30 at Belem, Brazil. All parties united in celebration of the 10-year anniversary of the Paris Agreement with shifting its focus from mere negotiations & policy principles to practical on-ground

implementation, with adoption of 56 decisions. "Belem Political Package" is the main highlight of COP30 wherein the Presidency with Ministerial consultation have finalized and adopted 29 negotiated decisions, aimed at accelerating the Paris Agreement.

3. Inputs/suggestions were furnished to MoP & MoEF&CC regarding matters on bilateral/multilateral co-operation viz. G20 (US Presidency), Shanghai Cooperation Organization (SCO) and BRICS.

4. Further, UNFCCC requested all parties to submit inputs related to ambitious NDC 3.0 for 2031-2035. CEA suggested on accessing the projections for the contribution of non-fossil fuel capacity share in the total installed capacity for this period. Finally, the inputs on the target for India to achieve 60 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2035 were submitted to MoEF&CC for India's third Nationally Determined Contribution (NDC 3.0) which is available on UNFCCC website. The inputs/comments for India's 1st BTR (Biennial Transparency Report) were furnished to the Nodal Ministry i.e. MoEF&CC.

v. <u>Participation in International Co-operation on Energy Transition</u>

The officers of CE&ET Division, CEA participated and represented MoP at various international platform such as Climate Change Conference (COP 30) held in Belem, Brazil, in November 2025 and in Bonn for Subsidiary Bodies (SBI/SBSTA) meetings in June 2025.

At COP30, India reiterated provisions and principles of United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, particularly, the common but differentiated Responsibilities and respective capabilities, equity, and means of implementation.

CEA representative participated in COP30 for discussions on Technology Development and Transfer. The Belém Technology Implementation Programme (BTIP) marks a new chapter in technology development and transfer under the intergovernmental climate change process. Adopted as part of the Belém Political Package, the Programme aims to contribute to the urgent action needed in pursuing efforts to limit the temperature increase by strengthening support for implementation of technology priorities identified by developing countries.

CE&ET Division representative also participated in the BRICS Youth Energy Summit-2025 held in June at Brasilia, Brazil as a part of Indian Youth Delegation. BRICS Youth Energy Summit plays a key role as a bridge between policy makers and youth energy professionals to make their voices heard and acknowledged. At the summit, India reiterated its commitment to strengthening BRICS cooperation on energy matters.

2.12 Energy Storage System:

India has committed to reducing the Emissions Intensity of its GDP by 45 percent by 2030 from the 2005 level. Additionally, it aims to achieve approximately 50 percent of its cumulative installed capacity from non-fossil fuel-based energy resources by 2030. The significant portion of non-fossil fuel-based energy comes from sources like Solar and Wind, which are intermittent and variable. This variability and intermittency contribute to voltage and frequency fluctuations. The Energy Storage System (ESS) help to integrate the variable and intermittent RE sources by storing excess energy during surplus RE

generation and providing backup power during periods of deficient RE generation.

2.12.1: Status of Energy Storage Systems (except PSP) in India

The status of Battery Energy Storage System (BESS) projects (≥ 1 MWh) as well as Major operational BESS projects (≥ 1 MWh capacity) in the country is **attached as Annexure-III**

2.12.2: Measures taken/proposed to promote and develop Energy Storage System (ESS) in the country:

Following measures have been taken/proposed to promote and develop Energy Storage System (ESS) in the country:

i. VGF for Development of BESS: Ministry of Power has given the Viability Gap Funding (VGF) support for development of 13200 MWh Battery Energy Storage Systems (BESS) capacity under the following three components:

A. Market Component:

- Tranche-I: - 1000 MWh BESS capacity implemented by NVVN Ltd.
- Tranche-II: - 1200 MWh BESS capacity implemented by SECI Ltd.

B. CPSU Component:

BESS capacity of 5000 MWh to be developed by NVVN, NHPC and SJVN

C. State Component:

BESS capacity of 6000 MWh under State component to eight (8) states viz Rajasthan, Tamil Nadu, Karnataka, Gujarat, Maharashtra, Telangana, Bihar and Kerala.

ii. Waiver of ISTS Charges: The waiver of ISTS charges provided for a period of 12 years or for a period subsequently notified for future projects by the Central Government, from the date of commissioning of BESS projects.

iii.Electricity (Rights of Consumers) Amendment Rules, 2022 on replacing DG sets with Renewable Energy with Battery Storage: The ESS Division conducted a techno commercial study for replacement of DG set installed at the Sewa Bhawan building with RTS and BESS, in association with IIT Roorkee, CPWD, BRPL and Industry representatives. The recommendations for replacement of the DG set with RTS and BESS have been submitted to CPWD.

2.13 Research & Development in Power Sector

2.13.1 R&D activities in Power Sector:

The Central Electricity Authority (CEA) under Section 73(k) of the Electricity Act, 2003 is vested with the function to promote research in the matters affecting the generation, transmission, distribution and trading of electricity.

Thus, Research and Development (R&D) for the Indian Power Sector is promoted and coordinated by CEA. Research & Development Schemes of the MoP are implemented by Central Power Research Institute (CPRI) in coordination with CEA.

Standing Committee on Research & Development (SCRD) in Power Sector: The SCRD, under the Chairmanship of Chairperson, Central Electricity Authority, identifies and prioritize important strategic areas of research and development, which are to be implemented under various research schemes of Ministry of Power. The SCRD identifies leading Researchers and Domain Experts in diverse areas of Power Sector and engage them in the Research Schemes.

The Technical Committees in specific fields of power, namely, Thermal Generation,

Hydro Generation, Transmission and 'Grid, Distribution & Energy Conservation' constituted to assist the SCRD in evaluation of new research proposals as well as in monitoring of the on-going research projects till their completion. The committees have representation from Academia, Industry, Utilities and Policy making bodies as well as experts from CEA.

Further, research projects from eminent Institutions across India like IIT Madras, IIT Bombay, IIT Roorkee, IISc Bangalore, CPRI, etc. have been supported on various thrust areas pertaining to Generation, Transmission, Distribution, Clean Energy and Renewables.

CEA oversees and promotes the activities of research and development in the Power Sector through coordination with multiple agencies involved in research and development activities.

Currently, following are the "Research Schemes of Ministry of Power being implemented through CPRI" for power sector development that are being facilitated by CEA through the SCRD:

I. **National Perspective Plan (NPP)** aimed at improving design of an individual plant component, evolving cost-efficient overall process in the plant, improving control & monitoring for system performance parameters, etc.

II. **Research Scheme on Power (RSoP)** for need based research in power sector including solving of operational problems encountered in the power system.

III. **In-house Research and Development (IHRD)** scheme for Central Power Research Institute (CPRI).

2.13.2 Action taken for implementation of R&D for power sector:

Eleven (11) meetings of the Technical Committees were held during the FY 2025-26 for monitoring of the on-going research projects as well as for evaluation of new research proposals. Further, two special meetings were held for review of specific proposals under thermal and transmission. Also, Two (2) meetings of SCRD were held during the FY 2025-26 wherein the research proposals cleared by the respective Technical Committees were further reviewed. A total of 13 research proposals with an outlay of Rs 13.50 crores were approved (5 under NPP Scheme, 8 under RSoP) by the SCRD. These includes projects on some of the priority areas of research in Power Sector like Co-firing of Biomass in TPPs, Energy Storage, AI/ML based condition assessment etc. All the projects have been initiated by the Project implementing organizations.

2.14 Standardization activities

2.14.1 Standardization activities and efforts to enhance the implementation of standards in the field of Power Sector:

I. Under the initiative of Government of India through the Indian National Strategy for Standardization (INSS) for establishment of robust 'Quality Ecosystem' in the country, a Standardization Cell with respect to Power Sector has been established in CEA under the chairmanship of Chief Engineer (Emerging Technology and Innovation), CEA, under the aegis of Ministry of Power.

II. The Standardization Cell is envisaged to act as a channel of communication

among the Government, Industry, R&D Organizations, Stakeholders and BIS to facilitate the identification of new technologies and relevant experts for standardization and enhance implementation of Indian standards.

III. The Standardization Cell headed by Chief Engineer (ET&I), CEA, have members from state/private sector utilities along with members from respective divisions of CEA. The following work has been done related to Standardization:

a. Regular follow ups with BIS regarding formulation/ revision of standards is also been carried out.

b. Participating and contributing in the various meetings being organized by BIS under INSS (like Preparation of Annual Programme for Standardization (APS) and regular update on APS.

c. Prepared list of New Standards or updates/ Review of existing BIS Standards required due to various technological/ introduction of new products/ items and forwarded to BIS. A total of 12 new standards were proposed for formulation, and 4 existing BIS standards were proposed for review/modification during the reporting year.

d. During the period, two standardization Cell Meeting- (a) **Standardisation of Power Transformer** (b) **Standardisation of Distribution Transformer** Design and Related Aspects for Uniformity across the Country were held and recommendations for best practices were sent to utilities.

2.15 Make in India (MII) and Aatma Nirbhar Bharat Abhiyan (ANBA) initiatives:

I. CEA is the nodal point for implementation of policy initiatives of Government of India (GoI) under Make in India (MII) & Atma Nirbhar Bharat Abhiyaan (ANBA) in power sector.

II. The Chief Engineer (ET&I), CEA is the Nodal Officer in this regard. He is acting as an interface between the Ministry of Power and Department for Promotion of Industry and Internal Trade (DPIIT)/PSUs/ Organizations/ Autonomous Bodies under the administrative control of the Ministry of Power as well as the Industry Associations. Dealing with the implementation of MII Orders of M/o Power and Government of India. It includes handling of grievance against non-compliance of MII provisions, recommendations on registration of bidders from land border sharing countries, relaxation/exemption in minimum local content (MLC)/Global Tender Inquiry (GTE) in public procurements.

2.15.1 Major activities undertaken by CEA in relation to the implementation of the provisions of Public Procurement (Preference to Make in India), Order 2017 (PPP-MII) Order, 2017

Some of the major activities undertaken in this regard are given as under:

I. **Dissemination of information:** In line with the MII initiatives MoP/ CEA create awareness by circulating various Orders/ Guidelines/instructions/ SoPs issued by DoE/DPIIT/MoP so as to ensure compliance of MII provisions by all concerned procuring entities of power sector under the administrative control of Ministry of Power (MoP).

II. To further promote indigenisation and development of domestic manufacturing continuous efforts are being made to include more items/equipment/product in to the list of sufficiency and competition i.e. Annexure-I of the MoP Order dated 16.11.2021. These items listed in Annexure-I of MoP Order are to be procured from Class-I local supplier only.

III. Department for Promotion of Industry and Internal Trade (DPIIT) vide its Order dated 19.07.2024 has revised the "Public Procurement (Preference to Make in India), Order 2017". In compliance to this, M/o Power is in the process of revising its PPP-MII Order dated 16.11.2021. Based on the stakeholder's consultation a draft PPP-MII MoP order submitted to MoP.

IV. Central Electricity Authority identified 73 nos. of critical items those are currently being imported. Out of 73, 16 nos. of identified items have been prioritised for indigenisation. These have been submitted to Ministry of Power for support to encourage indigenous Manufecturing by the identified probable vendor for these items.

V. The Grievances received from various companies against non-compliance of MII provisions in the tenders floated by Central and State sector power Utilities are being addressed (Under the Make in India initiatives, being done as a continuous activity).

Detailed examination/scrutiny in case of each grievance was carried out by the CEA in consultation with respective power sector procuring entities and other concerned stakeholders/ State Governments, Industry Associations, etc. The comments/ views in this regard were furnished to the Ministry. A total of 1 no. of grievance was received during 2025-26 which was appropriately addressed in consonance with the provisions of the PPP-MII order.

VI. **Registration of bidders/ vendors/ suppliers/ contractors:** Prior registration of bidder companies from countries sharing land border with India is mandatory with DPIIT, Government of India in terms of Department of Expenditure Order (Public Procurement No. 4) issued vide No. F.No.7/10/2021-PPD dated 23.02.2023 under Rule 144 (xi) GFR, 2017 to be eligible to participate in the bids for public procurements. The applications of such companies are analyzed with regard to the demand supply scenario (sufficiency and competition) for the item for which registration is sought and recommendations to this effect are

being provided to the MoP from time to time. 8 numbers of application for registration were processed during the year 2025-26.

VII. **Global Tender Enquiry (GTE) permission**: DoE OM No F.12/17/2019-PPD dated 15.05.2020 regarding amendment in Rule 161(iv) of General Financial Rules (GFRs) 2017 stipulates that no Global Tender Enquiry (GTE) shall be invited for tenders upto Rs.200 crore, subject to the prior approval for relaxation from the competent authority.

The cases from procuring entities under Ministry of Power seeking such permission received (total 3 nos.) during 2025-26 were examined and analyzed as per Standard Operating Procedure (SOP) prescribed by the DPIIT in this regard and accordingly recommendations were forwarded to the Ministry of Power.

VIII. Also, references received seeking relaxation/exemption from Minimum Local Content (MLC) criteria (procuring entities not getting Class - I local supplier for the listed items or otherwise are seeking relaxation) were dealt in terms of Para 14 of the DPIIT Order No. P-45021/2/2017-PP (BE-II)-Part (4) Vol.II dated 19.07.2024.

IX. <u>Trajectory of Indigenization of SCADA System:</u>

(i) A committee has been constituted under the Chairmanship of Member (Planning), CEA on formulation of "Trajectory of Indigenisation of SCADA System".

(ii) Two meetings of Committee were held, during the reported period, on the SCADA system. In addition to the meetings of the Committee, three meetings were also conducted with the developers/ vendors for assessment of present domestic capabilities, and future possibilities to develop the various software modules and hardware modules of SCADA system.

2.15.2 Inputs/comments on various other references/ issues concerning Make in India and Aatma Nirbhar Bharat initiatives of Government of India were taken up from time to time are:

I. Application of M/s Omicron Energy Solutions Private Ltd for registration in terms of Department of Expenditure Order (Public Procurement No. 4) issued vide No. F.No.7/10/2021-PPD dated 23.02.2023 under Rule 144 (xi) GFR, 2017.

II. SJVN's proposal for requesting exemption from certain provisions of Public Procurement Order issued by DPIIT / General Financial Rules, 2017 forinviting Global Tender Enquiry for procurement of hard-coating powder for hard-coating of under-water equipment of Nathpa Jhakri HEP.

III. M/s BHEL's GTE proposal No. GTE2400067 for exemption from Global Tender Enquiry (GTE) for purchase of "Magnetic Steel Sheet Varnish".

IV. M/s BHEL's GTE proposal No. GTE2400120 for seeking approval for floating Global Tender Enquiry

(GTE) under Rule 161 (IV) of GFR 2017 in respect of procurement of "Terminal Bushings" to cater to voltages upto 27.8 kV and currents upto 21 kA.

V. M/s BHEL's No. GTE2500064 for procuring "High-Quality Sulphate Insulating Capacitor Paper" (product) used in Capacitor Voltage Divider/ Coupling Transformer Element and as Dielectric Insulation.

VI. Grievance received from M/s ADG Online Solutions Private Limited alleging non-compliance of Public Procurement (Preference to Make in India) Order, 2017- against NTPC Ltd. (Tender No. 9900294719).

VII. Grievance raised by M/s GENIUS Presentation Pvt on non-compliance of PPP-MII Order in tender no. 9900290148 of Patratu Vidyut Utpadan Nigam Limited.

VIII. **Registration in terms of Department of Expenditure's Order (Public Procurement No. 4) issued vide F. No. 7/10/2021- PPD dated 23.02.2023 under Rule 144 (xi) of GFRs, 2017:**

(i) Application of M/s Sineng Electric (India) Private Limited.
(ii) Application of M/s Shanghai MaoSheng Power Plant Machinery co ltd
(iii) Application of M/s TLT-Turbo lndia Pvt Ltd.
(iv) Application of M/s Harbin Air-Conditioning Co Ltd
(v) Application of M/s Omicron Energy Solutions Private Ltd
(vi) Application of M/s Pinggao Group India Private Ltd
(vii) Application of M/s Waaree Energy Storage Solutions Pvt Ltd
(viii) Application of M/s Taikai Electric (India) Private Limited.

2.15.3 The following references /Important works were also dealt with:

I. VIP reference from Shri Jagdambika Pal, Member of Lok Sabha regarding Tender guidelines issued by Powergrid on Emergency Restoration System (ERS) towers.

II. Andritz Hydro request regarding challenges on the development of hydro power and Pumped Storage projects due to on account of import of steel above 150 MM.

III. Adverse effects of re-opening of Chinese Mills for CRGO Steel - Large quantities and Cheap imports from China affecting JSW JFE Electrical Steel investment.

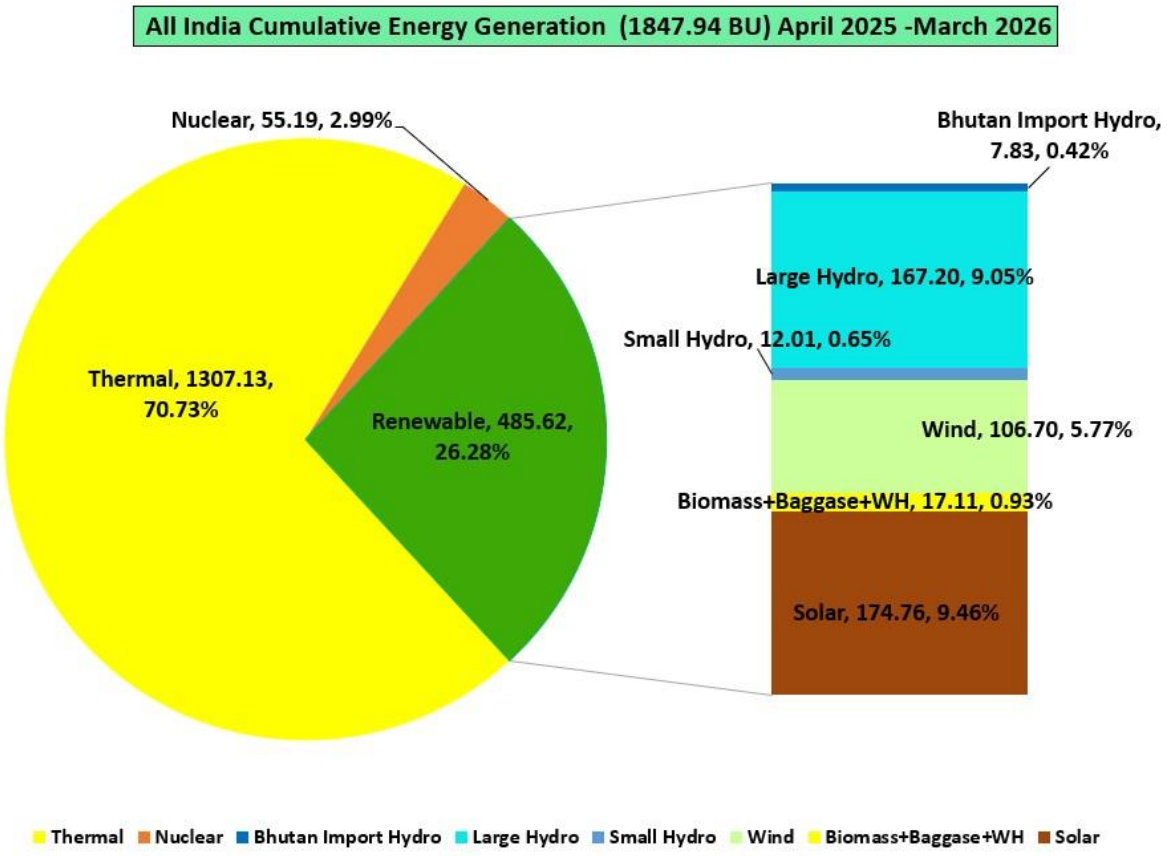
IV. The Central Electricity Authority (CEA), under Section 73(k) of the Electricity Act, 2003, is mandated to promote research in matters related to power generation, transmission, distribution, and trading of electricity. In line with this, CEA and Ministry of New and Renewable Energy (MNRE) has co-hosted a webinar on 17-09-2025 on R&D activities in Advanced Photovoltaic (PV) Technologies, with a focus on solar cell engineering. The event was facilitated open discussions among 300 participant including Government bodies & PSUs (NTPC, SECI, MNRE, BEE, RVNL, DVC, TANTRANSCO, HPGCL, Goa Electricity Dept, BES&T, NDMC, etc), Private sector & corporates (Reliance, Tata Power, Adani, Suzlon, L&T, Siemens, Mahindra, Deloitte, ITC, Cummins, PwC, JM

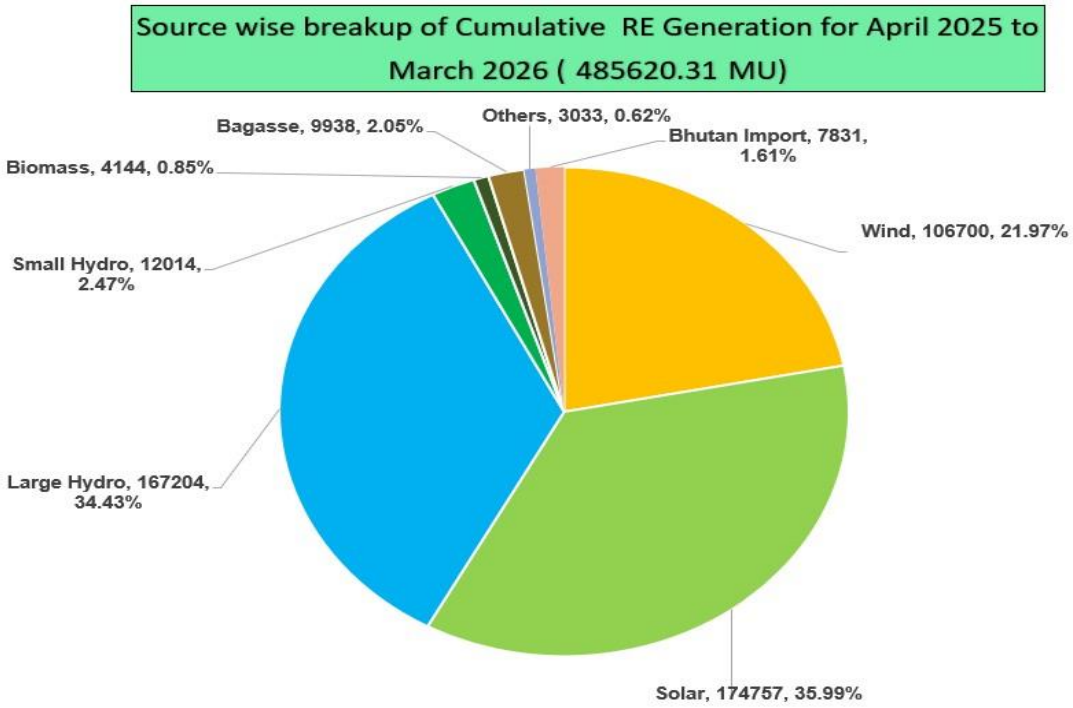
Financial, etc), Research / NGOs (GIZ, WRI India, TERI, IRADe, The Nature Conservancy, CEEW, IIMs, IITs, universities (SRM, NITs, Visva-Bharati, etc) and Renewables developers & Startups (Azure Power, Avaada, ACME, Husk Power, Sunsure, Juniper Green, Eden Renewables, Inject Renewables, Onward Solar, etc).

Webinar has highlighted critical challenges, including India's dependency on imported wafers and polysilicon, difficulties in the transition from Mono PERC (Passivated Emitter and Rear Contact) to advanced architectures {TopCon, HJT (Heterojunction Technology), Tandem}, scalability barriers for Perovskite and hybrid tandem technologies, gaps in indigenous equipment manufacturing, high capital costs for emerging production lines, and lack of recycling frameworks.

The way forward identified includes: accelerating localization of the upstream PV value chain (polysilicon, ingots, wafers); establishing deep-tech R&D clusters linking academia, start-ups, and manufacturers; expanding fiscal support such as Production Linked Incentives (PLI) and venture funding; encouraging pilot projects for tandem and perovskite technologies; institutionalizing standardized testing, certification, and recycling frameworks; and undertaking large-scale workforce development initiatives. The webinar reaffirmed India's ambition to move from self-reliance to global leadership in next-generation solar technologies.

Annexure-I


All India Cumulative Energy Generation (1847.94 BU) April 2025 -March 2026
Nuclear, 55.19, 2.99%
Thermal, 1307.13, 70.73%
Renewable, 485.62, 26.28%
Bhutan Import Hydro, 7.83, 0.42%
Large Hydro, 167.20, 9.05%
Small Hydro, 12.01, 0.65%
Wind, 106.70, 5.77%
Biomass+Baggase+WH, 17.11, 0.93%
Solar, 174.76, 9.46%
Thermal
Nuclear
Bhutan Import Hydro
Large Hydro
Small Hydro
Wind
Biomass+Baggase+WH
Solar


Source wise breakup of Cumulative RE Generation for April 2025 to March 2026 (485620.31 MU)
Bagasse, 9938, 2.05%
Others, 3033, 0.62%
Bhutan Import, 7831, 1.61%
Biomass, 4144, 0.85%
Wind, 106700, 21.97%
Small Hydro, 12014, 2.47%
Large Hydro, 167204, 34.43%
Solar, 174757, 35.99%

Annexure-II

Name of State/UT	Wind	Solar	Biomass	Bagasse	Small Hydro	Others	Total Renewable Energy
Chandigarh	0.00	7.94	0.00	0.00	0.00	0.00	7.94
Delhi	0.00	206.53	0.00	0.00	0.00	493.58	700.11
Haryana	0.00	1612.32	413.12	62.92	239.74	52.35	2380.45
Himachal Pradesh	0.00	201.53	0.00	0.00	2693.75	0.00	2895.28
Jammu & Kashmir	0.00	0.00	0.00	0.00	413.60	0.00	413.60
Ladakh	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Punjab	0.00	1361.90	690.11	239.58	447.23	0.00	2738.82
Rajasthan	7345.17	59921.18	777.10	0.00	6.52	0.00	68049.96
Uttar Pradesh	0.00	5302.73	106.55	2362.59	87.55	36.63	7896.05
Uttarakhand	0.00	331.80	0.00	248.52	353.40	0.00	933.72
Northern Region	**7345.17**	**68945.93**	**1986.87**	**2913.61**	**4241.78**	**582.56**	**86015.93**
Chhattisgarh	0.00	1913.17	1462.22	7.69	244.97	0.00	3628.05
Gujarat	33706.20	27379.65	175.56	0.00	196.59	0.00	61458.00
Madhya Pradesh	4706.66	8076.98	71.23	64.85	514.87	59.49	13494.08
Maharashtra	8610.62	10552.84	255.98	3207.22	934.52	60.88	23622.06
Dadra and Nagar Haveli and Daman and Diu	0.00	20.18	12.64	0.00	0.00	0.00	32.82
Goa	0.00	57.11	0.00	0.00	0.00	8.14	65.24
Western Region	**47023.48**	**47999.91**	**1977.64**	**3279.76**	**1890.95**	**128.50**	**102300.24**
Andhra Pradesh	8902.94	8773.06	14.73	46.30	438.46	425.10	18600.58
Telangana	292.46	6920.53	23.13	74.96	85.62	325.67	7722.37
Karnataka	18804.62	17923.81	45.85	3357.17	2800.48	11.08	42943.01
Kerala	130.33	2420.50	0.00	0.00	952.97	97.37	3601.16
Tamil Nadu	24200.81	19690.99	8.97	185.04	307.56	0.00	44393.37
Lakshadweep	0.00	0.09	0.00	0.00	0.00	0.00	0.09
Puducherry	0.00	12.24	0.00	0.00	0.00	0.00	12.24
Southern Region	**52331.16**	**55741.22**	**92.67**	**3663.47**	**4585.10**	**859.22**	**117272.83**
Andaman & Nicobar Islands	0.00	16.92	0.00	0.00	13.72	0.00	30.65
Bihar	0.00	327.71	0.00	81.50	23.44	0.00	432.65

Jharkhand	0.00	17.64	0.00	0.00	19.29	0.00	36.93
Odisha	0.00	909.33	86.53	0.00	620.05	0.00	1615.90
Sikkim	0.00	0.00	0.00	0.00	12.35	0.00	12.35
West Bengal	0.00	418.49	0.00	0.00	184.40	1461.93	2064.82
Eastern Region	**0.00**	**1690.09**	**86.53**	**81.50**	**873.26**	**1461.93**	**4193.31**
Arunachal Pradesh	0.00	2.37	0.00	0.00	0.34	0.00	2.70
Assam	0.00	330.12	0.00	0.00	139.39	0.59	470.09
Manipur	0.00	8.60	0.00	0.00	0.00	0.00	8.60
Meghalaya	0.00	0.00	0.00	0.00	159.90	0.00	159.90
Mizoram	0.00	29.31	0.00	0.00	25.51	0.00	54.82
Nagaland	0.00	0.00	0.00	0.00	97.90	0.00	97.90
Tripura	0.00	8.97	0.00	0.00	0.00	0.00	8.97
North Eastern Region	**0.00**	**379.36**	**0.00**	**0.00**	**423.03**	**0.59**	**802.98**
All India Total	**106699.80**	**174756.51**	**4143.71**	**9938.34**	**12014.12**	**3032.80**	**310585.29**

Annexure-III

The status of Battery Energy Storage System (BESS) projects (≥ 1 MWh) as on 31.03.2025 is as under:

also includes FDRE projects whose storage capacity is yet to be known.

Status of BESS in India (≥ 1 MWh)				
S.No.	**Category of Project**	**Number of Projects**	**Capacity (MW & MWh)**	
			MW	**MWh**
1	In Operation	9	204.5	505.6
2	Under Construction	13	1,670.00	5,042.50
3	In Tender Stage#	45	18,152.39	55,954.12
4	Total (1+2+3)	67	20,026.89	61,502.22

Major operational BESS projects (≥ 1 MWh capacity) in the country as on 31.03.2025, with a cumulative installed capacity of around 204 MW/506 MWh, are as under:

S.No	**Name and Description of the Project**	**State**	**Capacity**		**Organization name**
			MW	**MWh**	
1	10MW/10MWh BESS project with Lithium ion Battery-NMC at Tata Power-DDL's sub-station in Rohini	Delhi	10	10	Tata Power DDL - AES and Mitsubishi
2	20MW solar power project integrated with an 16MW/8MWh BESS at Dollygunj and Attam Pahad in South Andaman	Andaman & Nicobar	16	8	NLC

3	Modhera Sun Temple Solar with BESS (6 MW SPV with 6MW/19.2 MWh BESS installed at Village Sujanpura & 50 kW SPV with 150 kWh BESS installed at the Sun Temple	Gujarat	6	19.2	GPCL
4	1.7 MW Solar PV Power Plant (300 kW at Agatii & 1400 kW at Kavaratti) with 0.5 MW/ 1.4 MWh BESS (at Kavaratti) at Lakshadweep	Lakshadweep	0.5	1.4	SECI
5	BESS project at Rajnandgaon, Chhattisgarh - 100 MW(AC)Solar PV Project with 40 MW/120 MWh Battery Energy Storage System	Chhattisgarh	40	120	SECI
6	GSECL Gujarat Solar plus Storage Hybrid - 35MW Solar PV with 57 MWh BESSLocation: Kutch Lignite Thermal Power Station (KLTPS)	Gujarat	12	57	GSECL
7	SECI Peak Power 1200 MW with 75 MW/ 150 MWh	Karnataka	75	150	SECI
8	SECI RTC 400 MW with 25MW/100MWh BESS	Rajasthan	25	100	SECI
9	20 MW/ 40 MWh BESS in Delhi under Tariff-Based Competitive Bidding	Delhi	20	40	BSES-BRPL

CHAPTER – 3

POWER SYSTEM PLANNING AND DEVELOPMENT

3.1 Transmission Planning

All issues relating to planning and development of Transmission System in the country are dealt in the Power System Wing of CEA. This includes evolving long term and short-term transmission plans in coordination with central, state transmission utilities and generating companies. The network expansion plans are optimized based on power system studies. This also involves formulation of specific schemes, evolving a phased implementation plan in coordination with the Central and State transmission utilities and their implementation, issues pertaining to development and strengthening of national power grid in the country. Transmission planning studies are being conducted to identify power evacuation system from generation projects and to strengthen the transmission system in various regions.

In addition to this, Member (Power System) has been appointed as Designated Authority for facilitating the process of approval and laying down the procedure for import/ export of electricity under the guidelines for Import/Export (Cross Border) of Electricity, 2018. Designated Authority (DA) has been entrusted the role to coordinate with the respective authorities of the neighbouring countries for all purposes as stated in the Guidelines which, inter alia, include, planning, monitoring and commissioning of transmission lines for import/export of electricity as well as the grid security, safety and operation; accord approval to the participating entity(ies) proposing to import/export electricity from/ to India [including through Indian power exchange(s)]; and accord approval to an Indian generating station, supplying electricity exclusively to neighbouring country and proposing to build a dedicated transmission line for connecting to the transmission system of the neighbouring country.

The Electricity (Transmission System Planning, Development and Recovery of Inter State Transmission Charges) Rules, 2021, notified by Ministry of Power on 01st October, 2021, inter alia provides that;

"3(1) The Central Electricity Authority shall draw up short term plan every year on rolling basis for upto next five years and perspective plan every alternate year on rolling basis for next ten years for development of the electricity system and co-ordinate the activities of the planning agencies for the optimal utilisation of resources to sub serve the interests of the national economy and to provide reliable and affordable electricity in accordance with section 73 of the Act.

3(2) The Central Electricity Authority shall also draw up the perspective plan for development of transmission system after consultation with all the relevant stakeholders such as Central Transmission Utility, State Transmission Utilities, System Operators, generating and distribution companies, industry associations and the State Governments, etc., and after assessing the rate of growth in demand as well as the growth of generation in different areas of country."

3.2 Manual on Transmission Planning Criteria, 2023

The manual on Transmission Planning Criteria was first brought out by CEA in 1985, which was revised in 1994 and 2013. Considering large-scale renewable energy integration, growth of load, increasing fault level, right of way issues, technical advancements, notification of Transmission Rules, etc. CEA had issued a Manual on Transmission Planning Criteria, 2023 which is effective from 1st April, 2023.

The Manual is quite useful in planning the Inter-state transmission system as well as the Intra-state transmission system. The manual covers planning philosophy, information required from various entities, permissible limits of parameters, reliability criteria, broad scope of system studies, modelling and analysis etc. and provides guidelines for transmission planning.

In order to cover the planning procedure, a new chapter (Chapter-7) has been added to the Manual. Further, parameters of certain

conductors have been updated. The Manual on Transmission Planning Criteria (with amendment-I) was issued on 8th January 2025.

3.3 Inter-regional transmission system in India – National Grid.

The national grid in the country has been developed in a phased manner. All the regional grids have been inter-connected synchronously to form One Nation-One grid -One frequency. Inter-regional transmission capacity by the end of the 9th plan was 5,750 MW which increased to 13,450 MW by the end of the 10th plan and to 27,150 MW and 75,050 MW by the end of the 11th and 12th plan respectively. Interregional transmission capacity added during the period 2017-22 (up to 31st March 2022) was 37,200 MW. Interregional transmission capacity added during FY 2023-24 is 6490 MW. Interregional transmission capacity added during FY 2025-26 is 1600 MW. As on 31.03.2026, inter-regional transmission capacity in the country was 120,340 MW. Details of inter-regional transmission lines are given at **Annexure-3A**. The increase in inter-regional transmission capacity would further facilitate the smooth flow of power from surplus to deficit regions.

3.4 Transmission planning related works carried out in 2025-26:

3.4.1 Examination of proposals for intra-state transmission planning

Various schemes of intra-state transmission system submitted by States/Union Territories (UTs) seeking funding under Schemes of Govt. of India/ Assistance/Multilateral organisation were examined.

3.5 Private sector participation in transmission sector

3.5.1 Brief Introduction

- In compliance with provisions laid down in Tariff Policy dated 6th January, 2006, MoP issued an OM on 9th December, 2010, which provides that since 6th January, 2011, all the ISTS transmission projects are to be implemented through Tariff Based Competitive Bidding (TBCB) route, except some specific category of projects of strategic importance, technical upgradation works, required to be done to cater to an urgent situation on a case-to-case basis etc.

- The Revised Tariff Policy issued by Ministry of Power on 28th January, 2016 states the following: -

  Clause 5.3: "The *tariff of all new generation and transmission projects of company owned or controlled by the Central Government shall continue to be determined on the basis of competitive bidding as per the Tariff Policy notified on 6th January, 2006 unless otherwise specified by the Central Government on case-to-case basis.*
  Further, intra-state transmission projects shall be developed by State Government through competitive bidding process for projects costing above a threshold limit which shall be decided by the SERCs."

  Clause 7.1(7): "*While all future inter-state transmission projects shall, ordinarily, be developed through competitive bidding process, the Central Government may give exemption from competitive bidding for (a) specific category of projects of strategic importance, technical upgradation etc. or (b) works required to be done to cater to an urgent situation on a case-to-case basis".*

- MoP has constituted National Committee on Transmission (NCT). The terms of reference of NCT interalia is the recommendation of ISTS scheme to MoP for approval. To further streamline the process of planning and approval of ISTS schemes, MoP vide its office order dated 28.10.2021 has revised the Terms of Reference of the NCT, delegating powers for approval of ISTS system costing between Rs 100 to Rs 500 crores to NCT and for ISTS schemes costing up to Rs 100 crores to Central Transmission Utility. The ISTS schemes costing above Rs 500 crores would require approval of MoP.

- MoP vide OM dated 09.09.2025 amended

the composition of National Committee on Transmission.

3.5.2 Status of the Transmission schemes notified through TBCB:

As far as Inter-State transmission system is concerned, till 31st March, 2026, one hundred sixty-seven schemes have been awarded through Tariff Based Competitive Bidding. The status of the transmission schemes, as on 31.03.2026, is as below:

Projects under TBCB	**167**
Projects commissioned	79
Projects under implementation	84
Stalled projects	04

Stalled projects	**04**
Project cancelled by CERC	01
Projects not taken up & CERC cancelled license	01
Projects under litigation	02

The name of schemes under implementation and completed through TBCB are at **Annexure-3B**.

3.5.3 Meetings of the National Committee on Transmission (NCT) held during 2025-26:

In the year 2025-26, eleven Nos. of meeting of National Committee on Transmission were held which is given below:

Sl. No.	**National Committee on Transmission (NCT) Meeting No.**	**Date on which meeting was held**
1.	29th	17.04.2025
2.	30th	30.05.2025
3.	31st	14.07.2025
4.	32nd	12.08.2025
5.	33rd	16.09.2025
6.	34th	10.11.2025
7.	35th	19.11.2025
8.	36th	30.12.2025
9.	37th	19.01.2026
10.	38th	25.02.2026
11.	39th	17.03.2026

The transmission schemes and relevant issues taken up in these meeting is given at **Annexure - 3C.**

3.6 Examination of Detailed Project Reports (DPRs) / Feasibility Reports (FRs) of Hydro Electric Projects / Pump Storage Projects for processing of concurrence by CEA:

34 Nos. DPRs/FRs of hydropower projects/pumped storage projects were examined for processing of concurrence by CEA.

3.7 Grant of prior approval of Government to transmission proposals under Section 68(1) of the Electricity Act, 2003 during 2025-26

As per Section 68(1) of the Electricity Act 2003, an overhead line shall be installed or kept installed above ground with prior approval of the Appropriate Government. During the FY 2025-26, total of **153** Nos. of transmission schemes were recommended for grant of approval under Section 68 (1) of the Electricity Act, 2003.

3.8 Recommendation for authorization to transmission proposals under Section 164 of the Electricity Act, 2003 during 2025-26

During the FY 2025-26, **80** applications were recommended to MoP for grant of authorization under Section 164 of the Electricity Act, 2003.

3.9 Cross-Border power exchange

3.9.1 Guidelines for Import/Export (Cross Border) of Electricity

- Guidelines for Import/Export (Cross Border) of Electricity were issued by the Ministry of Power on 18.12.2018 to facilitate import/export of electricity between India and neighboring countries.
- Procedure for approval and facilitating Import/Export (Cross Border) of Electricity by the Designated Authority was issued on 26.02.2021.
- Verification Mechanism for export of power from eligible fuel by generating stations under Import/Export (Cross Border) of Electricity-Guidelines 2018 were issued by the Ministry of Power on 5th March, 2021.

- Amendment-1 to the Procedure for approval and facilitating Import/Export (Cross Border) of Electricity by the Designated Authority was issued on 31st July, 2023. The trading in Indian power exchange by Indian power trader on behalf of entity of neighboring country has been allowed in RTM (Real time Market) by this amendment.

- Amendment-I in the the Guidelines for Import/ Export (Cross Border) of Electricity, 2018 was issued on 12th August 2024

- Amendment-II to the Procedure for approval and facilitating Import/Export (Cross Border) of Electricity) by the Designated Authority was issued on 14th August 2024

3.9.2 Indo-Bangladesh Cross-Border Interconnection and Power Trade

Bangladesh is connected with both Eastern and North Eastern Region of India with power transfer capacity of 1160 MW from India to Bangladesh through following links:

- 1,000 MW through Baharampur (India) to Bheramara (Bangladesh) 400 kV 2x D/c line with 2x500 MW HVDC back-to-back station at Bheramara, and
- 160 MW through Surajmaninagar (India) to North Comilla (Bangladesh) – South Comilla (Bangladesh) 400 kV D/c link (presently operated at 132 kV).

Implementation of the 765 kV D/c Katihar (India) – Parbotipur (Bangladesh) – Bornagar (India) cross border link has been agreed.

Import/Export

In the financial year 2025-26 about 8.36 BU energy was exported to Bangladesh through Indian Grid.

Further about 9.13 BU of energy is exported to Bangladesh in the F.Y. 2025-26 from Adani Power Jharkhand Limited (APJL), Godda (not connected to Indian Grid).

3.9.3 Indo-Bhutan Cross Border Interconnections and Power Trade

India and Bhutan have MoU on cooperation for exchange of power between the two countries. Bulk power generated at Hydro Electric Projects at Tala HEP (1020 MW), Chukha HEP (336 MW), Kurichu HEP (60 MW), Mangdechu HEP (720 MW) and Punatsangchu-II (1020 MW) in Bhutan is being exported to India through 400 kV, 220 kV and 132 kV lines.

The associated cross-border transmission system for evacuation and transfer of power from these HEPs is being operated in synchronism with the Indian Grid.

All units of Punatsangchhu-II Hydroelectric Project (6x170=1020 MW) have already been commissioned. The unit-wise commissioning dates are as under:

Unit	Commissioning Date
Unit-1	17.12.2024
Unit-2	17.12.2024
Unit-3	19.03.2025
Unit-4	30.05.2025
Unit-5	17.07.2025
Unit-6	27.08.2025

In Punatsangchhu-I Hydroelectric Project (6x200=1200 MW), due to the pending decision on stabilization measures for the Dam right bank slope, the Dam civil works had remained on hold since 2019. M/s L&T was advised to resume the Dam works at the earliest, vide the Minutes of Meeting (MoM) of the 25th Authority Meeting date 06.11.2025 of PHPA-I. Accordingly, a letter revoking the notice of intent to foreclose was issued to M/s L&T on 06.12.2025, and M/s L&T resumed preparatory works at the site on 18.12.2025.

Modalities for implementation of Deviation Settlement Mechanism (DSM) between India and Bhutan were agreed in the 4th meeting of India-Bhutan Joint Technical Team (JTT) meeting held on 25.04.2024. The modalities have been made effective w.e.f. 01.05.2024.

To cater increased electricity trade in the future, a Joint transmission planning team (JTPT) has been set up to undertake a joint study of cross border transmission lines and plan and modernise cross border transmission infrastructure upto 2030, 2035 and 2040.

04 Nos. of Meetings of JTPT were held on 25.08.2025, 16&17.10.2025, 10.02.2026 and 05.03.2026.

Expanding the scope of cooperation in the power sector, India and Bhutan have now established an enhanced bilateral institutional framework mechanism. MoP vide OM dated 16.03.2026 conveyed the composition of Joint Steering Committee (JSC) and Joint Working Group (JWG).

Import/Export

In the financial year 2025-26 about 7.89 BU energy was imported from Bhutan and about 2.115 BU energy was exported to Bhutan.

3.9.4 Indo-Nepal Cross Border interconnection and Power Trade

- Presently, power is being exported to Nepal through 11 kV, 33 kV, 132 kV voltage level transmission lines and Dhalkebar (Nepal) – Muzaffarpur (India) 400 kV D/C line.
- For evacuating power from Arun-3 (900MW) HEP in Nepal and other hydro projects in vicinity in future, Arun-3 HEP (Nepal) – Dhalkebar (Nepal) – Sitamarhi (India) 400 kV D/c (Quad) line is under implementation.
- 400 kV Gorakhpur – New Butwal D/c (Quad) line to facilitate increased transfer of power between the two countries is also under implementation.
- Further, Inaruwa (Nepal) - Purnea New (India) 400 kV D/c (Quad Moose) line and Dododhara (Nepal) - Bareilly (India) 400 kV D/c (Quad Moose) line are also agreed for implementation.
- Further Chameliya (Nepal) – Jauljivi (India) 220 kV D/c (Twin Moose) line, Motihari (India)- Nijgad (Nepal) 400 kV D/c (Quad Moose) line and Lucknow (India) – Kohalpur/Lamahi (Nepal) 400 kV D/c (Quad Moose) line have been identified till 2035.

Cross border links with Nepal from State Grids

Nepal is also connected with the Indian State Grid of Bihar, Uttar Pradesh (UP) and Uttarakhand. The electricity export from Indian states of UP/Bihar/Uttarakhand to Nepal is taking place through links from State Grids adhereing to the modalities for implementation of power exchange between India and Nepal through 132 and below links from states grids of India implemented w.e.f 15th March, 2024.

Recently, 17th meeting of Indo-Nepal Power Exchange Committee (PEC) was held on 12-13th March 2026 in Pokhara, Nepal wherein tariff upto the Financial Year 2026-27 was decided for export of electricity from the states of Bihar, Uttar Pradesh and Uttarakhand.

Import/Export

In the financial year 2025-26 about 3.32 BU energy was imported from Nepal and about 1.45 BU energy was exported to Nepal.

3.9.5 Indo-Myanmar Cross Border Interconnections and Power Trade

- India is providing about 2-3 MW of power (Since 5th April 2016) from Manipur (India) to Myanmar through 11 kV transmission line from Moreh in Manipur (India) to Tamu town in Myanmar.
  Further, brief scope of works for India – Myanmar high-capacity electricity transmission interconnection through Imphal - Tamu 400 kV D/C cross-border interconnection between India and Myanmar with 500 MW HVDC back-to-back terminal at Tamu for drawl of power by Myanmar has been agreed and Modalities for implementation of the link are under discussion.

Import/Export

- In the financial year 2025-26 about 8.27 MU energy was exported to Myanmar.

3.9.6 India – Sri Lanka Cross Border Interconnections and Power Trade

- DPR for Cross border interconnecton from New Madurai (India) – Mannar (Sri Lanka) 1000 MW VSC HVDC Bipole Link, with HVDC terminals at both end in two phases of 500 MW each, has been agreed. Modalities for implementation of the link are under discussion.

3.9.7 India – UAE Cross Border Interconnections and Power Trade

- Memorandum of Understanding (MoU) between Ministry of Power, Government of the Republic of India and the Ministry of Energy and Infrastructure of the United

Arab Emirates (UAE), on cooperation in the field of Electricity Interconnection & Trade was signed on 13th February, 2024.

- A Joint Technical Team (JTT) has been constituted to look into the feasibility of electrical interconnection between the two countries. From Indian side, the JTT comprises of members from CEA and POWERGRID.
- India – UAE electricity interconnection is proposed through VSC based HVDC system (2 GW). The route length of sub-sea cable would be about 1400 km
- Feasibility studies for the proposed interconnections to be carried out.
- Indian and UAE side has agreed to carry out the feasibility study for the proposed electrical interconnection through a consultant selected through bidding process.

3.9.8 India – Saudi Arabia Cross Border Interconnections and Power Trade

- MoU between the Govt. of the Republic of India and Govt. of Kingdom of Saudi Arabia in the fields of Electrical Interconnection, Green/Clean Hydrogen and Supply Chains was signed on 08.10.2023.
- Feasibility Study Agreement for assessing the feasibility of proposed electrical interconnection between India and Saudi Arabia has been signed between the two countries on 28.10.2024.
- India – Saudi Arabia interconnection is proposed through VSC based HVDC system of 2 GW comprising of undersea cable of about 1700 km.
- Feasibility study of the proposed electrical interconnection through sub-sea cable is to be carried out by a consultant selected through International Competitive Bidding (ICB) route. Global tender for appointment of consultant for carrying out the feasibility study including the assessment of technical and economic aspects was floated.
- The Feasibility study project was awarded to M/s CESI S.p.A, Italy.

3.9.9 India- Singapore

- An electricity interconnection of 2 GW between India and Singapore through undersea cable has been envisaged.
- Technical discussions are under progress

3.9.10 Approvals granted by Designated Authority for Import/Export (Cross Border) of Electricity during 2025-26.

Member (Power System) has been appointed as Designated Authority for facilitating the process of approval and laying down the procedure for import/ export of electricity under the guidelines for Import/Export (Cross Border) of Electricity, 2018. Designated Authority (DA) has been entrusted the role to coordinate with the respective authorities of the neighbouring countries for all purposes as stated in the Guidelines which, inter alia, include, planning, monitoring and commissioning of transmission lines for import/export of electricity as well as the grid security, safety and operation; accord approval to the participating entity(ies) proposing to import/export electricity from/ to India [including through Indian power exchange(s)]; and accord approval to an Indian generating station, supplying electricity exclusively to neighbouring country and proposing to build a dedicated transmission line for connecting to the transmission system of the neighbouring country. Approvals granted by Designated Authority for Import/Export (Cross Border) of Electricity during 2025-26 are attached at **Annexure-3F**.

3.10 Regional Cooperation

3.10.1 BIMSTEC Energy Centre

Memorandum of Association (MoA) among the BIMSTEC Member States (The BIMSTEC is a regional organization comprising seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka and two from Southeast Asia, including Myanmar and Thailand) for the Establishment of BIMSTEC Energy Centre (BEC) was signed on 22nd January 2011. According to the MoA, the **BIMSTEC Energy Centre (BEC)** has to be set up in India.

The first meeting of the Governing Board of the BIMSTEC Energy Centre (BEC) was held in Bengaluru on 27.02.2023 wherein Shri

Ghanshyam Prasad, Chairperson CEA, Ministry of Power, Govt. of India has been appointed as the first Executive Director of the BIMSTEC Energy Centre. His tenure has been further extended till 31st May 2027.

The BEC has started functioning in Bengaluru since April 2025.

3.10.2 BIMSTEC Grid Interconnection Coordination Committee (BGICC)

A Memorandum of Understanding (MoU) for establishment of the BIMSTEC grid interconnection was signed between Member States on 31st August, 2018.

Article 3.2 of MoU provides the need for BIMSTEC Grid Interconnection Coordination Committee (BGICC), to actively coordinate, for the successful implementation of grid interconnections and trade in electricity. The First meeting of BGICC was held on 30th June 2021 (in virtual mode).

The second meeting of the BIMSTEC Grid Interconnection Coordination Committee (BGICC) was held in Bengaluru on 27.02.2023 and was chaired by Sh Ghanshyam Prasad, Chairperson CEA. The Meeting considered India's presentation as a discussion paper for the preparation of the draft "BIMSTEC Policy for Transmission of Electricity" and "BIMSTEC Policy for Trade, Exchange of Electricity and Tariff Mechanism".

3.11 Miscellaneous works

3.11.1 Green Energy Corridor

a) Transmission Works under Green Energy Corridors-I

The report on Green Energy Corridor had been prepared by PGCIL as a comprehensive scheme for evacuation & integration of the renewable energy (RE) capacity addition of 32,713 MW during 12th Plan Period. Total fund requirement of Rs 34,141 Crore was initially assessed for the development of the transmission system and control infrastructure for the addition of RE capacity in the renewable rich States of Andhra Pradesh, Gujarat, Himachal Pradesh, Jammu and Kashmir, Karnataka, Maharashtra, Rajasthan, Madhya Pradesh and Tamil Nadu.

Intra State transmission schemes are to be funded as 20% equity of the State Govt., 40% grant from National Clean Energy Fund (NCEF) and 40% soft loan, whereas, the Inter State transmission schemes are to be funded as 30% equity by PGCIL and 70% soft loan.

For the funding of green energy corridors in both intra and inter State transmission projects, under the framework of cooperation between Govt. of India and Govt. of Germany, KfW Germany is providing soft loan to the tune of Euro 1 Billion. For Inter-state transmission projects pertaining to Part A, B and C of Green Energy Corridor, Loan agreement for financial assistance of Euro 500 million from KfW, Germany has been signed by PGCIL. For implementation of transmission schemes under Green Energy Corridor-Part D, POWERGRID has taken loan from ADB.

In Green Energy Corridor-I (GEC-I) scheme, under ISTS, around 17,000 MVA substation capacity and 3,200 ckm of transmission lines were planned and the same has been commissioned.

The InSTS GEC scheme with total target of 9700 ckm intra-state transmission lines and 22600 MVA sub-stations was approved by the Cabinet Committee on Economic Affairs (CCEA) in 2015. The InSTS GEC scheme is currently under implementation by the State Transmission Utilities (STUs) of 8 RE rich States, i.e. Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan & Tamil Nadu. The projects are being set up for evacuation of approx. 24 GW of RE power in the above 8 States. Out of the 8 States, 6 states have completed all the projects, viz. Andhra Pradesh, Himachal Pradesh, Karnataka, Madhya Pradesh Rajasthan and Tamil Nadu.

b) Transmission Works under Green Energy Corridors-II

Intra- state transmission schemes for power evacuation and grid integration of RE generation projects in seven States (Kerala, Uttar Pradesh, Tamil Nadu, Gujarat, Himachal Pradesh, Karnataka and Rajasthan) have been approved by

the Government with an estimated cost of Rs 12,031 Crore with Central Financial Assistance (CFA) @33% of project cost to the States. The scheme includes setting up of 7,919 ckm of transmission lines and 24,488 MVA transformation capacity of substations. About 20 GW RE capacity is planned to be integrated in to the intra-state system under Green Energy Corridor-II (GEC-II) schemes. Kerala, Karnataka, Uttar Pradesh and Rajasthan have awarded all the packages and construction is under progress. In respect of Gujarat, Himachal Pradesh and Tamil Nadu, some packages have been awarded and remaining packages are under process for awards.

c) Intra-State Transmission Works under Green Energy Corridor Phase-III

The Intra State Transmission Systems under Green Energy Corridors-III (GEC-III) scheme envisages strengthening of intra-State transmission networks to facilitate evacuation and grid integration of upcoming Renewable Energy (RE) projects and potential RE zones across States. The requirement has been assessed by the respective State Transmission Utilities (STUs) based on evaluation of RE potential, planned projects, and existing transmission infrastructure. In principle approval for the InSTS GEC-III scheme has been granted by the Department of Expenditure (DoE). Proposals from 13 states: Rajasthan, Andhra Pradesh, Odisha, Kerala, Assam, Karnataka, Tamil Nadu, Telangana, Himachal Pradesh, Uttar Pradesh, Gujarat, Maharashtra, and Ladakh are under consideration at MNRE, with an estimated cost of Rs. 1,63,802.80 Cr to enable integration of 1,34,726 MW of RE capacity and 25,270 MW of pumped storage capacity. The scheme envisages development of intra-state transmission infrastructure of 51,126 ckm transmission lines and 2, 28,903 MVA transformation capacity at substations.

3.11.2 Study, analysis and formulation of policies on specific issues relating to transmission

a) National Electricity Plan (Volume II: Transmission)

As per Section 3(4) of the Electricity Act, 2003, Central Electricity Authority has been mandated to prepare a National Electricity Plan (NEP) in accordance with the National Electricity Policy and notify such plan once in five years. The National Electricity Plan (Vol-I: Generation) has already been published, based on which the draft National Electricity Plan (Vol-II: Transmission) was prepared and submitted to Ministry.

After approval by the Ministry, the Draft National Electricity Plan (Vol-II: Transmission) was published on CEA's website for a period of 60 days (extended for 20 more days) for inviting comments from various stakeholders. Accordingly, the final National Electricity Plan (Vol-II: Transmission) was prepared considering the inputs received from stakeholders and subsequently the final plan was approved by Ministry. The National Electricity Plan (Volume-II: Transmission) was released by Hon'ble Minister of Power in October, 2024. The Plan has been notified through Gazette of India.



Launch of NEP (Transmission) by Hon'ble Minister of Power and Housing and Urban Affairs

The plan covers the review of transmission system addition during the period 2017-22, detailed planning for the period 2022-27 and perspective plan for the period 2027-32. The National Electricity Plan provides the details of transmission system required to be added in the country during the period 2023 to 2032, commensurate with the generation capacity addition and growth of electricity demand in the country. As per NEP, transmission system (both ISTS and intra-state) has been planned for about 600 GW generation capacity likely to be added during 2022-23 to 2031-32 to meet a peak demand of 388 GW by the year 2032. Transmission system has been planned for integration of over 500 GW of Renewable Energy

installed capacity by the year 2030 and over 600 GW of Renewable Energy installed capacity by the year 2032, including transmission system for integration of 10 GW of offshore wind farms. Further, transmission system has also been planned for delivery of power to the Green Hydrogen/Green Ammonia Manufacturing hubs in the country.

As per the NEP- Transmission, about 1.91 lakh ckm of transmission lines and 1274 GVA of transformation capacity is planned to be added during the ten-year period (2023 to 2032). In addition, 33.25 GW of HVDC links are also planned to be added. The Plan gives the transmission system requirement at 220 kV and above level, both for ISTS and Intra-State network. The Plan also highlights Cross border interconnections, new technology options in transmission and Skill Development in transmission sector. As per the National Electricity Plan (Transmission), estimated expenditure of about Rs. 9,16,000 Crore would be required for implementation of additional transmission system in the country (transmission lines, sub-stations, reactive compensation etc.) during the period 2022-23 to 2031-32.

b) Resource Adequacy (Intra-state Transmission System) Plan

Resource Adequacy plan for the following states was prepared in consultation with the respective STU, CTUIL and Grid India. These plans involve system studies and cover, in detail, the requirement of both ISTS and Intra-state transmission system for the states till 2034-35 timeframe.

Reports on Intra State Transmission Resource Adequacy Plan up to 2034-35. The brief of the reports is as below:

S.No.	State	New transmission lines/Reconductoring of old lines by the year 2034-35 (in ckm)	Transformation Capacity addition/Augmentation by the year 2034-35 (in MVA)
1.	Odisha	5131	22,680
2.	Bihar	5,881	23,430
3.	Jharkhand	3,476	16,250
4.	Sikkim	298.60	1,460
5.	DVC	2,738.3	11,005
6.	West Bengal	3,598	20,063
7.	Mizoram	659	294
8.	Manipur	647	640
9.	Nagaland	1247	1,300
10.	Meghalaya	1336	1,118
11.	Tripura	335	1,140
12.	Assam	4,720	15,280
13.	Arunachal Pradesh	846.5	1103
14.	Gujarat	18,991	1,08,360
15.	Karnataka	860	23,500
16.	Uttarakhand	649	8,485
17.	Rajasthan	3,253	75,720

c) Transmission Plan for Integration of over 900 GW Non-Fossil Fuel Capacity by 2035-36

The installed generating capacity from non-fossil sources as of now is about half of the total installed capacity of 524 GW. As per demand projections, the peak electricity demand and electrical energy requirement are estimated to reach about 459 GW and 3365 MU, respectively, by 2035–36. To meet this growing demand in a reliable and sustainable manner, generation expansion planning studies indicate that the likely installed capacity (IC) in the country may reach about 1121 GW by 2035–36, out of which about 786 GW is expected to be from non-fossil fuel–based sources. A significant share of this capacity addition is expected to come from renewable energy, with solar and wind capacity together projected to reach about 664 GW by 2035–36 (Solar: 509 GW and Wind: 155 GW). For enabling continuous growth of Renewable Energy (RE) capacity, areas which have high

solar and wind energy potential, needs to be connected to Inter-State Transmission System (ISTS), so that the power generated could be evacuated to the load centers. The gestation period of wind and solar based generation projects being much less than the gestation period of associated transmission system, transmission system has to be planned well in advance.

As a significant step towards successfully achieving the planned RE capacity, transmission system has been planned in the report for evacuation of power from over 900 GW of non-fossil capacity by the year 2035-36 more than the required non-fossil capacity in view of challenges faced in implementation of the transmission system. The implementation decision has to be taken depending on the progress of development of RE integration. The report provides visibility for the RE project developers and other stakeholders for transmission system planned to integrate the RE capacity into the grid. The length of the transmission lines and sub-station capacity planned under ISTS and Intra- state for integration of additional wind and solar capacity during 2026-27 to 2035–36 has been estimated as 1,37,500 ckm and 8,27,600 MVA respectively at an estimated cost of Rs. 7,93,300 crores



Launch of report titled 'Transmission Plan for Integration of over 900 GW Non-Fossil Fuel Capacity by 2035-36' by Hon'ble Minister of Power and Hon'ble Minister of New and Renewable Energy

3.12 Formulation/ review of Regulations, Guidelines, Reports, Technical Report and audit etc.

a. "Master Plan for Evacuation of Power from Hydroelectric Plants in Brahmaputra Basin" was launched on 11th October 2025. The transmission evacuation system of total 65 GW Hydroelectric potential in 208 projects has been planned in this master plan. The plan envisages total addition of 31 thousand ckm of transmission lines, 68 GVA of transformation capacity, and 42 GW of HVDC with an estimated cost of 6.42 lakh crore investment.

b. SCHEDULE-VII of Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 [Regulation 84(4)], was amended and Gazetted vide notification dated 09.10.2025. The said amendment in addition to the existing combination of Tower Structure and Conductor specifies the Right-of-Way (RoW) requirements for the following combinations of Tower structures and Conductors:

c. ACSR Conductor with Pole Structure

d. HTLS (CFCC/ ACSS/ GAP) Conductor with Pole Structure.

e. HTLS (CFCC/ ACSS/ GAP) Conductor with Lattice Structure

f. Revised Guidelines for the Type Tests for Major Equipment of Power Sector were issued vide CEA's letter dated 19.01.2026. These Guidelines shall supersede earlier Guidelines issued by CEA in March, 2022. The objective of the above-mentioned guidelines is to establish uniformity in the periodicity of Type Tests for various equipment in Power Sector.

g. Revised Guidelines for Model Quality Assurance Plan (MQAP) for Major Equipment of Power Sector were issued vide CEA's letter dated 19.01.2026. These Guidelines shall supersede earlier Guidelines issued by CEA in March, 2022. The objective of the above-mentioned guidelines is to bring uniformity in the Quality Assurance Plans (QAPs) being followed by different manufacturers, utilities, and other stakeholders in respect of various equipment.

h. Standard Operating Procedure (SOP) for restoration of the transmission system was issued on 11.05.2025. Objective of the aforesaid SOP is to establish a structured plan to quickly restore damaged Transmission Systems, protect Personnel, and Strengthen Power System resilience. The SOP shall apply to all Substations and associated Transmission infrastructure—including Transmission lines, Transformers, Switchyards, Protection & Control systems,

and Communication systems—located in high-risk or vulnerable zones.

i. Report of the Technical Committee on Addressing Technical Challenges in Rolling-out 1150 kV Transmission System was issued vide CEA's letter dated 20.08.2025 The report identified key technical challenges related to Equipment design, Transformer configurations, Short-circuit levels, Reactor sizing, and availability of Testing facilities, while recommending operation initially at 1100 kV with future upgradation to 1150 kV.

j. Report of the Technical Committee on addressing Trippings of HVDC Champa-Kurukshetra link were issued vide CEA's letter 23.02.2026. A Committee was constituted under the chairmanship of the Member (Power Systems), CEA vide CEA letter dated 22.09.2025, to study the issue of frequent outage of HVDC Champa-Kurukshetra link and recommend appropriate measures. Based on a comprehensive analysis of the HVDC Champa–Kurukshetra HVDC link, the Committee recommended a set of short-term, medium-term, and long-term measures for improving the reliability and operational performance of the Champa–Kurukshetra HVDC link.

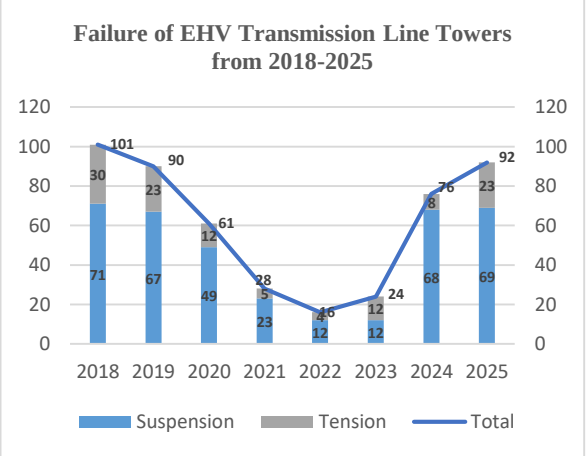
3.13 Representation/ Nomination in the Committees

CEA has representation in many Committees or Groups and list is attached at **Annexure-3G**.

3.14 Standing Committee for analysis of failure of transmission line towers and substation equipment

a) Transmission Line Towers:

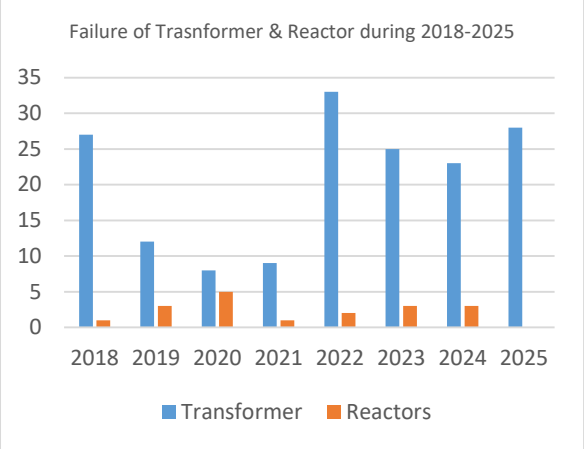
A Standing Committee of Experts in the field of design & operation of EHV Transmission lines was constituted by Central Electricity Authority in 1999 as per the Electricity (Supply) Act No. 54 of 1948 and was re-composed in 2012 with representative from CEA, CPRI, DTU, RPCs and representative from Power Utilities, to carry out investigation of failure of Transmission line Towers of Power utilities (220 kV & above). The objective of the Standing Committee is to investigate the causes of failures, deliberate the failures of Transmission line Towers of various Power utilities, and suggest remedial measures to prevent recurrence of such events in future. As per the deliberations held in the standing committee meeting, Minutes of the meeting are issued. Standing Committee meeting for the failure events that occurred during January 2025 to June 2025 was held on 08.09.2025, and Minutes of meeting was issued vide CEA letter dated 15.10.2026. Standing Committee meeting for the failure events that occurred during July 2025 to December 2025 was held on 10.03.2026, and Minutes of meeting was issued vide CEA letter dated 20.03.2026. The trend of failures as per the data published from 2018 to 2025 is given below.



b) Substation Equipment failures:

A Standing Committee of Experts in the field of design and operation of EHV Substations was constituted in 01.01.2013 by Central Electricity Authority under Section 73, Clause (l) of the Electricity Act, 2003 (with representative from CEA, CPRI, IIT Delhi, RPCs and Power Utilities). The Committee was reconstituted vide CEA office order no: CEA-PS-14-97/3/2018-PSETD Division-Part (5) dated 03.02.2025 to investigate the failure of 220 kV and above voltage class Transformers & Reactors and recommend measures to avert recurrence of such failures in future. The objective of the Standing Committee is to investigate the causes of failures, deliberate the failures of Transformers and Reactors, suggest remedial measures to prevent recurrence of such events in future. In this connection, minutes of the meeting of the standing committee are issued which would serve as a repository of case studies of failures and

suggested remedial measures for future. For the failure events that occurred during January 2025 to June 2025, Standing Committee meeting was held on 01.09.2025 and Minutes of meeting was issued vide CEA letter dated 01.10.2025. For the failure events that occurred during July 2025 to December 2025, Standing Committee meeting was held on 20.02.2026 and Minutes of meeting was issued vide CEA letter dated 01.04.2026. The trend of failures from 2018 to 2025 of major equipment as per published report is given below.



3.15 Inputs on various Transmission schemes based on Tariff based competitive bidding

National Committee on Transmission (NCT) recommends the mode of implementation of Transmission Schemes put up before the committee i.e. Tariff Based Competitive Bidding (TBCB)/ Regulated Tariff Mechanism (RTM). For the Transmission schemes implemented under the TBCB mode, Specific Technical Requirements for Transmission lines and Sub-stations for Request for Proposal (RfP) documents are reviewed. Clarification to bidders on various technical queries is provided and participation in Bid Evaluation Committee (BEC) is carried out. Cost Committee has been convened by Director (PSE&TD), CEA under the Chairmanship of Chief Engineer (PSE&TD), CEA to estimate the cost of the Schemes under TBCB. During FY 2025-26, Technical Specification for some of the State of the Art Technologies viz Synchronous Condenser (SynCon), Process Bus based Digital Substation has been prepared in association with CTUIL. The work pertaining to technical specification/cost estimation/ bidder's queries/participation in bid evaluation was carried out for the following 37 transmission schemes under TBCB in the FY 2025-26:

S. No.	Name of the Transmission Schemes under TBCB in the FY 2025-26
1.	Transmission system for evacuation of power from Sunni Dam HEP and Luhri Stage-I HEP
2.	Transmission System for Evacuation of Power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW)
3.	Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/C line
4.	Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District Uttar Pradesh
5.	Creation of a 400/220 kV, 2x315 MVA Substation at Siot, Jammu and Kashmir
6.	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-5 :6 GW) [Barmer Complex] Barmer-II: 6 GW (Solar)
7.	Installation of 2 Nos. of Synchronous Condensers (SynCon) units at 765/400/220kV Fatehgarh-II PS
8.	Augmentation at Bhadla-III, Ramgarh PS and Kanpur (PG) Implementation 20.01.2029 timeframe: (matching with timeframe of Transmission System for Evacuation of Power from REZ in Rajasthan (20 GW) under Phase III – Part I scheme (Pole 1))
9.	Transmission system for Evacuation of Power from RE Projects in Rajgarh (1500 MW) SEZ in Madhya Pradesh-Phase III and Evacuation of Power from RE Projects in Neemuch (1000 MW) SEZ in Madhya Pradesh
10.	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8GW): Part C
11.	Augmentation of transformation capacity and Implementation of line

S. No.	Name of the Transmission Schemes under TBCB in the FY 2025-26
	bays at Mandsaur S/s for RE Interconnection
12.	Transmission System for evacuation of power from RE Projects in Morena SEZ in Madhya Pradesh Phase-I (2500MW)
13.	Network Expansion Scheme for drawal of power at South Kalamb S/s: Part A
14.	Transmission System for WR-ER Inter-Regional Network Expansion Scheme-Part C
15.	Transmission System for WR-ER Inter-Regional Network Expansion Scheme-Part A
16.	Transmission system for Integration of Power from RE Projects in Jam Khambhaliya REZ in Gujarat - Phase II (5500MW) and Jamnagar Phase-I (1000 MW)
17.	Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5GW), Jam Khambhaliya (Phase-II: 5.5GW) and Jamnagar (Phase-I: 1GW): PART-C
18.	Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5GW), Jam Khambhaliya (Phase-II: 5.5GW) and Jamnagar (Phase-I: 1GW): PART-B
19.	Transmission system for Integration of Power from RE Projects in Lakadia REZ in Gujarat-Phase II (7500 MW)
20.	Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5GW), Jam Khambhaliya (Phase-II: 5.5GW) and Jamnagar (Phase-I: 1GW): PART-A
21.	Transmission system for proposed Green Hydrogen / Green Ammonia projects in Tuticorin area
22.	Transmission system for proposed Green Hydrogen / Green Ammonia projects in Kakinada area (Phase-I)
23.	Transmission System for integration of Krishnagiri REZ Phase-I
24.	Transmission system strengthening at Davanagere for integration of RE generation”
25.	Transmission System for Kurnool-IV REZ - Phase-II (3 GW)
26.	Transmission system for integration of Ananthapuram-II REZ-Phase-II (3GW)”
27.	Transmission system strengthening for integration of additional RE potential at Davanagere (0.25 GW) and Bellary (2.75 GW)
28.	Transmission system strengthening at Tumkur-II for integration of additional RE potential (2.7 GW)
29.	Transmission system for proposed Green Hydrogen / Green Ammonia projects in Vizag area, Andhra Pradesh (Phase-I)
30.	Transmission System for integration of Kurnool-V REZ - Phase-I
31.	Transmission System for Integration of Ananthapuram-III REZ-Phase-I
32.	Transmission System for Inter-Regional Strengthening between SR Grid and ER Grid
33.	Inter-Regional Strengthening between SR Grid and WR Grid
34.	Eastern Region Generation Scheme-I (ERGS-I)
35.	ERES-47: Nawada – Durgapur – Jeerat (New) 765kV corridor
36.	Transmission System for NERGS-III Siang Basin
37.	North-Eastern Region Expansion Scheme-XXV Part-A (NERES-XXV Part-A)

3.16 Technical advice/ inputs on Transmission lines and Substation

a) Technical assistance/ advice relating to Transmission System in the Country have been provided from time to time to MoP/ Power Utilities/State Utilities/Other Ministries/ BIS/ CPRI etc.

b) Technical advice to Transmission Utilities regarding re-routing/shifting of transmission lines and examination of re-routing/shifting proposal for MoP approval have been carried out time to time.
c) DPRs submitted by utilities for funding under PSDF Scheme were examined and participated as member of techno-economic sub-group.
d) Pursuance with the MoRTH for consideration of increased permissible height for Over Dimensional Consignment (ODC)/ Over Weight Consignment (OWC).
e) Technical clarification/Advisory on Carbon Fibre Composite (CFC) core used in overhead HTLS conductors as per the Latest Revision of ASTM B987 issued vide CEA's letter dated 30.10.2025.
f) Inputs to MoP on the cost allocation to railways w.r.t. Shifting/ raising height of 765 kV D/C Lakadia-Vadodara transmission line by M/s. LVTPL (subsidiary of M/s. Sterlite Power) affecting Ahmedabad- Dholera Expressway (NHAI) in Ahmedabad.

Other Initiative taken in respect of technical aspect of Power System

a) A Committee was constituted under the chairmanship of Member (Power Systems), CEA and Chief Engineer (PSPA-I) as Member Convenor, to study and submit a report on the RE Generation Loss Events and performance of RE Plants in RE rich states particularly Rajasthan and Gujarat.
b) A Technical Committee was constituted under the chairmanship of Member (Power Systems), CEA and Chief Engineer (PSPA-I) as Member Convenor, for simplification of procedures and ease of doing business in respect of CON-4 and FTC related approvals.
c) To reduce Right of Way width a committee has been constituted under the Chairmanship of Chief Engineer (PSE&TD), CEA and Director (PSE&TD) as Member Convener for calculation of reduction of Right-of-Way (RoW) width through technological options available like Insulated Cross Arms, Monopole Towers, and High Tension Low Sag (HTLS) conductor.
d) A committee has been constituted under the chairmanship of the Chief Engineer (PSE&TD), CEA and Director (PSE&TD), CEA as Member Convener to address the technical challenges in upgrading the Existing Wardha-Aurangabad line from 400 kV to 1200 kV and developing 1200 kV terminal stations at both ends.
e) To examine various technical issues raised by stakeholders on Standard specification and technical parameters for transformers and reactors (66 kV and above voltage class), a committee has been constituted under the chairmanship of Member (Power System), CEA and Chief Engineer (PSE&TD), CEA as Member Convener.
f) A committee has been constituted under the Chairmanship of Chief Engineer, (PSE&TD), CEA and Director (PSE&TD), CEA as Member Convener for calculation/assessment of width of Right of Way (RoW) for laying of the underground (UG) cables of different types/voltage levels.
g) Integration of renewable energy is leading to the requirement of dynamic reactive Power in the Indian Grid. To analyse the option i.e., fully dynamic VSC vis-a-vis combination of VSC with MSC and MSR, for the future scheme, a committee has been constituted under the chairmanship of Chief Engineer (PSE&TD), CEA and Director (PSE&TD), CEA as Member Convener.
h) As per the recommendation of National Committee on Transmission (NCT), a committee has been constituted under the chairmanship of Chief Engineer (PSE&TD), CEA and Director (PSE&TD), CEA as Member Convener for exploring the use of Green GIS in Indian Grid.
i) To address the technical challenges in implementation of Micro Substation, a committee has been constituted under the chairmanship of Member (Power System), CEA and Director (PSE&TD), CEA as Member Convener.
g) A standing committee under the Chairmanship of Director (PSE&TD), CEA has been constituted to resolve the bidders queries related with various transmission schemes coming through TBCB route.

h) Inputs were provided on various Bilateral Trade Related matters.

i) Inputs provided on GIB related matters.
j) Study visit of the Parliamentary Standing Committee on Energy to Leh & Ladakh from 28th to 30th June, 2025.
k) Letter to MoEF&CC for incorporating Right-of-Way (RoW) Requirements as per Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Amendment Regulations, 2025 in Van (Samrakshan Evam Samvardhan) Adhiniyam, 1980, and the Van (Samrakshan Evam Samvardhan) Rules, 2023.
l) Inputs were provided on MLC (minimum local content) related matters under PPP-MII framework.
m) Inputs were provided to MoP on matters related to reduction/ exemption of MLC content of various Power Transmission items/ components/ equipment.
n) Inputs were provided on registration related matters under Rule 144 (xi) GFR, 2017

3.17 Construction Monitoring of Transmission Projects

The monitoring of construction of transmission lines and sub-station (220 kV & above) covered under various transmission projects under central/state/private sector is being carried out with a view to achieve timely completion of transmission projects to ensure evacuation of power from new Generation Projects as well as strengthening of existing transmission network required for transmission of power to load centers.

The delay in execution of transmission projects is primarily due to ROW, compensation & forest issues, contractual issues, land acquisition for substation, delay in getting statutory approval from various agencies like Railways & State / National Highway Authority etc. and law & order problem.

In respect of transmission lines, 15,382 ckm was targeted for FY 2025-26 as per the details given below;

Voltage Level (kV)	HVDC	765	400	230/220	Total
Transmission Line length (ckm)	0	7018	3284	5080	15,382

Against the above target of 15,382 ckm, total 12,139 ckm has been commissioned, during FY 2025-26 as per the details given below;

Voltage Level (kV)	HVDC	765	400	230/220	Total
Transmission Line length (ckm)	0	5,111	3,064	3,964	12,139

Thus, overall achievement in respect of Transmission line is 78.92 %. Details of transmission lines commissioned /completed during FY 2025-26 are given in **Annexure-3D.**

Similarly, in respect of substations, 126,007 MVA of transformation capacity was targeted for FY 2025-26 as per the details given below;

Voltage Level (kV)	HVDC	765	400	230/220	Total
Sub-Station transformation capacity (MVA)	0	59,000	38,335	28,672	126,007

Against the above target of 126,007 MVA, total 113,013 MVA transformation capacity has been commissioned during FY 2025-26 as per the details given below;

Voltage Level (kV)	HVDC	765	400	230/220	Total
Sub-Station transformation capacity (MVA)	0	54,000	34,860	24,153	113,013

Thus, overall achievement in respect of Transformation capacity in Sub-stations is 89.69%. Details of substations commissioned / completed during FY 2025-26 are given in **Annexure-3E.**

Voltage-wise/Sector-wise program vs achievement for the financial year 2025-26 in respect of transmission lines and sub stations (220 kV and above voltage level) are given in **Charts I to X**.

Total 12,139 ckm of transmission lines and 113,013 MVA of transformation capacity in

substations (220 kV and above) have been added during the financial year 2025-26 resulting in all India transmission network of 506,513 ckm of transmission lines and 14,50,526 MVA of the transformation capacity (220 kV and above) as on 31st March 2026.

Growth of Transmission lines (in ckm) and Transformation capacity in substations (in MVA) since 2014-15 to FY 2025-26 is as under:

Year	Transmission Lines (in ckm)	Transformation Capacity (in MVA)
2014-15	313437	596100
2015-16	341551	658949
2016-17	367851	740765
2017-18	390970	826958
2018-19	413407	899663
2019-20	425071	967893
2020-21	441821	1025468
2021-22	456716	1104450
2022-23	471341	1180352
2023-24	485544	1251080
2024-25	494374	1337513
2025-26	**506513**	**1450526**

For the FY 2026-27, Program for Transmission Lines and Transformation Capacity in Substations (220 kV & above voltage level) is as under.

Annual Target for FY 2026-27:

Transmission line (CKM)	16,554
Substation (MVA)	158,339

3.18 Inspection of Electrical Installation:

The Chief Electrical Inspector and Electrical Inspectors appointed by the Central Government under section 162 of the Electricity Act, 2003 discharge the functions described in "The Qualifications, Powers and Functions of Chief Electrical Inspector and Electrical Inspectors Rules, 2006". These rules stipulate the statutory inspection of electrical installations as per Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2023. The Chief Engineer of Chief Electrical Inspectorate Division is appointed as Chief Electrical Inspector to the Government of India and is assisted by the Electrical Inspectors and the officers from five Regional Inspectorial Organizations (RIOs) in discharging the various responsibilities, briefly described as under:

(a) Periodic inspection of electrical installations for compliance under Regulation 32 of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2023.
(b) Inspection of new electrical installations under Regulations 45 of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2023 for according approval for first time charging of electrical installation of voltage exceeding notified voltage.
(c) Amendment of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023 as and when necessitated.
(d) Inquiry of fatal and non-fatal electrical accidents.
(e) Collection of Statistics, Return & information relating to electrical accidents in Format-19 & 20 under "Furnishing of Statistics, Returns & Information rules 2007".
(f) Advising stakeholders in the matter related to the electrical safety.
(g) Conducting electrical safety awareness workshops/seminars.

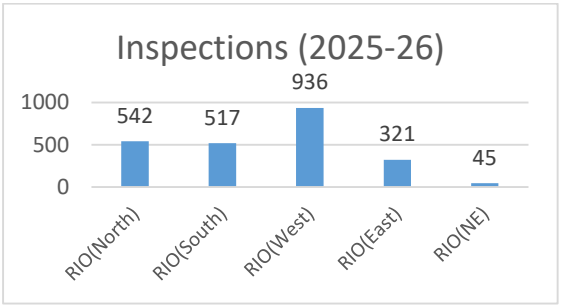
3.19 Amendment in Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023:

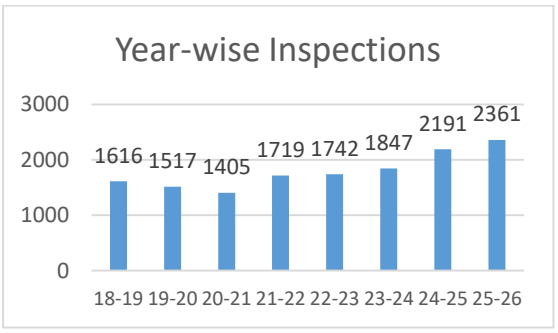
The amendments were carried out by incorporating additional safety requirements for Battery Energy Storage System (BESS). It was notified on 27th March 2026 as CEA (Measures relating to Safety and Electric Supply) Amendment Regulations, 2026.

3.20 Major achievement in terms of Inspections during the year 2025-26:

3.20.1 New electrical installations/ apparatus inspected under Regulation 45 of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2023:

A. The region wise summary of total inspections carried out during 2025-26 is given below: -





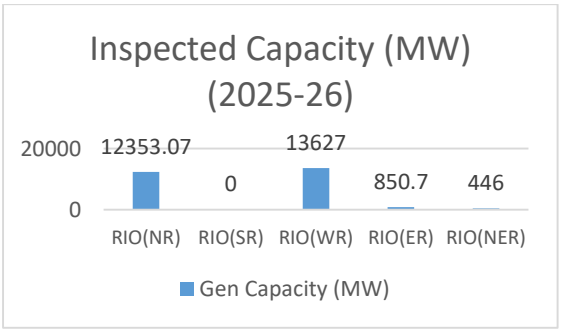
B. Major Power System Elements inspected:

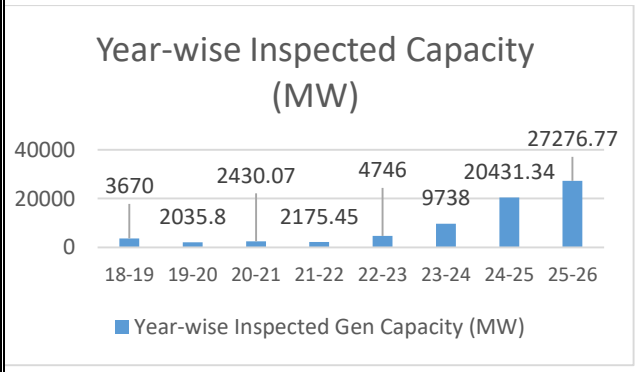
1) Substations:

- Substations of the capacity 765 kV, 400 kV, 220 kV, 132 kV and HVDC are being inspected by the Electrical Inspector. Power System elements such as Transformers, Reactors, Capacitors, Bus, Bays STATCOM etc. are inspected.

2) Inspected Capacity:

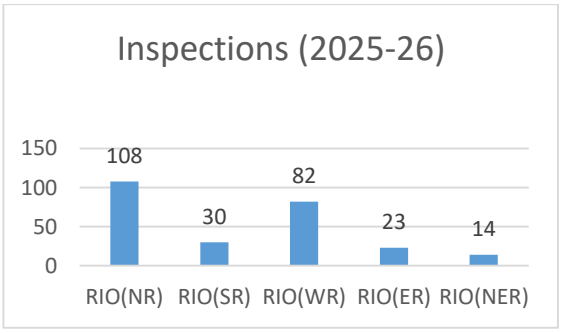
- The region wise summary of inspections carried out is given below:

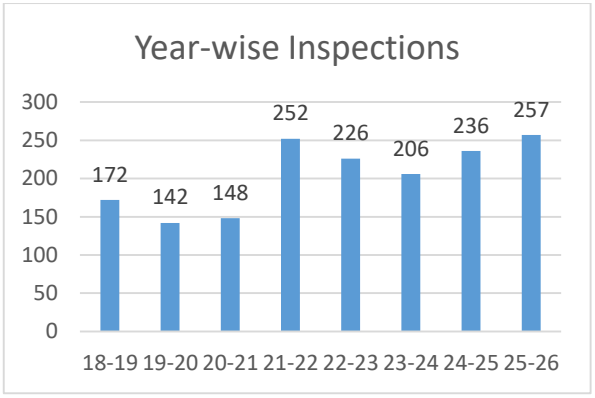




3) Transmission Lines:

- Transmission Lines of the capacity of 765 kV, 400 kV, 220 kV, 132 kV and HVDC are being inspected by the Electrical Inspector.
- The region wise summary of inspections carried out is given below:





- Circuit kilometers of transmission lines inspected at different voltage levels in 2025-26 (in ckm):

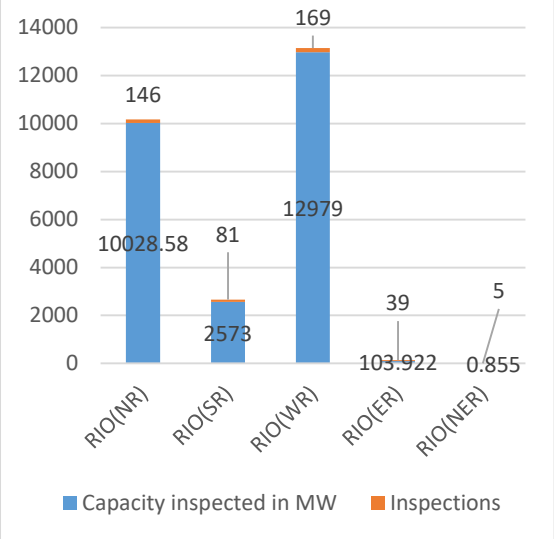
RIOs	NR	SR	WR	ER	NER
765 kV	1441.8	508	857	NIL	NIL
400 kV	384	660	653	395.14	4.82
220 kV	453.6	111	255	NIL	145.05
132 kV	41	NIL	NIL	5.1	34.354
110 kV	NIL	NIL	NIL	NIL	NIL
66 kV	47.4	NIL	11	NIL	NIL
33 kV	77.2	849	259	5.821	NIL
11 kV	6.636	NIL	30	60717	NIL
800/500 kV HVDC	NIL	NIL	NIL	NIL	NIL

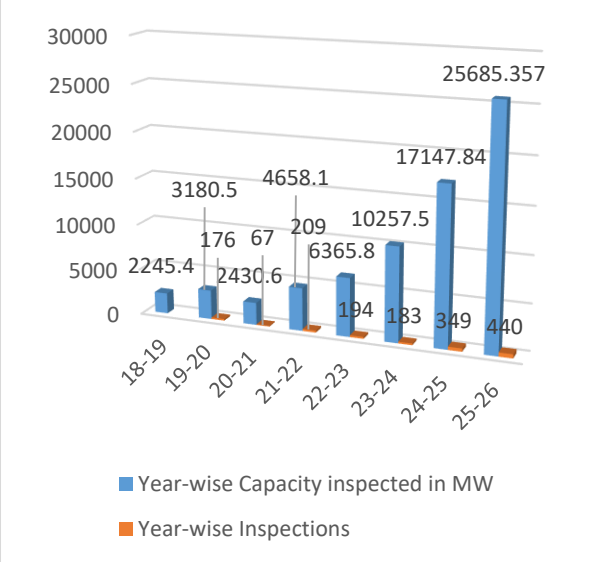
The data above are based on the cumulative inspections carried out by all RIOs

C. Inspections done for Renewables:

The region wise summary of inspections carried

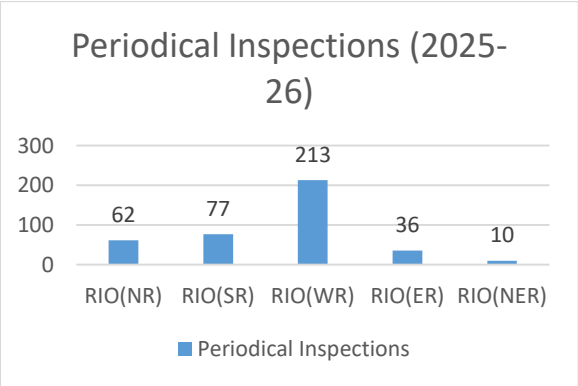
out during 2025-26 is given below:

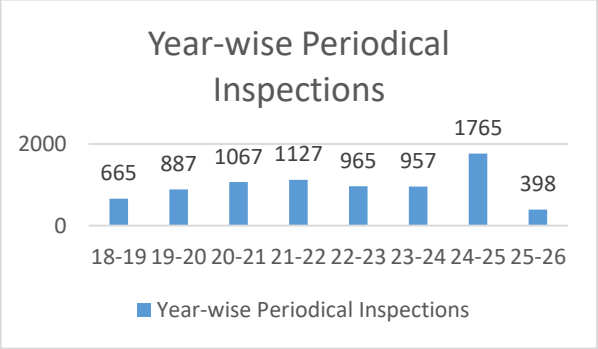




3.20.2 Periodic Inspections under Regulation 32 of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2023

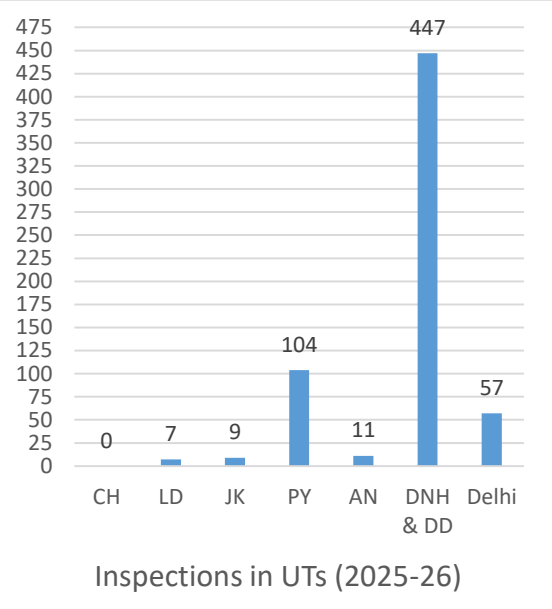
Summary of Periodic Inspections carried out during the year 2025-26 is given below:

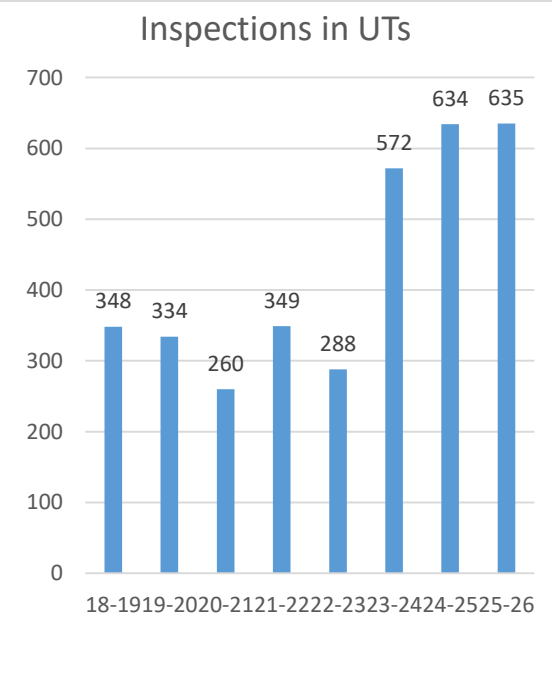




3.20.3 Inspections done in Union Territories

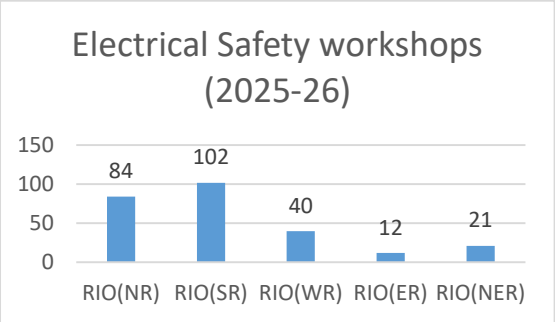
Summary of Inspections done in Union Territories during the year 2025-26 is given below:

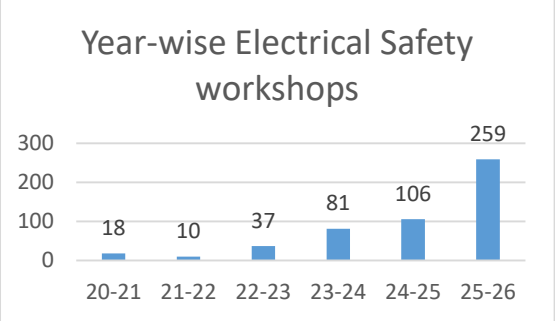




3.20.4 Electrical safety awareness workshops/seminars

Summary of Electrical safety awareness programs and Electrical safety workshops conducted by RIO (west) in schools and other RIOs in various utilities during the year 2025-26 to educate and raise awareness among young students are provided below:





(The above data are compiled based on the cumulative inputs by all RIOs)



3.20.5 Actions taken for spreading Electrical Safety awareness

1. Celebration of Lineman Diwas on 07.03.2026

- The sixth edition of Lineman Diwas was organized on 07.03.2026, in collaboration with DISCOMs, Transmission Utilities, and GENCOs across India, to honour and acknowledge the selfless contributions of linemen nationwide.
- The event was graced by Shri Shripad Yesso Naik, Minister of State for Power and New & Renewable Energy of India. Shri Pankaj Agarwal, Secretary (Power) delivered the keynote address. Shri Ghanshyam Prasad, Chairperson, CEA and Members of CEA along with senior leaders and distinguished stakeholders from across the power sector.
- Around 250 linemen and supervisors from over 66 State and private power distribution and generation companies, along with transmission licensees across India, participated in the event.







- Lineman Geet, Safety Pocketbook for linemen along with a safety awareness video highlighting the risks associated with lightning

and the precautions to be followed by field personnel during such conditions were launched during the event.

2. Celebration of All-India Electrical Safety awareness programme on 26th June, 2025.

- The event was graced by Shri Shripad Yesso Naik, Minister of State for Power and New & Renewable Energy of India. Shri Pankaj Agarwal, Secretary (Power) delivered the keynote address. Shri Ghanshyam Prasad, Chairperson, CEA and Members of CEA along with senior leaders and distinguished stakeholders from across the power sector.

- A major highlight of the event was the launch of "Suraksha Shakti", the official Electrical Safety Mascot, designed to popularize safety awareness in an engaging and relatable manner. Alongside, the first edition of the Electrical Safety Handbook was also released.







3. 7th edition of Standing Committee on Electrical Safety held on 21st November 2025 in Bangalore.

7th meeting of the Standing Committee on Electrical Safety held on 21.11.2025 in Bengaluru, Karnataka under the Chairmanship of Member (Power Systems), Central Electricity Authority.

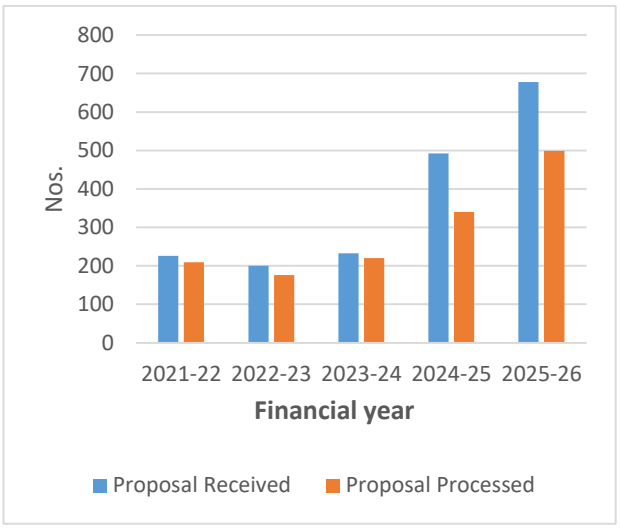
3.21 Power & Telecommunication Co-ordination Committee (PTCC)

Section 160 of the Electricity Act, 2003 mandates that all reasonable precautions must be taken by the operator while laying and installing electric lines or electrical plants, to ensure that the operation of telecommunication and electric signaling lines is not adversely affected by induction.

To facilitate the safe co-existence of power and telecommunication systems, the Central Level Power and Telecommunication Coordination Committee (CLPTCC**)** has been constituted.

During the financial year 2025–26, a total of 678 new cases including Inter-State Transmission System (ISTS) power lines, were received for processing. Induced Voltage Calculations were completed for 499 cases to facilitate PTCC (Power and Telecommunication Coordination Committee) route approval.

A bar chart showing the number of cases received and processed for PTCC route approval during the financial years 2021-22 to 2025–26 is presented below:

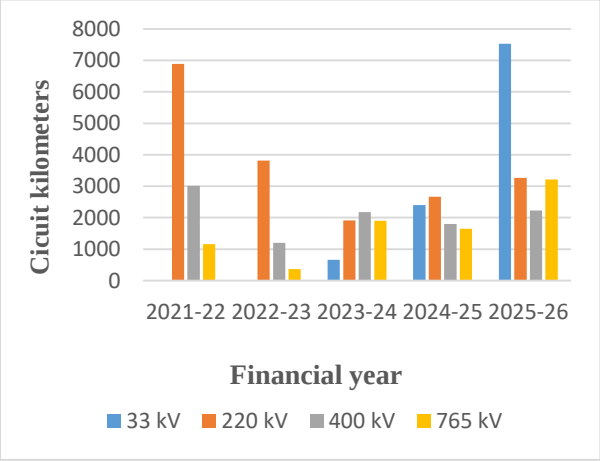


During the financial year 2025–26, Induced Voltage Calculations were carried out for the following transmission lines:

- 7527.08 circuit kilometers of 33 kV lines
- 3265.73 circuit kilometers of 220 kV lines
- 2223.73 circuit kilometers of 400 kV lines
- 3214.13 circuit kilometers of 765 kV lines

It is noteworthy that throughout the year, special attention was given to prioritize and process PTCC cases for transmission lines scheduled for urgent commissioning. As a result of this proactive approach, no transmission line charging was delayed due to the non-availability of PTCC approval.

A bar chart showing the circuit kilometers of 33 kV, 220 kV, 400 kV, and 765 kV transmission lines for which Induced Voltage Calculations were completed during the financial years 2021-22 to 2025–26 is presented below:



The Power Systems Communication Development Division has continued its focused efforts to ensure the timely computation of induced voltages for facilitating PTCC clearance of Extra High Voltage (EHV) transmission lines of 220 kV and above, including Inter-State Transmission System (ISTS) lines.

The Division has maintained regular coordination with relevant authorities such as Bharat Sanchar Nigam Ltd. (BSNL), Indian Railways, Defense, and various State Electricity Boards (SEBs)/Power Utilities to expedite the clearance process.

In addition, the Division extended technical support to State Power Utilities in resolving PTCC cases pertaining to transmission lines of 132 kV and below, thereby ensuring smooth implementation of transmission projects at all voltage levels.

3.22 Providing technical advice for Reliable Communication System in Power Sector

The Power Communication Development (PSCD) Division plays a crucial role in providing technical advisory services related to the development and upgradation of communication systems in the power sector.

The Division is actively involved in the review and vetting of proposals submitted by transmission licensees, finalization of Request for Proposals (RfPs), and evaluation of the feasibility of various communication technologies for their suitability in power system applications.

Through these efforts, the PSCD Division contributes to the development of a reliable, modern, and secure communication infrastructure that supports efficient grid operation, protection, and control.

During the year 2025-26, finalization of following RfPs has been done:

1. ERES-47: Nawada – Durgapur – Jeerat (New) 765kV corridor
2. Transmission system for evacuation of power from Sunni Dam HEP and Luhri Stage-I HEP
3. Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5 GW), Jam Khambhaliya (Phase-II: 5.5 GW) and Jamnagar (Phase-I: 1 GW) – Part A
4. Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5 GW), Jam Khambhaliya (Phase-II: 5.5 GW) and Jamnagar (Phase-I: 1 GW) – Part B
5. Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5 GW), Jam Khambhaliya

(Phase-II: 5.5 GW) and Jamnagar (Phase-I: 1 GW) – Part C
6. Augmentation at Bhadla-III, Ramgarh PS and Kanpur (PG) matching with Transmission System for Evacuation of Power from REZ in Rajasthan (20 GW) under Phase III – Part I Scheme (Pole 1)
7. Transmission system for Integration of Power from RE Projects in Lakadia REZ in Gujarat – Phase II (7500 MW)
8. WR-ER Inter-Regional Network Expansion Scheme – Part A
9. WR-ER Inter-Regional Network Expansion Scheme – Part C
10. Transmission system for Integration of Power from RE Projects in Jam Khambhaliya REZ in Gujarat – Phase II (5500 MW) and Jamnagar Phase-I (1000 MW)
11. Transmission System for Integration of Ananthapuram-III REZ – Phase-I
12. NERGS-III Siang Basin
13. Creation of 400/220 kV, 2x315 MVA Substation at Siot, Jammu & Kashmir
14. Installation of Synchronous Condensers (SynCon) units at 765/400/220 kV Fatehgarh-II PS
15. Draft Syncon specification for Barmer-II
16. Transmission System Strengthening at Tumkur-II for Integration of Additional RE Potential (2.7 GW)
17. Transmission System for Evacuation of Power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW)
18. Transmission System for integration of Kurnool-V REZ – Phase-I
19. Western Region Expansion Scheme XXXIII (WRES-XXXIII) – Part B
20. Transmission system for proposed Green Hydrogen / Green Ammonia projects in Vizag area, Andhra Pradesh
21. Transmission system strengthening for integration of additional RE potential at Davangere (0.25 GW) and Bellary (2.75 GW)
22. Inter-Regional Strengthening between SR Grid and WR Grid
23. Network Expansion Scheme for drawal of power at South Kalamb S/s – Part A
24. Transmission System for Kurnool-IV REZ – Phase-II (3 GW)
25. Transmission system for evacuation of power from Rajasthan REZ Phase-IV (Part-5: 6 GW) [Barmer Complex] Barmer-II: 6 GW (Solar)
26. Transmission System for Integration of Ananthapuram-II REZ – Phase-II (3 GW)
27. Transmission system for evacuation of power from Pumped Storage Projects in Sonbhadra District
28. Transmission system for proposed Green Hydrogen / Green Ammonia projects in Tuticorin area

3.23 Future Plans and Strategic Initiatives

3.23.1 SCADA Indigenization Initiative

The PSCD Division, in coordination with the ET&I Division, provided technical support for formulation of a roadmap towards development of indigenous Supervisory Control and Data Acquisition (SCADA) systems for the Indian power sector. The initiative is aimed at promoting secure, reliable and self-reliant grid management solutions in line with the Government of India's Aatmanirbhar Bharat vision. The roadmap envisages strengthening indigenous capabilities in power system monitoring, control, communication, interoperability and cyber-secure operational technologies for deployment across the power sector.

3.23.2 Draft Technical Specifications for MPLS-TP

Technical support was provided for development and rollout of Draft Technical Specifications for MPLS-TP (Multiprotocol Label Switching – Transport Profile) based communication systems for the power sector. The specifications have been formulated with emphasis on interoperability among multi-vendor systems, high reliability and availability of communication networks, cyber security compliance, and alignment with future-ready communication architecture requirements for enabling smart, secure and resilient grid operations.

3.24 Frequency Allocation Co-ordination for Power Line Carrier Communication (PLCC)

PCD Division coordinates and follows up with Wireless Planning and Coordination (WPC) Wing of Department of Telecommunications (DoT) to achieve timely frequency allocation for PLCC links of new power transmission lines of power utilities in the country.

Chart-I

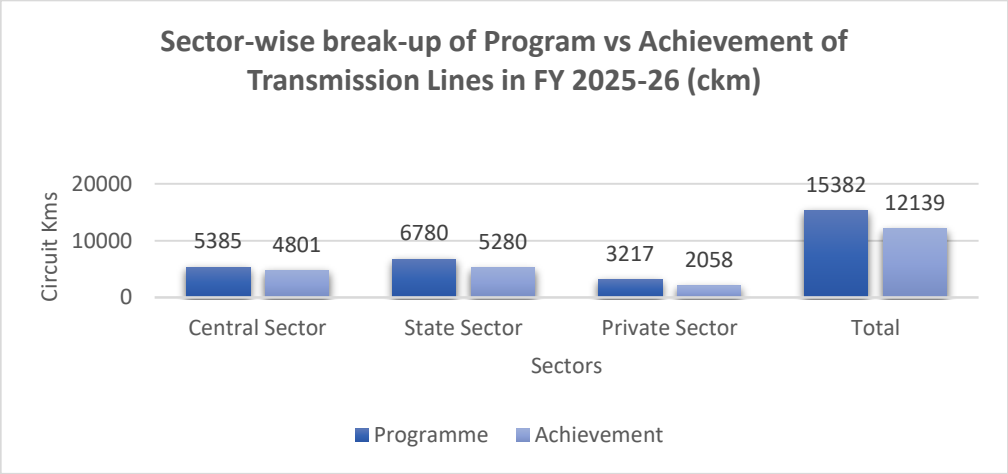


Chart-II

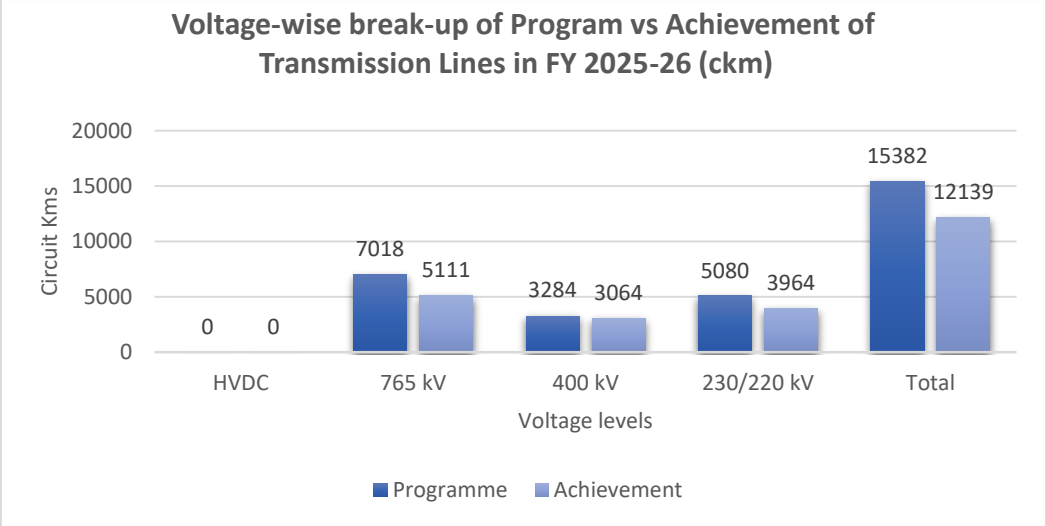


Chart-III

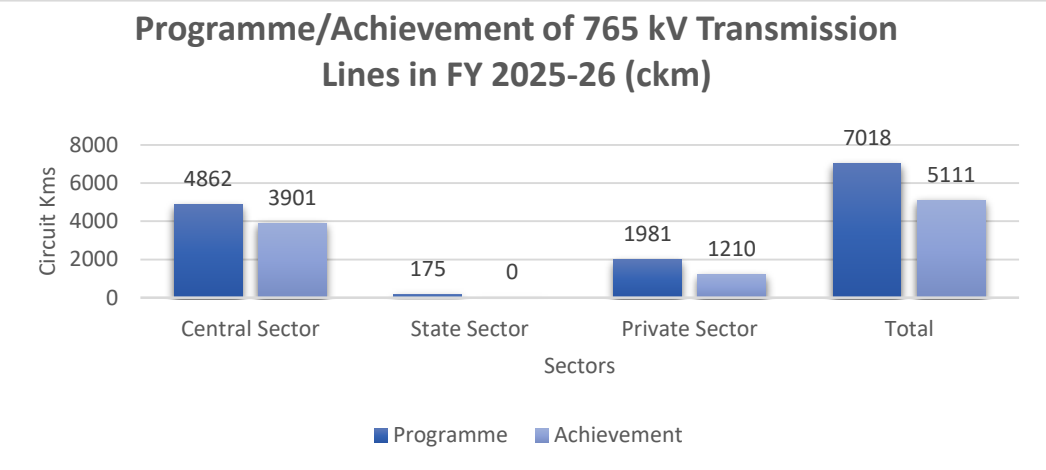


Chart-IV

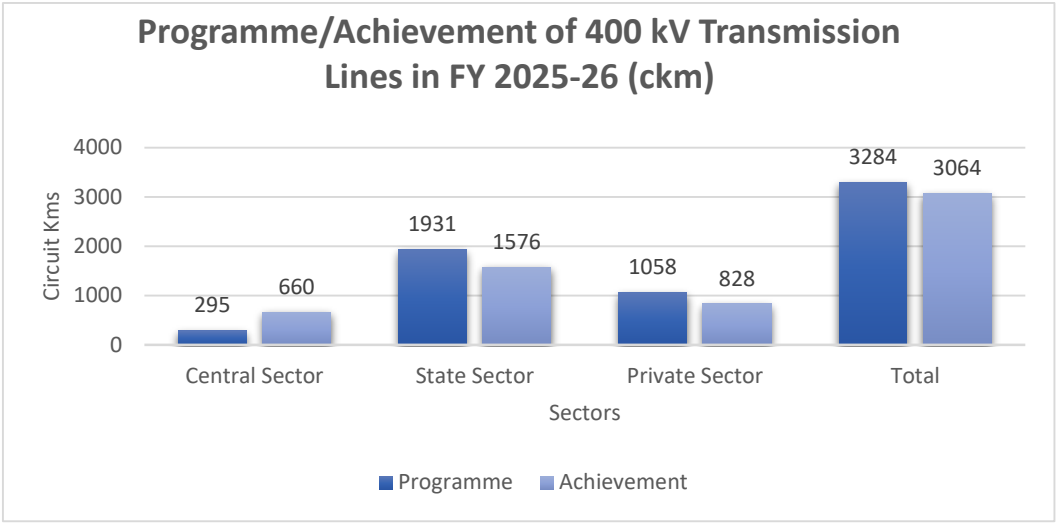


Chart-V

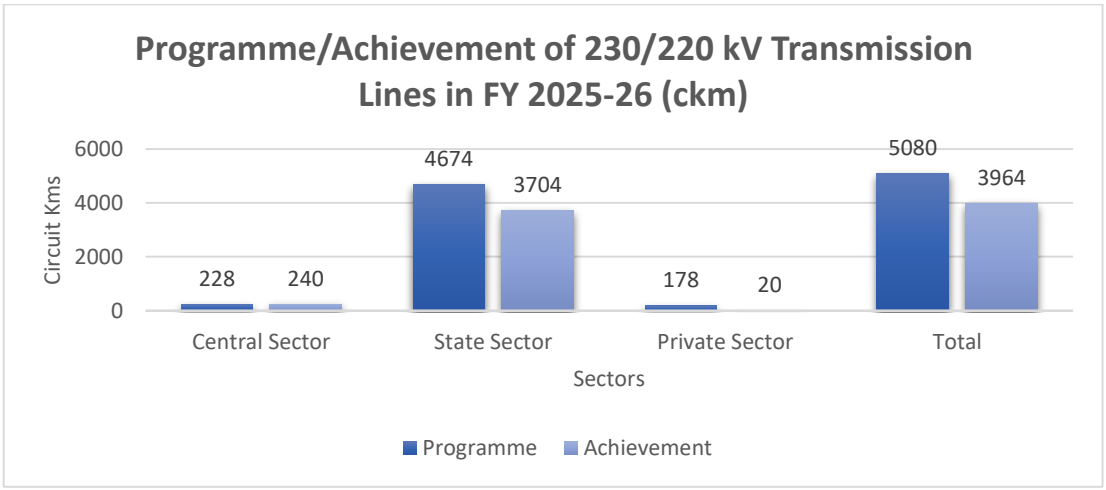


Chart-VI

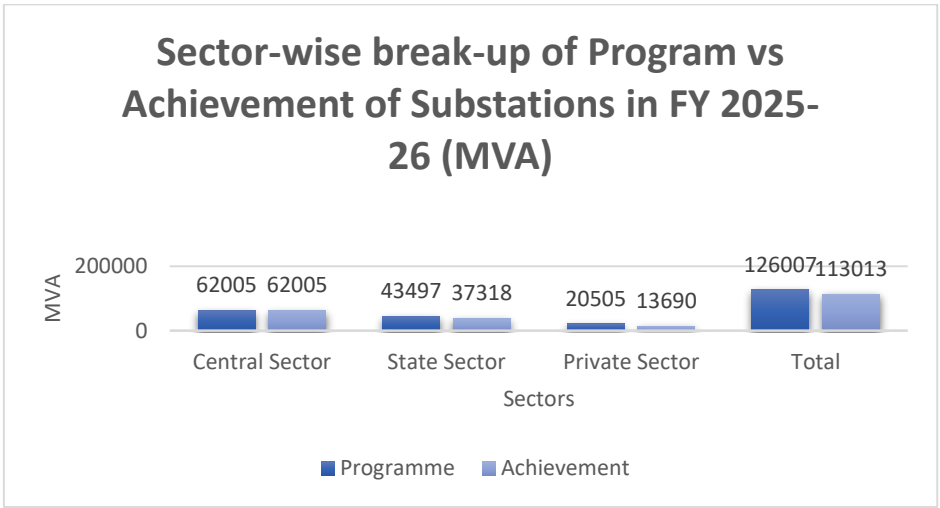


Chart-VII

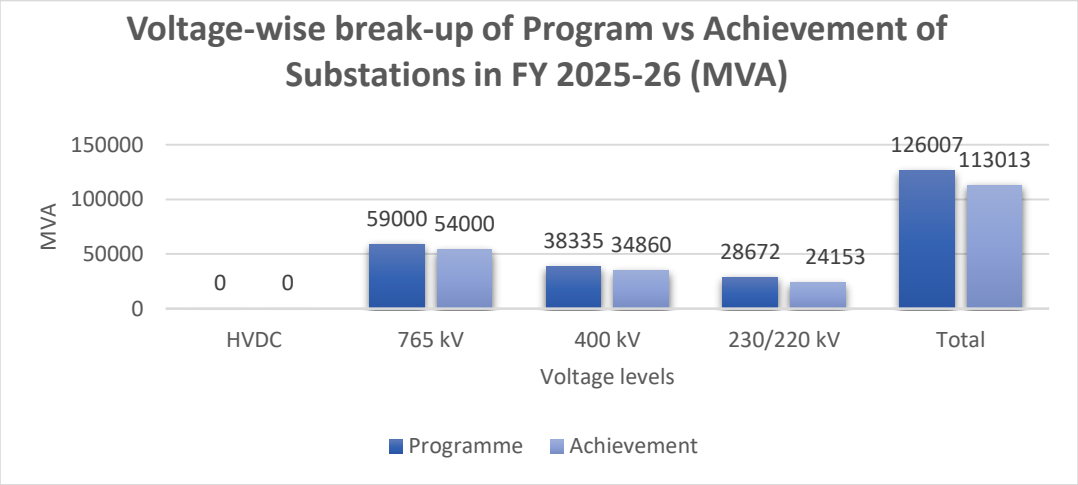


Chart-VIII

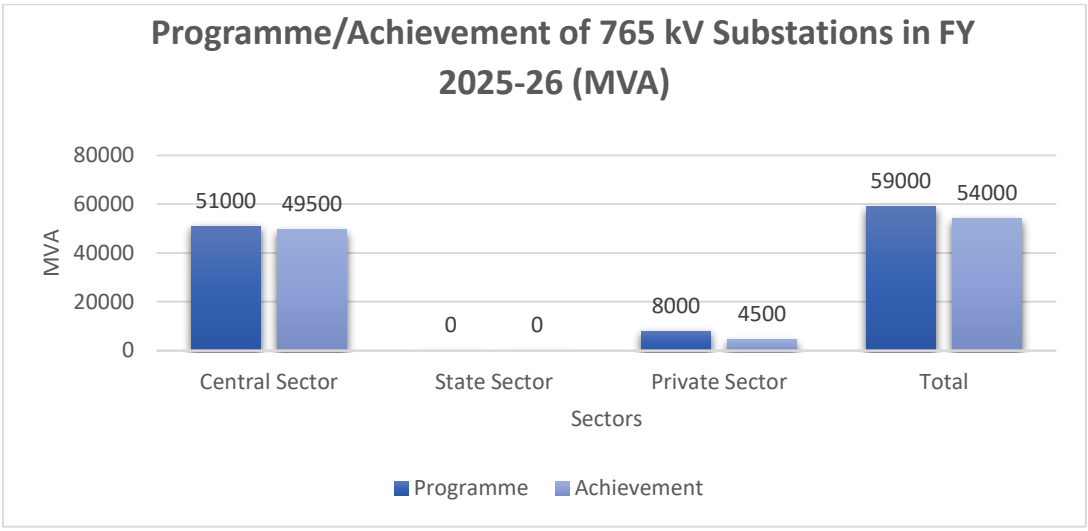


Chart-IX

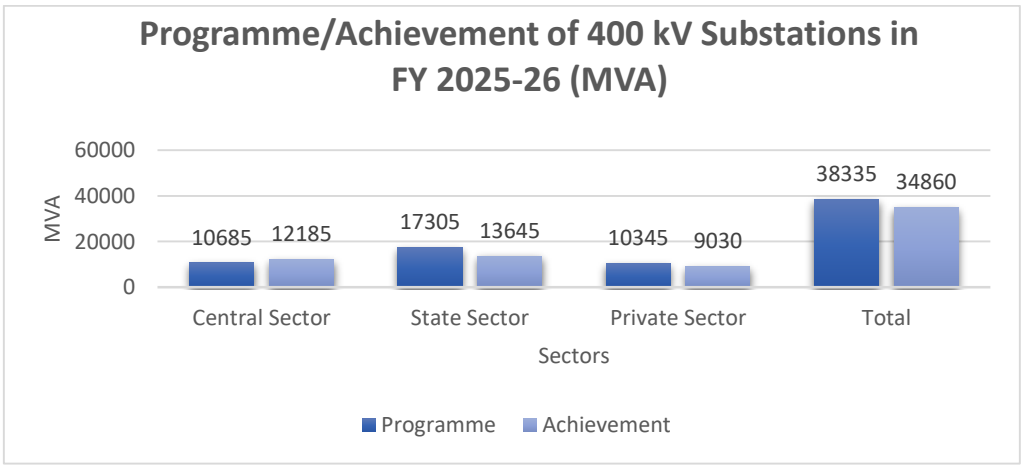
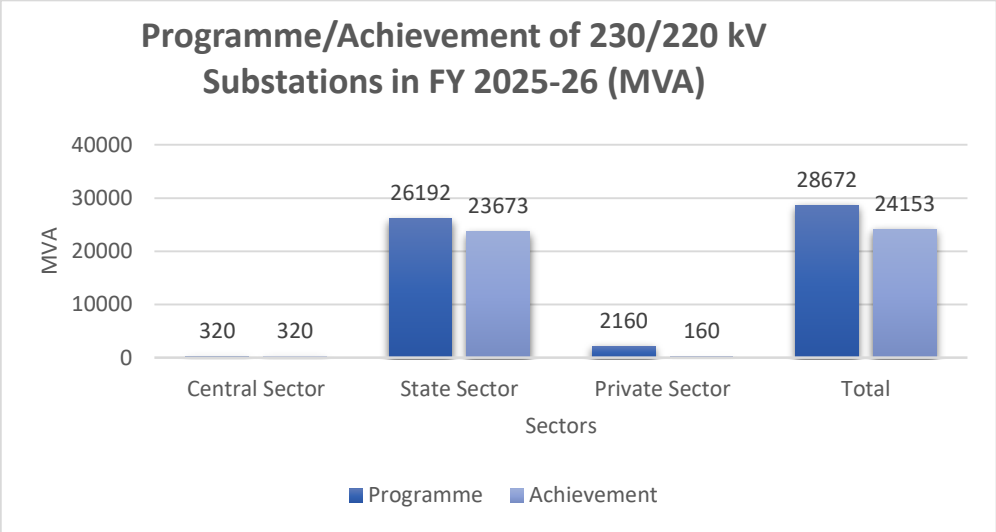


Chart-X


Programme/Achievement of 230/220 kV Substations in FY 2025-26 (MVA)
40000
30000
20000
10000
0
MVA
320
320
26192
23673
2160
160
28672
24153
Central Sector
State Sector
Private Sector
Total
Sectors
Programme
Achievement

CHAPTER – 4

GRID OPERATION AND MANAGEMENT

4.1 Organizational Structure in Grid Operation and Management

The Central Government has established Regional Power Committee (RPC) in each region in accordance with the provisions of Electricity Act, 2003 to facilitate integrated operation of the power system in that region. The real time operation of the power system is looked after by the Regional Load Dispatch Centres (RLDCs) set up in the five Regions and at the national level by National Load Dispatch Centre (NLDC). The Regional Power Committee is a conglomerate of all the players partaking in grid operation, i.e. Regional Load Dispatch Centre, generating companies, transmission utilities, distribution utilities, power traders, etc. Its Secretariat is manned by the officers of Central Electricity Authority (CEA).

The Regional Power Committee (RPC) operates through a number of Sub-Committees, viz. Operation Sub-Committee, Commercial Sub-Committee, Protection Sub-Committee, System Studies Sub-Committee, and Technical Coordination Committee. The Operation Sub-Committee meets every month to review the grid operation in the previous month and plan grid operation for the next month. The Commercial Sub-Committee discusses commercial issues viz. energy accounting related matters, matters pertaining to Special Energy Meters (SEMs), settlement of dues, etc. The Protection Sub-Committee discusses and analyses the various trippings which took place since its last meeting and recommends/ monitors the corrective actions to avoid recurrence of such trippings. It also finalizes the various protection schemes including protection coordination. The System Studies Sub-Committee meets periodically for the purpose of system studies related to assessment of network elements for reactive compensation, operational load flow, transient stability studies etc. The Technical Coordination (TCC) meets before the Regional Power Committee for deliberating on the various technical, operational and commercial issues and the decisions are placed forth for final resolution in the Regional Power Committee. The RPCs play an important role in planning grid operation, since they are responsible for protection coordination, outage planning of generating units and transmission system, planning reactive compensation etc. The TeST Sub-Committee discusses the issues viz. Telecommunication, SCADA & Telemetary etc. Member (Grid Operation & Distribution), CEA is also a Member of the Regional Power Committees and guides the Committees to arrive at amicable solutions with uniformity of approach through unbiased decisions. Apart from RPCs, the Ministry of Power (MoP) had vide Order dated 25th March, 2013, established the National Power Committee (NPC) to evolve a common approach to issues related to reliability and security of the grid.

CEA monitors the power supply position in the country, prepares the All-India monthly power supply position report, harmonizes all matters of grid operation and management between the five Regions, coordinates enquiry of grid disturbances, recommends to the Ministry of Power the quantum of allocation from Central Generating Stations and also facilitates the implementation of the allocation through the Regional Power Committees. The anticipated Power Supply Position for the next year known as Load Generation Balance Report (LGBR), is also prepared every year.

4.2 Power Supply Position

The Central Electricity Authority brings out the All-India Power Supply Position on a monthly basis, both in terms of Energy and Peak, giving the Energy Requirement, Energy Supplied in Million Units (MUs) and Energy not Supplied in Million Units (MUs) as well as in percentage and the Peak Demand, Peak Met in Mega Watt (MW) and Demand not Met in Mega Watt (MW) as well as in percentage. The total Energy Requirement in the country during the year 2025-26 was 17,07,493 MUs as against 16,93,959 MUs during the previous year 2024-25, registering an increase of 0.8%. The total Energy Supplied in the country during the year 2025-26 was 17,06,985 MUs as against 16,92,369 MUs during the previous year 2024-25, registering an increase of 0.9%. The Energy not Supplied during the year 2025-26 was 508 (0.03%) against 1,590 (0.1%) during the previous the year 2024-25. The Peak Demand during the year 2025-26 was 2,45,444 MW as against 2,49,856 MW during the previous year 2024-25, registering a decrease of 1.8%. The Peak Met during the year 2025-26 was 2,45,416 MW as against 2,49,854 MW during the previous year 2024-25, registering a decrease of 1.8%. The Demand not Met during the year 2025-26 was 28 (0.01%) as against 2 MW (0.001%) during the previous year 2024-25.

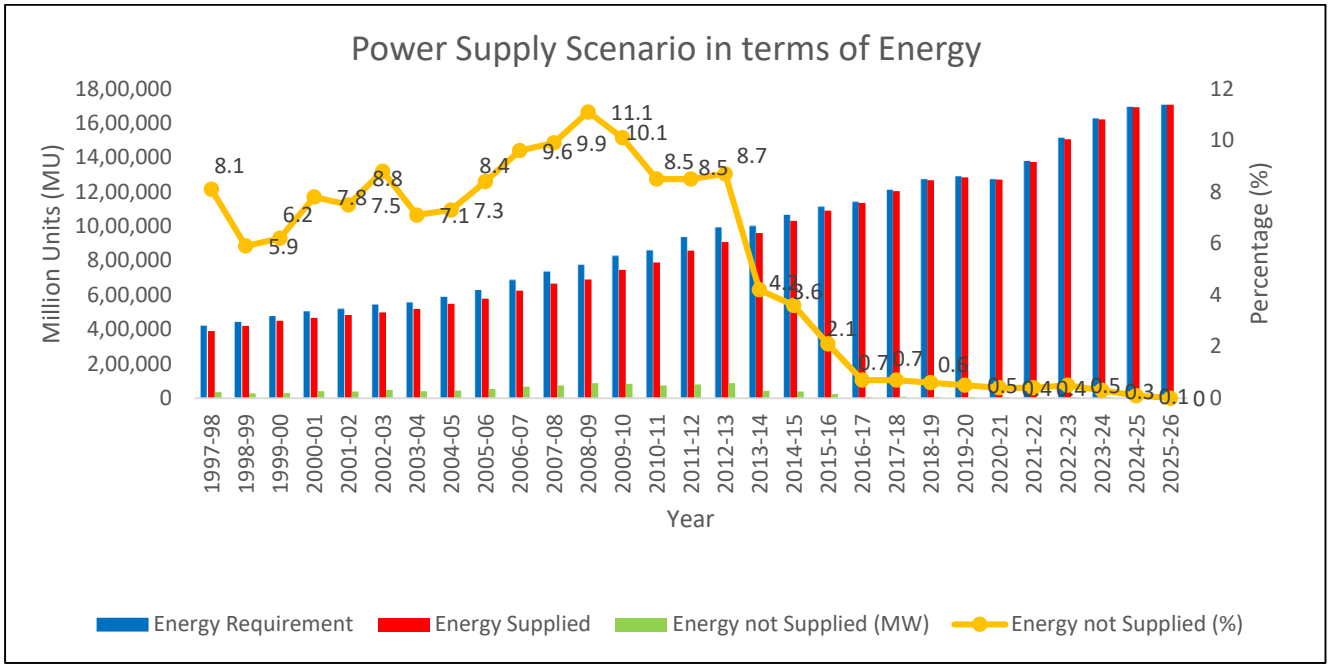
In the context of power supply, it may be mentioned that there is adequate availability of electricity in the country. The marginal gap between demand and supply of electricity is generally on account of factors other than inadequacy of power availability in the country e.g. constraints in distribution network, financial constraints, commercial reasons, forced outage of generating units etc.

The Power supply position since beginning of 9th Plan is as under:

ENERGY:

Year	Energy Requirement (MU)	Energy Supplied (MU)	Energy not Supplied (MU)	Energy not Supplied (%)
1997-98	4,24,505	3,90,330	34,175	8.1
1998-99	4,46,584	4,20,235	26,349	5.9
1999-00	4,80,430	4,50,594	29,836	6.2
2000-01	5,07,216	4,67,400	39,816	7.8
2001-02	5,22,537	4,83,350	39,187	7.5
2002-03	5,45,983	4,97,890	48,093	8.8
2003-04	5,59,264	5,19,398	39,866	7.1
2004-05	5,91,373	5,48,115	43,258	7.3
2005-06	6,31,554	5,78,819	52,735	8.4
2006-07	6,90,587	6,24,495	66,092	9.6
2007-08	7,39,343	6,66,007	73,336	9.9
2008-09	7,77,039	6,91,038	86,001	11.1
2009-10	8,30,594	7,46,644	83,950	10.1
2010-11	8,61,591	7,88,355	73,236	8.5
2011-12	9,37,199	8,57,886	79,313	8.5
2012-13	9,95,557	9,08,652	86,905	8.7
2013-14	10,02,257	9,59,829	42,428	4.2
2014-15	10,68,923	10,30,785	38,138	3.6

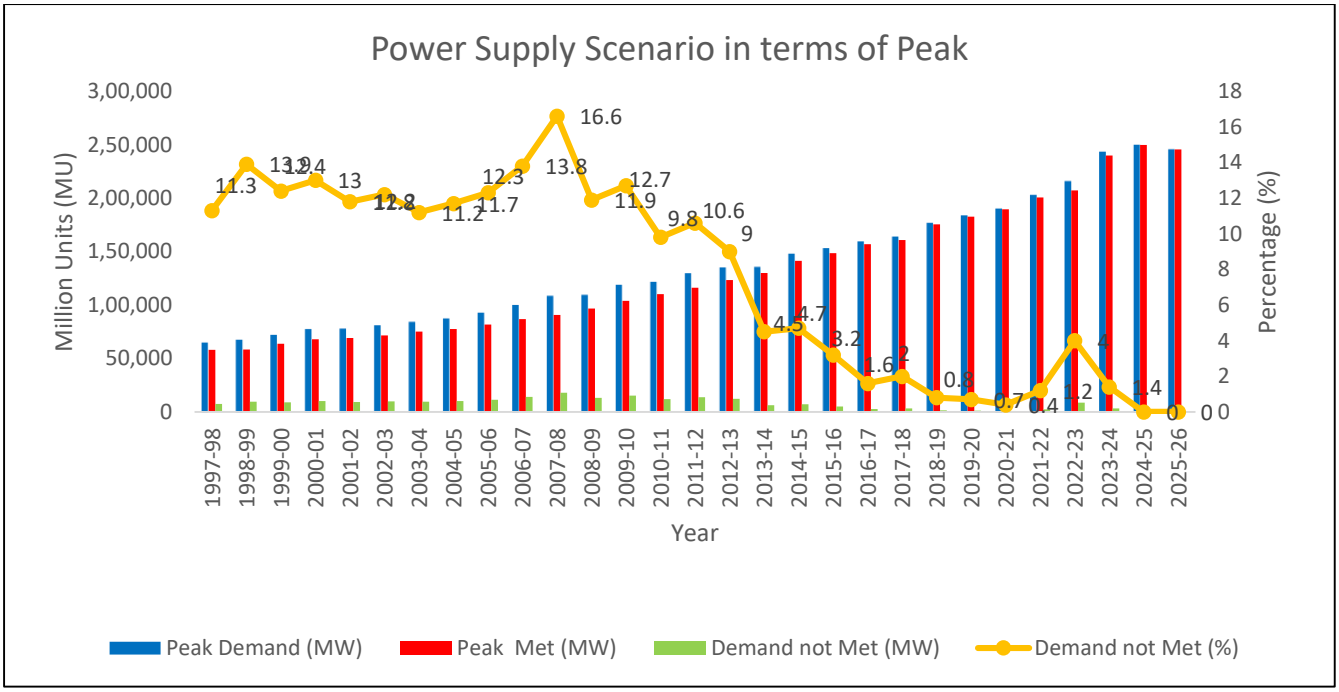
2015-16	11,14,408	10,90,850	23,558	2.1
2016-17	11,42,928	11,35,332	7,596	0.7
2017-18	12,13,326	12,04,697	8,629	0.7
2018-19	12,74,595	12,67,526	7,070	0.6
2019-20	12,91,010	12,84,444	6,566	0.5
2020-21	12,75,534	12,70,663	4,871	0.4
2021-22	13,79,812	13,74,024	5,787	0.4
2022-23	15,13,497	15,05,914	7,583	0.5
2023-24	16,26,132	16,22,020	4,112	0.3
2024-25	16,93,959	16,92,369	1,590	0.1
2025-26	17,07,493	17,06,985	508	0.0



PEAK:

Year	Peak Demand (MW)	Peak Met (MW)	Demand not Met (MW)	Demand not Met (%)
			(MW)	(%)
1997-98	65,435	58,042	7,393	11.3
1998-99	67,905	58,445	9,460	13.9
1999-00	72,669	63,691	8,978	12.4
2000-01	78,037	67,880	10,157	13.0
2001-02	78,441	69,189	9,252	11.8
2002-03	81,492	71,547	9,945	12.2
2003-04	84,574	75,066	9,508	11.2
2004-05	87,906	77,652	10,254	11.7
2005-06	93,255	81,792	11,463	12.3
2006-07	1,00,715	86,818	13,897	13.8
2007-08	1,08,866	90,793	18,073	16.6
2008-09	1,09,809	96,785	13,024	11.9

2009-10	1,19,166	1,04,009	15,157	12.7
2010-11	1,22,287	1,10,256	12,031	9.8
2011-12	1,30,006	1,16,191	13,815	10.6
2012-13	1,35,453	1,23,294	12,159	9.0
2013-14	1,35,918	1,29,815	6,103	4.5
2014-15	1,48,166	1,41,160	7,006	4.7
2015-16	1,53,366	1,48,463	4,903	3.2
2016-17	1,59,542	1,56,934	2,608	1.6
2017-18	1,64,066	1,60,752	3,314	2.0
2018-19	1,77,022	1,75,528	1,494	0.8
2019-20	1,83,804	1,82,533	1,271	0.7
2020-21	1,90,198	1,89,395	802	0.4
2021-22	2,03,014	2,00,539	2,475	1.2
2022-23	2,15,888	2,07,231	8,657	4.0
2023-24	2,43,271	2,39,931	3,340	1.4
2024-25	2,49,856	2,49,854	2	0.0
2025-26	2,45,444	2,45,416	28	0.0



The State/UT/Region-wise Power Supply Position in terms of Energy and Peak during the year 2025-26 is enclosed at **Annexure-4A.**

The details of the State/UT-wise allocation from Conventional Central Generating Stations in the country as on 31.03.2026, is enclosed at **Annexure-4B.**

4.3 System Operation in the Regions

4.3.1 Northern Region: The gap between Energy Requirement and Energy Supplied was 0.1% in the region during the year 2025-26 as compared to 0.2% during the year 2024-25 and a gap of 0.6% between Peak Demand and Peak Met during the year 2025-26 as compared to 0.9% during the year 2024-25.

The maximum demand met in the Northern Region during FY 2025–26 was 90,772 MW.

This represents a growth of 25 MW compared to the maximum demand met in FY 2024–25.

Further, the comparison between Power Supply Position in terms of Energy and Peak during the year 2025-26 and the year 2024-25 is outlined below:

Energy:

State / UT	April,2025 - March,2026		April,2024 - March,2025		% Change	
	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied
	(MU)	(MU)	(MU)	(MU)	(%)	(%)
Chandigarh	1,879	1,879	1,952	1,952	-3.7	-3.7
Delhi	38,556	38,548	38,255	38,243	0.8	0.8
Haryana	70,493	70,427	70,149	70,120	0.5	0.4
Himachal Pradesh	13,642	13,595	13,566	13,526	0.6	0.5
UT of J&K and Ladakh	20,185	20,166	20,374	20,283	-0.9	-0.6
Punjab	75,409	75,308	77,423	77,423	-2.6	-2.7
Rajasthan	1,10,657	1,10,657	1,13,833	1,13,529	-2.8	-2.5
Uttar Pradesh	1,63,501	1,63,475	1,65,090	1,64,786	-1.0	-0.8
Uttarakhand	16,538	16,475	16,770	16,727	-1.4	-1.5
Northern Region	**5,12,458**	**5,12,127**	**5,18,869**	**5,17,917**	**-1.2**	**-1.1**

Peak:

State / UT	April,2025 -March,2026		April,2024 - March,2025		% Change	
	Peak Demand	Peak Met	Peak Demand	Peak Met	Peak Demand	Peak Met
	(MW)	(MW	(MW)	(MW)	(%)	(%)
Chandigarh	460	460	449	449	2.4	2.4
Delhi	8,442	8,442	8,656	8,656	-2.5	-2.5
Haryana	14,084	14,084	14,662	14,662	-3.9	-3.9
Himachal Pradesh	2,310	2,310	2,273	2,273	1.6	1.6
UT of J&K and Ladakh	3,325	3,325	3,236	2,836	2.8	17.2
Punjab	16,670	16,670	16,058	16,058	3.8	3.8
Rajasthan	19,617	19,617	19,165	19,165	2.4	2.4
Uttar Pradesh	31,486	31,486	30,618	30,618	2.8	2.8
Uttarakhand	2,910	2,910	2,863	2,863	1.6	1.6
Northern Region	**91,335**	**90,772**	**91,592**	**90,747**	**-0.3**	**0**

4.3.2

Western Region: The Western Region was able to meet its Energy Requirement during the year 2025-26 and the year 2024-25 and also able to meet its Peak Demand during

the year 2025-26 as compared to gap of 0.4% during the year 2024-25.

The maximum demand met in the Western Region during FY 2025–26 was 83,081 MW. This represents a growth of 2,558 MW or 3.2% compared to the maximum demand met in FY 2024–25.

Further, the comparison between Power Supply Position in terms of Energy and Peak during the year 2025-26 and the year 2024-25 is outlined below:

Energy:

State / UT	April,2025 - March,2026		April,2024 - March,2025		% Change	
	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied
	(MU)	(MU)	(MU)	(MU)	(%)	(%)
Chhattisgarh	42,933	42,925	43,208	43,180	-0.6	-0.6
Gujarat	1,56,588	1,56,588	1,51,878	1,51,875	3.1	3.1
Madhya Pradesh	1,03,711	1,03,696	1,04,445	1,04,312	-0.7	-0.6
Maharashtra	2,02,867	2,02,854	2,01,816	2,01,757	0.5	0.5
Dadra & Nagar Haveli and Daman & Diu	11,182	11,182	10,852	10,852	3.0	3.0
Goa	5,449	5,449	5,411	5,411	0.7	0.7
Western Region	**5,36,483**	**5,36,445**	**5,28,924**	**5,28,701**	**1.4**	**1.5**

Peak:

State / UT	April,2025 -March,2026		April,2024 - March,2025		% Change	
	Peak Demand	Peak Met	Peak Demand	Peak Met	Peak Demand	Peak Met
	(MW)	MW)	(MW)	(MW)	(%)	(%)
Chhattisgarh	6,819	6,819	6,511	6,511	4.7	4.7
Gujarat	26,457	26,457	25,588	25,588	3.4	3.4
Madhya Pradesh	19,902	19,895	19,371	19,183	2.7	3.7
Maharashtra	31,128	31,128	30,675	30,675	1.5	1.5
Dadra & Nagar Haveli and Daman & Diu	1,416	1,416	1,390	1,390	1.9	1.9
Goa	864	864	810	810	6.7	6.7
Western Region	**83,081**	**83,081**	**80,861**	**80,523**	**2.7**	**3.2**

4.3.3 Southern Region:

The Southern Region was able to meet its Energy Requirement completely during the year 2025-26 and the year 2024-25 and also meet its Peak Demand completely during the year 2025-26 and the year 2024-25.

The **maximum demand met** in the **Southern Region** during FY 2025–26 was **73,805 MW**. This represents a growth of **3,871 MW** or **5.5%** compared to the maximum demand met in **FY 2024–25**. Lakshadweep is stand-alone systems; power supply position of

Lakshadweep does not form part of regional requirement and supply.

Further, the comparison between Power Supply Position in terms of Energy and Peak during the year 2025-26 and the year 2024-25 is outlined below:

Energy:

State / UT	April,2025 -March,2026		April,2024 - March,2025		% Change	
	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied
	(MU)	(MU)	(MU)	(MU)	(%)	(%)
Andhra Pradesh	81,204	81,197	79,028	79,025	2.8	2.7
Telangana	87,274	87,266	88,262	88,258	-1.1	-1.1
Karnataka	95,791	95,780	92,450	92,446	3.6	3.6
Kerala	31,157	31,154	31,624	31,616	-1.5	-1.5
Tamil Nadu	1,32,328	1,32,317	1,30,413	1,30,408	1.5	1.5
Puducherry	3,508	3,504	3,549	3,549	-1.2	-1.3
Lakshadweep	73	73	68	68	7.0	7.0
Southern Region	**4,31,311**	**4,31,267**	**4,25,373**	**4,25,349**	**1.4**	**1.4**

Peak:

State / UT	April,2025 -March,2026		April,2024 - March,2025		% Change	
	Peak Demand	Peak Met	Peak Demand	Peak Met	Peak Demand	Peak Met
	(MW)	MW)	(MW)	(MW)	(%)	(%)
Andhra Pradesh	14,005	14,005	13,712	13,712	2.1	2.1
Telangana	18,548	18,548	17,162	17,162	8.1	8.1
Karnataka	18,655	18,655	18,398	18,395	1.4	1.4
Kerala	5,819	5,819	5,904	5,631	-1.4	3.3
Tamil Nadu	19,932	19,932	20,784	20,784	-4.1	-4.1
Puducherry	560	552	549	549	2.1	0.6
Lakshadweep	14	14	13	13	4.0	4.0
Southern Region	**73,805**	**73,805**	**69,938**	**69,934**	**5.5**	**5.5**

4.3.4

Eastern Region: The Eastern Region was able to meet its Energy Requirement completely during the year 2025-26 as compared to gap of 0.2% during the year 2024-25 and a gap of 0.2% between Peak Demand and Peak Met during the year 2025-26 as compared to 0.3% during the year 2024-25.

During the year 2025–26, the maximum peak demand met in the Eastern Region was 33,452 MW as compared to 31,399 MW during the preceding year. This represents an increase of 2,053 MW, i.e., 6.5% over the maximum demand met during the previous year. Andaman & Nicobar Islands is stand-alone

systems; power supply position of Andaman & Nicobar Islands does not form part of regional requirement and supply.

Further, the comparison between Power Supply Position in terms of Energy and Peak during the year 2025-26 and the year 2024-25 is outlined below:

Energy:

State / UT	April,2025 -March,2026		April,2024 - March,2025		% Change	
	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied
	(MU)	(MU)	(MU)	(MU)	(%)	(%)
Bihar	47,440	47,425	44,393	44,217	6.9	7.3
DVC	24,755	24,751	25,891	25,888	-4.4	-4.4
Jharkhand	15,435	15,430	15,203	15,126	1.5	2.0
Odisha	44,199	44,193	42,882	42,858	3.1	3.1
West Bengal	72,970	72,906	71,180	71,085	2.5	2.6
Sikkim	554	554	574	574	-3.4	-3.4
Andaman- Nicobar	423	403	425	413	-0.5	-2.3
Eastern Region	**2,05,417**	**2,05,324**	**2,00,180**	**1,99,806**	**2.6**	**2.8**

Peak:

State / UT	April,2025 -March,2026		April,2024 - March,2025		% Change	
	Peak Demand	Peak Met	Peak Demand	Peak Met	Peak Demand	Peak Met
	(MW)	MW)	(MW)	(MW)	(%)	(%)
Bihar	8,597	8,594	8,078	7,852	6.4	9.4
DVC	3,532	3,523	3,708	3,704	-4.7	-4.9
Jharkhand	2,353	2,350	2,295	2,292	2.5	2.5
Odisha	7,147	7,129	6,905	6,905	3.5	3.2
West Bengal	13,108	13,108	12,645	12,640	3.7	3.7
Sikkim	126	126	138	138	-8.5	-8.5
Andaman-Nicobar	72	54	71	64	1.3	-15.3
Eastern Region	**33,527**	**33,452**	**31,488**	**31,399**	**6.5**	**6.5**

4.3.5

North-Eastern Region: The North-Eastern Region was able to meet its Energy Requirement completely during the year 2025-26 as compared to gap of 0.1% during the year 2024-25 and also able to meet its Peak Demand completely during the year 2025-26 as compared to gap of 1.1% during the year 2024-25.

The maximum demand met in the North-Eastern during FY 2025–26 was 4,157 MW. This represents a growth of 243 MW or 6.2% compared to the maximum demand met in FY 2024–25.

Further, the comparison between Power Supply Position in terms of Energy and Peak

during the year 2025-26 and the year 2024-25 is outlined below:

Energy:

State / UT	April,2025 - March,2026		April,2024 - March,2025		% Change	
	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied	Energy Requirement	Energy Supplied
	(MU)	(MU)	(MU)	(MU)	(%)	(%)
Arunachal Pradesh	1,194	1,194	1,050	1,050	13.7	13.7
Assam	13,616	13,615	12,843	12,837	6.0	6.1
Manipur	1,178	1,176	1,079	1,068	9.2	10.0
Meghalaya	2,095	2,095	2,046	2,046	2.4	2.4
Mizoram	754	754	709	709	6.3	6.3
Nagaland	996	996	938	938	6.2	6.2
Tripura	1,903	1,903	1,939	1,939	-1.8	-1.9
North-Eastern Region	**21,825**	**21,821**	**20,613**	**20,596**	**5.9**	**5.9**

Peak:

State / UT	April,2025 - March,2026		April,2024 - March,2025		% Change	
	Peak Demand	Peak Met	Peak Demand	Peak Met	Peak Demand	Peak Met
	(MW)	MW)	(MW)	(MW)	(%)	(%)
Arunachal Pradesh	223	223	218	191	2.3	16.7
Assam	2,812	2,812	2,812	2,687	0.0	4.7
Manipur	277	277	269	269	3.0	3.0
Meghalaya	374	374	409	408	-8.5	-8.3
Mizoram	182	182	168	168	8.5	8.4
Nagaland	202	191	189	188	7.4	1.6
Tripura	377	377	386	386	-2.4	-2.3
North-Eastern Region	**4,157**	**4,157**	**3,959**	**3,914**	**5.0**	**6.2**

4.4 Frequency Profile of National Grid

The five regional grids of the country are operating as an integrated National Grid. The Indian Electricity Grid Code (IEGC) specified by the Central Electricity Regulatory Commission (CERC) mandates the operating band for frequency of grid as 49.90 Hz to 50.05 Hz. The percentage of time during which the power system of the country operated below 49.90 Hz, between 49.90 to 50.05 Hz (IEGC Band) and above 50.05 Hz and the maximum and minimum frequencies of the National Grid along with the average frequency level during the year

2023-24, 2024-25 and 2025-26, are tabulated below:

Frequency Profile of National Grid						
Year	% of Time when Frequency was			Average Frequency (Hz)	Maximum Frequency (Hz)	Minimum Frequency (Hz)
	Below 49.90 Hz	Between 49.90-50.05 Hz (IEGC Band)	Above 50.05 Hz			
2023-24	7.20	73.83	18.97	50.00	50.43	49.48
2024-25	5.14	77.94	16.92	50.00	50.67	49.46
2025-26	5.81	76.28	17.91	50.00	50.50	49.41

It may be seen from the above that the average grid frequency during the year 2025-26 was precisely at the nominal frequency level of 50.00 Hz.

4.5 National Power Committee (NPC):

4.5.1 National Power Committee (NPC) was established by Ministry of Power vide Order dated 25th March, 2013 and amended order dated 22.11.2022, to evolve a common approach on issues related to reliability and security of the grid, at national level. Chairperson, CEA is the Chairperson of NPC. Member (GO&D), CEA, Member Secretaries and Chairpersons of RPCs, the Chairpersons of Technical Co-ordination Sub Committees (TCC) of RPCs of five regions, CMD, Grid-India and COO, CTUIL are members of NPC with Chief Engineer (NPC), CEA, as its Member Secretary.

4.5.2 Since its formation, NPC has taken several initiatives for improving the safe and reliable operation of Indian Grid.

4.5.3 Two (02) number of meetings of the National Power Committee (NPC) were held during the year 2025-26. 16th meeting of the National Power Committee was held on 04.07.2025 and 17th meeting of National Power Committee was held on 27.02.2026.

4.5.4 In the 16th NPC meeting, the some of the important points like (i) Introduction of MPLS Technology in ISTS Communication system, (ii) Qualifying criteria for the selection of prospective bidders (Company) for conducting Third-Party Protection Audits, (iii) Conducting the Examination for Protection Auditor Certification, (iv) Uniform Criteria for Harmonics measurement in the Grid, (v) Ensuring flow of data on rooftop solar to DISCOMS in real time, (vi) Unified Accounting Software (UAS) for RPCs and NPC, (v) Five (5) minute Interface Energy Meters along with AMR system for PAN India, (vi) Uniform Anti-islanding Protection Philosophy of the connected RE plants, (vii) Establishment of State-of-the-Art National Unified Network Management System (N-UNMS) in main & backup configuration integrating all the regional UNMSs, (viii) Firewall installation for existing ISTS sub-stations (RTM & TBCB), (ix) Report of the Committee to Evolve a Mechanism for Ensuring Thermal Generation at Technical Minimum Level for Grid Stability and Renewable Energy Integration, (x) Sustained High

Frequency in Indian power system during solar hours were discussed.

4.5.5 In the 17th NPC meeting, the important points related to (i) Final SOP/ Guidelines for diversion of RPC approved Spare Transformers and Reactors to the constituents / State Transmission Utilities,(ii) Congestion Statement for RE entities, Modification in REA Format/Computation for 55%-SFC Compensation, (iii) Revised Procedure for Compensation due to Part Load Operation, (iv)Inclusion of RE Generation in the Islanding Schemes, (v)Storage before Inverters in Solar PV project with Energy Storage System,(vi) Implementation of Travelling Wave Fault Locator (TWFL) on critical transmission lines in the Northern Region, (vii) Training on Emergency Restoration System (ERS) in the Southern Region as per MoP Guidelines, (viii) Status of Emergency Restoration System (ERS), (ix) Frequent outages of HVDC Champa-Kurukshetra and its impact on Indian power system, (x) Requirement of Voice Communication for Operational Co-ordination, (xi) Installation of OPGW on the existing lines of ISTS and STU, (xii) RE Generation Loss Events and performance of RE Plants were discussed.

4.5.6 Report of the Committee to evolve mechanism for ensuring Thermal Generation at Technical Minimum level for Grid Stability and RE Integration: A Committee was constituted under the chairmanship of the Member Secretary (NRPC) with representatives from RPCs, GM Division, CEA, CERC, NLDC, RLDCs as Members and Member Secretary, NPC as the Member Convener to draft the report. The primary mandate of the Committee was to evolve a common mechanism to ensure adequate scheduling of thermal generation during daytime hours up to technical minimum for ensuring sufficient ramp-up capabilities to maximize the thermal availability during evening/non-solar peak hours. Accordingly, the committee has submitted the report to NPC Secretariat and same was circulated to all RPCs.

4.5.7 Qualification Requirements for the selection of prospective Bidders for the Third-Party Protection Audit: As per the decision taken in the 16th NPC meeting held on 04.07.2025, Protection Sub Group of NPC finalized the Qualification Requirements for the selection of prospective Bidders for the Third-Party Protection Audit and circulated the same to all RPCs for implementation.

4.6 Power System Development Fund (PSDF):

4.6.1 Ministry of Power vide letter No. 29/9/2010-R&R (Vol-II) dated 10th January 2014 circulated a scheme regarding the operationalization of the Power System Development Fund (PSDF) and utilization of funds deposited therein. NLDC is the Nodal Agency for PSDF.

4.6.2 During the FY 2025-26, the following number of meetings of various Committees of PSDF were held:

(a) Three (03) meetings of the Appraisal Committee, headed by Chairperson, CEA, were held. In these meetings, 10 nos. of projects were recommended to Monitoring Committee for sanction grant under PSDF.

(b) Two (02) meetings of the Monitoring Committee, headed by Secretary (Power) were held. In these meetings, 02 nos. Islanding, 04 nos. SOC & NOC,

02 nos. BESS, 01 no UAS (Unified Accounting Software) and 01 nos. GAMS Schemes were sanctioned for funding from PSDF.

(c) Four (04) meetings of Project Monitoring Group, headed by Member (GO&D) were held. In these four meetings, 49 nos. of distinct projects were reviewed/monitored.

4.6.3 Till 31.03.2026, Two Hundred Nineteen (219) nos. of projects for total grant amount of ₹17801.52 Crores have been sanctioned since the operationalization of PSDF. Out of these 219 sanctioned projects, 18 projects with an amount of ₹1708.05 Crores have been De-sanctioned due to various reasons.

4.6.4 The details of grant sanctioned to the projects under PSDF scheme are as given below:

S. No	Project Entity	During FY 2025-26		Previous Years (Up to 31.03.2025)		Cumulative (Up to 31.03.2026)	
		No. of Projects	Sanctioned Grant (₹ crores)	No. of Projects	Sanctioned Grant (₹ crores)	No. of Projects	Sanctioned Grant (₹ crores)
1	States/UTs	6	92.65	187	8331.98	193	8424.63
2	RPCs	2	36.65	9	115.61	11	152.26
3	BBMB			1	23.27	1	23.27
4	DVC			2	166.46	2	166.46
5	PGCIL			5	4313.52	5	4313.52
6	PGCIL/RECTPCL			1	233.03	1	233.03
7	BESS	2	1170	0	0	2	1170
8	Central			3	1809.35	3	1809.35
	Total	**10**	**1299.3**	**208**	**14993.22**	**218**	**16292.51**
Proposal approved by MOP:(1) - Stranded Gas projects						1	1509
Total including Stranded Gas projects						**219**	**17801.51**
No. of De-sanctioned projects and Amount						**18**	**1708.05**
Effective No. of Sanctioned projects and Amount						**201**	**16093.46**

4.6.5 Total 128 nos. of projects have been completed till 31.03.2026. Out of this, 29 projects were completed during the FY 2025-26. Further around 21 nos of projects physically completed and financial closure is under progress.

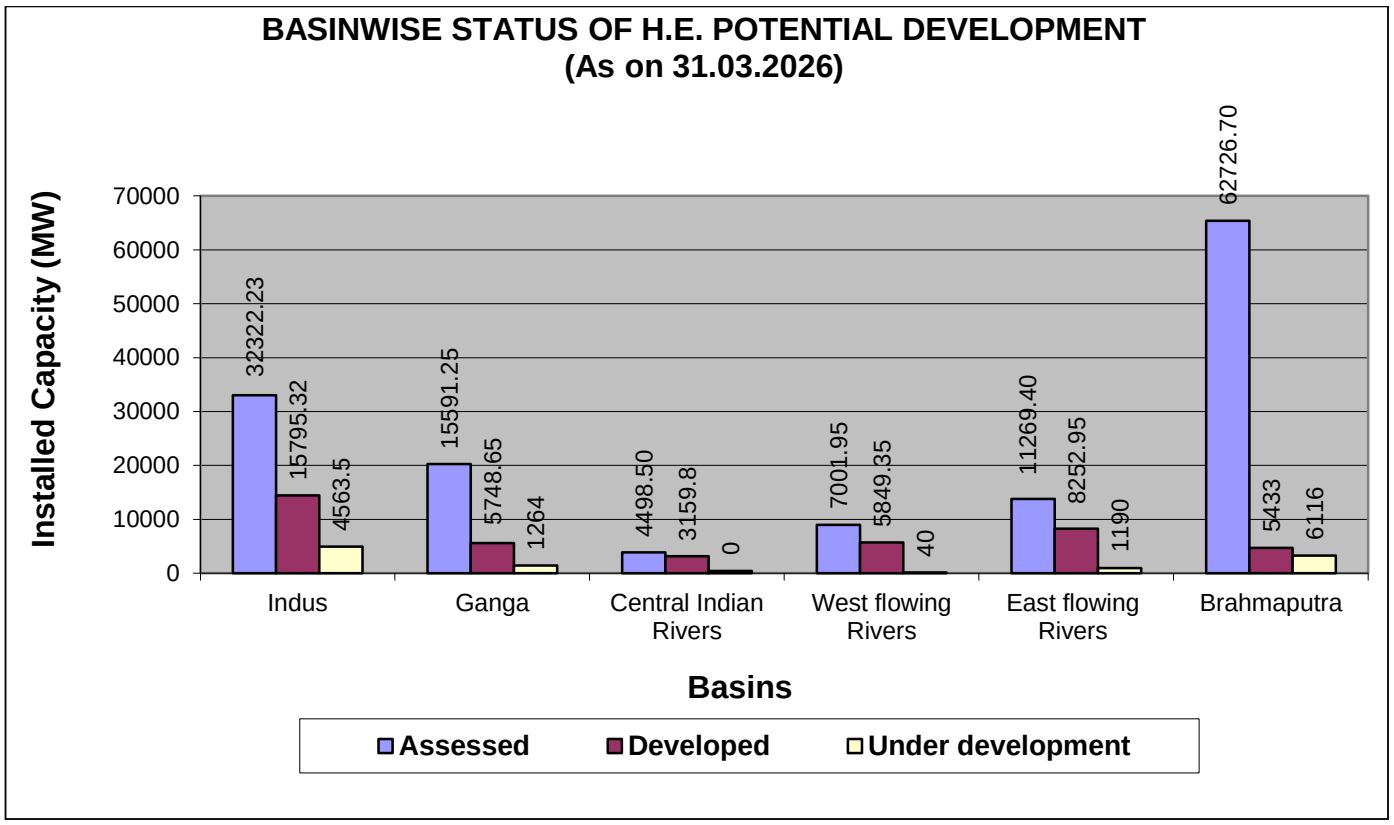
CHAPTER – 5

HYDRO POWER DEVELOPMENT

5.1 Hydro Potential and its Development

The re-assessment studies of hydro-electric potential of the country, completed by Central Electricity Authority during 2017-23, have assessed the economically exploitable hydro power potential in terms of installed capacity as 133410 MW from schemes having capacity above 25 MW.

The basin-wise details of hydroelectric potential development in terms of Installed Capacity are indicated in the table below. As on 31.03.2026, the hydroelectric schemes in operation account for only 33.16% (44239.07 MW) and those under execution for 9.87% (13173.5 MW) of the total potential in terms of installed capacity. Thus, the bulk of the potential (56.97%) remains to be developed.



In addition, as on 31.03.2026, 262 sites for development of Pumped Storage Projects (PSPs) with probable total installation of 288595.6 MW have been identified in the country. Out of this, 63 sites (56926 MW) are ON River PSPs and 199 sites (231670 MW) are OFF-River PSPs. 10 Nos. Pumped Storage Projects (above 25 MW) having total installed capacity of 7175.6 MW are in operation and 12 Nos. Pumped Storage Projects (16120 MW) are under construction.

5.2 "Roadmap for 100 GW of Hydro Pumped Storage Projects by 2035-36"

The Hon'ble Minister of Power and urban Development Sh. Manohar Lal released the report titled "Roadmap to 100 GW of Hydro Pumped Storage Projects (PSPs) by 2035–36", prepared by the Central Electricity Authority (CEA).

The report presents a comprehensive assessment of the present status of PSP development in the country, State-wise assessed potential, and a projected capacity addition trajectory up to 2035-36, aligned with the national objective of achieving 100 GW of PSP capacity over the next decade.

5.3 Construction Monitoring of Hydro Projects:

Hydro Project Monitoring Division is monitoring the progress of construction of on-going sanctioned hydro power projects (above 25 MW) in pursuance to following Sections of Electricity Act, 2003 which is reproduced as under.

Section 73(f). Promote and assist in the timely completion of schemes and projects for improving and augmenting the electricity system;

Section 73(i). collect and record the data concerning the generation, transmission, trading, distribution and utilization of electricity and carry out studies relating to cost, efficiency, competitiveness and such like matters;

Section 73(j). Make public from time to time the information secured under this Act, and provide for the publication of reports and investigations;

The progress of each project is monitored continuously through site visits, interaction with the developers & other stake holders. Chairperson, CEA/ Member (Hydro), Chief Engineer (HPM) hold regular review meetings with the developers/contractors and other Stakeholders.

5.4 Hydro additions during 2024-25:

800 MW (600 MW in Central Sector, and 200 in State Sector) Hydro capacity has been added against the targets of 1000 MW for the year 2024-25. Project-wise details are given at **Annexure-5B**.

5.4.1 Hydro capacity additions during 2025-26:

A total hydro capacity of 3620 MW (1700 MW in Central Sector, and 1920 in Private Sector) Hydro capacity has been added against the targets of 4230 MW for the year 2025-26. Project-wise details are given at **Annexure-5C.**

5.4.2 Hydro capacity programme during 2026-27:

Hydro Capacity Addition Targets for the Year 2026-27 is 6730 MW (3310 MW in Central Sector, 850 MW in State Sector, and 2570 MW in Private Sector.). Project-wise details are given at **Annexure-5D.**

5.5 Survey & Investigation of Hydro Projects

CEA has been monitoring the progress of Survey and Investigation of all the hydro schemes (above 25 MW capacity) by conducting periodical review meetings with developers. In order to accelerate the pace of hydro development in the country, Guidelines for formulation of DPRs for Hydro Electric Schemes, their acceptance and examination for concurrence have been revised by CEA in June, 2023 and accordingly, CEA provides assistance to various Central/ Stateagencies in the matter of survey, investigation and preparation of DPRs of hydro projects costing morethan ₹1000 crores.

In line with the above Guidelines, Consultation Meetings are held by CEA, CWC, GSI and CSMRS with the project developer and guidance is provided to him for making a good quality DPR. During the year, consultation meetings were held for Dharoi PSP (500 MW) & Motaraypura PSP (1000 MW) in Gujarat, Kuri-Gongri HEP (2800 MW) in Bhutan, Sikaser PSP (1200 MW) & Dangari PSP (1400 MW) in Chhattisgarh, Kalu Patti PSP (1000 MW) in Uttar Pradesh, Pawana Falyan PSP (2400 MW), Kalu (1800 MW) PSP, Humbarli Birmani (1500 MW), Aruna Kolamb PSP (1200 MW), & Malshej Ghat PSP (1200 MW) in Maharashtra, Panari (1800 MW) in Madhya Pradesh, Koppolu PSP (2400 MW) in Andhra Pradesh, Kalluru PSP (1500 MW) in Telangana, Gosaintari PSP (920 MW) in Bihar, Sikabadi PSP (600 MW) and Kumulsingi PSP (750 MW) in Odisha and Simsang HEP (60 MW) in Meghalaya.

DPRs of 38 Nos. of HEPs and PSPs with aggregate installed capacity of 38227.90 MW have so far been prepared in consultation with appraising agencies since 2014 and submitted for further examination in CEA/ CWC and out of which DPRs of 21 HEPs & PSPs with aggregate installed capacity of 19630 MW have been concurred by

CEA. DPRs of Upper Indravati PSP (600 MW), Sharavathy PSP (2000 MW), Bhavali PSP (1500 MW), Bhivpuri PSP (1000 MW), MP30 Gandhi Sagar PSP (1920 MW) and Chitravathi PSP (500 MW) have been prepared and concurred by CEA during the period of 2024-25. In addition, a total of 13 HEPs with aggregate capacity of 17711 MW and 65 Pumped Storage Projects with aggregate capacity of 93100 MW (having cost of more than Rs.3000 Crores) are presently under Survey & Investigation in the country and DPRs of these are to be submitted to CEA for concurrence.

5.6 Project Planning & Optimization Studies

• Power Potential Studies of Gandikota PSP (1000 MW), Etalin HEP (3097MW), Balimela PSP (500 MW), Saundatti PSP (1600MW), Kamalapdu PSP (950MW), Upper Kolab PSP (600 MW), Demwe Upper St-I HEP (270MW), Saidongar 1 Karjat PSP (3000 MW), Ujh MPP (50 MW), Masinta PSP (1000 MW), Malshej Ghat PSP (1200 MW) have been carried out.

5.7 Studies & Other Activities Related to HydroPower Planning

- A committee has been constituted by MoP under the chairmanship of Chairperson, CEA to discuss the issues related to operationalization of 1200 MW Sardar Sarovar Pumped Storage Project. In this regard, five meeting of the committee have been held. All issues were resolved by the Committee and all State Governments came on board to initiate the process to make Sardar Sarovar Project operationalize in pumping mode.

- Implementation of Early Warning System in Hydro projects is being monitored in CEA on monthly basis.

- Matter related to Internal Committee on Upper Siang MPP constituted by DoWR, RD& GR and prepared report.

- Report on Tentative Capacity Addition of Hydro Projects (Above 25 MW) likely to be commissioned during 2026-27 to 2031-32.

- MoP vide order dated 10.06.2025 has extended the 100% waiver of ISTS charges for PSPs for which construction work is awarded on or before 30.06.2028.

- Waiver of ISTS charges extended to PSPs for which construction work is awarded up to 30.06.2025, subject to certain conditions. Subsequently, part waiver of ISTS charges, in steps of 25% from 01.07.2025 to 01.07.2028, have been extended for PSPs for which construction work is awarded up to 30.06.2028.

- Waiver of ISTS Charges on the transmission of power from new Hydro Power Projects, for which construction work is awarded and PPA is signed on or before 30.06.2025. Subsequently, part waiver of ISTS charges, in steps of 25% from 01.07.2025 to 01.07.2028, have been extended for HEPs for which construction work is awarded and PPA is signed up to 30.06.2028.

- Ministry of Power has notified Guidelines to promote development of Pumped Storage Projects in the country on 10th April, 2023. Keeping in view the immense utility of the PSPs in grid stabilization as well as meeting the peaking power demand, guidelines have been formulated to promote PSPs and set the direction of its development. The Ministry seeks to promote the development of PSPs across the country with proactive support of the State Governments.

- The CEA has published revised Guidelines for Formulation and Concurrence of DPR of PSPs. Under the revised guidelines, the timeline for concurrence of DPR has been reduced from 90 days to 50 days for all type of PSPs.

- The development of Digital Portal for Fast Tracking of S&I of Concurrence of DPR in association with M/s NHPC is under finalization.

5.8 Co-operation with Neighboring Countries inHydro Power

During the year, following works were handled in connection with development of water resources of the common rivers of India and neighboring countries of Bhutan, Nepal etc. for mutual benefits:

- CEA appraised the DPR of Upper Karnali

HE Project (8x112.5= 900 MW) in Nepal by GMR Upper Karnali Hydropower Ltd.

5.9 Hydro Power Plants Performance & Operation Monitoring

- The report "Review of Performance of Hydro Power Stations" for the year 2026-27, is in the process of completion. Performance of hydro units (above 25 MW) would be analyzed in respect of their outages & generation in this report.
- Month-wise/station-wise hydro generation targets for year 2026-27 in respect of all the HE Stations (above 25 MW) in the country were finalized as 168.77 BU in consultation with the hydro power utilities. The total generation from hydro stations in 2025-26 was 167.20 BU against original programme of 155.67 BU.

5.10 Hydel Generation Performance during year 2025-26

Region	Generation (BU)		Deviation (+/-)
	Programme	Actual	(%)
Northern	80.988	82.627	-2.02
Western	17.229	20.296	17.8
Southern	34.253	43.443	26.83
Eastern	12.202	12.611	3.35
N-Eastern	11.002	8.227	-25.22
All India	155.674	167.204	7.4

5.11 Renovation & modernisation (R&M) of hydro electric projects

Renovation & Modernization, Uprating and Life Extension (RMU&LE) of the existing old hydroelectric power projects is considered a cost effective option to ensure optimization of resources, efficient operations, and better availability and also to augment (uprating) capacity addition in the country.

Recognizing the benefits of R&M of hydroelectric power projects, Govt. of India set up a National Committee in 1987 and a Standing Committee in 1998 and thereafter had identified the projects/ schemes to be taken up for implementation under R&M. The National Perspective Plan document for R&M of hydroelectric power projects in the country was also prepared in CEA during the year 2000. The status of various projects/schemes already identified for implementation/completion till the end of XI Plan, i.e. March, 2012 has been incorporated in the National Perspective Plan.

5.11.1 Achievements During VIII, IX, X XI andXII Plan and Period 2017-22:

The R&M works at 118 (26 in Central and 92 in State Sector) hydro power plants (13 up to the VIII Plan, 20 in the IX Plan, 32 in the X Plan, 18 in the XI Plan, 21 in the XII Plan & 14 during 2017-22) with an aggregate installed capacity of 22634.7 MW had been completed by the end of the year 2017-22 and total a benefit of 4139.56 MW through Life Extension (LE), Uprating (U) and Restoration had been accrued.

5.11.2 Programme and Achievements during theperiod 2022-27:

The Renovation, Modernization, Uprating and Life Extension works at 26 Hydro Electric Plants (HEPs) with an aggregate installed capacity of 4784.55 MW is programmed for completion during the year 2022-27 with its break-up as 1596.8 MW through R&M at 9 HEPs, 2376.75 MW through Life Extension at 11 HEPs and 811 MW through Life Extension and Uprating at 06 HEPs. The 06 HEPs where both Life Extension & Uprating are envisaged, the aggregate installed capacity of 811 MW shall get uprated after completion of R&M works to 936.5 MW resulting in additional benefit of installed capacity of 125.5 MW. As such, the revised aggregate installed capacity after completion of RMU&LE works of these 26 projects would be 4910.05 MW. The State-wise list of hydro R&M schemes expected for completion during the year 2022-27 is given at **Annexure-5E.**

Out of these 26 schemes, Thirteen (13) Schemes with an aggregate installed capacity of about 2645.80 MW have been completed till March, 2026 which has resulted in benefit of 1446 MW through Life Extension and 90 MW through Uprating.

5.11.3 Programme for the year 2025-26

For the year 2025-26, it was programmed to complete following 10 schemes having capacity under R&M of 1268 MW. On completion of these schemes, there was to be a benefit of 783 MW through Life Extension and 6 MW through Uprating.

5.11.4 Achievements during the year 2025-26

R&M works of the following two (2) Schemes with an aggregate installed capacity of about 145 MW have been completed during the year 2025-26 which has resulted in benefit of 145 MW through Life Extension:

S. No.	Name of Scheme, Utility/Agency	Capacity under R&M (in MW)	Category	Cost (in Rs. Crores)	Benefit
1.	Obra, UPJVNL	3x33	RM&LE	58.80	99(LE)
2.	Kodayar PH-I, TNPGCL	1x60	RMU&LE	80.96	60 (LE) + 10 (U)
3.	Moyar PH, TNPGCL	3x12	RMU&LE	121.127	36 (LE)+ 6 (U)
4.	Sharavathy Generating Station, KPCL	10x103.5	RM&LE	196.65	1035 (LE)
5.	Shivasamudram KPCL	6x3+4x6	RM&LE	169.18	42(LE)
6.	Kadra Dam Power House KPCL	3x50	R&M	44.47	-
7.	Kodasalli Dam Power House KPCL	3x40	R&M	50.60	-
8.	Supa Dam Power House, KPCL	2x50	R&M	47.91	-
9.	Khadong Power station, NEEPCO	2x23	RM&LE	277.74	46(LE)
10.	Panchet U-1, DVC	1x40	RM&LE	382.91	360(LE)

S. No.	Name of Scheme, Utility/Agency	Capacity under R&M (in MW)	Category	Cost (in Rs. Crores)	Benefit
1	Khandong Power Station, NEEPCO	2x23 MW	RM&LE	441.33	46 (LE)
2	Obra, UPJVNL	3x33 MW	RM&LE	49.85	99 (LE)

5.11.5 Programme during the period 2027-32

The Renovation, Modernization, Uprating and Life Extension works at 60 Hydro Electric Plants (HEPs) with an aggregate installed capacity of 10169.35 MW is programmed for completion during 2027-32 through Life Extension and Uprating. The State-wise list of hydro R&M schemes expected for completion during 2027-32 is given at **Annexure-5F.**

Plan-wise summary of R&M of H.E. Projects starting from VIII Plan is given below:

I Hydro R&M schemes completed up to 2022

Summary of R&M of Hydro Electric Projects

Sl.No.	Plan Period	No. of Projects			Installed Capacity (MW)	Actual Expenditure (Rs. in Crs)	Benefit (MW)
		Central Sector	State Sector	Total			
1.	Upto VIII Plan Schemes	2	11	13	1282.00	127.37	429.00 [39.00(U) + 54.00LE+ 336.00(Res.)]
2.	IX Plan Schemes	8	12	20	4892.10	570.16	1093.03 [339.00(U)+ 423.00(LE) + 331.03(Res.)]
3. \	X Plan Schemes	5	27	32	4446.60	1029.24	827.73 [122.05(U) + 701.25 (LE) + 4.43(Res.)]
4.	XI Plan Schemes	4	14	18	5841.20	294.84	735 [12 (U) +708 (LE) +15 (Res.)]
5.	XII Plan Schemes	2	19	21	4149.60	1146.02	549.40 [58 (U)+476.40 (LE)+15(Res.)]
6.	2017-2022	5	9	14	2023.2	848.68	505.4 [479.2(LE) + 26.2(U)]
	Total	**26**	**92**	**118**	**22634.7**	**4016.31**	**4139.56 [596.25 (U)+ 2841.85 (LE)+ 701.46 (Res.)]**

Abbreviations:
MW – Mega Watt; Res. – Restoration; U – Uprating; LE – Life Extension;

II Hydro R&M Schemes during 2022-27:

Sl. No.	Category	No. of Projects			Capacity covered under RMU&LE (MW)	Benefit (MW)
		Central Sector	State Sector	Total		
1.	Programmed	4	22	26	4784.55	3313.25 [3187.75(LE)+ 125.5(U)]
2.	Completed	3	10	13	2645.80	1536 [1446 (LE)+ 90(U)]
3.	Under Implementation	1	11	12	2038.75	1777.25 [1741.75(LE)+ 35.5(U)]
4.	Under Tendering	0	1	1	100	0 [0(LE)+0(U)]
5.	Under DPR Preparation/ Finalisation/ Approval	0	0	0	0	0
6.	Under RLA Studies	0	0	0	0	0

III Programme of R&M works during 2027-32:

Sl. No.	Category	No. of Projects			Capacity covered under RMU&LE (MW)	Benefit (MW)
		Central Sector	State Sector	Total		
1.	Programmed	7	53	60	10169.35	8909.88 [8765.55(LE)+ 144.33(U)]
2.	Under Implementation	1	9	1 0	2227.8	1096.83 [1054(LE) + 42.83(U)]
3.	Under Tendering	2	3	5	789.35	853.35 [789.35(LE)+ 64(U)]
4.	Under DPR Preparation/Finalization/ Approval	0	11	11	2264.0	2281.5 [2264.0(LE)+ 17.5(U)]
5.	Under RLA Studies	4	30	34	4888.20	4678.20 [4658.20(LE)+20(U)]

Abbreviations:
MW – Mega Watt; Res. – Restoration; U – Uprating; LE – Life Extension;
RLA- Residual Life Assessment

5.11.6 Examination of DPR for existing R&M schemes based on direction/ request of MoP/ CERC/ State Power Utilities during the year 2025-26:

DPRs of Renovation, Modernization and Life Extension of Tilaiya 4 MW (2x2 MW) and Dehar 990 MW (6x165 MW) have been appraised/ examined during 2025-26.

5.12 Concurrence / Appraisal of Hydro Schemes

During 2025-26 (till 31.03.2026) ,DPR of 10 HE Schemes (including PSPs) with an installed capacity of 14330 MW has been concurred by CEA. Details are given as under:

S. No.	Name of Scheme/ State/ Executing Agency	Installed Capacity (MW)
1.	Kamala HEP (Subansiri Middle) in Arunachal Pradesh by NHPC	1720 MW (8x210+1x40)
2.	Dulhasti St-II in J&K by NHPC	260MW (2X130)
3	Anjaw HEP*	270 (4x67.5)
4	Gandikota PSP in Andhra Pradesh by Adani Renewable Energy 51 Ltd	1000MW (4x250)
5	Kandhaura PSP in Uttar Pradesh by TATA Power Company Ltd. JSW Energy PSP Six Ltd	1680MW (280x5 +140x2)
6	Saundatti PSP PSP in Karnataka by Greenko KA01 IREP Pvt Ltd	1600 MW (320x4 + 160x2)
7	Shirawta PSP in Maharashtra by Tata Power.	1800 MW (300x5+150x2)
8	Pane PSP in Maharashtra by JSW Energy.	1500 MW (250x5 + 125x2)
9	Saidongar-I Karjat PSP in Maharashtra by Torrent Power.	3000MW (300x10)
10	Tarali PSP in Maharashtra by Adani Renewables	1500 MW (300x4+150x2)

* Appraised

5.13 Computerization in CEA

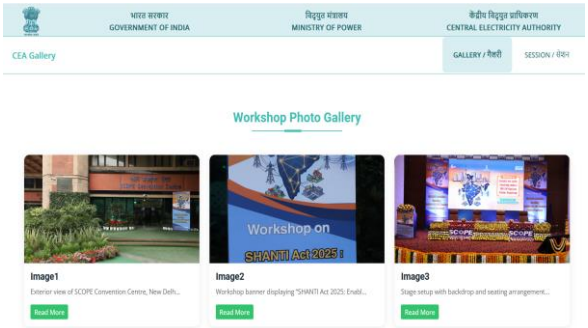
All Divisions and Sections of CEA have been equipped with the latest IT infrastructure. All computers of CEA office at Sewa Bhawan and West Block-II are interconnected through wired network. The important statistics/data/information of CEA is uploaded in bilingual (English & Hindi) website of Central Electricity Authority for global access. The content of this website is updated on daily basis. cea.nic.in is a bilingual and GIGW (*Guidelines for Indian Government Websites*) compliant website.



The website provides organizational information, online access to notified regulations of CEA, various published CEA reports and power sector specific information dashboard.

During 2025-26, following new sections/features have been implemented on CEA Website:

- Dedicated Safety/ Lineman corner
- Dedicated webpage for "Workshop of Shanti Act 2025: Enabling India's 100 GW Nuclear Power Roadmap" .



5.14 National Power Data Management System (NPDMS) / National Power Portal (NPP)

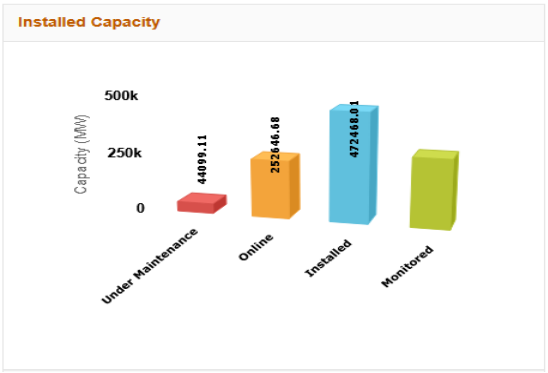
Hon'ble Minister of State (I/C) for Power and New & Renewable Energy launched the National Power Portal (NPP) on 14.11.2017 with the vision of creating a central hub for collection and dissemination of all Power Sector data.

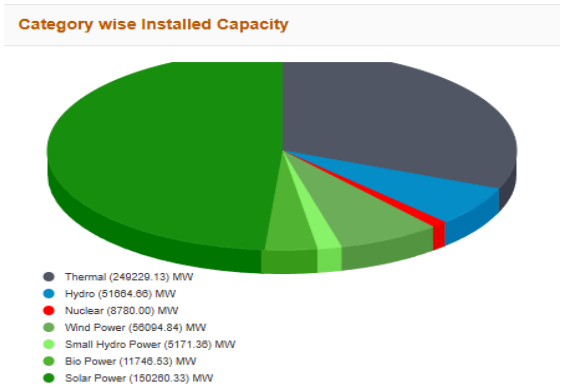


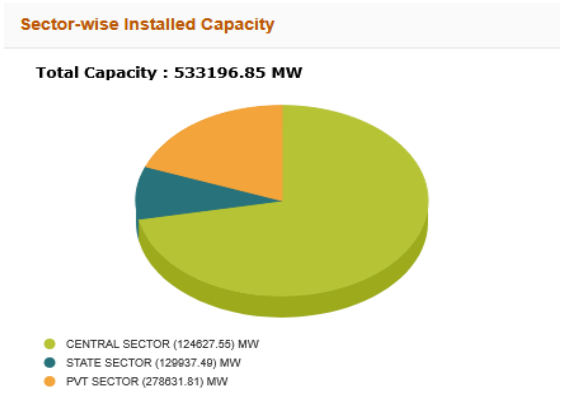
- NPP is a unified system for Indian Power Sector which facilitates online data capture/ input (daily, monthly, annually) from generation and transmission utilities in the country and disseminate Power Sector Information (operational, capacity, demand, supply, consumption etc.) through various analyzed reports, graphs, statistics for generation and transmission at all India, region, state level for central, state and private sector.
- The NPP is integrated with associated systems of Central Electricity Authority (CEA), and other major power utilities and serve as single authentic source of power sector information to apex bodies, utilities for the purpose of analysis, planning, monitoring as well as for public user. The system is available 24x7 and ensures effective and timely collection of data. It has standardized data parameters and formats for seamless exchange of data between NPP and respective systems of utilities.
- Central Electricity Authority is the nodal agency for NPP.

- NPP captures data and displays following information:

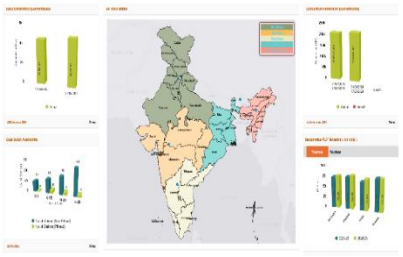
Installed Capacity: Information pertaining to total / sector-wise / category-wise Installed Capacity of generating units.



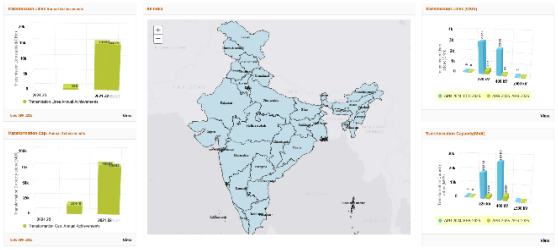




Daily Generation: Information pertaining to Daily Conventional generation, Cumulative Generation, Daily Coal Stock availability, Sector wise PLF.



Transmission: Displays information on Transformation Capacity (in MVA) and total length of transmission lines (in CKM).



Reports: NPP facilitates various types of reports i.e. Generation Reports, Coal Reports, Transmission Line reports and Installed Capacity reports required to be published regularly.

Portals under NPP

DRIPS Portal: Disaster Resources Inventory for Power Sector (DRIPS) portal serves as a single point of contact for all the designated nodal officers of power sector departments and agencies in the affected districts, states and at national level for managing the inventory of specific Power System equipment and critical supplies much needed for an emergency response.

NPP APIs: Datasets are also exchanged between NPP and the portals of other organization. APIs have been developed to provide NPP data to NITI Aayog and Ministry of Coal.

5.15 E-Office in CEA

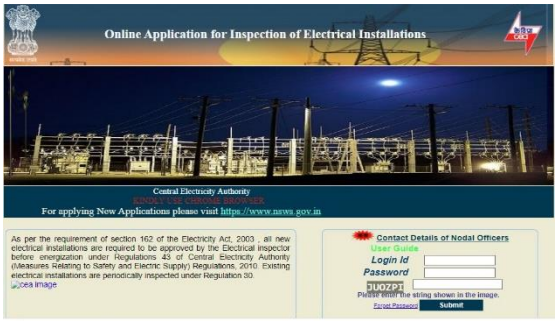
For conducting file and letter handling processes in more efficient and transparent manner, e-office migration from NIC server to Railtel server has been successfully

accomplished by CEA. Further, migration of CEA eOffice from version from 6.3 to 7.x has been completed. The upgraded version includes advanced features of eOffice and for this training has been provided to CEA officers/staff.

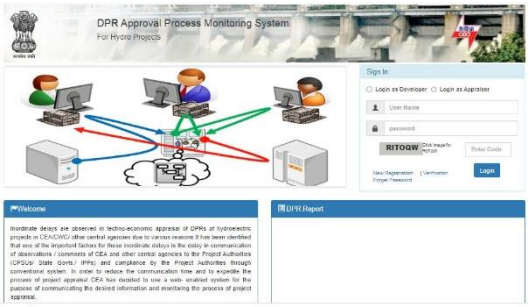
5.16 Digitization of Approvals / Clearances given by CEA

As per the direction of Project Monitoring Group of Cabinet Secretariat, online portal for the following approvals/ clearances, given by Central Electricity Authority, have been implemented:

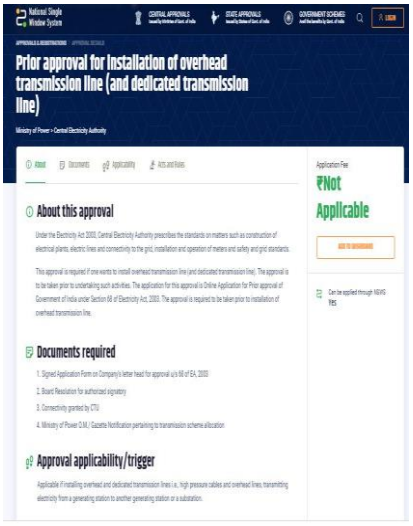
- Online Application portal for Inspection of Electrical Installations



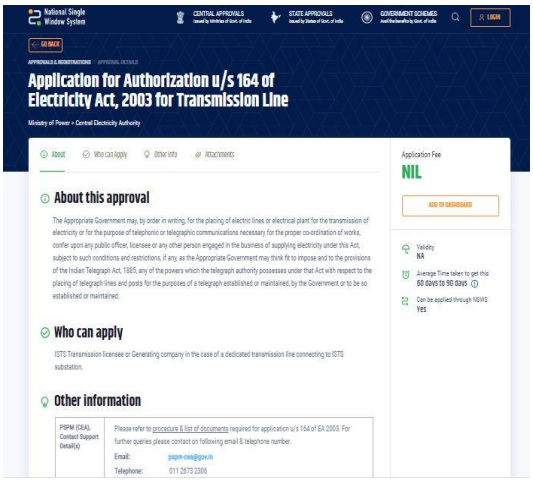
- DPR Approval Process Monitoring System for Hydro Projects



- Prior Approval of GoI for installation of transmission lines as per Section 68 of the Electricity Act 2003



- Authorization u/s 164 of Electricity Act, 2003 for Transmission Lines



The digitization of approval/clearance processes is ensuring transparency and timely approval by CEA. This also facilitates developers to track the status of their application. Further, National Single Window System (NSWS) is a digital platform with the aim to include all Govt. approvals at one place for ease of doing business. In this regard, Central Electricity Authority has integrated its above-mentioned clearances portal with NSWS.

5.17 Dedicated intranet portal of CEA

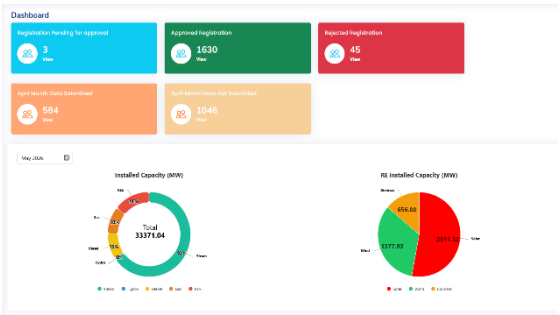
Intranet portal of CEA is hosted at https://intranet.cea.gov.in. This portal is accessible over internet. Internal information

of the organization like presentations / forms / posting orders / leave orders / internal circulars and internal online applications are shared through this portal.

5.18 Development of in-house Portals Captive Power Portal:

- **Captive Power Portal:**

This portal has been developed by the IT Cell & Procurement Division. This portal facilitates monthly data collection from the entities having electricity demand / CPP capacity of 0.5 MW & above. Captive Plant generation, purchase, sale and capacity data is collected online through the standardized input forms from all stakeholders.

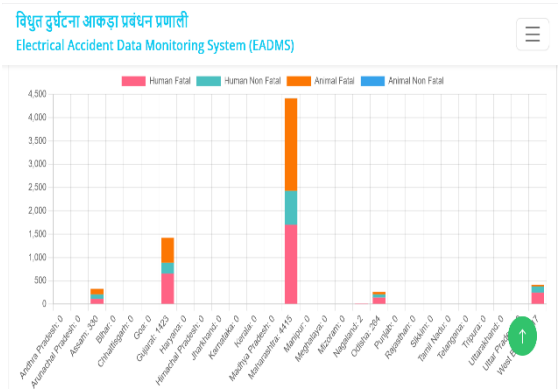


- **Electrical Accident Data Management Software (EADMS):** This centralized portal developed by the IT Cell & Procurement Division facilitates collection of Electrical accident fatal and non-fatal accidents data through standardized input forms from all the States/UTs and from concerned authorities/departments of Central Government since 2025.



5.19Procurement Related Activities

- Centralised procurement of all Regional Power Survey Offices (RPSOs), Regional Inspectorate Offices (RIOs) and CEA Headquarter is being done by IT Cell & Procurement Division of CEA.



- Mostly procurement of Goods, Works & Services is being done through GeM portal and their payments are being made via PFMS/GeM..

5.20COMPUTER SECURITY INCIDENT RESPONSE TEAM – POWER, CEA

Introduction:

In order to handle potential cyber threats and improve cyber posture of the power sector, in line with the National Cyber Security Policy, Ministry of Power in collaboration with CERT-In, initiated an action for creation of a specialized Computer Security Incident Response Team for the power sector (CSIRT-Power). The CSIRT – Power, was constituted vide MoP F. No. 1/32/2021/IT&CS (258359) dated 05.04.2023 as an extended arm of CERT - In and was set up in Central Electricity Authority (CEA) to help the utilities in handling cyber incidents and improve cyber security preparedness of power sector in totality. The establishment of CSIRT-Power is envisaged to add sector specific insights and suitable analysis of incidents associated with the power sector.

Hon'ble Union Minister of Power, Shri Manohar Lal, inaugurated the CSIRT– Power facility at 3rd Floor, NRPC,

Katwaria Sarai, New Delhi on 23.09.2024. CSIRT–Power has been made fully functional since then. CSIRT - Power being equipped with advanced infrastructure, cutting - edge cybersecurity tools and dedicated team of experts, is establishing a strong cybersecurity framework through, both proactive and reactive analysis. It has been enabling utilities to tackle emerging threats and in implementing crucial measures to enhance overall preparedness and resilience of the power sector.

Important functions and activities at CSIRT-Power:

i. Incident Response: CSIRT–Power proactively analyses the information available on TSOC dashboard at the Security Operation Centre (SOC) and identifies cyber threats and incidents and conveys the same to the utilities for taking suitable measures. The SOC has been operationalized on 24x7 basis providing round the clock support to power utilities in case of any cyber incident. In addition, CSIRT–Power coordinates with various central agencies like Cert-In, NCIIPC, Intelligence Bureau etc. for cyber incidents in power sector.

ii. Forensic Analysis: CSIRT-Power carries out forensic analysis and root cause analysis of cyber security incidents reported in power sector. The incidents qualifying prerequisite criteria are considered for in-depth analysis, wherein, artifacts are collected, processed and analyzed with specialized tools to identify the root cause, depth of infection and impact thereof. Considering these aspects, detailed reports are prepared, along with major observations, Indicators of Compromise (malware families, malicious IPs, malicious domains malicious hashes etc,) and recommendations thereof. The relevant threat intelligence, generated, is disseminated, through quarterly bulletin, to the power sector utilities for further necessary action. Some of the significant activities undertaken during FY 2025–26 are described as below:

a). Forensic Analysis of Cyber Security Incidents: During FY 2025–26, CSIRT-Power conducted forensic analysis of 10 cyber security incidents and prepared detailed in-depth reports thereof. In this analysis, root cause of incidents, attack vectors, Indicators of Compromise (IOCs), associated adversarial activities etc were identified and recorded in the report for necessary action of the concerned utility, including implementation of suitable corrective and preventive measures.

b). Quarterly Cyber Security Capsule: On the basis of forensic analysis of various cyber incidents and findings thereof, Quarterly Cyber Security Capsules were issued to the power sector utilities. These capsules consist of information such as threats observed, indicators of compromise, malware, attack techniques, tactics, recommended security measures etc, for improving cyber resilience across the sector.

iii. Policies & Regulatory Matters: CSIRT-Power deals with matters relating to cyber security regulations, policies, guidelines and Standard Operating Procedures (SOPs) for the power sector. It also deals with matters pertaining to promotion of research and development initiatives in cyber security of power sector, examination of cyber security aspects of applications submitted under Rule 144(xi) of GFR, 2017, Cyber CrisisManagement Plan (CCMP), Critical Information Infrastructure (CIIs), coordination on issues pertaining to cyber security governance and regulatory compliance. Some of the significant activities undertaken during FY 2025–26 are described as below:

a). CEA (Cyber Security in Power Sector) Regulations, 2026: The draft CEA (Cyber Security in Power Sector) Regulations, 2026 were circulated for public comments. The comments received from stakeholders were examined, after detailed deliberations, relevant comments were considered and appropriate changes were incorporated. The revised draft regulations were placed before the Authority for its consent and after approval, these were forwarded to the Ministry of Law and Justice for legal vetting.

b) Coordination on Critical Information Infrastructure (CII) and Cyber Crisis Management Plan (CCMP): CSIRT-Power coordinated with various cyber security agencies on matters relating to identification and notification of Critical Information Infrastructure (CII) and finalization of the Cyber Crisis Management Plan (CCMP).

c) Cyber Advisories and Threat Intelligence Sharing: CSIRT-Power is periodically disseminating cyber advisories, alerts and threat intelligence inputs related to emerging vulnerabilities, ransomware campaigns, malware indicators and cyber-attack trends to power sector utilities for timely preventive action

iv. Capacity Building: Considering the paramount importance of Skilling professionalsof power sector in cybersecurity domain, CSIRT-Power has an active collaboration with premier academia viz. IIT Kanpur, IIT Kharagpur, IISc Bangalore and Rashtriya Raksha University, Gandhinagar.Some of the significant activities undertaken during FY 2025–26 are described as below:

a. **Training**: Six-day programs were held from time to time at RRU Gandhinagar, IIT Kanpur, IIT Kharagpur, and PGCoE IISc Bengaluru catering to 490 professionals of all regions. The training programs are tailored to meet the needs of power sector, covering practical aspects of IT and OT security, incident response, forensic analysis, CEA (Cyber Security in Power Sector) Guidelines and other relevant areas.

b. Workshops: Five workshops were organized in Eastern, North- Eastern, Southern, Northern and Western regions in collaboration with DVC, OPTCL, PGCIL, NTPC, and GSECL respectively bringing together over 700 professionals from state utilities, central PSUs, renewable developers, and private players for awareness and sensitization

c. Mock drill: A mock drill exercise for SLDC, was organized in coordination with CERT-In in October 2025, wherein more than 50 participants from various SLDCs participated and got hands-on experience of handling cyber incidents.

d. Departmental Cyber Awareness Programme: CSIRT-Power also conducted cyber awareness programme and sensitization sessions at CSIRT-Power for officers and officials of CEA/CSIRT- Power to enhance awareness regarding cyber hygiene, phishing attacks, and safe usage of digital platforms, password security, social engineering threats and cyber security best practices.

CHAPTER-6

THERMAL POWER DEVELOPMENT

6.1 New Thermal Power Projects accorded Environment Clearance:

6.1.1 Power Projects accorded Environment Clearance

During the year 2024-25, Environment clearance has been granted to 09 New / Expansion / thermal power project of Capacity 13,040 MW as listed below:

FY: 2024-2025					
S. No.	**Project Details**	**State**	**Implementing Agency**	**EC Date**	**Capacity (MW)**
1	Sipat Super Thermal Power Project Stage-III; 1x800 MW	Chhattisgarh	NTPC	06.08.2024	1x800
2	Proposed 2 x 660 MW Super Critical Thermal Power Project (Expansion) within the premises of 2400 MW Koradi Power	Maharashtra	MAHAGENCO	19.09.2024	2 x 660
3	Proposed Expansion of Raipur Thermal Power Plant by adding 1600 (2x800) MW Ultra Super-Critical to existing 1370 (2x685)	Chhattisgarh	Adani Power	01.11.2024	2 x 800
4	Proposed Expansion of Koderma Thermal Power Station (Koderma Ph-II) by installation of 2X800 MW	Jharkhand	DVC	07.12.2024	2X800
5	Proposed expansion of Raigarh Thermal Power Plant Coal Based by adding 1600 (2x800) MW Ultra Super Critical Technology to existing 600 (1x600) MW	Chhattisgarh	Adani Power	01.01.2025	2x800
6	Expansion of existing 2x300 MW coal based thermal unit by installing new 1x800 MW supercritical unit at Deen Bandhu Chhotu Ram Thermal Power Plant (DCRTPP)	Haryana	HPGCL	20.01.2025	1x800
7	Proposed Expansion of Bandhaura TPP under Phase–III by adding 1600 (2x800) MW Ultra Super Critical TPP to Existing 2800 (1200+1600) MW Ph-I & Ph-II	Madhya Pradesh	Adani Power	20.02.2025	2x800
8	Nabinagar Super Thermal Power Project, Stage-II (3X800 MW)	Bihar	NTPC	28.02.2025	3X800
9	Proposed Expansion by addition of 2 x 660 MW Supercritical Korba West,	Chhattisgarh	CSPGCL	26.03.2025	2 x 660

During the year 2025-26, Environment clearance has been granted to 11 New / Expansion / thermal power project of Capacity 17,180 MW as listed below:

FY: 2025-2026					
S. No.	**Project Details**	**State**	**Implementing Agency**	**EC Date**	**Capacity (MW)**
1	Expansion of Meja STPP from 1320 MW (2x660 – Stage I) to 3720 MW (with 3x800 MW- Stage II	Uttar Pradesh	NTPC	30.04.2025	3 x 800
2	Proposed expansion of Gadarwara STPP by adding Stage- II: 1600 MW (2x800 MW)	Madhya Pradesh	NTPC	28.05.2025	2 x 800
3	Proposed Waste to Energy Thermal Power Project of capacity 30 MW	Delhi	Jindal Urban Waste Management	18.06.2025	30
4	Expansion of existing 1050 MW (3x350 MW) project by addition of 1x350 MW TPS (Phase-II)	Odisha	GMR	23.07.2025	1 x 350
6	Proposed 2x800 MW USCTPP by M/s. Mirzapur Thermal Energy (UP) Private Limited (MTEUPPL)	Uttar Pradesh	Adani Power	23.09.2025	2 x 800
7	Expansion of Telangana STPP by adding 3x800MW (Phase II) in existing 2x800MW (Phase I)	Telangana	NTPC	11.09.2025	3x 800
8	Proposed 4x800 MW STPS Anuppur, Madhya Pradesh	Madhya Pradesh	Adani Power	11.09.2025	4x800
9	Proposed Expansion by addition of 2x800 MW (1600 MW)	Madhya Pradesh	M B Power	27.09.2025	2 x 800
10	Expansion of 800 MW [1x800MW(Stage-II) Darlipali STPS	Odisha	NTPC	06.11.2025	1 x 800
11	Proposed Expansion of Kawai Thermal Power Plant under Phase–II by adding 3200 (4x800) MW USCTPP to Existing 1320 (2x660) MW	Rajasthan	Adani Power	06.11.2025	4 x 800

6.1.2 Power Projects for which Main Plant (BTG) order placed

During the year 2025-26, order for 14,920 MW thermal capacity have been placed as listed below:

Sl.	Project	Implementing Agency	Plant Configuration	Capacity (MW)	Main Plant (BTG)
1	Pirpanthi TPS	Adani Power	3x800	2400	Awarded to L&T, Aug'25
2	Anuppur TPS Ph II	M B Power	1x800	800	Awarded to BHEL, Aug'25(BTG)
3	Adani Power Ltd. Anuppur TPP	Adani Power	2x800	1600	Awarded to BHEL, (BTG)
4	Torrent Power	Torrent Power	2x800	1600	Awarded to L&T, Aug'25
5	Meja- II	NTPC-UP JV	3x800	2400	Awarded to BHEL on Sep'2025
6	Amarkantak TPS	MPPGCL	1x660	660	Awarded to BHEL on Sep 2025
7	Satpura TPP(Sarni) U#12	MPPGCL	1x660	660	Awarded to BHEL on Sep'2025
8	Assam State Thermal Power Station	Adani Power	4x800	3200	Awarded to BHEL (BTG) in Oct'25

9	Salboni STPP Ph-II	JSW	2x800	1600	TG Supply from JSW- Toshiba, Boiler yet to be ordered.
	Total			**14,920**	

6.1.3 Identified under planning Thermal Power Plants

A. Thermal Power Plants identified by CEA, which are at various stages of planning and may benefit by the year 2035-36 is given below:

A. Central Sector Candidate Projects					
1.	Durgapur TPS	DVC	West Bengal	1x800	PitHead
2.	Chandrapura Extn TPS	DVC	Jharkhand	2x800	PitHead
3.	Lara TPP Ph III	NTPC	Chhattisgarh	2x800	PitHead
4.	Buxar TPP-II	SJVN	Bihar	1x800	PitHead
5.	Mahanadi Basin Power	MCL	Odisha	2x800	PitHead
6.	TPS-II 2nd Expansion	NLCIL	Tamil Nadu	2x500	PitHead
7.	NLC Talabira STPS	NLCIL	Odisha	1x800	PitHead
Sub Total Central Sector				**8,200 MW**	
B. State Sector Candidate Projects:					
1.	Chandrapur TPP	MAHAGENCO	Maharashtra	1x800	PitHead
2.	IB Valley Extn St-III, (U#5 & 6)	OPGC	Odisha	2x660	PitHead
3.	Santaldih TPS, St-II, U#3 & 4	WBPDCL	West Bengal	2x800	PitHead
4.	Barkeshwar TPS, St-II, U#3	WBPDCL	West Bengal	1x660	PitHead
5.	Godna TPS	KPCL	Chhattisgarh	2x800	PitHead
6.	Tenughat St II	TVNL	Jharkhand	2x660	PitHead
7.	Durgapur Projects Limited.	DPL	West Bengal	1x800	Non-PitHead
8.	Satpura TPP U#13 Phase-V	MPPGCL	Madhya Pradesh	1x660	PitHead
Sub Total State Sector				**8,760 MW**	
C. Private Sector Candidate Projects:					
1.	Ind Bharat Extn.	JSW	Odisha	1x800	PitHead
2.	Anuppur TPS Ph II	M B Power	Madhya Pradesh	1x800	PitHead
3.	Lalitpur	Bajaj	Uttar Pradesh	3x800	Non-PitHead
4.	Jindal India Power Limited Expansion project (Derang TPP)	JIPL	Odisha	2X800	Non-PitHead
Sub Total Private Sector				**5,600 MW**	

6.2 Captive Coal Blocks Allocated to Power Sector

As on Mar'26, 48 nos. of Coal Blocks are allocated to the Power Sector. 37 nos. of coal blocks are producing coal. 12 nos. of coal blocks are in development. The total nos. of coal blocks allotted to the Central Sector is 13 nos., State Sector is 31 nos., Private sector is 02 nos. and UMPP is 02 nos.

Captive mines allocated to Power Sector produced 153.47 MT of coal against a target of 153.77 MT for FY 2024-25. For FY 2025-26, the captive coal production was 167.21 MT against the target of 175.67 MT.

6.3 Linkage under SHAKTI Policy, 2017

Ministry of Coal in May 2017 formulated a new policy for the allocation of coal to the power sector named SHAKTI (Scheme for Harnessing and Allocating Koyala transparently in India), 2017. Since, the inception of the policy, coal linkage has been accorded to various Govt. /Private power utilities under its various provisions/clauses.

6.3.1 Shakti Policy Para B (i):-

Policy: CIL/SCCL may grant Coal linkages for Central Government, State Government Gencos and JVs formed between or within CPSUs and State Govt./PSUs at the notified price of CIL/SCCL.

Achievement: Under this para, SLC (LT) has accorded coal linkages to 53 nos. thermal power projects of Central /State GENCOs till now having cumulative installed capacity of 63,480 MW.

6.3.2 Shakti Policy Para B (ii):

Policy: CIL/SCCL may grant coal linkages on notified price on auction basis for power producers/IPPs having already concluded long term PPAs (both under Section 62 and Section 63 of the Electricity Act, 2003) based on domestic coal. Power producers/IPPs, participating in auction will bid for discount on the tariff (in paise/unit)

Achievement: Six rounds of auctions for coal linkage under SHAKTI B (ii) have been conducted so far, details of which is as under:

Round of auction under Para B(ii)	Coal Qty booked (in G13 Grade) (MTPA)	Number of successful bidders and maximum discount offered on tariff
1st Round (Sep'17)	32.68	10 plants, Max discount 4 Paisa
2nd Round (May'19)	3.335	8 plants, Max Discount 7 Paisa
3rd Round (May'20)	3.466	5 plants, Max Discount 10 Paisa
4th Round (Sept'21)	3.819	5 plants, Max discount 12 paisa
5th Round (Dec'22)	0.058	2 plants, Max Discount 12 Paisa
6th Round (Dec'23)	2.935	7 plants, Max Discount 19 Paisa

6.3.3 Shakti Policy Para B (iii): -

CIL/SCCL may grant future coal linkages on auction basis for power producers /IPPs without PPAs that are either commissioned or to be commissioned. All such power producers/IPPs may participate in this auction and bid for premium above the notified price of the coal. Coal drawl will be permitted only against valid long term and medium-term PPAs, which the successful bidder shall be required to procure and submit within two years of completion of auction process.

Achievement: Nine rounds of auctions for coal linkage under SHAKTI B (iii) have been conducted so far, details of which is as under:

Round of auction under Para B (iii)	Coal Qty booked (in G13 Grade) (MTPA)	Premium offered in the auction
1st Round, Feb'2020	7.15	Average premium is 8.5%.
2nd Round, May'2022	7.01	Average premium is 2%.
3rd Round, Sept'2022	5.57	Premium is Zero.
4th Round, Jan'2023	4.87	Average premium is 1.88%.
5th Round, Dec'2023	7.636	Average premium is 4.6%.
6th Round,	12.37	Average Premium is

Sept'2024		Zero
7th round, April'2025	12.89	Average premium is 5.2%.
8th round, Sep'2025	8.75	Premium is Zero.
9th round, Nov' 2025	3.24	Premium is 0.33%

6.3.4 Shakti Policy Para B (iv): -

Policy: Under this clause coal linkage may be earmarked to the states for fresh PPAs, by pre-declaring the availability of coal linkage with description. States may indicate these linkages to Discoms/State Designated Agencies (SDA). The States/Discoms may, based on such linkage, undertake tariff based competitive bidding for long-term and medium-term procurement of Power.

Achievement: Under this para, SLC (LT) has earmarked coal Linkage to 11 nos. of states for a capacity of 28,567 MW.

6.3.5 Shakti Policy Para B (v): -

Policy: In this clause, Power requirement of group of States can be aggregated and procurement of such aggregated power can be made by an agency designated by Ministry of Power or authorized by such States on the basis of tariff-based bidding. Coal linkages will be earmarked for such agencies by pre-declaring the availability of coal linkage with description, based on which such agency will undertake tariff based competitive bidding for long-term and medium-term procurement of power and recommend grant of these linkages to successful bidders.

Achievement: Under this para, PFCCL (designated agency by MoP) invited bids for 4500 MW and issued Letter of Award for 1560.25 MW. Further, against 1560.25 MW for which Letter of Award was issued, PPA has been signed for 1300 MW only.

6.3.6 Shakti Policy Para B (viii) (a):

Policy: All such power plants including private generators which do not have PPAs, shall be allowed coal linkage under SHAKTI Policy for a period of minimum 3 months and upto a maximum of 1 year, provided further that the power generated through that linkage is sold through any product in power exchanges or in short term through a transparent bidding process through Discovery of Efficient Energy Price (DEEP) portal.

Achievement:

Under this para, a total of twenty-three rounds of auctions by CIL and one round of auction by SCCL were conducted so far, details of which is as under:

Tranches no. of auction under Para B(viii)(a)	Coal Qty booked (in G13 Grade) (MTPA)	Number of successful bidders and premium offered/ton
Tranche-1 (Apr-Jun'20)	1.34	9 plants, Premium NIL
Tranche-2 (July-Sep'20)	0.63	8 plants, Premium NIL
Tranche-3 (Oct-Dec'20)	0.35	6 plants, Premium NIL
Tranche-4 (Jan-Mar'21)	0.64	7 plants, Avg. Premium 1.4%
Tranche-5 (Apr-Jun'21)	1.07	8 plants, Avg. Premium 0.4%
Tranche-6 (July-Sep'21)	0.82	8 plants, Premium NIL
Tranche-7 (Oct-Dec'21)	1.81	8 plants, Avg. Premium 1.2%
Tranche-8 (Jan-Mar'22)	1.45	11 plants, Avg. Premium 2.95%
Tranche-9 (Apr-Jun'22)	6.13	16 plants, Avg. Premium 152%
Tranche-10 (Jul-Sep'22)	4.25	27 Plants, Avg. Premium 320%
Tranche-11 (Oct-Dec'22)	6.01	22 Plants, Avg. Premium 133%
Tranche-12 (Jan-Mar'23)	5.39	26 Plants, Avg. Premium 139%
Tranche-13 (Mar-May'23)	3.67	21 Plants, Avg. Premium 38%
Tranche-14 (May-Jul'23)	3.49	25 Plants, Avg. Premium 24%
Tranche-15 (Aug-Oct'23)	4.82	28 Plants, Avg. Premium 60%
Tranche-16 (Oct'23-Mar'24)	10.6	33 Plants, Avg. Premium 42%
Tranche-17 (Nov'23-Jan'24)	2.09	16 Plants, Avg. Premium 15%
Tranche-18 (Apr'24-Mar'25)	18.5	29 Plants, Avg. Premium 2.6 %
Tranche-19 (May'24-	1.03	14 Plants, Avg.

Jul'24)		Premium 1%
Tranche-20 (Jul'24-Dec'24)	2.37	18 Plants, Avg. Premium 12.35%
Tranche-21 (Oct'24-Dec'24)	2.66	20 Plants, Avg. Premium 0.34%
Tranche-22 (Jan'25-June'25)	9.75	Plants, Avg. Premium 0.98%
Tranche-23 (Aug'25-Jul'26)	16.7	Plants, Avg. Premium 0.08%
Tranche-1 by SCCL (Aug'24-Jul'25)	0.4	Plants, Avg. Premium 0 %

6.4 Revised SHAKTI Policy, 2025

Ministry of Coal had issued Revised SHAKTI Policy on 20.05.2025. Under the Revised SHAKTI Policy, the multiple paras of the erstwhile SHAKTI Policy have been mapped to only two Windows, aligning with the spirit of ease of doing business.

6.4.1 Window I:

Policy: Under Window I, Coal linkages shall be allocated to Central GENCOs including their Joint Ventures (JVs) & Subsidiary(ies) at the Notified price, based on the recommendation of Ministry of Power (MoP).

Achievement: Under this window, Linkage of around for 11,260 MW were earmarked by SLC (LT) to the States of Gujarat (4000 MW), Madhya Pradesh (1000 MW), Tamil Nadu (660 MW), Assam (3200 MW), Haryana (800 MW) and West Bengal (1600 MW) based on the recommendation of MoP/CEA.

6.4.2 Window II:

Policy: Under Window II, any power producer can secure coal on auction basis for a period up to 12 months or for the period of more than 12 months up to 25 years by paying premium above the notified price and providing the power plants the flexibility to sell the electricity as per their choice.

Achievement:

One round of short term auction and one round of Long/Medium term auction has been conducted so far, details of which is as under:

Short-Term Auction (Window-II):

CIL conducted the first round of short-term coal auctions in January 2026 for a half-yearly period, offering 34.3 MT of coal. Out of this, 9 MT was booked by 27 successful bidders at an average premium of 6.97% over the notified price.

Long/Medium-Term Auction (Window-II):

The first round of long/medium-term (yearly) auctions was held in March 2026, offering 69.19 MTPA of coal. Of this, 15.87 MTPA was booked by 25 successful bidders at an average premium of 2.66% over the notified price.

6.5 Bridge Linkage

Ministry of Coal vide Office Memorandum dated 08.02.2016, had issued policy guidelines for grant of bridge linkage to End Use Plants (EUPs) of Central and State public sector undertakings which have been allocated Coal Mines/Coal Blocks. Based on these guidelines, 35 nos. Thermal Projects totalling 39,870 MW were granted Bridge Linkage. During the year, 11 nos of bridge linkages were granted/extended by SLC(LT) based on the recommendation of MoP/CEA.

6.6 Use of Treated Sewage Water by TPS under Tariff Policy-2016:

As per Tariff Policy dated 28.01.2016, notified by Government of India, sewage treated water is to be used by Thermal Power Plants which are located within 50 Kms from Sewage Treatment Plants. Central Electricity Authority (CEA) is entrusted to work related to exploring the feasibility for the usage of Sewage Treated Water by Thermal Power Plants and to monitor the progress thereof.

Presently, 10 nos. of Thermal Power Stations with a total capacity of 11271 MW are utilizing 880 MLD of STP water i.e. Koradi TPS, Khaperkheda TPS, Sinnar TPP Phase-I & Chandrapura TPP in

Maharashtra, Pragati CCGP & Pragati-III in Delhi, Bhavnagar Lignite TPS in Gujrat and Yelahanka CCP in Karnataka, Jojobera TPS in Jharkhand and Panki TPS in Uttar Pradesh. Also, 01 no. of Thermal Plant (Khurja TPP-1320 MW) has successfully placed the order for construction of pipeline and Tertiary Treatment Plant. Further, 02 nos. of Thermal Plants (Barh TPP St-II -1320 MW and Yamunanagar TPP – 600 MW) have floated the tender for construction of the projects (Tertiary Treatment Plant and Pipeline). Quantum of STP water associated with these projects amounts to 96 MLD.

6.7 Mega Power Project Certificate:

As per the "Mechanism for Operationalization of the release of proportionate BGs/FDRs for Provisional Mega Power Projects" vide O.M. dated 01.03.2018, CEA has been assigned the task of calculation of proportional eligibility and recommending to MoP for issuance of proportionate Mega Certificate to provisional Mega Power Projects. In the FY 2025-26, three (03) projects have been granted Final Mega Certificate in respect of the long-term PPA signed with the DISCOMs, as given below:

i. MB Power (Madhya Pradesh) Ltd.
ii. DB Power Limited
iii. Adani Power Limited, Raipur TPP

6.8 Construction Monitoring of Thermal Power Projects:

CEA closely monitors the progress of various construction activities of thermal power projects under construction in the country. Project monitoring related activities emerge from Section 73 (f) Electricity Act, 2003. Regular visits are made by CEA officers to the project sites for assessing the progress of various construction activities and rendering necessary advice/assistance in resolving the problems being faced by the Project Authorities to meet the schedule of commissioning. Regular Review Meetings are also held in CEA with Project Authorities, Main Plant & Equipment Manufacturers and other equipment Suppliers to review the progress status of the Projects.

6.8.1 Key initiatives

Based on the past experience, there has been a significant shift in approach in the area of project monitoring. Some key initiatives taken during recent past in the role of a facilitator, includes the following:

- Monitoring the progress of under construction thermal power plants with the help of PROMPT Portal.
- In order to achieve scheduled capacity addition targets in respect of Thermal Power Projects, MoP vide OM No.11/11/2023-Th.I dtd 23-04-2024 constituted a Thermal Project Monitoring Group for monitoring the execution of Thermal Power Projects under implementation. The scope of the members of TPMG included undertaking site visits of all the Thermal Power Projects which are under implementation to observe first hand progress made by the project proponents, undertake meetings with key stakeholder involved in the project, identify challenges or obstacles encountered during the implementation phase and evaluate mitigation strategies employed by the project proponents and furnish site visit report to CEA.
- As and when required, issues related to under construction thermal power projects are also reviewed in the PRAGATI portal of PMO for proactive governance and timely implementation
- Drawing up of detailed schedules for project /milestones commitments from project authorities for on-going under construction projects.
- Participation in various review meetings held in the Ministry of Power, Ministry of Heavy Industries, Project Monitoring Group and NITI Aayog etc.
- Holding review Meetings with various implementing agencies including suppliers to review the progress of work and finalizing the completion schedule of under construction thermal power projects.

- Undertaking visits to thermal projects to assess the progress of various activities at site.

During the year 2025-26, the following under construction thermal projects have been visited by CEA officers to assess the actual progress of various construction activities and the anticipated date of trial run of unit of the project:

1. Khurja USCTPP (2x660 MW) of THDC, in the state of U.P. was visited on 05.04.2025.
2. Udangudi STPP, St-I (2x660 MW) of TNPGCL in the State of Tamil Nadu was visited from 28.04.2025 to 29.04.2025, from 19.09.2025 to 20.09.2025 and from 16.12.2025 to 17.12.2025.
3. Ghatampur TPP (3x660 MW) of NUPPL, in the State of U.P. was visited from 23.06.2025 to 24.06.2025, from 16.09.2025 to 17.09.2025, on 19.12.2025 and from 12.03.2026 to 13.03.2026.
4. Sagardighi TPP (1x660 MW) of WBPDCL in the State of West Bengal was visited from 22.07.2025 to 23.07.2025, from 14.10.2025 to 15.10.2025 and from 27.02.2026 to 28.02.2026.
5. Patratu TPS (3x800 MW) of PVUNL in the State of Jharkhand was visited from 01.08.2025 to 02.08.2025, from 26.11.2025 to 27.11.2025 and from 15.01.2026 to 16.01.2026.
6. Yadadri TPS (5x800 MW) of TGGENCO, in the State of Telangana was visited from 21.08.2025 to 22.08.2025, from 12.11.2025 to 14.11.2025 and from 27.01.2026 to 28.01.2026.
7. Buxar TPP (2x660 MW) of STPL/SJVNL in the State of Bihar was visited from 19.08.2025 to 20.08.2025, from 18.12.2025 to 19.12.2025 and from 20.03.2026 to 21.03.2026.
8. Ennore SEZ SCTPP (2x660 MW) of TNPGCL in the State of Tamil Nadu was visited from 27.10.2025 to 28.10.2025.

6.8.2 Other Important activities of construction monitoring of thermal projects:

- Preparation of monthly/fortnightly reports viz. report for PMO / MIS report /Thrust Area report/ report for D.O. letter from Secretary (Power) to Cabinet Secretary/report for updates regarding Min. of Power/ Report for Urja Darpan portal in respect of under construction thermal power projects in the country.

6.9 Thermal capacity addition program

6.9.1 Thermal capacity addition achievement during 2025-26

The thermal capacity addition schedule for the year 2025-26 was 12860 MW, against which a capacity of 9470 MW has been achieved including additional thermal capacity of 1650 MW. Sector-wise details of target and achievement during the year 2025-26 are as follows:-

(All fig. in MW)

Sector	Planned		Additional
	Schedule	Achieved	Achieved
CENTRAL	6220	4100	0
STATE	6640	3720	0
PRIVATE	0	0	1650
TOTAL	**12860**	**7820**	**1650**

The details of Schedule / achievements for the year 2025-26 is enclosed at **Annexure-6A.**

6.9.2 Thermal capacity addition schedule during 2026-27

The schedule for thermal capacity addition during 2026-27 is as under:-

SECTOR	Target (MW)
CENTRAL	2,920
STATE	3,580
PRIVATE	800
TOTAL	**7,300**

6.10. Thermal Engineering & Technology Development (TE&TD):

CEA has been actively associated in resolving the thermal engineering related issues and introduction of new technologies in thermal

power generation. The important responsibilities entrusted to TE&TD division are:

Advice to Electricity Regulatory Commissions/Power Generating Utilities on Technical Matters, Preparation of Standard Technical Specifications for Thermal Power Stations, Issues related to the Indian Boiler Regulation, Preparations/ Amendment of CEA Regulations pertaining to Construction of Electrical Plants & Electric Lines, Safety Requirements for Construction, Operation and Maintenance of Electrical Plants & Electric Lines and Flexible Operation of Coal based Thermal Power Generating Units, etc. Investigation of Accidents/Failures at Thermal Power Stations, Examining Proposal for R&D in Indian Power Sector, Technical Advice to various Expert/Technical Committees set up by CEA/Others organizations, Reference for expert advice on Technological matter, New and Emerging clean energy technologies in the Thermal Power Sector such as Hydrogen co-firing in Gas Turbines, Ammonia in coal based TPS, CCUS etc., Matters related to Operating Parameters of Coal/Lignite and CCGT based Thermal Power Stations, Matters related to Excellence Enhancement Center and Bureau of Energy Efficiency, Matters related to Make in India for Thermal Power Sector, Co-firing of Biomass and Exemptions to TPPs under National Mission on use of Biomass in Thermal Power Plants (SAMARTH), Safety related matters under CEA (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants & Electric Lines) Regulations, 2011 as amended.

6.10.1 Important Activities

The following important activities have been completed/ undertaken during the financial year 2025-26:

A. Promoting Use of Biomass in Thermal Power Plants:

The Executive committee headed by Member (Thermal), CEA with representatives from MoP, MNRE, BHEL NTPC, BEE, CPRI, NPTI, DVC, CE (TE&TD) & SAMARTH Mission. It has been constituted by MoP to supervise the acitivities of SAMARTH Mission and evaluate the progress of Mission Directorate. With the active support of the Executive Committee, approximately 51,83,457 metric tonnes (MT) biomass have been co-fired till 31.03.2026 (on cumulative basis) and in FY 2025-26, approximately 30,71,638 metric tonnes (MT) of biomass have been co-fired in thermal power plants in the country. Out of this, the biomass co-fired in the NCR region stands at 37,45,768 MT (on cumulative basis) and 21,54,339 MT in FY 2025-26.

A Committee under the Chairmanship of Chief Engineer (TE&TD) with representatives from Ministry of Agriculture, CPRI, NTPC, BHEL & SAMARTH Mission has been constituted by MoP to examine the request of power plants for their exemption / relaxation from mandatory co-firing of biomass. The Committee prepared and circulated the guidelines / procedure for examining the request of the power plants for seeking exemption / relaxation from co- firing, to all the coal based thermal power plants in the country. As on 31.03.2026, total 51 no. of applications for exemption/relaxation from mandatory co-firing of biomass had been assessed

MoP issued 'Comprehensive Policy' for Co-firing of Biomass pellets [including Torrefied Charcoal made from Municipal Solid Waste (MSW)] in Coal based Thermal Power Plants on 7th November, 2025 which states "All Coal based Thermal Power Plants (TPPs) of power generation utilities in the NCR shall, on annual basis, use 5% blend (by weight) of biomass pellets and additional 2% blend (by weight) either from biomass pellets and/or torrefied charcoal made from Municipal Solid Waste (MSW) w.e.f FY 2025-26. TPPs in other regions shall, on annual basis, use 5% blend (by weight) either from biomass pellets and/or torrefied charcoal made from MSW along with coal w.e.f. FY 2025-26". This policy is applicable Pan-India and supersedes all previous policies.

With a view to promote and develop

sustainable supply chain & at the same time to ensure faster procurement of biomass pellets for co-firing with coal in thermal power plants, MoP constituted a Committee under Member (Thermal), CEA with the representatives from various states, Gencos, CE (TE&TD), SAMARTH Mission etc. to recommend a benchmark price for biomass pellets. Based on the recommendations of the Committee, the benchmark price for non-torrefied biomass pellets has been issued by Ministry of Power (MoP) on 23.08.2023 for National Capital Region (NCR) at Rs 2.32 per 1000 kcal (excluding GST & transportation cost from pellet manufacturing plant site to thermal power plant) for a period of one (01) year i.e. upto 31.08.2024, which was extended for one more year i.e. upto 31.08.2025, and further for one more year i.e. upto 31.08.2026.

This will also have a stability effect on the prices of raw biomass in the market.

A MoU has been signed between CEA and Administrative Staff College of India (ASCI) in August 2024 to carry out "Evaluation Study for Assessment of Biomass Availability & related aspects in India" with following objectives.

i. Estimate and map crop-wise potential of biomass for different crops (maize, cotton, paddy etc.) and the form of residue (stalk, shell, husk etc.) for all states/UTs in the country, through primary/field surveys, including surplus biomass availability and detailed price trend of biomass used in different sectors (incl. domestic and industrial) and its crop-wise seasonal price variation.
ii. Assessment of Biomass collection methodologies being practiced as well as the stepwise cost components for complete supply-chain along with historical trends (aggregation, transportation etc.).
iii. Assessment of quality parameters (incl. Ultimate, Proximate & GCV data) for the studied biomasses
iv. Identification of optimal locations for setting up pellet manufacturing plants along with detailed feasibility analysis and mapping of pellet manufacturing plant with corresponding feeder areas.
v. Evaluation of existing government schemes and recommendations for additional policy support.

B. Safety related matters under CEA:

Central Electricity Authority (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) (Amendment) Regulations, 2022, was notified in November 2022, wherein Regulation 12 mandates that safety audit of generating stations shall be periodically carried out every two years by an accredited third party and the audit report shall be submitted to the Authority. The Regulation also provides that the Authority, through a designated officer, may verify such reports by physical site inspection, as and when required. Further, Schedule-IV was introduced in the Regulations, prescribing minimum safety checks for electrical plants.

The first audit cycle was completed in November 2024. The second cycle of External Safety Audit commenced from December 2024 and will continue up to November 2026. Compliance status of thermal power plants is being monitored regularly. As on 31.03.2026, out of 220 operational thermal power plants covered under the second cycle, External Safety Audit Reports had been submitted by 102 plants, comprising 84 coal-based, 12 gas-based and 6 lignite-based plants. The reports received were examined in line with the provisions of the CEA Safety Regulations, and observations/communications were issued to the concerned plants wherever required.

C. National Energy Conservation Awards 2025:

Ministry of Power has undertaken a scheme to encourage, motivate as well as give recognition through National Energy Conservation Awards to industrial units and other establishments, who take extra efforts to reduce energy intensities while maintaining the production levels. The scheme is aimed to create an environment that would spur industries and other establishment in achieving excellence in efficient use of energy and its conservation. The awards were given away for the first time in December, 14, 1991

which is now celebrated as National Energy Conservation Day throughout the country. Member (Thermal), CEA is the head of the Technical Sub-Committee to assist the Award Committee, headed by Secretary, Power, in the finalization of awards. During the year 2024-25, proposals received from three industrial sectors viz. Integrated Steel, Textile and Sugar were evaluated by CEA. The awards to the best performing industrial units in all the sectors covered during 2023-24 were given on 14th December, 2025 in New Delhi.

D. Carbon Capture, Utilization and Storage (CCUS) Program:

In the 25th meeting of the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC) held on 9th July, 2024 under the chairmanship of Principal Scientific committee headed by Chairperson, CEA and members from various Ministries/ departments to prepare a concept note. The committee prepared the Concept Note for CCUS Program. Hon'ble Finance Minister in her budget speech (2026-27) announced that "Carbon Capture Utilization and Storage (CCUS): Aligning with the roadmap launched in December 2025, CCUS technologies at scale will achieve higher readiness levels in end-use applications across five industrial sectors, including, power, steel, cement, refineries and chemicals. An outlay of ₹20,000 crore is proposed over the next 5 years."

Creation of CCUS Program is under process at MoP.

E. Issuance of revised "Guidelines for the Type Tests for Major Equipment of Power Sector" and "Guidelines for Model Quality Assurance Plan (MQAP) for Major Equipment of Power Sector"

TE&TD Division examined the stakeholders' comments received in respect of common matter of both Type Test and MQAP guidelines. Further, comments received regarding Thermal Sector related Sections/Annexures of both the guidelines were examined comprehensively.

Subsequently, various inputs/remarks/observations of TE&TD division were forwarded to PSE&TD Division for further necessary approval of the Authority in the above regard.

The revised guidelines were thereafter issued and uploaded on CEA website in January, 2026 after due approval of the Authority.

F. Revised Guidelines for Qualifying Requirements for Bidders of Balance of Plant: Amendment to Revised Guidelines for Qualifying Requirements for Bidders of Balance of Plant for Coal/ Lignite Based Thermal Power Stations, 2024 was carried out and published on CEA website in January, 2026.

G. Assessment of Retiring Thermal Power Plant Sites for Establishment of Nuclear Power Plants

To evaluate the suitability of existing sites of thermal power plants which are to be retired for locating Nuclear Power Plants, a Sub-Committee of the Standing Site Selection Committee, comprising officers from CEA, NPCIL, and AERB, was constituted by NPCIL in January 2025. As per the Terms of Reference (TOR) of the committee, the committee was mandated to study the possibility of converting at least two thermal power plants, which are to be retired, to nuclear power plant and submit the study report. Chief Engineer, TE&TD was nominated as a Member and Co-Convener of the Sub-Committee.

In Phase-I activity of the Sub-Committee, 28 Thermal Power Plants (TPPs), belonging to Central & State utilities were identified as having some retired units or having some units older than 40 years. The Sub-Committee after detailed discussions, shortlisted ten (10) sites tentatively for further detailed analysis. Based on the additional data received from the developers of the shortlisted 10 Nos. TPPs, it was observed that four (4) Nos. of TPPs do not have sufficient availability of water required for setting up of Nuclear Power Plants (NPP). Accordingly, the remaining six (6) sites were further shortlisted and the sites were visited for further analysis.

Based on the site visits, 3 sites have been

shortlisted for conversion into NPP, subject to fulfilment of certain conditions and confirmation from the respective utilities.

Further, the preparation of the Sub-Committtee report is under process.

H. Chairman/Members of various Committees:

a. Chief Engineer, TE&TD is a member of the Working Committee constituted by NITI Aayog for the development of a policy framework for the effective implementation of the Carbon Capture, Utilization and Storage (CCUS) initiatives in India.

b. Chief Engineer, TE&TD is a member of the Standing Site Selection Committee for selection of sites for future nuclear power stations constituted by Department of Atomic Energy (Power Section).

c. Chief Engineer, TE&TD is a member of Sub-Commmittee of the Standing Site Selection Committee to evaluate the suitability of existing sites where Thermal Power Plants are proposed to be retired for locating Nuclear Power Plants.

d. Chief Engineer, TE&TD is a member of the Technical Committee on Thermal Research for review, recommendation and monitoring of R&D proposals under IHRD, RSOP, NPP schemes of MoP, Govt. of India

e. Chief Engineer, TE&TD has been made member secretary of Sub- Committee- 8 constituted under the chairmanship of Member Thermal, CEA to provide/update report on "Key Inputs for Power Sector" for National Electricity Plan (2027-28 to 2036-2037).

f. Chief Engineer, TE&TD is member of Technical Committee constituted to finalize the baseline and target parameters for existing DCs under Thermal Power sector under PAT scheme.

g. Chief Engineer, TE&TD is member of Central Boilers Board and undertakes works related to technical matters related to boilers, issues related to repeal or re-enactment of boilers act 1923, technical advice, comments on renewal or recognition of applications under IBR, 1950 etc.

h. Chief Engineer, (TE&TD) is a Member on Board of Directors of Haryana Power Generation Corporation Limited (HPGCL), Haryana.

i. Director (TE&TD) is a Member on Board of Directors of Puducherry Power Corporation Limited, Puducherry.

j. Deputy Directors of TE&TD division are the members of Subgroup-1 (R&D on properties/characteristics of Biomass) and Subgroup-2 (R&D on boiler design on biomass co - firing and safety aspects) created under National Mission on use of biomass in coal based thermal power plants.

I. DRIPS (Disaster Resource Inventory for Power Sector):

DRIPS portal was developed by NIC with DP&M Division, CEA as Nodal Division and the inventory of the said portal was prepared based on the inputs fed by the utilities. The portal was launched by Hon'ble Minister of Power on 20.08.2024. During the launch of DRIPS portal, Hon'ble Minister of Power had directed all utilities in Generation, Transmission and Distribution sectors to regularly update their spare inventory details in the portal on monthly basis at *http://drips.npp.nic.in/login*. In order to make the DRIPS portal meaningful and effective for the intended purpose, it was communicated to all the thermal generating companies to register themselves on the DRIPS portal and fill up/update the data on the portal.

6.11 Civil Design (CD):

CEA is involved in the monitoring of Ash Generation and its utilization at the Coal / Lignite based Thermal Power Plant in the

Country. During 2025-26, as per the CPCB Coal Ash Portal on 08.06.2026, the Ash Utilization is 102.58 % from 400 Thermal Power Plants. Ash utilisation exceeding 100% signifies that the thermal power plant utilised not only the ash generated during the year but also pond ash and/or residual ash accumulated from earlier periods.

Utilisation of ash:

Coal / Lignite based Thermal Power Generation has been the backbone of power capacity addition in the country.

Indian coal is rather of high ash content of the order of 30- 60 % compared to imported coal which usually have low ash content of the order of 3-20 %. A large quantity of ash is, thus being generated at Coal / Lignite based Thermal Power Stations in the country. In terms of the MoEF&CC Notification, 2021 read with its amendments dated 30.12.2022 & 01.01.2024, all the thermal power plants are primarily responsible to ensure cent percent utilization of ash generated by them in an eco-friendly manner. The Notification also lays such eco-friendly avenues for utilization of ash.

The ash generation and utilization data is maintained at a centralized coal ash portal maintained by the CPCB. The recorded ash data from the 400 TPPs at the portal suggest that pan India there has been overall above 102.58% (Utilization of more than 100% indicates that, in addition to the current year ash generation, some legacy ash or pond ash has also been utilized). utilization of ash during the FY 2025-26 as under:

Ash utilisation during 2025-26

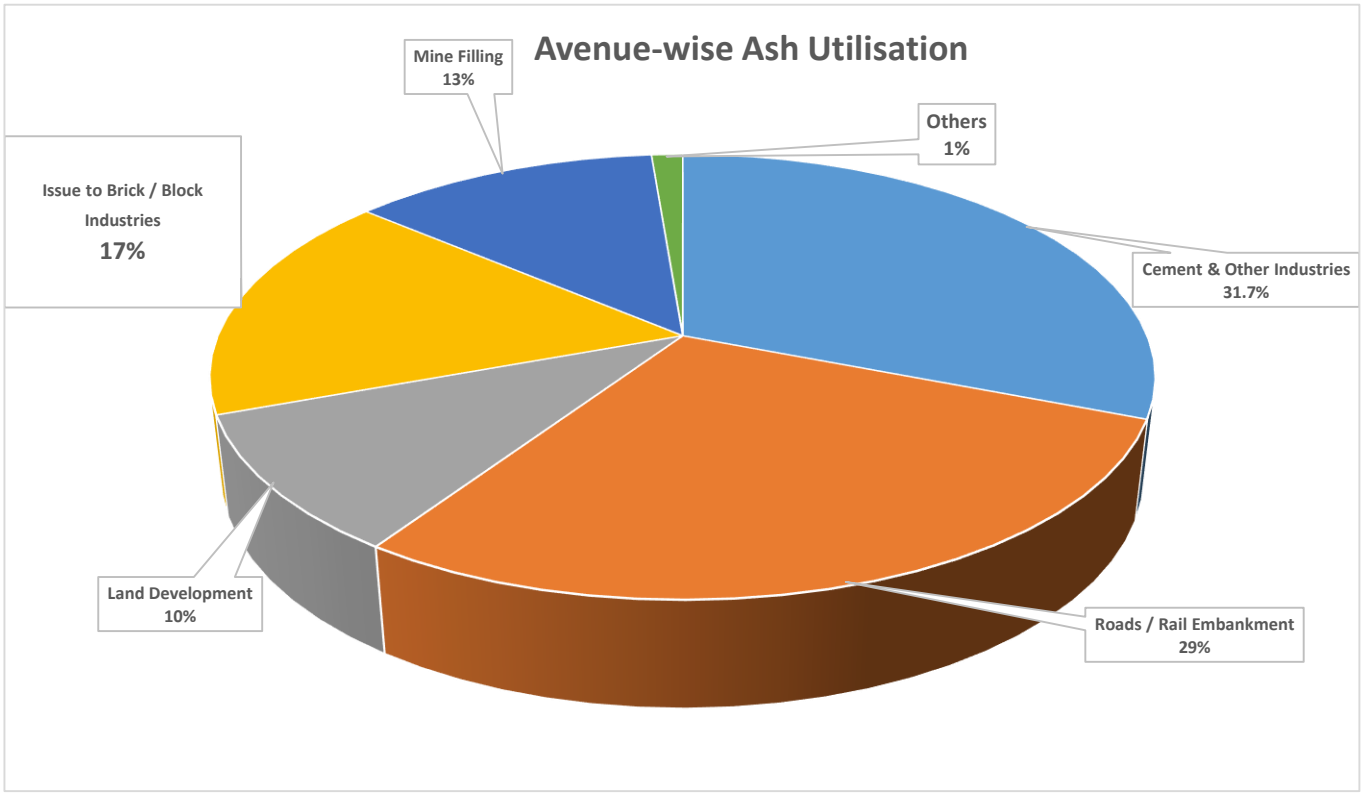
No. of Thermal Power Stations which have furnished the data	400
Installed Capacity (Megawatts)	240681.37
Coal Consumed (Million tons)	928.50
Ash Generation (Million tons)	335.02
Ash Utilization (Million tons)	343.66
Percentage Utilization (%)	102.58
Percentage Average Ash Content (%)	36.08

Source: Drawn from the CPCB Coal Ash Portal on 08.06.2026

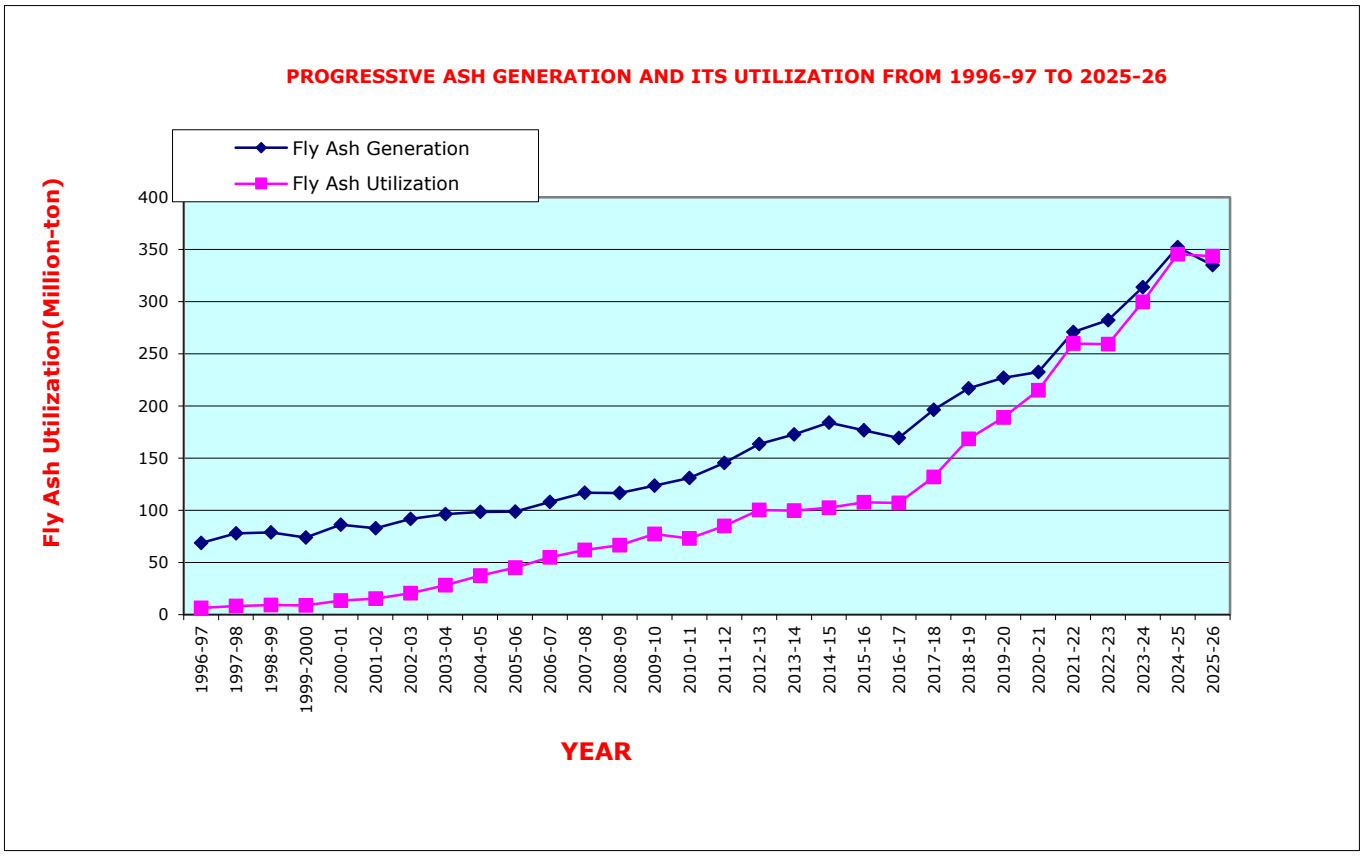
The Avenue wise utilisation of ash for the FY 2025-26 is given below:-

Avenue	Utilisation of Ash	
	(LMT)	(%)
Cement & Concrete	1062.26	31.71
Roads /Rail Embankment	979.93	29.25
Land Development	342.36	10.22
Issue to Brick / Block Industries	577.54	17.24
Mine Filling	430.71	12.86
Others	43.77	1.30

Source: Drawn from the CPCB Coal Ash Portal on 08.06.2026



Progressive utilisation of Ash since 1996-97 to 2025-26 is shown as under:



6.12 R&M/ LE Programme during (2017 - 22)

71 thermal generating units with aggregate capacity of 14929 MW have been identified for implementation of R&M/LE works during 2017-22 period. Out of this a total of 34 nos. thermal generating units with aggregate capacity of 7570 MW for LE works and 37 nos. thermal generating units with aggregate capacity of 7359 MW for R&M works have been identified for the period 2017-22. Break-up summary of LE and R&M works of 14929 MW to be taken up during 2017-22 in terms of Central/ State sector-wise is furnished below at Table A:

Category	**LE/R&M works identified during 2017-22 No. of units & capacity (MW)**		**Total (State Sector + Central Sector)**
	State Sector	**Central Sector**	
LE	34 (7570)	--	34 (7570)
R&M	30 (7135)	07 (224)	37 (7359)
Total	64 (14705)	07 (224)	71 (14929)

6.12(a) Achievements of R&M & LE Projects upto 31-03-2026:

Life Extension works on 5 thermal generating units with aggregate capacity of 1020 MW and R&M works on 4 thermal generating units with aggregate capacity of 387 MW were completed upto 31-03-2026. Details of achievements is furnished below at Table:

	Name of the TPS	**Unit No.**	**Date of S/D**	**Capacity (MW)**	**Utility**	**Sector**	**Date of Achievement**
1. 2017-18							
LE	Ukai TPS	4	07-12-2016	200	GSECL	State	17.05.2017
	Wanakbori TPS	3	25-07-2017	210	GSECL	State	27-11-2017
R&M	Kathalguri CCGT	3	19-06-2017	33.5	NEEPCO	Central	20-07-2018
	Kathalguri CCGT	6	19-03-2018	33.5	NEEPCO	Central	31-03-2018
Sub Total		**3 4 (Units)**		**477.00**			
2. 2018-19							
LE	Koradi TPS	6	25-08-2015	210	MAHAGENCO	State	16-07-2018(oil firing) 20-08-2018(coal firing)
	Obra TPS	12	01-10-2016	200	UPRVUNL	State	24-09-2018
R&M	--	--		--	---	--	--
Sub Total		**02(unit)**		**410**			
3. 2021-22							
LE	---	--	--	--	--	--	--
R&M	Barauni TPS	6	15-11-2009	**110**	NTPC	Central	31-05-2022
4. 2022-23							
LE	Obra TPS	13	16-05-2018	**200**	UPRVUNL	State	27-09-2022
R&M	--						
5.2024-25							
LE	--	--	--	--	--	--	--
R&M	Kolaghat	3	28-02-2024	**210**	WBPDCL	State	28-02-2024

Total LE	**05 (1020)**	**State**	**05(unit)**	**1020**
		Centre	**--**	**--**
Total R&M	**03 (177)**	**State**	**--**	**--**
		Centre	**04(unit)**	**387**
Grand Total			**09(units)**	**1407.0**

6.12(b) Undergoing R&M /LE in Thermal: Power Units upto 31-03-2026:

Total of 32 units of central and state sector, with combined capacity of 6630 MW of the identified thermal power units, are currently undergoing R&M/LE works.

6.13 Monitoring of R&M Projects:

The progress of R&M and LE works being implemented at Thermal Power units are monitored by holding the review meetings and information compiled on monthly/quarterly basis. Based on data / information collected & compiled, Quarterly Review Report on status of R&M projects were prepared.

6.14 Implementation of FGD installation, ESP upgradation and Combustion modification in respect of new Environmental Norms

The timelines for complying with the new emission norms (Dec 2015) were revised by MoEF&CC vide gazette notification dated 31.03.2021 which categorized thermal power plants in three categories having different timelines.

Based on the MoEF&CC notification dated 31st March 2021, a task force was constituted comprising of representatives from MoEF&CC, MOP, CEA and CPCB to categorize the thermal power plants in above mentioned three categories. CPCB vide its MoM dated 13.12.2021 categorized the 600 TPP units in category A, B & C of which 66 units (20577 MW) are under Category A, 72 units (24057 MW) are under Category B and 462 units (166885 MW) are under Category C. The criteria considered for categorisation of TPPs along with compliance timelines is given as under:

Category A - Within 10 km radius of NCR or cities having million plus population as per 2011 census of India. Timeline for compliance: 31.12.2022

Category B - Within 10 km radius of critically polluted areas or Non-Attainment cities as defined by CPCB. Timeline for compliance: 31.12.2023

Category C - Other than those included in category A and B. Timeline for compliance: 31.12.2024

Subsequently, based upon the recommendations of CEA, the timelines for implementation of FGD installation for compliance with SO_2 norms were extended in every category vide MoEF&CC gazette notification dated 30.12.2024. However, the timelines for compliance of parameters other than SO_2 remained unchanged. The revised timelines for installation of FGD in various category TPPs is as under:

Category A - Timeline for compliance with SO_2 norms: 31.12.2027

Category B - Timeline for compliance with SO_2 norms: 31.12.2028

Category C - Timeline for compliance with SO_2 norms: 31.12.2029

CEA published two reports in the year 2020 & 2021 on FGD installation across the country where advantages & disadvantages of FGD installation were analyzed and clearly stated that FGD installation across the country is unnecessary as ambient SO2 level across the country is well below the national standards (80 µg/m³). Further, installation of FGD has adverse impact on ambient air quality due to generation of secondary pollution and greenhouse gases (CO2). Considering findings of CEA studies, IIT Delhi study was commissioned by MOP under CEA-IIT Delhi MOU. Subsequently, NEERI-Nagpur study and NIAS-Bangalore study were also commissioned by NITI Aayog and Principal Scientific Advisor (PSA) to the Govt. of India respectively. The key common point in these studies is that, fitment of FGDs in all TPPs in India is not necessary to comply with the NAAQ standards whose compliance is essential to safeguard public health. While all TPPs must comply with the December 2015 stack emission standards, SO2 stack emission

standards can be relaxed to ensure that they are in conformance with the NAAQ standards (ambient SO2) which are notified by CPCB keeping in mind the human health and other aspects. This way, TPPs may be able to comply with these standards without fitting FGDs. Since the existing NAAQ standards (for ambient SO2) must be complied with, this change will not affect human health in India.

Subsequently, on the recommendation of PSA (based on above scientific studies), MoEF&CC has notified amendment on 11.07.2025 where applicability of SO2 emission standards in thermal power plants has been revised based on their location/category.

As per MoEF&CC gazette notification dated 11.07.2025, SO2 emission norms are not applicable on Category C units provided they comply with original stack height criteria as notified by MoEF&CC, GoI. Similarly, Category B units may apply for exemption from SO2 norms, and their cases will be reviewed on case-to-case basis by Expert Appraisal Committee.

Development of FGD Gypsum Production & Utilization Tracking Portal:
To facilitate effective monitoring and promote sustainable utilization of FGD gypsum generated from coal-based thermal power plants, NTPC, under guidance of CEA, has developed a web-based FGD Gypsum Production & Utilization Tracking Portal. The portal enables plant-wise monitoring of gypsum generation, utilization across sectors such as cement, gypsum board manufacturing and agriculture, gypsum quality, and stock position. It provides centralized reporting and analytical dashboards at plant, utility, state and national levels, thereby supporting policy formulation, improving gypsum management practices, and promoting circular economy initiatives in the power sector. The portal has been developed and is ready for operational deployment across thermal power stations in the country.

6.15 Current Status of FGD Installation, ESP Upgradation and Combustion Modification

- Out of 600 TPP units, 72 units (34590 MW) have installed FGD systems for compliance with SO2 emission norms.
- Out of 600 TPP units, 451 units (177336.5 MW) have upgraded ESPs for compliance with SPM emission norms.
- Out of 600 TPP units, 445 units (157931.5 MW) have completed combustion modification for compliance with NOx emission norms.

6.16 Flexible Operation of Thermal Power Stations

India's Intended Nationally Determined Contributions (INDCs) include a reduction in the emissions intensity of its GDP by 45 percent by 2030 from 2005 level, achieve about 50 percent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030 and to create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent. Generating power from renewable sources of energy is of cardinal importance if India is to meet its INDC targets. With the aim to ensure future security & reliability of power supply and stability of electricity grids while maximizing generation from renewables flexibilization of existing coal-fired power plants is an important measure.

A comprehensive report titled "Flexibilisation of Coal Fired Power Plant - A Roadmap for Achieving 40% TML" was prepared by CEA in Feb 2023 to help utilities and understand the low load operation. The report has comprehensively touched the various aspects of flexible operation of thermal generating units including operating procedure, identification of measures of low load operation/ramp rates and cost of flexible power.
A Compensation methodology for operating a coal based power plant below 55% load was prepared by CEA and the same was forwarded to CERC by MOP.

Another report titled "OPERATING PROCEDURE AND TRAINING CURRICULUM AT 55% MINIMUM TECHNICAL LOAD OF THERMAL GENERATING UNITS "was prepared and published to provide Standard operating procedures for thermal generating utilities for 55% technical minimum load at low load operation.

As per CEA (Flexible Operation of Coal Based Thermal Power Generating Units) Regulation, 2023, the coal based thermal power generating units shall have flexible operation capability with minimum power level of 40%. Moreover, the coal based power generating units shall have flexible operation capability with minimum power level of 55% along with ramp rate of 2% between 55%-70% and ramp rate of 3% above 70% within one year of notification of the above mentioned regulations i.e. by Jan 2024.The implementation of the flexible operation (40%) shall be as per the phasing plan specified by the authority from time to time. In view of above, CEA has prepared and notified in gazette of India a roadmap for achieving the minimum load operation in a phased manner in Dec 2023. The summary of the phasing plan is as below:

- Pilot Phase (10 units, 5850 MW) : May 2023 - March 2024
- Phase 1 (91 units, 51080 MW) : July 2024 - June 2026
- Phase 2 (100 units, 46825 MW) : July 2026 - June 2028
- Phase 3 (101 units, 37215 MW) : July 2028 - December 2029
- Phase 4 (191 units, 55767 MW) : January 2030 - December 2030

In the pilot phase, 10 units of Central/State/Pvt sector shall be taken for refurbishment. The experience gained in pilot phase shall be useful for future planning.

Committee on Flexible Operation of Coal-Based Thermal Power Plants

A Committee under Chairmanship of PCE -II (constituted to deliberate upon the implementation of flexible operation of coal-based thermal power plants up to 40% Minimum Technical Load (MTL)) recommended an incentive mechanism linked to low-load operation to encourage voluntary participation of coal-based generating units in flexible operation up to 40% MTL.

The Committee further recommended that the compulsory expenditure for up gradation and losses due to regular flexible operation of all coal-based power plants established either under section 62 or section 63 of Electricity Act, has to be compensated. Thus, flexible operation needs to be considered as change in law which is essential for grid security and stability during high solar and wind generation period.

Another Committee under the Chairmanship of PCE-II, CEA was constituted to examine Wear & Tear, O&M and Plant Lifespan Implications due to flexible operation. A draft report of the same has already been submitted.

6.17(a) Japan-India Co-operation for Study on Efficiency and Environmental Improvement of Coal Fired Stations

Under Indo- Japan Co- operation for Efficiency and Environmental Improvement of Coal Fired Power Stations. Four MoUs have already been implemented between Central Electricity Authority (CEA) and Japan Coal Energy Centre (JCOAL) in the field of efficiency improvement and environmental improvement of coal fired power stations. The 4th MoU between CEA and JCOAL has been signed on 16th December, 2019 for Efficiency & Environment Improvement for Sustainable, Stable and Low Carbon Supply of Electricity. The purpose of this MoU is to address issues and barriers in expediting sustainable, stable and low carbon thermal power development by means of studies, training program and knowledge-sharing activities, outcomes of which are to be conducive to overall power development in India as well as to expedite relevant policy implementation by the Government of India. Following activities were carried out under 4th MoU:

i) Update on the current and future policy trend in the Indian power sector and consideration of the identified issues/barriers to find out those which could be addressed through mutual collaboration.

ii) Identification of issues to be addressed regarding both existing and upcoming facilities, and also operation and maintenance.

iii) Implementation of studies with priorities, but not limited to environmental technologies for coal fired power generation Flexibilization measures and biomass utilization are also of high priority.

iv) Biomass study on Co firing of biomass pellets and Waste to Energy technologies and Coal GCV loss in power plant and its remedies Implementation of an annual workshop in India and CCT Training Programme in Japan.

v) Holding joint meetings to discuss issues that have arisen or may arise in the course of implementation of the Cooperation.

Under Clean Coal Technology (CCT) Training Programme study tours to Japan have been organized in which representatives from MoP, CEA and different power utilities have participated. The participants visited the latest USC power stations and updated about various applicable technologies and equipment as well as O&M technique. During the FY22, 50 participants have undergone the Virtual CCT Training Programme from 31st Oct. 2022 to 2nd Nov. 2022.

Under Indo-Japan Cooperation, a one-day Workshop on "Project on Efficiency and Environmental Improvement for Sustainable, Stable and Low-carbon Supply of Electricity" was organized jointly by CEA and JCOAL on 14th Dec, 2023.

The 5th MoU between CEA and JCOAL for Efficiency & Environment Improvement for Sustainable, Stable and Low Carbon Supply of Electricity is under finalization.



CEA-JCOAL Workshop FY23

6.17 (b) Indo-Denmark Co-operation

A MOU on India-Denmark Energy Cooperation was signed between the two governments in June 2020. TPRM Division, CEA is coordinating the following areas/activities under this cooperation:

i. Transfer of technology for emission control from Thermal Power plants,
ii. Waste heat recovery from Thermal power plants,
iii. Flexibility in operation of power plants for RE integration.

Flexible operation test (upto 40% load) has been successfully conducted in thermal generating units of Unit #7, 500MW Ramagundam TPS of NTPC and Unit #3, 210 MW Raichur TPS of KPCL under India-Denmark cooperation.

6.18 Fuel Management and Analysis

Central Electricity Authority (CEA) plays a pivotal role in optimal utilization of coal for the power sector. It monitors coal supply to the power plants so that plants have sufficient coal stock as per norms. CEA in association with MoP, MoC, Railways and other stakeholders closely monitors the coal supply to power plants and takes necessary steps to improve supply of coal to power plants. With the concerted efforts of all stakeholders, the coal supply to power utilities is maintained to meet their coal requirements. At the beginning of the year, the coal stock available with the Thermal Power Plants (TPPs) was 58.11 million Tonnes (MT), which was sufficient for an average of 20 days at 85% PLF. As on 31st March 2026, the total coal stock available with the plants increased to 59.28 MT, which was sufficient to run these plants for an average of about 20 days at 85% PLF, thereby indicating effective coal supply management and adequate coal stock availability at TPPs throughout the year.

6.18.1 Monitoring Mechanism

The coal stock position of all the power plants in the country is being monitored by CEA on a daily and monthly basis and accordingly daily and monthly reports are published on National Power Portal (NPP) (www.npp.gov.in).

CEA has revised the coal stocking norms w.e.f. 6th December 2021. As per the revised norms, daily coal requirement for both Pithead and Non-Pithead plants would be estimated @85% PLF and number of days for which stock needs to be maintained

would vary from 12 to 17 days for Pithead plants and 20 to 26 days for non-pithead plants with month-wise variation based on coal despatch/ coal consumption pattern during the year.

Quarter	Month	Pithead	Non-pithead
Q1	Apr	17	26
	May	17	26
	Jun	17	26
Q2	Jul	14	22
	Aug	13	21
	Sep	12	20
Q3	Oct	13	21
	Nov	14	22
	Dec	15	23
Q4	Jan	16	24
	Feb	17	26
	Mar	17	26

Monitoring by Inter-Ministerial Committee

A Secretary level Inter Ministerial committee has been set up to ensure that the medium- and long-term requirements of coal are met. The IMC comprises of Chairman Railway Board, Secretary, Ministry of Coal, Secretary Ministry of Environment Forests and Climate Change as members and Secretary Ministry of Power as convener.

Monitoring by Subgroup:

CEA is a member of an Inter-ministerial subgroup constituted by the Infrastructure Constraints Review Committee under the Chairmanship of Joint Secretary, Ministry of Coal comprising of representatives from Ministry of Railways, Ministry of Power, Shipping, NITI Aayog, CEA, CIL and NTPC Limited. The subgroup reviews and monitors coal supply and related infrastructural constraints on day-to-day basis for adequate supply of coal to power plants.

6.18.2 Coal Scenario for the Power Sector during 2025-26

6.18.2.1 Estimation of coal requirement for the year 2025-26

During 2025-26, based on generation target, the coal requirement was estimated to be about 951 MT. The break-up of coal requirement during 2025-26 is given as under:

(**Figs. in MT**)

Coal Requirement	2025-26
Domestic Coal based (DCB) Plants	906.1
Imported Coal based (ICB) Plants	45.1
Total Requirement	**951.2**

6.18.2.2 Coal Supply Position for the year 2025-26:

For the year **2025-26**, the receipt of coal was 854.2 MT against the consumption of 852.6 MT. The details of coal receipt and consumption for year **2025-26** are given as under:

A. Estimated Requirement (Domestic + Imported)	**951.2** (906.1+45.1)
B**. Receipt**	
a. Domestic coal	808.8
b. Imported coal for blending	6.8
c. Imported coal for ICB plants	38.6
d. Total Import	45.4
Total Receipt (a+d)	**854.2**
C. Consumption	
a. DCB Plants	813.5
b. ICB Plants	39.1
c. Total	**852.6**

During the year 2025–26, the receipt of domestic coal by the power plants was 808.8 MT as against 825.8 MT during 2024–25, registering a decrease of about 17.0 MT (-2.1%). The total coal consumption during 2025–26 was 852.6 MT as against 880.2 MT during the previous year, thereby showing a decrease of about 27.6 MT (-3.1%). Plant-wise details of coal receipt and coal consumption during 2025–26 is enclosed at Annexure-6B.

6.18.2.3 Source-wise Receipt of coal during 2025-26

During the year **2025-26**, source-wise break-up of coal receipt at the power stations is given below:

Source	Actual Receipt (MT)
CIL	558.3
SCCL	56.9

Captive Mines	156.5
E-Auction	18.3
Others	18.9
Total Domestic Coal Receipt	**808.8**
Import Coal for Blending	6.8
Imported Coal by Imported Coal Based Plants	38.6
Total Imported Coal Receipt	**45.4**
Total Receipt	**854.2**

6.18.2.4 Import of coal during the year 2025-26.

1. Power plants designed on domestic coal, import coal in view of their cost economics and power plants designed on imported coal import coal to meet its fuel requirement.
2. During 2025-26, about 45.4 million tonnes of imported coal was received by coal based thermal power plants, which is about 27% lower as compared to the 62.5 million tonnes during previous year.
3. The imported coal used for blending by domestic coal based thermal power plants was about 14.0 million tonnes during 2024-25, which declined to about 6.8 million tonnes during 2025-26, reflecting a reduction of about 52%. Further, the imported coal receipt by imported coal based thermal power plants declined from about 48.5 million tonnes during 2024-25 to about 38.6 million tonnes during 2025-26, registering a decline of about 20%.
4. The decline in imported coal receipt during 2025-26 was mainly due to improved availability and supply of domestic coal to thermal power plants. Increased domestic coal availability reduced the dependence of domestic coal-based power plants on imported coal for blending purposes, resulting in a significant decline in imported coal requirement for blending.

6.18.2.5 Generation Loss

During the year, 2025-26, there was no loss of generation due to shortage of coal.

6.18.2.6 Specific Coal Consumption

During the year 2025–26, the Specific Coal Consumption of DCB Plants was 0.693 kg/kWh, which was slightly higher than 0.692 kg/kWh during 2024–25, mainly due to a significant reduction in blending of imported coal in DCB plants. In respect of Imported Coal-Based Plants, the Specific Coal Consumption was 0.516 kg/kWh during 2025–26 as compared to 0.500 kg/kWh during 2024–25.

6.18.3 Coal Quality Issues

In order to address quality concerns of the coal supplied to power plants, it was decided in the meeting dated 28.10.2015 that coal samples shall be collected and prepared by a Single Third Party Agency appointed by power utilities and coal companies. Accordingly, it was decided by the Ministry of Power and the Ministry of Coal that the power utilities would appoint a Third Party Sampler (CIMFR) for Third Party Sampling and Analysis of coal at loading-end as well as at unloading-end. Based on the Third Party Sampling analysis results furnished by CIMFR, credit/debit note are being issued by coal companies to the power plants in case of difference between declared grade of coal and analyzed grade of coal.

Subsequently, Ministry of Power vide letter dated 30.03.2021 conveyed the decision that Power Finance Corporation (PFC) shall empanel Third Party Sampling (TPS) Agencies for Power Sector, in addition to CIMFR, and consumers shall be free to take services of any of the empaneled agencies.

The Terms of Reference for empanelment for the agency was to be formulated with the following broad guidelines:

a. Multiple Agencies should be available.

b. Sampling only at loading end with appellate/referee provision.

c. Choice of taking services from empaneled agencies shall be of the buyer of coal.

d. Review mechanism to review the working of the system.

MoP, after consultation with the stakeholders including CEA, finalized the Terms of Reference for empanelment of TPS which was forwarded to PFC on 17.08.2021 for taking further necessary action.

In the 1st round of empanelment PFC had empaneled one firm (M/s Mitra SK Private Limited) as a 'Third Party sampling Agency (TPSA) for collection, preparation and analysis of coal samples at loading end with appellate/referee provision for power sector.

Subsequently, Ministry of Power vide letter dated 20.09.2022, while amending the terms of reference dated 17.08.2021, requested PFC/CEA to finalize the Terms of Reference for second round of empanelment of Third Party Sampling (TPS) agencies for power sector and complete the empanelment process at the earliest.

In the 2nd round of empanelment, PFC vide letter dated 04.10.2023, empaneled 10 agencies (Inspectorate Griffith India Pvt Ltd, Quality Services and Solutions Pvt Ltd , Quality Austria Central Asia Pvt Ltd ,Cotecna Inspection India Pvt Ltd , KCS Quality Inspection Pvt Ltd ,Ravi Energie Pvt Ltd, Mitra S. K. Pvt Ltd, Superintendence Company of India Pvt Ltd, Therapeutics Chemical Research Corporation and Dr. Amin Controllers Pvt. Ltd.) as 'Third Party Sampling Agency (TPSA) for collection, preparation and analysis of coal samples at loading end with appellate / referee provision for power and non-power sector' for a period of five years from 3rd October, 2023.

6.18.3.1 Grade Slippage Issue

The issue of grade slippages has been highlighted by many power plants from time-to-time. In this regard, a committee was formed under the chairmanship of Chairperson, CEA with representatives from Ministry of Power, Railways, CIL, SCCL, NTPC, and GENCOs to address the issue of grade slippages and quantity loss during transit at unloading /power plant-end. Based on the direction of the committee, comprehensive field-based study was conducted during March–April 2025 by joint teams, having representatives from CEA, Railways, CIL, SCCL, NTPC, and GENCOs. The report of the committee highlighted grade slippages mainly due to loading of non-uniform quality coal in the wagons and non-standard sampling techniques. The report has recommended billing of coal based on quality and quantity of coal received at plant-end (FOR basis).

The primary objective of this exercise is to identify operational and procedural deficiencies in the coal supply chain that contribute to grade slippage between loading and unloading ends and discrepancies in coal quantity at loading and unloading-ends.

6.18.3.2 Findings of field Study

Sampling at most of the loading points is carried out by Manual top sampling, which fails to capture non-uniform quality of coal loaded at different layers within wagons, creating vertical heterogeneity. Key observations are enclosed as **Annexure-6D.**

6.18.3.3 Solution to address Grade Slippage:

i. Shift from the existing FOB to a FOR-based billing system: The most effective way to address the issue is to despatch coal at plant-end and billing is based on the quality and quantity received at plant. At power plant end, almost all TPPs have mechanized systems where coal unloaded via tipplers or hoppers is conveyed to CHP through belts. AMS can be easily installed on these belts for accurate sampling.

ii. In the existing system (FOB based billing), the grade slippage may be reduced:

a. For manual loading with payloaders, sampling may be done using mechanical augers. In the case of silo loading, Auto-Mechanical Samplers (AMS), which automatically extract samples from the conveyor belt at set intervals, may be deployed for effectively representing coal loaded at different depths within the wagon.

b. At the rake level, representativeness improves by increasing the number of wagons sampled. Hence, adoption of BIS (IS:436) norms, requiring sampling from 25% of wagons per rake, is recommended over the current FSA process, which samples only about 10% of wagons

6.18.4 New initiatives for addressing issues related to coal supply to Power Plants

Flexibility in Utilization of Domestic Coal

a. The Government, on 04.05.2016, approved the proposal for allowing flexibility in utilization of domestic coal amongst power generating stations to reduce the cost of power generation. Under the scheme, the Annual Contracted Quantity (ACQ) of each individual coal linkage as per Fuel Supply Agreement is to be aggregated as consolidated ACQ for each State and Company owning Central Generating Stations instead of individual generating station. The State/Central Gencos have flexibility to utilize their coal in most efficient and cost effective manner in their own power plants as well as by transferring coal to other State/Central Gencos Power plants for generation of cheaper power. The methodology provides for utilizing coal amongst State/Central Generating Stations having 4 cases- i) within state ii) one state to another state iii) one state to CGSs & vice versa and iv) within CGSs & other CGSs. The methodology in this regard has been issued by CEA on 08.06.2016.

b. Further, the methodology for use of coal transferred by a State to Independent Power Producer (IPP) generating stations has been issued by Ministry of Power, Govt. of India on 20.02.2017. As per the methodology, the State can divert their coal and take equivalent power from IPP generating station, which is selected through an e- bidding process. The guiding principle of the methodology is that the landed cost of power from IPP generating station at the State's periphery should be lower than the variable cost of generation of the State generating station whose power is to be replaced by generation from IPP. The landed cost of power is inclusive of the transmission charges and transmission losses.

c. Based on the experience gained, Ministry of power vide letter dated 15.06.2018 has amended clauses related to bid security, performance security coal transportation mode in the methodology for Case-4. Subsequently, Ministry of Power vide letter dated 25.10.2018 has issued 2nd amendment in the methodology allowing moisture correction while reconciliation of coal.

d. All State/Central gencos have signed supplementary agreement with Coal Companies for aggregation of their ACQ. CIL, on quarterly basis, allocates coal to the plants of State /Central Gencos as per their requirement within their AACQ.

6.18.5 Gas Supply Position

1. CEA monitors 43 Nos. of gas-based power stations with a total installed capacity of about 19,643 MW (As on 31st March 2026) using gas as primary fuel. However, the supply of domestic gas to power sector has been very less as compared to requirement.
2. The domestic gas supply during 2025-26 was only about 10.67 MMSCMD against allocation of 66.29 MMSCMD. The domestic supply during 2025-26 reduced by about 6% as compared to that during 2024-25 (11.4 MMSCMD). The import of LNG during 2025-26 has decreased to about 6.62 MMSCMD as against 8.48 MMSCMD during 2024-25.
3. The PLF achieved during 2025-26 was about 15% which is the same as that during previous year. Plant-wise details of gas allocated and supplied/consumed during 2025-26 is enclosed at **Annexure-6C**.

The gas supply position in gas-based power plants during 2025-26 is as under:

(Fig. in MMSCMD)

		Allocation	Supplied
Domestic Gas	APM / Non - APM/ PMT	42.28	10.65
	KGD-6	24.01	0.02*
	Total Domestic Gas	66.29	10.67
Imported Gas (RLNG)	Long Term Contract	7.18	2.37
	Spot	-	4.24
	Total Imported Gas	7.18	6.62
	Total Gas	73.47	17.29

(*: Auction gas from KGD-6)

Chapter-7

DISTRIBUTION SCHEMES AND INITIATIVES

7.1 Revamped Distribution Sector Scheme (RDSS)

Central Government launched Revamped Distribution Sector Scheme (RDSS) in July, 2021 with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution Sector. The Scheme aims to reduce the AT&C losses to pan-India levels of 12-15% and Average Cost of Supply (ACS) - Average Revenue Realized (ARR) gap to zero. The Scheme has an outlay of Rs.3, 03,758 crore and an estimated Gross Budgetary support of Rs 97,631 Crores from Govt. of India. Further, the sunset date of the scheme has been extended to March, 2028.

The Scheme has two parts: Part 'A' - Financial support for upgradation of the Distribution Infrastructure and Prepaid Smart Metering & System Metering and Part 'B' - Training & Capacity Building and other Enabling & Supporting Activities.

Under the scheme, eligible DISCOMs (all State-owned Distribution companies and State /UT Power Departments excluding private Sector power companies) are being provided financial support for upgradation of the Distribution Infrastructure, Distribution Automation, IT intervention, implementation of SCADA/DMS & installation of Prepaid smart meters for consumers and Smart Metering at Feeder and Distribution Transformers etc.

Prepaid Smart Meters including System metering with communication features are important interventions in reducing Distribution losses in the Utilities and in facilitating automatic measurement of energy flows and energy accounting as well as auditing without any human intervention. This intervention will also facilitate switch over to digital pre-paid system, with recharging facility through mobile phones and enabling of Time-of-Day tariff.

Advanced ICT like Artificial Intelligence & Machine Learning Technologies are being leveraged to analyse data generated through IT/OT devices including System Meters, prepaid Smart meters to prepare actionable MIS from system generated energy accounting reports every month so as to enable the DISCOMs to take informed decisions on loss reduction, demand forecasting, asset management, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis. This is contributing towards enhancing operational efficiency and financial sustainability of the DISCOMs.

An inter-ministerial Monitoring Committee for the Scheme has been constituted under the chairmanship of Secretary, Ministry of Power. The Monitoring Committee frames and approves all operational guidelines, sanction all Action Plans & DPRs of DISCOMs / States, review and monitor implementation of Scheme, approves scope of works and take necessary decisions for operationalization of various components of the Scheme and amendments thereof, within the framework approved by Cabinet Committee on Economic Affairs (CCEA). The Monitoring Committee is also competent to modify the scope of works under various parts of the Scheme in line with the objectives of the Scheme. Chairperson, CEA is the member of the Monitoring Committee.

The funds for a particular year in respect of Infrastructure Works are released in respect of a DISCOM for a particular year only after it is found to have fulfilled the pre qualifying criteria and its total weighted score is at least 60 marks on the result evaluation matrix after having been evaluated by the Nodal Agency and approved as such by the Monitoring Committee. Evaluation of parameters

relating to financial accounts is based on audited quarterly/ annual accounts. The details of the projects sanctioned upto March 2026 under RDSS are as under:

State/UT-wise Loss Reduction and Smart Metering works sanctioned under RDSS

(in Rs. Cr.)

State/UTs	Sanctioned Cost of Loss Reduction Infrastructure Works	Sanctioned Cost of Smart Metering	Total Sanctioned Project Cost
Andaman & Nicobar Islands	462	54	516
Andhra Pradesh	10,708	4,128	14,838
Arunachal Pradesh	1,042	184	1,226
Assam	3,395	4,050	7,444
Bihar	10,559	2,021	12,580
Chhattisgarh	4,021	4,105	8,126
Delhi	324	13	337
Goa	247	469	716
Gujarat	6,089	10,642	16,731
Haryana	6,794	-	6,794
Himachal Pradesh	2,327	1,788	4,116
Jammu & Kashmir	5,034	1,064	6,098
Jharkhand	3,468	858	4,326
Karnataka	45	-	45
Kerala	3,108	8,231	11,339
Ladakh	876	-	876
Madhya Pradesh	9,738	8,911	18,649
Maharashtra	17,238	15,215	32,453
Manipur	627	121	748
Meghalaya	1,232	310	1,542
Mizoram	322	182	503
Nagaland	466	208	674
Puducherry	84	251	335
Punjab	3,873	5,769	9,642
Rajasthan	18,693	9,715	28,408
Sikkim	420	97	518
Tamil Nadu	9,568	19,235	28,803
Telangana	120	-	120
Tripura	598	319	917
Uttar Pradesh	21,782	18,956	40,739
Uttarakhand	2,371	1,106	3,477
West Bengal	7,223	12,670	19,893
Grand Total	**1,52,854**	**1,30,671**	**2,83,525**

A. Status of Smart Consumer Meters in the Country

Under RDSS, 19.79 Crore smart consumer meters, 52.53 lakh communicable Distribution Transformer meters and 2.05 Lakh communicable feeder meters have been sanctioned. Around 6 Crore Smart consumer meters have installed in the country by the end of March 2026.

B. Household Electrification under RDSS

Central Government in line with its commitment, is supporting States under the ongoing Scheme of Revamped Distribution Sector Scheme (RDSS) for electrification of any left-out households in the country. MoP requested all the States/UTs to identify the balance un-electrified villages/habitations for funding under RDSS and issued the norms for electrification of left out households. In addition, all households belonging to Particularly Vulnerable Tribal Group (PVTG) identified under PM-JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan), households belonging to Scheduled Tribes identified under DA-JGUA (Dharti Aaba Janjatiya Gram Utkarsh Abhiyan) and households identified under PM-AJAY (Pradhan Mantri Anusuchit Jaati Abhyuday Yojana) are also being sanctioned for funding under RDSS as per the Scheme guidelines. Details of Households Electrification Works sanctioned under RDSS by end of March 2026 is as given below:

Sl. No.	State	Sanctioned Project Cost (Rs. Cr.)	Central Gross Budgetary Support (Rs. Cr.)	No. of Households Sanctioned
1	Andhra Pradesh	161.27	96.76	46,356
2	Arunachal Pradesh	75.52	67.97	10,136
3	Assam	785.55	706.99	1,27,111
4	Bihar	300.55	180.33	42,584
5	Chhattisgarh	423.17	253.9	80,734
6	Himachal Pradesh	6.63	5.96	100
7	Jammu & Kashmir	196.54	176.88	29,183
8	Jharkhand	206.12	123.67	40,454
9	Karnataka	44.77	26.86	6,903
10	Kerala	7.07	4.24	1,482
11	Madhya Pradesh	459.08	275.43	90,265
12	Maharashtra	57.02	34.21	17,529
13	Manipur	214.44	193	36,972
14	Meghalaya	435.7	392.13	50,501
15	Mizoram	79.9	71.91	15,167
16	Nagaland	69.55	62.59	10,004
17	Rajasthan	1765.08	1059.04	4,39,372
18	Tamil Nadu	29.89	17.93	8,603
19	Telangana	120.42	72.25	31,081
20	Tripura	104.52	94.08	19,853
21	Uttar Pradesh	964.48	578.69	2,58,700
22	Uttarakhand	14.59	13.14	2,049
Total		**6,521.85**	**4,507.98**	**13,65,139**

7.2 Technical Clearances/examination of DPRs/PPRs/proposals:

- The Preliminary Project Report (PPR ID-22852) regarding Strengthening of 33/11 kV distribution network in Ri-Bhoi (Byrnihat) district of Meghalaya was examined and comments were furnished.
- The Preliminary Project Report (PPR ID-12504) for ADB Loan for Renewable Energy Transition Acceleration Project, Tripura (Re-TAP) was examined and comments were furnished.
- Detailed Project Report for Power Distribution Network in Great Nicobar Island was examined and comments furnished.
- Detailed Project Report for construction of 2x20 MVA GIS Sub-station at Panchal Industrial Area, Daman was examined and comments furnished.
- Detailed Projects Report for construction of 33 kV 2x10 MVA S/S at Berawtlang, Aizawl with associated lines from 33kV S/S Lower Zuangtui and Detailed Projects Reports for 3 nos. of new 33 KV lines in Mizoram were examined and comments furnished.
- Technical clearance was accorded on draft Memorandum for Expenditure Finance Committee (EFC) for continuation of the schemes of the Ministry of Development of North Eastern Region during the 16th Finance Commission Cycle (from FY 2026–27 to 2030–31).
- Feasibility Report for Holistic Development of 12 sites at variors Islands in Andaman & Nicobar Islands (Package-IV) received from Niti Aayog was examined and comments furnished.
- The proposal for establishment of 11kV Downstream Connectivity at various new 33/11kV Substations constructed under NERPSIP Scheme in Tripura was examined and comments furnished.
- The proposal of EESL on development of national grid flexibility platform was technically examined and a pilot project on the same is being taken up by Tata Power Mumbai to showcase the viability of demand side management.
- The issue of Power Outage in National Data Centre of NIC in DMRC IT Park, Shastri Park, Delhi on 31st December, 2024 was examined and a report including the major observations and suggestion was submitted to MOP to ensure uninterrupted power supply to NIC Data Centre.

7.3 CERT-Distribution

Ministry of Power constituted CERT-Distribution (CERT-D) under Chief Engineer (DP&T), CEA. CERT-D is working to improve the cyber security posture of power distribution Sector by coordinating with the DISCOMs, NCIIPC, MoP, CISO-MoP and CERT-In. The following actions were taken by CERT-D during 2024-25: -

a. Inputs were provided for finalization of CEA Cyber Security Regulations, finalization of modalities of upgradation/ Scale-up functionalities of CSIRT-Power by adding constituent utilities of Power Sector in the federated SOC of CSIRT-Power, Formulation of Comprehensive Document to Ensure Seamless Smart Energy Meters Deployment etc. and also participated in various meetings related to these subjects.
b. CERT-D disseminated information and advisories to all the DISCOMs on cyber security issues received from NCIIPC, CERT-In & CISO-MoP and action taken report was sought from the Discoms.
c. All Major Discoms have nominated their Chief Information Security Officer (CISOs) and updating their details regularly, in case of any change.
d. All Major Discoms (except one) have on boarded Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) being operated by CERT-In. Vulnerability

of DISCOMs reported in every fortnightly Power Sector Situational Report of CSK, is taken up by CERT-D with the concerned DISCOMs for closer/necessary action and closure reports are submitted to MoP/CERT-In.

e. Discoms were advised regularly to prepare their Cyber Crisis Management Plan (CCMP). 67 Discoms have prepared their CCMP, out of which, CCMP of 41 Discoms have been approved by CERT-In. CCMPs of other Discoms are under various stages of preparation and approval.

f. Discoms were advised regularly to take necessary actions to ensure cyber security like quarterly review of their Cyber Security Measures, to conduct regular security audits through CERT-IN empaneled agencies, implementation of ISO 27001, conduction of mock drill etc.

g. An Empowered Committee under Secretary, MoP and Standing Committee under Additional Secretary, MoP have been constituted to monitor the cyber security measures taken by Power Utilities. CERT-D is regularly participating and providing necessary inputs in the meeting of Empowered Committee & Standing Committee.

The status of Discoms under purview of CERT-D for various cyber security activities is as given below:

S. No.	Activity	Status
1	Appointment of CISO	81/81
2	Preparation of CCMP	61/81
3	Identification of CII	64/81
4	Implementation of ISO 27001	45/81
5	Onbarding on Cyber Swachhta Kendra (CSK)	80/81
6	Conduction of Cyber Security Audit	72/81

7.4 Island wise integrated Report for UT of Lakshadweep

As per the minutes of the 7th meeting of Island Development Authority (IDA) chaired by Hon'ble Home Minister on 03.01.2025, Ministry of Power was directed to prepare a comprehensive report for development of green energy in the UT of Andaman and Nicobar Islands and UT of Lakshadweep and submit within 3 months.

In this regard, a Committee was constituted in CEA under the chairmanship of Chairperson, CEA for preparing the Island-wise Integrated DPRs for Lakshadweep for greening of Islands. The final Report of the Committee has been submitted in July, 2025.

7.5 Report of the Status of Feeder, Distribution Transformer and consumer metering

In order to monitor the status of Feeder, Distribution Transformer and consumer metering, a Report is being framed in CEA. The Report covers the category wise (viz. urban, rural, agricultural) status of metering of feeders & DTs and also category wise (viz. residential, industrial, agricultural etc.) status of metering of consumers. The report is being updated quarterly & annually. The last annual report covering the status of metering of feeders, distribution transformers and consumers as on 31.03.2025, was published in the month of October, 2025.

7.6 Interconnection of North, Middle, and South Andaman Islands under RDSS

MoP has directed to undertake a comprehensive reassessment to determine the interconnection requirements under RDSS for the North, Middle, and South Andaman Islands. The report encompasses the existing DG and RE generation portfolio, along with projections of future demand and energy

requirements. It also evaluates the anticipated addition of RE capacity (solar and wind) and the proposed LNG-based generation. Based on this capacity addition, a detailed assessment of the projected energy mix is being carried out, together with an appropriate interconnection scheme. The report is currently in the final stage of preparation.

7.7 Report on Chandigarh Distribution System Assessment and Infrastructure Improvement Plan

CEA has prepared a report on the assessment of the existing power distribution system in Chandigarh and the proposed infrastructure requirements for its improvement. The report highlights the assessment of distribution losses, evaluation of existing infrastructure, and identification of future system requirements. It includes baseline T&D loss assessment, a review of the 66 kV and 11 kV network, identification of measures to enhance the reliability and quality of power supply, and the implementation of key IT/OT initiatives such as Smart Metering, SCADA, DMS, and GIS mapping.

Further, the report outlines the need for detailed system studies to assess distribution requirements up to 2035 and beyond. It also recommends a short-term (1–3 years) and medium-term (3–5 years) plans for submission to JERC for approval and subsequent implementation.

7.8 Conduction of Mock Test Exercise at Parliament House

To ensure reliability of power supply to Parliament house before onset of each Parliament session, mock drill exercises at CPWD 11 kV Parliament House S/s were organized by CPWD in presence of officers of CEA, CPWD & NDMC before the Monsoon, Winter and Budget Sessions of Parliament and the reports of the Mock Test Exercise were sent to MoP, CPWD & NDMC.

7.9 Consultancy work for NPCL

As per the terms of the MoU signed between the Central Electricity Authority (CEA) and Noida Power Company Limited (NPCL), CEA undertook consultancy services for load forecasting and network planning for NPCL Distribution System. Detailed deliberations were held through multiple meetings to assess the implementation feasibility of the draft Distribution System Plan of NPCL up to FY 2033–34, which had been prepared earlier. Comments and inputs were sought from NPCL and duly examined. Based on the detailed these inputs, the final report of Distribution System Plan of NPCL up to FY 2033–34 was prepared and submitted.

7.10 Report of Assessment of Design and Quality aspects of works executed under IPDS in Varanasi and suggest improvement under RDSS works

Ministry of Power has constituted a dedicated expert team to conduct a comprehensive assessment of the design and quality aspects of the distribution infrastructure works including Under ground cable executed under the Integrated Power Development Scheme (IPDS) in Varanasi. This initiative is a proactive measure to evaluate the current state of the earlier implemented electrical distribution network under IPDS and to identify critical areas for enhancing the quality and reliability of the similar work under ongoing RDSS scheme thereby ensuring the long-term sustainability and reliability of the power supply in the region.

The final report was prepared and submitted to MoP on September, 2025.

Apart from the above, the Draft Unified Policy Framework for Digitization of the Distribution Sector and the Draft Policy for Recycling/Disposal of Electricity Meters have been submitted to the Ministry of Power (MoP).

7.11 Inter-Ministerial Central Team (IMCT)

Officers of CEA participated in Inter-Ministerial Central Team (IMCT) visits of MHA for assessing the damage to power infrastructure due to disasters in the State of Andhra Pradesh, Chhattisgarh, Himachal Pradesh, Jammu and Kashmir, Maharashtra, Punjab, Telangana and Uttarakhand. IMCT members of CEA provided their recommendations for release of amount under NDRF/SDRF norms for immediate restoration of power sector infrastructure damaged during disaster. Further, PDNA reports of Himachal Pradesh, Nagaland, Puducherry, Tamil Nadu, Tripura and Uttarakhand were also examined and comments furnished to MHA.

7.12 Disaster Resource Inventory for Power Sector (DRIPS) Portal

As per the directions of Hon'ble Minister of Power, Government of India, CEA was entrusted the task of developing an electronic inventory of disaster resources for power sector in line with India Disaster Resource Network (IDRN). The same was developed in consultation with all relevant stakeholders and has been hosted on National Power Portal (NPP) for ease of convenience for all stakeholders. The portal was launched by Hon'ble Minister of Power on 20.08.2024.

The Portal is aimed to assist the disaster affected utilities in faster identification of availability of equipment and resource requisitioning across the country to mitigate the impact of disaster on an immediate basis. The portal is an online inventory of spares for all wings of Power Sector viz. Generation, Transmission and Distribution. The DRIPS Portal can be accessed by the registered users of CEA, Discoms, Gencos and Transmission utilities on *https://drips.npp.nic.in/login*.

For the intended effectiveness of the DRIPS Portal, revamping such as updation/filling of inventory data with location (latitude & longitude) using the JSON file format, creation of dashboard, provision of alert mechanism in case the data is not regularly updated/filled by the utilities etc. is being taken up.

7.13 Monitoring of Prime Minister's Development Package (PMDP) 2015 Distribution Projects in UT of J&K and Ladakh

- Ministry of Power sanctioned Rs 2570.14 Crores on 9th Nov, 2016 for strengthening of distribution system and new technologies covering rural areas (21 districts), urban areas (12 circles) and smart metering for 2 lakh consumers, with JPDCL, KPDCL, PGCIL and RECPDCL as PIAs.
- Rural projects amounting to Rs 1157.75 Crores and urban projects of Rs 1144.59 Crores were sanctioned including PMA charges, along with smart metering projects of Rs 126.54 Crores. Approval of PIA charges has also been conveyed by Ministry of Power vide OM dated 31.3.2021.
- Further, additional funds of Rs 1068.98 Crores were approved on 01 June 2021 for completion of balance works under PMDP 2015. These works have been awarded by respective PIAs during November-December 2021. Out of this, Rs 530.19 Crores has been sanctioned for rural areas and Rs 428.43 Crores for urban areas for strengthening of distribution network.

Status as on 31.03.2026:

Summary of projects in J&K and Ladakh					
Projects	**UT**	**No of sub-projects sanctioned**	**No of sub-projects awarded**	**No of sub-projects completed**	**Remarks**
Originally Sanctioned	J&K	161	159	159	*1 sub-projects (meter test lab) dropped.* *1 Smart grid project dropped.*
	Ladakh	38	34	34	*2 sub-projects (meter test lab) dropped.* *2 Smart grid projects dropped*
Total - Originally Sanctioned		**199**	**193**	**193**	
Additional Sanctioned	J&K	37	37	37	
	Ladakh	3	3	3	
Total – Additional Sanctioned		**40**	**40**	**40**	
Grand Total (Originally sanctioned + Additional)		**239**	**233**	**233**	

7.14 Amendment in CEA Metering Regulation for Green energy open access for LT consumer

MoP notified Electricity (Promoting Renewable Energy through Green Energy Open Access) Rules, 2022 on 6th June, 2022. To facilitate Green Energy Open Access to consumers at LT level, an amendment in CEA (Installation and Operation of Meters) Regulations, 2006 was proposed. The draft amendment was published for public comments in the month of February, 2026 and was finalized on 31.03.2026 for notification in the Gazette of India.

CHAPTER – 8

DESIGN & ENGINEERING SERVICES

8.1 Design & Engineering of Hydro Electric Projects

Central Electricity Authority (CEA) renders design & engineering services for Hydro Electric Projects under execution in the Country in Central/ State Sectors and neighboring countries. CEA provides consultancy for conventional type hydro generating units, bulb/ tubular type units, pumped storage schemes with an underground/ surface power stations. Design & Engineering includes complete design, techno-economic analysis and preparation of Technical Specifications, tender evaluation, selection and sizing of equipment, detailed layout and schematic drawings for hydro turbine, generator, transformer, GIS, switchyard equipment and other auxiliaries.

8.2 Programme and Achievement during 2025-26

During 2025-26, CEA continued consultancy services for design and engineering of electrical and mechanical works of ten (10) nos. hydroelectric projects. Out of these, eight (8) projects are in India and two (2) projects are in Bhutan. Units-IV, V & VI of Punatsangchhu–II Hydroelectric Project Authority has been successfully commissioned in 2025-26. The Projects for which design & engineering services were rendered by CEA are as given below:-

Sl. No.	Name of the H.E. Project	Executing Agency/ State	Capacity
E&M Design & Engineering Consultancy			
Main Consultancy (Neighboring Countries)			
1.	Punatsangchhu–I HEP	PHPA-I,Bhutan	6x200 MW
2.	Punatsangchhu–II HEP	PHPA-II,Bhutan	6x170 MW
Main Consultancy (India)			
3.	Lakhwar MPP	UJVNL, Uttarakhand	3x100 MW
4.	Upper Indravati PSP	OHPC Ltd., Odisha	4x150 MW
5.	Kharag HEP	OHPC Ltd., Odisha	3x21 MW
Overview Consultancy (India)	a) Under Construction: i. Tehri PSP ii. Vishnugad Pipalkoti HEP b) Under Operation: i.. Tehri HEP ii. Koteshwar HEP iii. Dhukwan Small HEP	 THDCIL, Uttarakhand	 4x250 MW 4x111 MW 4x250 MW 4x100 MW 3x8 MW
Main Consultancy for preparation of DPR of E&M Chapter, related drawings & BoQ (Lift Irrigation Scheme)			
	a) Subernrekha-Mahanadi Link Project	CWC	

8.3 Scrutiny/Examination/Preparation of DPRs of HE Project.

a) Chapters on General Layout Aspect, Electro-Mechanical equipment, related drawings, bill of quantities, Memorandum of Changes, etc. of 15 nos. (12 nos. in India and 03 nos. in Nepal) of DPR of HEPs aggregating to 8898 MW including clarifications/ drawings/ documents etc. as received from time-to-time were examined and commented upon.

b) Chapters on General Layout Aspect, Electro-Mechanical equipment, related drawings, bill of quantities, Memorandum of Changes, etc. of 26 nos. of DPR of PSPs aggregating to 30570 MW including clarifications/ drawings/ documents etc. as received from time to time were examined and commented upon.

c) Chapters on E&M aspects along with related drawings & BOQ pertaining to Lift Irrigation Scheme which are referred to CEA by CWC are examined and commented upon. However, no proposal was received.

d) Memorandum of Changes pertaining to Electro-mechanical aspect received for 03 nos. HEP of 2202 MW were examined and commented upon.

e) Revised Cost Estimate of 01 no. HEPs aggregating to 444 MW for which the concurrence was already accorded by CEA, was also examined/commented upon.

f) Electro-mechanical chapter along with related drawings & BoQ of DPR for Subernrekha-Mahanadi Link Scheme referred by Planning Circle (CWC), Faridabad is under preparation.

The list of above projects is as given below:

A. List of DPRs of HEPs examined for E&M aspects during the year:

S. No.	Name of the Project	State	Installed Capacity (MW)
1	Anjaw HEP	Arunachal Pradesh	270
2	Demwe Upper Stage – I HEP,	Arunachal Pradesh	270
3	Naying HEP,	Arunanchal Pradesh	1000
4	Sunni Dam	Himachal Pradesh	382
5	Emra - II HEP,	Arunachal Pradesh	315
6	Ujh MPP	Jammu & Kashmir	50
7	Kishau MPP	Uttarakhand	422
8	Subansiri Upper HEP	Arunachal Pradesh	1605
9	Niare	Arunachal Pradesh	860
10	Kirthai-II	Jammu & Kashmir	820
11	Lakhwar MPP	Uttarakhand	300
12	Vishnugad Pipalkoti	Uttarakhand	444
Projects abroad			
13	West Seti HEP	Nepal	750
14	Seti River-6	Nepal	460
15	Upper Karnali HEP	Nepal	900

B. List of PSPs under S&I stage which were examined for E&M aspects during the year:

S. No.	Name of the Project	State	Installed Capacity (MW)
1	Jhariya PSP,	Uttar Pradesh	1620
2	Panaura PSP,	Uttar Pradesh	1500
3	Brahmani PSP,	Rajasthan	600
4	Warasgaon Warangi PSP,	Maharashtra	1500
5	Koyna Nivakane	Maharashtra	2700

	PSP,		
6	Shirawata PSP,	Maharas thra	1800
7	Maval (Saidongar-2) PSP,	Maharas thra	1200
8	Indirasagar-Omkareshwar PSP,	Madhya Pradesh	640
9	Bilaspur PSP,	Chhattis garh	1000
10	Serula PSP	Gujarat	960
11	Juni Bavali PSP	Gujarat	450
12	Satkashi PSP	Gujarat	330
13	Ukai PSP	Gujarat	1600
14	Savitri PSP	NHPC	2400
15	Chitravathi PSP,	Andhra Pradesh	500
16	Gandikota PSP,	Andhra Pradesh	1000
17	Raiwada PSP,	Andhra Pradesh	900
18	Somasila PSP,	Andhra Pradesh	1200
19	Gadikota PSP, Andhra Pradesh	Uttar Pradesh	1200
20	Kamalapadu PSP,	Andhra Pradesh	950
21	Upper Kolab,	Odisha	320
22	Masinta PSP,	Odisha	1000
23	Upper Bhavani PSP,	Tamilna du	1000
24	Narihalla PSP,	Karnata ka	300
25	Koppolu PSP,	Andhra Pradesh	2400
26	Pane PSP	Gujarat	1500

C. List of Lift Irrigation Schemes, referred by CWC, which were examined for E&M aspects during the year:

No proposal received during the given period.

C. List of HEPs Memorandum of Changes which were examined for E&M aspects during the year:

S. No.	Name of the Project	State	Installed Capacity (MW)
1	Kirth	Andhra	820
	ai-II HEP	Pradesh	
2	Nayin g HEP	Arunachal Pradesh	1000
3	Sunni Dam	Himachal Pradesh	382

E. List of HEPs which were examined for Revised Cost Estimates for E&M aspects during the year:

S. No.	Name of the Project	State	Installed Capacity (MW)
1	Vishnug ad Pipalkot i HEP	Uttara kand	444

8.4 Proposals for Foreign Assistance/Bilateral Co-operation

Relevant material/ inputs were provided for the proposal of bilateral co-operation with various countries in the field of hydro power development (including Energy Storage) as and when received from various ministries, such as Finland, Russia, European Union, Germany, Greece, Hungary, Israel, Norway, Japan, Korea, United Kingdom, France, Malawi, Maldives, Namibia, Philipines, Laos, Brazil, G20, Africa, Jordan, Australia, Bahrain, Britain, Canada, China, Denmark, Estonia, Rwanda, Seychelles, Srilanka, Kyrgystan, Tajikistan, Zambia, Honduras, Singapore, G-7, Cyprus, SCO, Trinidad, Tobago, UN, Argentina etc.

8.5 Review of Technical Standards/ Regulations:

Participated in panel meetings of BIS for preparation of/ amendments in draft Indian Standards, namely IS: 12800 Part-I and Part-II, as and when required.

8.6 R&D Activities:

i. Providing inputs on R&D references received from various ministries and organizations as and when received.

ii. Participation in various workshops, conferences and trainings conducted by CBIP, CWC, etc. pertaining to developments in Hydro Power Sector.

iii. Member of Technical Committee on Hydro Research for the examination of R&D proposals for Hydropower sector received from entities for funding by Government of India.

8.7 Examination of Innovative Proposals:

Examination/scrutiny of Innovative Proposal as and when received. However, no such proposal received.

8.8 Miscellaneous Works:

i. A sub-committee on 'communication infrastructure' was constituted under the chairmanship of Chief Engineer (HETD&RM), CEA for establishment of norms for cost of components under enabling infrastructure of hydroelectric projects/ pumped storage projects and its report has been prepared and submitted to HPA division on 02.07.2025.

ii. Providing inputs and participation in Technical Coordination Committee (TCC) & Authority Meetings of Punatsangchhu- I (6x200 MW) and Punatsangchhu-II (6x170 MW) HEP, Bhutan.

iii. Inputs in respect of Hydro Power Sector pertaining to Public Procurement (Preference to Make in India) [PPP-MII] Order were provided as & when required. Examination of representations from various associations/ manufacturers in light of latest PPP-MII Order & other relevant MoP & DPIIT Orders.

iv. In order to promote domestic manufacturing capability for supply of Pumped Storage Projects in the country in line with the objectives of Atmanirbhar Bharat initiative of Government of India, an advisory has been issued on 08.01.2026 to Hydro Power Developers in the country to relax PQR (Pre-Qualification Requirements) on technical aspects for tender purpose. This would help in broadening the vendor base for reversible turbines and promote self-sufficiency and competition to lower the cost in the country.

v. Examination of tender documents of value more than Rs. 500cr. floated by CPSUs of Hydro Power Sector under Ministry of Power to ascertain the compliance of PPP-MII Order issued by DPIIT & MoP.

vi. Inputs for preparation of National Electricity Plan in respect of Hydro Power Sector were provided.

vii. Reply of various Parliament Questions, VIP references, RTI applications etc. as and when received.

CHAPTER -9

ECONOMIC AND COMMERCIAL ASPECTS OF POWER INDUSTRY

As per the Electricity Act, 2003, CEA has, inter-alia, been entrusted with duties and functions relating to collection/recording of data/information relating to generation, transmission, distribution, trading and utilization of electricity and to carry out studies relating to cost, efficiency, competitiveness etc. to evaluate the financial performance of the power sector.

9.1 Electricity Tariff & Duty and Average Rates of Electricity Supply in India

In-fulfillment of its obligation under section 73(i) & (j) of the Electricity Act, 2003, CEA brings out a publication titled "Electricity Tariff & Duty and Average Rates of Electricity Supply in India". The latest edition (March 2025) contains information on retail electricity tariff applicable in various States / Utilities effective during the year 2024-25.

The publication provides assimilation of regulatory data on notified tariffs of various States/UTs, the estimated data on average rates of electricity supply & electricity duty for different categories of consumers, along with the summarized data on power supply schemes for special categories of consumers. It also provides the details of subsidy support given by the government to various categories of consumers along with cross subsidy. The estimated average rates of electricity published herein have been computed on the basis of tariff orders received from various State Electricity Regulatory Commissions.

The effective rates for different consumer categories have been worked out assuming different energy consumption for various sanctioned load keeping in view the urbanization, increase in usage of electricity appliances and improvement in the standard of living. In the March 2025 edition, tariff revisions subsequent to the last edition of the publication have been incorporated and tariff applicable in 43 Distribution Utilities have been indicated.

The sanctioned load and monthly energy consumption have been assumed for each category of consumer and considering the tariff notified by the respective Regulatory Commissions, the total amount payable by a particular category of consumer is worked out for the assumed load and monthly energy consumption. The Taxes and Duties are then added to arrive at the average estimated rate of electricity supply in terms of Paise / kWh.

A statement indicating category-wise estimated average rates of electricity for various Distribution Utilities in the country is given as **Annexure-9A.**

9.2 Publishing of Weighted Average Rate of Sale of Power (WARSP)

CEA publishes annually "Weighted Average Rate of Sale of Power" region-wise (Western/ Eastern/ Northern/ Southern/ North-Eastern), sector-wise (Central/ State/ Private) and fuel wise (Thermal/ Nuclear/ Hydro) for conventional generating plants with capacity 25 MW and above. The Generation Tariff Data is collected from various Conventional Generating Utilities/ Power Stations on an annual basis. From the Station-wise/Unit-wise Rate of Sale of Power, Weighted Average Rate of Sale of Power (WARSP) figures are computed and uploaded on CEA website.

9.3 Assistance to DPIIT for the calculation of Whole Sale Price Index (WPI)

CEA assists Department for Promotion of Industry and Internal Trade (DPIIT) by providing monthly Rate of Sale of Power data for 78 quotations from conventional Generating Stations (CPSUs, State and Private) for the compilation of Whole Sale Price Index (WPI).

9.4 Commercial appraisal of Power Sector Projects

9.4.1 During the year 2025-26, CEA carried out commercial appraisal of following projects/proposals in India

- Led comprehensive financial appraisal of multiple large hydroelectric projects, including:
  - Sawalkot HEP (1,856 MW, ₹23,000 crore)
  - Upper Karnali HEP, Nepal (900 MW, ₹7,500 crore)
  - Anjaw HEP (270 MW, ₹2,600 crore)
  - Attulni HEP (₹7,000 crore), Arunachal Pradesh
  - Dulhasti Stage-II HEP (260 MW, ₹2,600 crore)
  - Etalin HEP (3,097 MW, ₹26,000 crore)
  - Kamala HEP (1,720 MW, ₹21,000 crore)
- Recommended Budgetary Support amount on quarterly basis towards Flood Moderation through reimbursement for IDC component for Dibang Multipurpose Project (2880 MW), Arunachal Pradesh
- Appraised tender documents of renewable energy projects in Andaman & Nicobar Islands—rooftop solar PV (30 MW), solar with BESS (20.95 MW), and standalone BESS (8 MWh)—for frequency control and generation shifting.
- Examined proposals received for release of viability gap funding for BESS projects under State Scheme and CPSU Scheme and recommendations sent to Ministry of Power
- Examination of PPR of REC seeking approval for credit facility to be availed from Asian Development Bank (ADB) (blended finance with Green Climate Fund (GCF)) from Department of Economic Affairs (DEA) to the tune of USD 400 million
- Provided inputs for the revision of Chukha HEP tariff for the 2025–2028 period, supporting bilateral economic cooperation.
- Prepared a policy note for rationalization of tariff for hydro power stations through back loading and other measures to ensure competitive tariffs over the entire life of the project.

9.4.2 CEA also carried out financial and commercial appraisal of following hydro projects in Bhutan

- Bhutanese Proposal for revision Chukha HEP tariff for 4 year period starting from 01.01.2025 was examined and counter proposal for reducing the tariff was shared with MoP
- Loan repayment schedule shared by Bhutan side in respect of 1020 MW Punatsangchhu-II HEP was cross-checked and modified loan repayment schedule shared with Ministry of External Affairs.
- Loan repayment schedule for 720 MW Mangdechhu HEP forwarded by Bhutanese side examined and comments shared with MoP.
- Appraised and finalised loan repayment schedule for Mangdechhu HEP (720 MW) in Bhutan, ensuring financial sustainability of cross-border projects.
- Analysed project viability based on estimated tariff for Sankosh HE Project, Bhutan (2585 MW) to be implemented by THDC, 1200 MW Kalai II HEP to be executed by NHPC, Vishnugarh Pipalkoti (4*111 MW) run-of-river project to be developed by THDC India Ltd
- Prepared background note and participated in tariff negotiations for Punatsangchhu-II HEP (Bhutan) under IGA framework, ensuring mutually beneficial outcomes.

9.4.3 Recommendation of tariff for Nuclear Power Stations

- Based on inputs given by NPCIL, Tariff for 9 nos of Nuclear Power Stations for the period 2022-27 were determined and recommended to Department of Atomic Energy within one month. The same was accepted by Department of Atomic Energy

- Analysed the issues associated with signing of PPA for nuclear power projects and the indicative tariff to be mentioned in the PPA
- Inputs were given to MoP on revised Atomic Energy Bill -2025.
- Inputs on draft Cabinet Note for setting up of first 200 MW Bharat Small Modular Reactor unit Tarapur was shared with MoP.
- NTPC's proposal for international competitive bidding and issuance of call for shortlisting of bidders examined and comments shared with MoP

9.4.4 Computation of Energy Charge Rate (ECR) for Imported Coal Based Plant during Section 11 period

Assisting the expert committee set up by Ministry of Power under Chairperson, CEA in determination of benchmark ECR of Imported Coal Based (ICB) Station for period of application of directions under Section 11 of Electricity Act 2003 to relieve the impact of high electricity demand in crunch period. The committee had recommended the benchmark ECR for 6 nos of ICB plants for the entire period from April, 2025 to June, 2026 on fortnightly basis.

9.4.5 Economic Evaluation

- Conducted tariff impact analysis estimating consumer benefits from abolition of GST compensation cess and reduction in GST on solar panels.
- Drafted a framework for predictable revenue visibility of RTM transmission assets for monetisation and shared with the Forum of Regulators for wider state-level adoption.
- Analysed request for inclusion of additional charge/price under mine Specific Charges in determination of Coal Price Index Notified by CERC for domestic coal.
- Drafted a report on comparative analysis of transporting green hydrogen vis-à-vis transmission of renewable energy at load centre for production of green hydrogen.
- Prepared a detailed note on tax incidence and revenue certainty for AOMT based Asset Monetization and shared with Forum of Regulators and States
- Computation of levy for permitting sale of up to 25% of electricity generated from wind/solar-based Export Oriented Unit to Domestic Tariff was carried out and shared with Ministry of Power
- MNRE's request for revision in estimates to calculate per unit Electricity Charges/ tariff calculations for Solarization of Government buildings with rooftop solar under PM Surya Ghar: Muft Bijli Yojana (PMSG: MBY) through SIP owned deployment mechanism was examined and recommendation was shared with MNRE
- A note on measures suggesting lowering initial tariff for hydro projects (back-loading of tariff) shared with MoP in September 25.
- Analysed Impact of change in GST rates on power sector and shared with MoP

9.5 Preparation of Policy, Bidding Documents and Guidelines

- Facilitated resolution of operational issues faced by Gas-Based Generators under NVVN Gas Procurement scheme during the 2025 crunch period in coordination with Grid India and NVVN, ensuring grid stability and power supply continuity.
- Facilitated ease of doing business by proposing amendments in Standard Bidding Documents for ISTS Projects to be developed under TBCB mode by enabling participation of Alternative Investment Funds (AIFs) and InVITs as bidder, review of discount rate used for computation of force majeure and change in law relief event.
- Prepared policy note for resolution of supplementary PPAs between Tata Power Mundra and its beneficiary states, contributing to long-standing dispute settlement.
- Analysed pre-bid queries and provided draft policy inputs to Ministry of Power for establishment of a 3x800 MW coal-based thermal power plant at Pirpainti,

Bihar, supporting state-level generation capacity addition.

- Facilitated resolution of issues faced by power plants regarding mandatory offer of Unrequistioned Surplus Power under Electricity (Late Payment Surcharge and related matters) Rules including allowing sale of URS power from linkage coal in Power Exchanges for existing contracts
- Examined request of thermal developers for fulfilment of RGO by JVs/Subsidiaries/Sister companies and provided inputs to Ministry of Power
- Examined draft amendments proposed in the Model Bidding Documents (MBDs) for Procurement of Power for Long Term from Thermal Power Stations set up on Design, Build, Finance, Own, and Operate (DBFOO) basis and provided inputs to Ministry of Power
- Request for extending the relaxing the Technical Qualification criteria for bidders in respect of HVDC projects for another two years till 2027 examined and comments sent to MoP. The same was accepted by MoP.
- Recommendation was made to introduce technical requirement w.r.t. Synchronous Condensers (Syncon) for TBCB Transmission projects and the same was agreed by MoP.
- Amendments were suggested in RFP and TSA for enabling Alternative Investment Fund (AIF) to participate in bidding process of transmission projects
- Based on extensive stakeholders' consultations, comprehensive recommendations of CEA on changes suggested by stakeholders in Standard Bidding Documents were sent to MoP in December 2025
- Based on representation received from EPTA, the methodology for computing discount rate for determining the Relief under Force Majeure Event and change in Law during the Construction Period was reviewed and inputs were shared with MoP.
- Request for lowering TDS (0.1%) in case of transmission charge payment to ensure consistency, reduce litigation, and support timely investments in strengthening India's transmission infrastructure was examined and comments of CEA shared with MoP
- Tata Power representation of standardization of bid conditions for Pumped Storage Projects analysed and shared with MoP in Dec 2025

9.6 Monthly report on Indices

A summary analysis from electricity point of view of major indices like WPI, Index of eight core industries, CPI and IIP released by DPIIT and MOSPI is prepared and sent to Ministry of Power on monthly basis.

9.7 Economic Analysis of Policy Issues

CEA has been regularly providing inputs/comments on various issues/communications received from the Ministry of Power, especially concerning with Free Trade Agreements (FTAs), Comprehensive Economic Partnership Agreements (CEPA) and Comprehensive Economic Cooperation Agreement (CECA) with other countries.

9.8 The Electricity Act, 2003

9.8.1 Framing and Amendments of the CEA Regulations framed and notified under the Electricity Act, 2003

Central Electricity Authority has been vested with the powers to make Regulations under Section 177 of the Electricity Act, 2003. The status of the notification of principal regulations and their subsequent amendments since the enactment of the Electricity Act, 2003, is as under:

A. Notified Principal Regulations:

The following principal regulations have already been framed and notified by the Authority during previous years since the enactment of the Electricity Act, 2003:

Sl. No.	Regulation	Notified on
1	CEA (Installation & Operation of Meters), Regulations 2006	22.03.2006
2	Central Electricity Authority (Procedure for Transaction of Business) Regulations, 2006	22.8.2006
3	Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulation, 2007	09.03.2007
4	Central Electricity Authority (Furnishing of Statistics, Returns & Information) Regulation, 2007	19.04.2007
5	Central Electricity Authority (Grid Standards) Regulation, 2010	26.06.2010
6	Central Electricity Authority (Safety requirements for construction, operation and maintenance of electrical plants and electric lines) Regulations, 2011	14.02.2011
7	Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013	07.10.2013
8	Central Electricity Authority (Technical Standards for Communication Systems in Power Systems) Regulations, 2020	27.02.2020
9	Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022*	27.12.2022
10	Central Electricity Authority (Flexible operation of thermal Generating Units) Regulations, 2023	30.01.2023
11	Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations,2023 (Replaced the earlier regulation of 2010)**	08.06.2023

*This Regulation has replaced/repealed the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010 notified in 2010.

**This regulation has repealed the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, notified in year 2010.

B. Notified amendments in the Principal Regulations:

The regulations are regularly reviewed and amended by the Authority as per the requirements of various stakeholders in the power sector including general public at large. Total 12 nos. of **amendments** have been notified by the Authority during previous years since the enactment of the Electricity Act, 2003. These are as under:

Sl. No.	Regulation	Notified on
1	Central Electricity Authority (Installation and Operation of meters) (Amendment) Regulations 2010	26.06.2010
2	Central Electricity Authority (Technical Standards for Connectivity to the Grid) Amendment Regulations, 2013	15.10.2013
3	Central Electricity Authority (Installation and Operation of meters) (Amendment) Regulations 2014	03.12.2014
4	Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2019	08.02.2019
5	Central Electricity Authority (Technical Standards for Connectivity to the Grid) (Amendment) Regulations, 2019	08.02.2019
6	3rd Amendment to the Central	23.12.2019

	Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2019	
7	Central Electricity Authority (Installation and Operation of Meters) (Amendment) Regulations, 2022	28.02.2022
8	Revision of Formats in Central Electricity Authority (Furnishing of Statistics, Returns & Information) Regulations, 2007) (Amendment)	17.03.2022
9	Central Electricity Authority (Safety Requirements for Construction, Operation and Maintenance of Electrical Plants and Electric Lines) (Amendment) Regulations, 2022	16.11.2022
10	Addition/ revision of the formats in the Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007	26.07.2023
11	Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Amendment Regulations, 2025	10.10.2025
12	Central Electricity Authority (Measures relating to Safety and Electric Supply) (First Amendment) Regulations, 2025	30.03.2026

9.8.2 Court Cases

- CEA is dealing with the Court Cases filed in the Hon'ble Supreme Court, High Courts, National Green Tribunal and District Courts/ Lower Courts across the Country on behalf of Government of India, Ministry of Power and Central Electricity Authority.
- More than 250 court cases which are ongoing/ pending at various courts in which Ministry of Power or Central Electricity Authority have been impleaded as respondent (s) during the year 2025-2026.

9.9 Assistance to Ministry of Power

Comments were furnished to the Ministry of Power on various references received. The important issues in which the comments were furnished are as under: -

- Exemption to Indian Railways from the Renewable Consumption Obligation (RCO) under proposed Gazette Notification
- Clarification regarding statutory inspection of new and periodical statutory inspection of existing electrical.
- Comments were provided to the Ministry of Housing and Urban Affairs on the issue of Waste to Energy
- Clarification regarding disclosure of transmission route details to the persons who are not affected from lying of transmission lines authorized under section 164 of the Electricity Act 2003.
- Provided brief note for Conference on" Efficient and Effective Management of Litigation by Government of India".
- Examination of the Jan Vishwas (Amendment of Provisions) Bill, 2025
- Comments were provided request for modification in NPP portal w.r.t BALCO's Unit-2 (1200MW) deletion as same declared as CPP.
- Comments were provided on confirmation on PPA eligibility for supply of coal under para B(iii) of SHAKTI Policy, 2017.
- Comments were provided on Decriminalization of Acts in the Power Sector.

9.10 Legal Assistance/Advice to Utilities

The comments were furnished to various departments/organizations stakeholders/ utilities on references received from them. The important issues on which the comments were furnished are as under: -

- Underground transmission lines permission requirement under Electricity Act, 2003
- matter proposed by DAE to align the Electricity Rules, 2005 to enable BSR model as Captive generating plant

9.11 In exercise of the powers vested under sub-rule (3) of rule 3 of the Electricity Rules, 2005, examined and processed ten no. of applications for verification of captive status of generating stations having single captive user.

9.12 Other important Policy and Regulatory issues

Following references on policy and regulatory aspects in the Power Sector have been dealt:

- Steered national energy policy initiative as Member Secretary of the Inter-Ministerial Committee (co-chaired by Member (E&C), CEA and Joint Secretary, Department of Atomic Energy), preparing the "Report on Roadmap for 100 GW Nuclear Capacity by 2047."
- Formulated policy input for amendment in Allocation of Business Rules, enabling faster development of nuclear power by aligning electricity generation from atomic energy under both the Department of Atomic Energy and the Ministry of Power.
- Prepared draft Guidelines for Tariff-Based Competitive Bidding (TBCB) for Waste-to-Energy Projects, a key reform measure to promote circular economy-based clean energy solutions.
- Contributed on draft framework to categorise different activities in power sector under Climate Finance Taxonomy for India
- Considering the request of Waste to Energy developers, draft Guidelines for competitive procurement of electricity from Waste Energy Project under Section 63 of the Electricity Act 2003 were prepared first time and shared with Ministry of Power
- Based on advice of Ministry of Power, scheme for technology agonostic procurement of 2000 MW peak power during crunch period of April 2026-June 2026 was prepared and based on policy approval, NVVN conducted bids for the same.
- Report on scope of cost reduction in different segments of power sector including generation, transmission and distribution was prepared in consultation with stakeholders and shared with MoP.
- **Financial Releases**: Examined the proposals for Release of VGF 1st tranche (10% of Total VGF) under State Component for different BESS Projects and recommended release of fund in Rajasthan, Gujarat, Karnataka
- **Contractual Disputes resolution**:

  • Comprehensive solution to disputes between power departments of Ladakh and J&K regarding high electricity bill raised by UT of J&K with UT of Ladakh was suggested and agreed upon

  • Presented the report in MoP on "Apportionment of Current Assets & Current Liabilities, and staff related liabilities of State Electricity Board between Jharkhand and Bihar consequent to Reorganization of the State
- **Green Hydrogen**: Considering the difficulties faced by green hydrogen/green ammonia developers, draft notification clarifying India as Single Bidding Zone prepared in consultation with Grid India and MNRE and shared with MoP.

- **Carbon Credit Trading Scheme**: Inputs on identified methodologies for adoption in offset mechanism under Carbon Credit Trading Scheme (CCTS) were shared with BEE
- Draft floating Solar PV policy of MNRE was examined and comments of CEA were shared with MoP.
- Difficulties in implementation of section F of Late Payment Surcharge (LPS) Rules 2022 and amendment thereof (Maharashtra, Bajaj Energy, TSPL, Adani Power, Essar Power, DB Power) were resolved in consultation with stakeholders
- Analysed of request for permitting execution of PPA by the parent company of a successful bidder under the competitive bidding process (RE projects) and recommendation sent to MoP.
- Inputs for apportionment of water and power component of Kishau Multipurpose Project, Uttarakhand

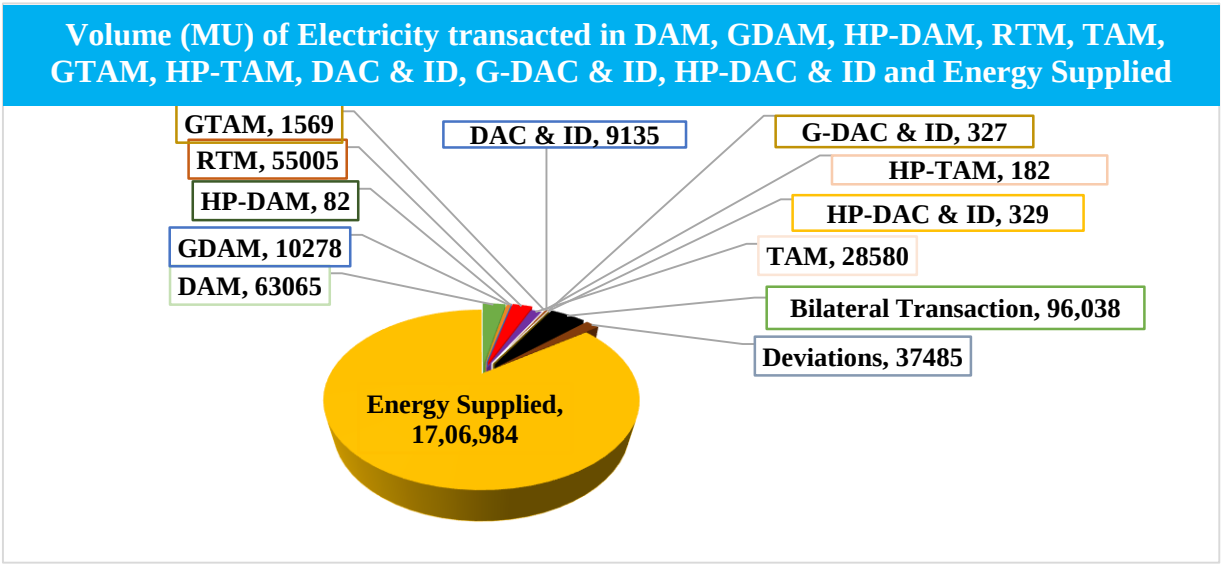
9.13 Market Monitoring

1. Ministry of Power in March, 2019 had entrusted CEA with the task of monitoring the transaction in the electricity market in India. As such, CEA prepares Monthly Market Monitoring Reports (MMMR) and Annual Market Monitoring Reports (AMMR) with the objective of analysis of movement of prices discovered for the electricity transacted on the power exchanges in India in the Day Ahead Market (DAM), Green Day Ahead Market (GDAM), High Price Day Ahead Market (HP-DAM), Real Time Market (RTM), Term Ahead Market (TAM), Green Term Ahead Market (GTAM), High Price Term Ahead Market (HP-TAM), Day Ahead Contingency & Intraday (DAC & ID), Green Day Ahead Contingency & Intraday (G-DAC & ID) and High Price Day Ahead Contingency & Intraday (HP-DAC & ID). In the year 2025-26, CEA has prepared Annual Market Monitoring Report (for year 2024-25) and Monthly Market Monitoring Reports (for March, 2025 to February, 2026). These reports are available on CEA's website (https://cea.nic.in/market-monitoring-cell-annual-report/?lang=en).

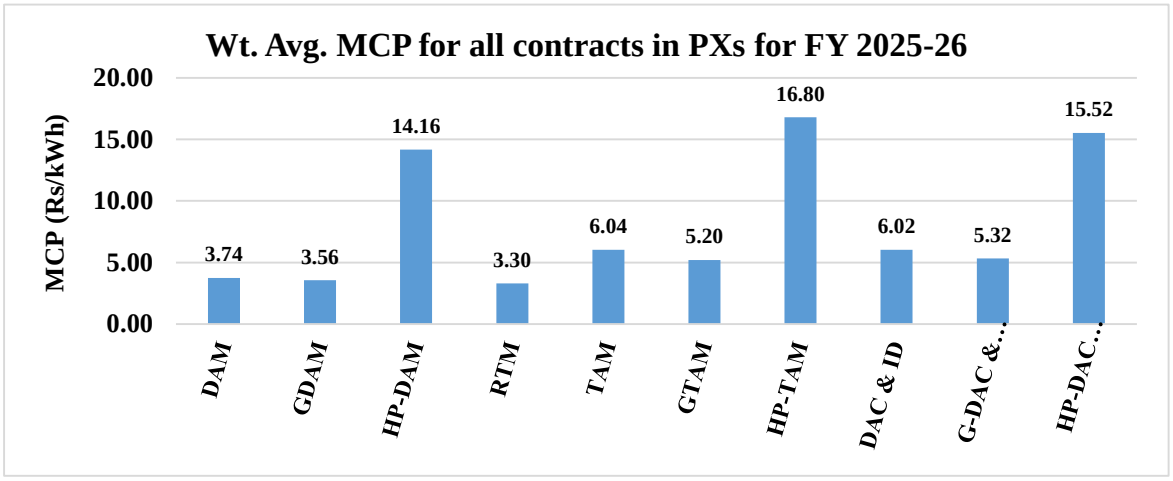
2. The salient points of the electricity market for FY 2025-26 are:

(i) The total volume of electricity transacted during FY 2025-26 in the power exchanges i.e. IEX, PXIL and HPX on delivery date basis was **168,553 MU**, which is 9.87 % of the total energy supplied i.e. **1,706,984 MU** in the country during FY 2025-26. The total volume of electricity transacted in FY 2025-26 increased by 17.31 % compared to the total electricity transacted in the power exchanges during FY 2024–25, which was 143,677 MU.

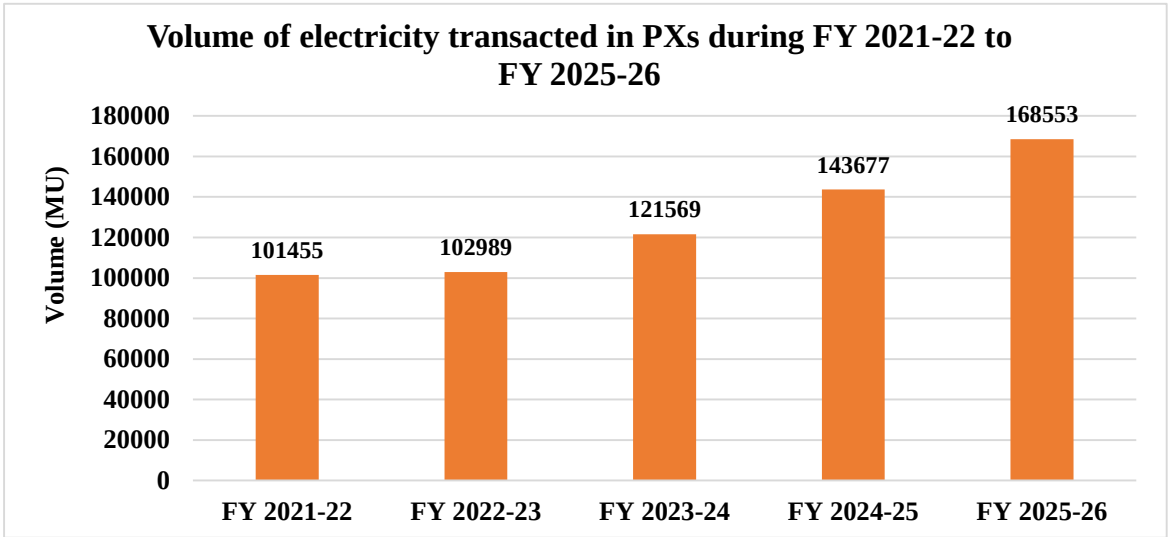
(ii) The total volume of electricity transacted in the power exchanges in DAM, GDAM, HP-DAM, RTM, TAM, GTAM, HP-TAM, DAC & ID, G-DAC & ID and HP-DAC & ID during FY 2025-26 were **63065 MU, 10278 MU, 82 MU, 55005 MU, 28580 MU, 1569 MU, 182 MU, 9135 MU, 327 MU and 329 MU,** respectively. The volume of electricity transacted in Day Ahead Market constituted about 37.42 % of total transacted volume of electricity in the power exchanges during FY 2025-26.



(iii) The Market Clearing Price variation among all the contracts in power exchanges for FY 2025-26 is as follows:



(iv) The total volume of electricity transacted in power exchanges from the period FY 2021-22 to FY 2025-26 is shown below:



CHAPTER – 10

POWER GENERATION

10.1 Power Generation

Generation of power from conventional sources (Thermal, Nuclear & Hydro) & import from Bhutan by the Central Sector, State Sector, Pvt. Utilities & IPPs was about 1537356.15 million units (MUs) during the Year 2025-26. This represents a decline of about 2.32 % over the same period during previous year 2024-25 as per details given below:

Power Generation during 2025-26

Category	Program (MU)	Actual (MU)	Shortfall (-)/ Excess (+) w.r.t Program (in MU)	% of Program	Growth (%) with respect to previous year Actual Gen.
Thermal	1503662.00	1307130.61	(-) 196531	86.93	(-) 4.10
Nuclear	56592.00	55190.52	(-) 1401.48	97.52	(-) 2.63
Hydro	155674.00	167203.78	11529.78	107.41	12.49
Bhutan Import	9472.00	7831.24	(-) 1640.76	82.68	42.80
Grand Total	1725400.00	1537356.15	(-) 188044	89.10	(-) 2.32

Note: Generation from stations having installed capacity less than 25MW is not being monitored in CEA since 01.04.2010.

The highlights / achievements of operation performance of generating stations in the country during the year 2025-26 are as under:

- Gross annual generation of the country was 1537.356 BU.
- The annual decline in the energy generation during the year was 2.32 %.
- Thermal, Nuclear, Hydro and Import from Bhutan achieved a growth rate of -4.10%, - 2.63%, 12.49% & 42.80% respectively. The electricity generation during the year 2025-26 from coal based thermal power stations was 1250.34 BU showing a decline rate of 3.68 % over same period last year.
- In Eastern Region, the decline in thermal generation was 1.67% with respect to last year, which was least amongst all the regions.
- The national average PLF for thermal stations was 65.18 % and 97 Stations with an aggregate installed capacity of 118945 MW, achieved PLF above national average. 2 number of thermal power stations with an aggregate installed capacity of 1100 MW achieved above 90% PLF

The Sector-Wise Generation and PLF during 2025-26 is given below:

Category /	APRIL 2025 - MAR-2026		
	Program (MU)	Actual (MU)	PLF (%)
CENTRAL SECTOR			
THERMAL	537215	466676.78	69.50
NUCLEAR	56592	55190.52	71.98
HYDRO	66137	65745.23	
TOTAL	**659944**	**587612.53**	
STATE SECTOR			
THERMAL	489227	391024.14	58.10
HYDRO	71074	82901.94	
TOTAL	**560301**	**473926.08**	
PVT. SECTOR UTL.			
THERMAL	19970	17473.17	61.92
HYDRO	1480	1522.22	
TOTAL	**21450**	**18995.39**	
PVT. SECTOR IPP			
THERMAL	457250	431956.52	68.15
HYDRO	16983	17034.39	
TOTAL	474233	448990.91	
TOTAL PVT	**495683**	**467986.3**	
BHUTAN IMP			
-	9472	7831.24	
All India Region			
THERMAL	1503662	1307130.61	65.18
NUCLEAR	56592	55190.52	71.98
HYDRO	155674	167203.78	
BHUTAN IMP	9472	7831.24	
TOTAL	**1725400**	**1537356.15**	

Note: Based on 2025-26 Actual Generation (Up to March, 25) from conventional sources Thermal/Hydro/Nuclear) with station capacity > 25 MW

10.2 Plant Load Factor (PLF) of Thermal Power Stations

During the year 2025-26 the average PLF of Thermal Power Stations was 65.18 % and for Nuclear Power Stations was 71.98%. 97 Thermal power plants (Coal and Lignite based) achieved PLF higher than the All India average PLF of 65.18 % as per details given in the table below:

List of Thermal Power Stations (Coal and Lignite based) which have achieved PLF above National Average of 65.18 % during the year 2025-26

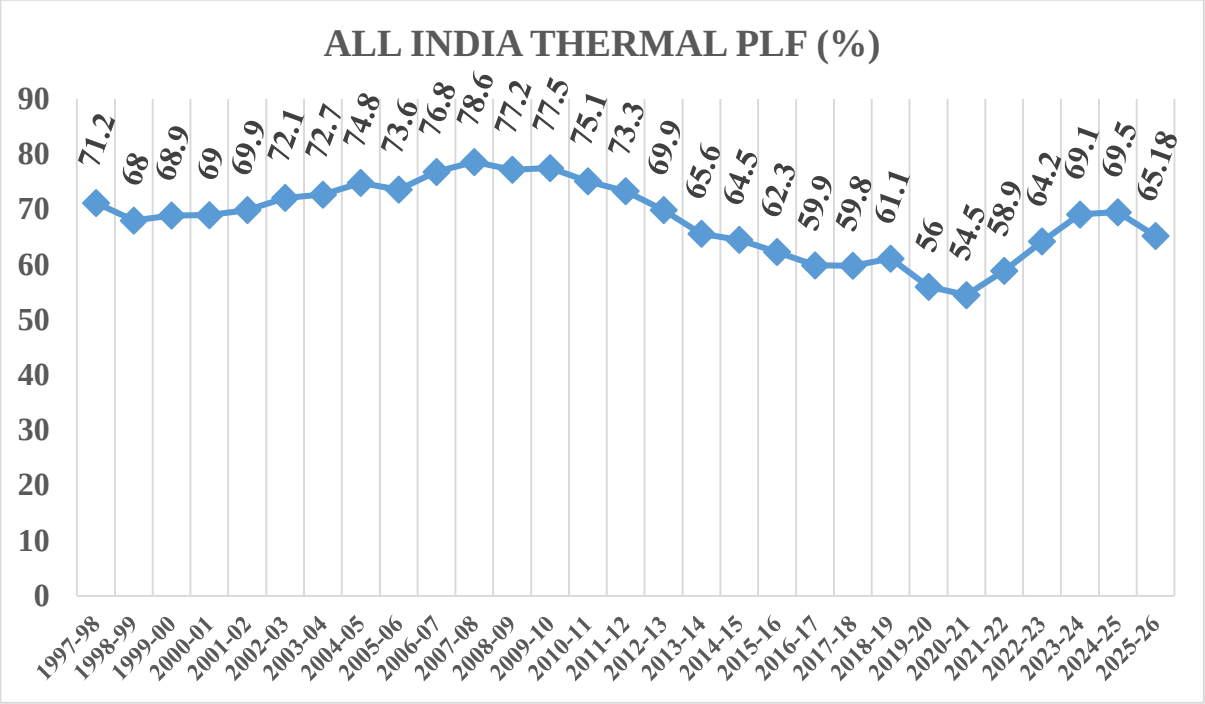
S. No.	Station Name	Capacity (MW)	Sector	State	PLF (%)
1	HALDIA TPP	600	IPP SECTOR	West Bengal	94.86
2	DSPM TPS	500	STATE SECTOR	Chhatisgarh	90.9
3	BAKRESWAR TPS	1050	STATE SECTOR	West Bengal	89.97
4	TORANGALLU TPS(SBU-I)	260	IPP SECTOR	Karnataka	89.2
5	NIGRI TPP	1320	IPP SECTOR	Madhya Pradesh	88.79
6	OP JINDAL TPS	1000	IPP SECTOR	Chhatisgarh	88.57
7	KORBA STPS	2600	CENTRAL SECTOR	Chhatisgarh	87.71
8	TAMNAR TPP	2400	IPP SECTOR	Chhatisgarh	87.56
9	DERANG TPP	1200	IPP SECTOR	Odisha	87.47
10	LARA TPP	1600	CENTRAL SECTOR	Chhatisgarh	86.92
11	SASAN UMTPP	3960	IPP SECTOR	Madhya Pradesh	86.75
12	KAMALANGA TPS	1050	IPP SECTOR	Odisha	86.63
13	BARADARHA TPS	1200	IPP SECTOR	Chhatisgarh	85.3
14	GMR WARORA TPS	600	IPP SECTOR	Maharashtra	84.85
15	SAGARDIGHI TPS	2260	STATE SECTOR	West Bengal	83.79
16	DHARIWAL TPP	600	IPP SECTOR	Maharashtra	82.93
17	DARLIPALI STPS	1600	CENTRAL SECTOR	Odisha	82.88
18	SGPL TPP	1320	IPP SECTOR	Andhra Pradesh	82.83
19	RIHAND STPS	3000	CENTRAL SECTOR	Uttar Pradesh	82.52
20	SIPAT STPS	2980	CENTRAL SECTOR	Chhatisgarh	82.2
21	IB VALLEY TPS	1740	STATE SECTOR	Odisha	82.19
22	AMRAVATI TPS	1350	IPP SECTOR	Maharashtra	82.1
23	BANDAKHAR TPP	300	IPP SECTOR	Chhatisgarh	82.01
24	BUDGE BUDGE TPS	750	PVT SECTOR	West Bengal	81.71
25	BHILAI TPS	500	CENTRAL SECTOR	Chhatisgarh	81.7
26	CHAKABURA TPP	30	IPP SECTOR	Chhatisgarh	80.92
27	SINGRAULI STPS	2000	CENTRAL SECTOR	Uttar Pradesh	79.32
28	TALCHER STPS	3000	CENTRAL SECTOR	Odisha	79.19
29	PATHADI TPP	600	IPP SECTOR	Chhatisgarh	79.06
30	BINJKOTE TPP	600	IPP SECTOR	Chhatisgarh	79.05
31	ANPARA TPS	2630	STATE SECTOR	Uttar Pradesh	79
32	RAJPURA TPP	1400	IPP SECTOR	Punjab	78.91
33	WARDHA WARORA TPP	540	IPP SECTOR	Maharashtra	78.9
34	VINDHYACHAL STPS	4760	CENTRAL SECTOR	Madhya Pradesh	78.73
35	ANPARA C TPS	1200	IPP SECTOR	Uttar Pradesh	78.55
36	JSW Mahanadi Power Company	1800	IPP SECTOR	Chhatisgarh	78.08

	Limited				
37	ANUPPUR TPP	1250	IPP SECTOR	Madhya Pradesh	78.01
38	SABARMATI (D-F STATIONS)	362	PVT SECTOR	Gujarat	77.98
39	BALCO TPS	600	IPP SECTOR	Chhatisgarh	76.56
40	KAHALGAON TPS	2340	CENTRAL SECTOR	Bihar	76.49
41	KAKATIYA TPS	1100	STATE SECTOR	Telangana	76.45
42	NAWAPARA TPP	600	IPP SECTOR	Chhatisgarh	75.81
43	MAHADEV PRASAD STPP	540	IPP SECTOR	Jharkhand	75.29
44	BINA TPS	500	IPP SECTOR	Madhya Pradesh	75.21
45	MAITHON RB TPP	1050	IPP SECTOR	Jharkhand	74.95
46	MARWA TPS	1000	STATE SECTOR	Chhatisgarh	74.76
47	NABINAGAR STPP	1980	CENTRAL SECTOR	Bihar	74.57
48	CHHABRA-I PH-2 TPP	500	STATE SECTOR	Rajasthan	74.46
49	SEIONI TPP	600	CENTRAL SECTOR	Madhya Pradesh	74.37
50	PRAYAGRAJ TPP	1980	IPP SECTOR	Uttar Pradesh	74.2
51	KHURJA TPP	1320	CENTRAL SECTOR	Uttar Pradesh	73.76
52	BARSINGSAR LIGNITE	250	CENTRAL SECTOR	Rajasthan	73.36
53	NORTH KARANPURA TPP	1980	CENTRAL SECTOR	Jharkhand	73.05
54	ADANI POWER LIMITED RAIGARH TPP	600	IPP SECTOR	Chhatisgarh	73.02
55	SURAT LIG. TPS	500	IPP SECTOR	Gujarat	72.73
56	KORBA-WEST TPS	1340	STATE SECTOR	Chhatisgarh	72.31
57	SINGARENI TPP	1200	STATE SECTOR	Telangana	72.09
58	ADANI POWER LIMITED TIRODA TPP	3300	IPP SECTOR	Maharashtra	72.03
59	ADANI POWER LIMITED RAIPUR TPP	1370	IPP SECTOR	Chhatisgarh	71.85
60	MEJIA TPS	2340	CENTRAL SECTOR	West Bengal	71.82
61	DURGAPUR STEEL TPS	1000	CENTRAL SECTOR	West Bengal	71.57
62	SHIRPUR TPP	300	IPP SECTOR	Maharashtra	71.49
63	ADANI POWER LIMITED KAWAI TPP	1320	IPP SECTOR	Rajasthan	71.42
64	MAUDA TPS	2320	CENTRAL SECTOR	Maharashtra	71.17
65	PAINAMPURAM TPP	1320	IPP SECTOR	Andhra Pradesh	70.75
66	NEYVELI TPS(Z)	250	IPP SECTOR	Tamil Nadu	69.89
67	SVPL TPP	63	IPP SECTOR	Chhatisgarh	69.82
68	ADANI POWER LIMITED MUNDRA TPP - III	1980	IPP SECTOR	Gujarat	69.78
69	GH TPS (LEH.MOH.)	920	STATE SECTOR	Punjab	69.7
70	KODARMA TPP	1000	CENTRAL SECTOR	Jharkhand	69.68
71	NABINAGAR TPP	1000	CENTRAL SECTOR	Bihar	69.52

72	TORANGALLU TPS(SBU-II)	600	IPP SECTOR	Karnataka	68.8
73	HIRANMAYE TPP	300	IPP SECTOR	West Bengal	68.68
74	LALITPUR TPS	1980	IPP SECTOR	Uttar Pradesh	68.39
75	Maadurga Thermal Power Company Ltd.	60	IPP SECTOR	Odisha	67.92
76	TELANGANA STPP PH-1	1600	CENTRAL SECTOR	Telangana	67.71
77	BELA TPS	270	IPP SECTOR	Maharashtra	67.5
78	JALIPA KAPURDI TPP	1080	IPP SECTOR	Rajasthan	67.48
79	Vedanta Ltd Chhattisgarh TPP	600	IPP SECTOR	Chhatisgarh	67.28
80	MEJA STPP	1320	CENTRAL SECTOR	Uttar Pradesh	66.98
81	RATIJA TPS	100	IPP SECTOR	Chhatisgarh	66.95
82	JSW Energy Utkal Limited	700	IPP SECTOR	Odisha	66.74
83	UNCHAHAR TPS	1550	CENTRAL SECTOR	Uttar Pradesh	66.68
84	SANJAY GANDHI TPS	1340	STATE SECTOR	Madhya Pradesh	66.64
85	KHAPARKHEDA TPS	1340	STATE SECTOR	Maharashtra	66.63
86	FARAKKA STPS	2100	CENTRAL SECTOR	West Bengal	66.52
87	CHHABRA-I PH-1 TPP	500	STATE SECTOR	Rajasthan	66.14
88	ROSA TPP Ph-I	1200	IPP SECTOR	Uttar Pradesh	66.13
89	GADARWARA TPP	1600	CENTRAL SECTOR	Madhya Pradesh	66.03
90	KOTA TPS	1240	STATE SECTOR	Rajasthan	66.01
91	NIWARI TPP	90	IPP SECTOR	Madhya Pradesh	65.92
92	KASAIPALLI TPP	270	IPP SECTOR	Chhatisgarh	65.91
93	RAGHUNATHPUR TPP	1200	CENTRAL SECTOR	West Bengal	65.73
94	UCHPINDA TPP	1440	IPP SECTOR	Chhatisgarh	65.55
95	METTUR TPS	840	STATE SECTOR	Tamil Nadu	65.53
96	DAHANU TPS	500	PVT SECTOR	Maharashtra	65.51
97	BONGAIGAON TPP	750	CENTRAL SECTOR	Assam	65.37

Note: Based on 2025-26 Actual Generation (Up to March, 25) from conventional sources Thermal/Hydro/Nuclear) with station capacity > 25 MW

The trend in All India PLF of coal and Lignite based thermal power stations from 1997-98 onwards is shown below:



All India Sector-wise/ Organization-wise program, actual generation and PLF (%) for the year 2025-26 is at the **Annexure-10A**.

CHAPTER – 11

POWER DEVELOPMENT IN NORTH-EASTERN REGION

11.1 Hydro-electric Potential in N.E. Region

As per Re-assessment studies of 2017-23 carried out by CEA, hydro potential of the North Eastern Region in terms of installed capacity has been estimated as 61980.7 MW (above 25 MW capacity and including Sikkim). Out of the above, 5055 MW (above 25 MW capacity and including Sikkim) have been harnessed so far, while projects amounting to 5996 MW (above 25 MW capacity and including 620 MW in Sikkim) are under construction as on 31.03.2026. State-wise identified hydro-electric potential (above 25 MW) of North-Eastern Region and its status of development is given below:

Region / State	Identified potential as per Re-assessment Study of 2017-23 (Above 25 MW)	H. E. Schemes Developed (Above 25 MW)	H.E. Schemes Under Construction (Above 25 MW)
Meghalaya	2026	322	0
Tripura	0	0	0
Manipur	615	105	0
Assam	643	346	120
Nagaland	325	75	0
Ar. Pradesh	50394	1865	5256
Mizoram	1926.7	60	0
Sikkim	6051	2282	620
Total(NER):	**61980.7**	5055	**5996**

Region / State	H. E. Schemes Concurred by CEA (MW)	H. E. Schemes Under Examination in CEA (MW)	H. E. Schemes Returned to Project authorities (MW)	H. E. Schemes under S&I (MW)*
Meghalaya	85	0	0	270
Tripura	0	0	0	0
Manipur	0	0	0	0
Assam	0	0	60	0
Nagaland	186	0	0	0
Ar. Pradesh	14662	1605	3523	15234
Mizoram	0	0	0	0
Total(NER)	14933	1605	3583	15504

* Including one multipurpose project namely Upper Siang (11200 MW) in Arunachal Pradesh

11.1 Survey & Investigation of Hydro Projects

As on 31.03.2026, 8 Nos. of schemes aggregating to 15504 MW are under Survey and Investigation in the North Eastern Region.

11.2 Status of development

Hydro Electric Projects being planned in the North Eastern Region (including Sikkim) are as under:

S. No	Name of Project	Agency	State	Present Status
1.	Teesta-IV (520 MW)	NHPC Ltd	Sikkim	Concurrence accorded by CEA on 20.11.2009.
2.	Demwe Lower (1750 MW)	Greenko Energies Pvt Ltd	Arunachal Pradesh	Concurrence accorded by CEA on 20.11.2009. Greenko Energies Pvt Ltd has acquired the project through NCLT vide NCLT order dated 18.03.2025.
3.	Dibbin (120 MW)	KSK Dibbin Hydro Power Limited	Arunachal Pradesh	Concurrence accorded by CEA on 04.12.2009. Installed capacity of the project is likely to be revised. Accordingly, DPR needs to be re-casted. MoP vide letter dated 22.12.2021 indicated that Dibbin HEP will be pursued by NEEPCO
4.	Lower Siang (2700 MW)	Jaiprakash Associates Ltd.	Arunachal Pradesh	Concurrence accorded by CEA on 16.02.2010. MoP vide letter dated 22.12.2021 indicated that Lower Siang HEP to be pursued by NHPC.
5.	Nafra (120 MW)	NEEPCO	Arunachal Pradesh	Concurrence accorded by CEA on 11.02.11. MoU between NEEPCO and Govt of Arunachal Pradesh signed on 14.08.2021.
6.	Tawang-I (600 MW)	NHPC Ltd.	Arunachal Pradesh	Concurrence accorded by CEA on 10.10.2011. MoP vide letter dated 22.12.2021 indicated that Tawang-I HEP to be pursued by NEEPCO.
7.	Tawang-II (800 MW)	NHPC Ltd.	Arunachal Pradesh	Concurrence accorded by CEA on 22.09.2011. MoP vide letter dated 22.12.2021 indicated that Tawang-II HEP to be pursued by NEEPCO.
8.	Hirong* (500 MW)	NEEPCO	Arunachal Pradesh	Concurrence accorded by CEA on 10.04.2013. MoA signed by NEEPCO with GoArP on 12.08.2023.
9.	Etalin* (3097 MW)	SJVNL	Arunachal Pradesh	Concurrence accorded by CEA on 12.07.2013. MoA signed by SJVNL with GoArP on 12.08.2023.
10.	Talong Londa (225 MW)	GMR	Arunachal Pradesh	Concurrence accorded by CEA on 16.08.2013. MoP vide letter dated 22.12.2021 indicated that Talong Londa HEP to be pursued by NEEPCO.
11.	Naying* (1000 MW)	NEEPCO	Arunachal Pradesh	Concurrence accorded by CEA on 11.09.2013. MoA signed by NEEPCO with GoArP on 12.08.2023.
12.	Siyom (1000 MW)	Siyota Hydro power Pvt. Ltd	Arunachal Pradesh	Concurrence accorded by CEA on 17.12.13 DPR need to be re-casted. There is no need to change in IC but as per recommendations in BSR, FRL needs to be reduced for free flow stretch and hence there may be change in other parameters including shift in location of Dam/ Barrage etc..
13.	Dikhu (186 MW)	Naga Manu Power Private Ltd.	Nagaland	Concurrence accorded by CEA on 31.03.14.
14.	Kalai-II* (1200 MW)	THDCIL	Arunachal Pradesh	Concurrence accorded by CEA on 27.03.2015. MoA signed by THDCL with GoArP on 30.12.2023.
15.	Kynshi – I (270 MW)	Athena Kynshi power Pvt.Ltd.	Meghalaya	Concurrence accorded by CEA on 31.3.2015. Revised DPR has to be submitted

16.	Attunli* (680 MW)	SJVNL	Arunachal Pradesh	Concurrence accorded by CEA on 15.03.2018. MoA signed by SJVNL with GoArP on 12.08.2023.
17.	Wah-Umiam Stage-III (85 MW)	NEEPCO	Meghalaya	Concurrence accorded by CEA on 26.07.2021
18.	Anjaw (270 MW)	Lohit Urja Pvt Ltd.	Arunachal Pradesh	Project appraised by CEA on 15.10.2025.
19.	Ranganadi St-II (130MW)	NEEPCO	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
20.	Karbi Langpi (U. Borpani) (60 MW)	Assam State Electricity Board	Assam	DPR was returned to developer for re-submission after tying-up of requisite inputs.
21.	Yamne St-II (84 MW)	SS Yamne Energy Ventures Private Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
22.	Pemashelphu (90 MW)	Mechuka Hydro Power pvt. Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
23.	Sissiri (100 MW)	Soma Sissiri Hydro Pvt. Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
24.	Gimliang (80 MW)	SKI Pvt. Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
25.	Raigam (141 MW)	SKI Pvt. Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
29.	Kangtang Shiri (80 MW)	Kangtang Shiri Hydro Project Pvt. Ltd	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
30.	Nyukcharang Chu (96 MW)	Sew Energy Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
31.	Magochu (96 MW)	Sew MagoChu Power Corporation Limited	Arunachal Pradesh	DPR was returned and all the partial clearances issued till date were rescinded as no progress has been made by the Developer towards resolving the issues pending with various appraising groups.
32.	Hutong- II (1200 MW)	Mountain Fall India Pvt. Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
33.	Kalai-I (1352 MW)	Mountain Fall India Pvt. Ltd.	Arunachal Pradesh	DPR was returned to developer for re-submission after tying-up of requisite inputs.
34.	Tagurshit (74 MW)	Larsen & Toubro Arunachal Hydro power Ltd.	Arunachal Pradesh	Developer vide letter dated 28.08.2018 informed that the company has decided not to go ahead with implementation of the project. In view of this, CEA returned the DPR vide its letter dated 20.06.2019 as the scheme is no more under consideration for CEA's concurrence

* MoA with state govt signed on 12.08.2023.

11.4 Status of Various Hydro Power Projects in North-Eastern Region Appraised by CEA.

11.4.1 Revised Cost Estimates

(i) Kameng (4x150=600 MW), Ar. Pradesh by NEEPCO

RCE submitted by NEEPCO on 27.12.2023 at completion cost. The RCE is under finalization.

11.4.2 CEA concurred Projects, yet to be taken under construction.

(A) Central Sector Projects:

(i) Tawang H.E Project St-I (3x200= 600 MW) in Ar. Pradesh by NHPC Ltd.

Project was accorded concurrence by CEA on 10.10.2011 at an estimated cost of ₹4824.01 Crores (including IDC & FC) at May, 2010 price level. MOP vide letter dated 22.12.2021 indicated that Tawang-I HEP to be pursued by NEEPCO.

Environment clearance was accorded on 10.06.2011. Forest clearance Stage-I & II yet to be obtained.

(ii) Tawang H.E Project St.-II (4x200=800 MW) in Ar. Pradesh by NHPC Ltd.

The project was concurred by CEA on 22.9.2011 at an estimated cost of ₹ 6112.3 crores (including IDC & FC) at May, 2010 price level. MOP vide letter dated 22.12.2021 indicated that Tawang-II HEP to be pursued by NEEPCO.

Project was accorded environment clearance on 10.06.2011. MoEF&CC vide letter dated 08.01.2014 has accorded Forest Clearance (Stage- I) for diversion of 116.62 ha forest land for the project. Forest clearance stage-II yet to be obtained.

(iii) Hirong HE Project (4x125 =500MW) in Arunachal Pradesh by NEEPCO.

Hirong H.E. Project was accorded concurrence by CEA on 10th April, 2013 at an estimated completed cost of ₹ 5532.63 Crores.

Environment clearance and Forest clearance are yet to be obtained. EIA/EMP report being revised as per Siang BSR. Project allotted to NEEPCO.

(iv) Wah-Umium Stage-III (Erstwhile Mawphu Stage-II) H.E. Project (2x42.5= 85 MW)-Meghalaya

The project was concurred by CEA on 26.07.2021 at an estimated cost of ₹ 965.40 crores at January, 2019 price level.

Environment clearance recommended by EAC on 26.02.2018. However, Environment clearance will be issued immediately on submission of Stage-I Forest Clearance. Forest Clearance yet to be obtained.

(v) Naying HE Project (4x250 =1000MW) in Arunachal Pradesh by NEEPCO

Naying H.E. Project was accorded concurrence by CEA on 11th Sept, 2013 at an estimated completed cost of ₹ 9301.11 Crores. Environment clearance and Forest clearance are yet to be obtained. Environment clearance is linked with Siang Basin Study Report. MoEF&CC stated that developer needs to apply afresh for EC online as old proposal is not valid anymore. Project allotted to NEEPCO.

Govt. of Arunachal Pradesh has approved the allotment of Naying HEP to NEEPCO Ltd. on 13.01.2023.Application through PARIVESH portal for diversion of forest land submitted on 21.08.2024

(vi) Nafra HE Project (2x60= 120 MW) in Arunachal Pradesh by NEEPCO

The project was concurred by CEA on 11.02.2011 at an estimated cost of ₹ 848.22 crores at completion cost. Project was accorded Environmental Clearance on 19.08.2013. Forest Clearance-I accorded on 12.07.2011 & Forest Clearance-II accorded on 26.06.2012.

MoU between NEEPCO and Govt of Arunachal Pradesh signed on 14.08.2021. Project is subjudice in Hon'ble Guwahati High Court.

(vii) Etalin HE Project (10x307+1x9.6+1x7.4 = 3097MW) in Arunachal Pradesh by SJVNL

Etalin H.E. Project was accorded concurrence by CEA on 12th July, 2013 at an Estimated completed cost of ₹ 25296.95 Crores. MoP vide letter dated 22.12.2021 indicated that Etalin HEP to be

pursued by SJVNL.

Environment clearance accorded on 23.08.2025. Forest Clearance stage-I obtained on 20.06.2025. Forest clearance stage II is yet to be obtained. Project allotted to SJVNL. MoP on 11.11.2025 re-indictaed the project to NHPC.

(viii) Kalai – II HE Project (6x200 = 1200MW) in Arunachal Pradesh by THDCIL

Kalai – II H.E. Project was accorded concurrence by CEA on 27th March, 2015 at an estimated completed cost of ₹ 14199.64 Crores. MOP vide letter dated 22.12.2021 indicated Kalai-II HEP to be pursued by THDC.MoA with state govt. signed on 30.12.2023.

EAC in meeting held on 19.12.2025 recommended for EC. Investment approval accorded on 22.04.2026.

(ix) Attunli HE Project (4x170 = 680MW) in Ar. Pradesh by SJVNL

Attunli H.E. Project was accorded concurrence by CEA on 15.03.2018 at an estimated completed cost of ₹ 6111.28 Crores. MOP vide letter dated 22.12.2021 indicated that Attunli HEP to be pursued by SJVNL. Environmental Clearance and Forest clearance are yet to be obtained.

(x) Kamala HE Project (8x210 + 1x40 = 1720 MW), Arunachal Pradesh by NHPC Ltd

Kamala H.E. Project was accorded concurrence by CEA on 23.05.2025 at an estimated cost of ₹ 23764.01 Crores at completion level. EC and FC are yet to be obtained. Investment approval accorded on 22.04.2026.

(xi) Anjaw HE Project (4x67.5= 270 MW), Arunachal Pradesh by Lohit Urja Pvt Ltd

Anjaw H.E. Project was accorded appraised by CEA on 15.10.2025 at an estimated cost of ₹ 2983.43 Crores at completion level. EC and FC are yet to be obtained.

(xii) Teesta-IV HE Project (4x130=520 MW), Sikkim by NHPC Ltd.

Teesta-IV H.E. Project was accorded concurrence by CEA on 13.05.2010 at an estimated cost of ₹ 3594.74 Crores at July'2009 PL. EC accorded on 09.01.2014 and FC-I accorded on 26.02.2013. FC-II is yet to be obtained

(B) State Sector Projects

NIL

(C) Private Sector Projects

1) Demwe Lower HE Project (5x342 + 1x40=1750 MW), Arunachal Pradesh by Greenko Energies Pvt Ltd

Demwe Lower HE Project was accorded concurrence by CEA on 20.11.2009 for an estimated cost of ₹ 13144.91 Crores (Completion Cost). MOP vide letter dated 22.12.2021 indicated that Demwe lower HEP to be pursued by THDC.

MoEF&CC has accorded Environmental clearance to the project on 12.2.10. Forest clearances stage-II has been accorded on 03.05.2013. As per NGT order dated

24.10.2017, NBWL issue to be reconsidered by MoEF&CC.

Project was under litigation at NCLT. Greenko Energies Pvt Ltd has acquired the project through NCLT vide NCLT order dated 18.03.2025.

ii) Lower Siang HE Project (9x300=2700 MW), Ar. Pradesh by JAPL

Lower Siang HE Project was accorded concurrence by CEA on 15.02.2010 for an estimated cost of ₹ 19990.74 Crores (Completion Cost).

Environment clearance & Forest clearance are yet to be obtained. MoP vide letter dated 22.12.2021 indicated that Lower Siang HEP to be pursued by NHPC. Techno-commercial aspects of Siang Lower are un-certain at this stage and shall only be firmed up after fixing the parameters of Siang Upper.
Forest clearance stage-I & II are yet to be obtained. Project allotted to SJVNL.

iii) Talong Londa HE Project (3x75 = 225MW) in Arunachal Pradesh by GMR

Talong Londa H.E. Project was accorded concurrence by CEA on 16th Aug, 2013 at an estimated completed cost of ₹2172.88 Crores. MOP vide letter dated 22.12.2021 indicated that Talong Londa HEP to be pursued by NEEPCO.

Environment clearance accorded on 07.08.15.

Forest clearance stage-I& II are yet to be obtained.

iv) Dikhu HE Project (3x62= 186 MW) in Nagaland by NMPPL

Dikhu H.E. Project was accorded concurrence by CEA on 31.03.2014 at an estimated completed cost of ₹1994.74 Crores.

Environmental Clearance yet to be obtained. FC not applicable as forest land is not involved

11.5 Status of Under Construction Hydro Power Projects in North Eastern Region including Sikkim:

11.5.1 Central Sector Projects

- **NHPC Projects (Hydro)**

(i) Subansiri Lower HEP (8x250 = 2000 MW), Arunachal Pradesh

The project is located in the districts Lower Subansiri/Dhemaji in Arunachal Pradesh/Assam on river Subansiri. The project was Techno-Economically cleared by CEA on 13.01.2003. The CCEA clearance was accorded on 09.09.2003 for an estimated cost of Rs. 6285.33 crores with the schedule commissioning of the project in September, 2010. The design energy is 7421.59 Gwh. The anticipated cost of the project is Rs. 19992.43 crores at January-2020 price level.

The Project envisages construction of concrete gravity dam, horse shoe type head race tunnels, circular steel lined pressure shaft and surface power house having Francis turbine driven generatingsets.

Major civil works have been awarded to M/s. BGS- SGS-Soma Joint Venture and Larsen & Toubro. Ltd. Chennai on 19.12.2003. E&M works has beenawarded to Consortium of M/s Alstom Power Hydraulique, France and Alstom Projects India Ltd. New Delhi on 11.02.2005. Hydro-Mechanical Package awarded to Texmaco on 19.06.2006.

All work except safety works were stalled from December, 2011 to October, 2019 due to agitation launched by various activists against construction of Subansiri Lower HE Project and as per directions of NGT. Works restarted w.e.f. 15.10.2019 after clearance from NGT. However, work initially remained suspended w.e.f. 24.03.2020 to 20.04.2020 due to COVID-19 lockdown and further got affected due to Monsoon Period from May 2020.

Power House Civil works package has been re-awarded to M/s Patel Engineering Ltd on 01.09.2020.

A massive landslide occurred near the inlet of the DT-1 & DT-2 on 27.10.2023. This land slide washed out both the inlets. The muck of the landslides blocked the river flow through DT-1.

Unit-1 (250 MW), Unit-2 (250 MW), and Unit-3 (250 MW) were commissioned during December 2025 to February 2026. The remaining five units (1,250 MW) are likely to be commissioned during 2026–27.

Overall Physical and financial progress of project is 97.57% and 93.36% respectively upto March 2026.

(ii) Teesta-VI HEP (4x125=500 MW), Sikkim

The project is located in South Sikkim district of Sikkim state on river Teesta. The project was Techno-Economically cleared by CEA on 27.12.2006 to M/s Lanco Teesta Hydro Power Ltd (LTHPL), at an estimated cost of Rs 3283.08 Crs. The project envisages construction of 23.5m high Barrage, 2 nos. of HRT of 9.5m diameter and 11.8 Km long, 4 nos. Pressure shaft each of 5.40m dia and Power House to generate 2441 MU.

Major Civil works were awarded to M/s Lanco Infrastructure Ltd in March, 2007 and E&M works to M/s Alstom Projects, India in April, 2009. About 50% projects works were completed till March, 2014. Since April 2014, project was stalled due to financial crunch with the developer.

Accordingly, the Corporate Insolvency Resolution Process (CIRP) was initiated vide order dated 16.03.2018 of Hon'ble NCLT, Hyderabad Bench. In the Bidding process, NHPC emerged as successful bidder for acquisition of LTHPL. Subsequently, the investment proposal for an

estimated cost of Rs 5748.04 crore (Jul'18 PL), which includes Bid amount of Rs 907 crore for acquisition of LTHPL; was approved by the CCEA on 08.03.2019 for investment, acquisition of M/s LTHPL and execution of balance works of Teesta- VI HE Project by NHPC.

Regarding, tendering, LOT-I (Civil works of Barrage, Desilting Basins, SFT, Intake, Part of HRT-I & HRT-II and other associated structure) awarded to M/s. Jaypee Associate Ltd on 31.03.2020 and LOT-II (Civil works of Part of

HRT-I & HRT-II, Surge shaft, Pressure shaft, Powerhouse, TRT & other associated structure) awarded to M/s. Patel Engineering Limited on 22.09.2021. HM works were awarded on 27.10.2020. EM works were awarded on 28.08.2020.

Overall Physical and financial progress of project is 72.08% and 61.91% respectively upto March 2026. The Project is expected to be commissioned by Sept, 2029.

(iii) Rangit-IV HEP (3x40=120 MW), Sikkim

The project is located in West Sikkim district of Sikkim state on river Rangit. The project was Techno-Economically cleared by CEA on 06.07.2007 to M/s Jal Power Corp. Ltd (JPCL), at an estimated cost of Rs 726.16 Crs with the schedule commissioning of the project in January, 2012. The design energy is 513 Gwh. The project envisages construction of 44m high and 112.95m long Dam, 1 no. of HRT of 6.40m diameter and 6.453 Km long, Surge Shaft 16m dia and 57m height,1 no. Pressure shaft of 5.50m dia and 241m long.

Major Civil works were awarded to M/s Coastal Project Pvt. Ltd in Nov, 2007 and E&M works to M/s Andritz, India in Aug, 2009. About 50% projects works were completed till Oct, 2013. Since Nov. 2013, project was stalled due to financial crunched with the developer. The project Lenders file application in court of Hon'ble National Company Law Tribunal (NCLT), on 24th April, 2018. Last hearing of NCLT held on 29.03.2019 and order pronounced on 9.04.2019. As per the order, IRP has been appointed. NHPC Ltd. submitted EOI on dated 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on dated 23.08.2019. The Resolution Plan submitted by NHPC on 04.12.2019. Lot-I balance Civil works (Diversion Channel, Coffer Dams, Dam, Spillway & Stilling Basin, Intake Structure, Desilting Channel, SFT, HRT, Surge Shaft, Pressure Shaft, Power House, TRC and other associated structures.) was awarded to to M/s PES Engg. Pvt. Ltd on 28.06.2021 and to M/s Andritz Hydro Pvt. Ltd. on 08.07.2021 respectively.

Overall Physical and financial progress of project is 96.32% and 94.89% respectively upto March 2026. The Project is expected to be commissioned by November, 2026.

(iv) Dibang Multipurpose Project (12x240= 2880MW)-Arunachal Pradesh:

Dibang Multipurpose Project, one of the largest project having 278m high concrete gravity Dam, one of the highest Dam in the world. The project is located near village Munli in Lower Dibang Valley District of Arunachal Pradesh. The TEC was accorded by CEA on 18.09.20217 & project was cleared by CCEA on 27.02.2023 for an estimated cost of ₹ 31876.39 crores, with the scheduled commissioning of the project as February 2032. The project after construction shall control the flood at downstream for which Govt. of India sanctioned a grant of ₹ 6159.40 Crores for Flood Moderation. The project is envisaged as a storage project for flood moderation & hydropower. The design energy is 11223 MU. In addition, the reservoir created behind the dam will provide flood moderation benefit in the downstream. The flood moderation will save erosion of agricultural land, damage to crops and further save crores of rupees being spent on flood control measures.

The Project envisages utilization of net operating head of 222.50 m by construction of a 278m high concrete dam across river Dibang, horse shoe type head race tunnels, circular steel lined pressure shaft and an underground power house having Francis turbine driven 12 nos. generating sets of 240MW each.The project is in initial stage of construction. The Project is expected to be commissioned by 2031-32.

Overall Physical and financial progress of project is 17.25% and 14.37% respectively upto March 2026. The project is expected to be commissioned by February, 2032.

- **NEEPCO Projects (Hydro)**

(i) Heo HEP (3x80 = 240 MW), Arunachal Pradesh

The project is located in Shi Yomi District of Arunachal Pradesh State on Yarjep River. The TEC was accorded by CEA on 20.10.2023 to M/s NEEPCO & project was cleared by CCEA on 11.12.2024 at an estimated cost of ` Rs.1938.85 crore.The expected COD of the project is September, 2029.

The design energy is 1000.20 MU and design discharge is 130.25 m3/sec. The design head is 201.80 m. The project is in the initial stage of construction.

(ii) Tato I HEP (3 X 62 = 186 MW), Arunachal Pradesh

The project is located in Shi Yomi District of Arunachal Pradesh State on Yarjep River. The TEC was accorded by CEA on 12.10.2023 to M/s NEEPCO & project was cleared by CCEA on 11.12.2024 at an estimated cost of `Rs. 1,750.07 crore. The expected COD of the project is September, 2029.

The design energy is 802.59 MU and desing discharge is 132.88 m3/sec. The design head is 153.30m. The project is in the initial stage of construction.

(iii) Tato II HEP (4 X 175 = 700 MW), Arunachal Pradesh

The project is located in Shi Yomi District of Arunachal Pradesh State on Shiyom River. CCEA approval date was 04.09.2025 at an estimated cost of Rs. 8146.21 crore. The expected COD of the project is August, 2031.

The project is in the initial stage of construction.

11.6 Hydro Power Generation Performance

Hydro Power generation during the year 2022-24 (as on 31.03.2024) in the North Eastern Region was 6.28 BU against a target of 12.16 BU, which is about 48.31 % less.

11.7 R&M Schemes (Hydro) of North Eastern Region

Twelve (12) existing hydro schemes of North Eastern Region with an aggregate installed capacity of 770 MW have been identified for

11.5.2 Sector Projects

- **APGCLProject (Hydro)**

Lower Kopili (2x55+2x2.5+1x5 = 120 MW)

The project is located in Dima Hasao & Karbi Anglong districts of Assam on Kopili river. Concurrence of project was given by CEA on 24.5.2016 at an estimated cost of Rs. 1115.91 crore (at Januaray, 2015 PL). The design energy of project is 469.58 MU and scheduled to be commissioned in 48 months from Zero date. The project has been delayed as there was delay in getting the Stage-II Forest Clearance for handing over the forest land. The Forest department of Karbi Anglong handed over the Forest land to APGCL on 3rd July, 2021. The revised cost as estimated by developer is Rs. 1795 crore. The project achieved the financial closure and loan agreement has been signed with ADB on 30th December, 2020. The Civil and Hydro-mechanical packages was awarded to L&T Ltd. and agreement was signed on 21.8.2020. The Electro-mechanical packages was awarded to Andritz Hydro Pvt. Ltd. on 9.9.2021.

The project envisages construction of concrete gravity dam with 1 no. of HRT of 7.0m diameter and 3.64 Km long, Surge Shaft of Restricted Orifice type 25m dia, Pressure shaft of 6.10m dia and 451.20m length. One surface power house for two units of 55 MW with rated head of 114 meter and one Auxilary power house for remaining capacity of 10 MW (2x2.5=5 MW + 1x5 MW). Switchyard to main power house is at voltage level of 220 kV.

Overall Physical and financial progress of project is 96.7% and 96.9% respectively upto March 2026. The expected COD of the project is Otober, 2026.

R&M works to accrue a benefit of 538 MW. The R&M activities of nine (9) schemes having an aggregate installed capacity of 559 MW have already been completed at an actual expenditure of about Rs. 1461 Crores to accrue a benefit of 321 MW. The remaining three (3) schemes having an aggregate installed capacity of 211 MW are under various stages of implementation and are likely to accrue a benefit of 417 MW at an estimated cost of about Rs. 959.33 Crores. The scheme-wise status of the R&M works of the hydro schemes of North Eastern Region as on 31.03.2025 is given hereunder:

A. Schemes Completed

S. No.	Name of Scheme, Agency, State	Installed Cap. (MW)	Actual cost (Rs. Crs.)	Benefits (MW)	Status
1.	Khandong, U-1, NEEPCO, Assam	1x25	0.62	25 (Res.)	U-1 Restoration works completed in 1991-92
2.	Gumti, TPGL, Tripura	3x5	17.50	-	R&M works completed in 1994-95
3.	Khandong, NEEPCO, Assam	2x25	3.35	-	R&M works completed in 2003-04
4.	Umium St.I, MePGCL, Meghalaya	4x9	84.21	36 (LE)	RM&LE works completed in 2002-03
5.	Loktak, NHPC, Manipur	3x30 (Derated)	17.88	15(Res.)	R&M works completed in 2011-12
6.	Umium St.II, MePGCL, Meghalaya	2x9	55.67	18(LE) + 2 (U)	R&M works completed in 2011-12
7.	Kopili, NEEPCO, Assam	2x50	50.92	-	R&M works completed in 2014-15
8.	Khandong, NEEPCO, Assam	1x25	29.18	25(LE)	R&M works completed in 2014-15
9.	Kopili Power Station, NEEPCO, Assam	4x50	1201.65	200(LE)	R&M and LE works completed in 2024-25
	Sub Total(A)	**559**	**1460.98**	**321**	

B. Ongoing–Under Implementation

S. No.	Name of Scheme, Agency, State	Installed Cap. (MW)	Est. cost (Rs. Crs.)	Benefits (MW)	Status
10.	Khandong Power Station, NEEPCO, Assam	2x23	277.74	46(LE)	**E&M works:** Refurbishment works in U#1 & 2 completed, Erection works under progress. Unit#1 boxing up started. Unit#2 Turbine erection and stator/rotor build up is under progress. Erection works in Switchyard under progress. **Civil & HM works:** 80 % Civil and HM works completed.
11.	Kyrdemkulai (Umiam St.III), MePGCL, Meghalaya	2x30	408	60(LE) + 6(U)	**Electro & Mechanical Equipments (Package-I)** Reverse engineering of Unit-1 completed. At present the work in Design for E&M is completed and 60% of manufacturing of E&M equipment has been completed. **Hydro Mechanical & Civil facility (Package-2)** – LOA issued on 2nd January, 2025 and Signing of Contract was made on 27th January 2025.
12.	Loktak, NHPC, Manipur	3x35	273.59	105 (LE)	**E&M:**. Out of four packages, EM-2(Bus Duct) is awarded, the work under package EM-3 (EOT Crane) has been completed & work of EM-4 (DG Set) and supply under EM-1 (Main) package is in progress. **Civil:** Three out of five Civil packages have been awarded. The work under package C1 and C2 has been completed and work under package C4 is in progress. Tendering of remaining two civil packages is under process. **HM:** HM Package has been awarded and work is in progress.
	Sub Total(B)	**211**	**959.33**	**217**	
	Total(A+B)	**770**	**2420.31**	**538**	

Abbreviations: MW – Mega Watt; Res. – Restoration; U – Uprating; LE – Life Extension

CHAPTER-12

HUMAN RESOURCE DEVELOPMENT

12.0 Training of Manpower in CEA

Human Resource is essential for carrying out any business or service by an organization and the same is required to be developed through technical, functional and behavioral training. Keeping this in view, HRD Division of CEA has been organizing various training programs in technical, functional, managerial and behavioral areas to keep officers abreast of the latest technological developments as well as to bring about attitudinal changes.

Training Policy for Group A & B officers of CPES Cadre of CEA broadly covers the various training needs for officers of all levels in CEA. The broad objectives of the Training Policy are as under: -

- To enable CPES officers of CEA to discharge their functions effectively.
- To provide practical exposure to the CPES officers in the area of construction and Operation & Maintenance (O&M) of various types of Power Plants as well as Transmission & Distribution facilities, Grid Operation, Tariff related issues, Power Market etc. which would enhance their technical competencies.
- To enable the officers to draw plans, advise and monitor Power Sector projects with the strong background knowledge/experience of the sector.
- To familiarize the officers with the best practices in the application of advanced technologies in Power Sector.
- To develop and enhance the capabilities in the CPES officers to deal with rapid developments and challenges encountered by the Power Sector from time to time.
- To enhance the managerial competencies of the officers to enable them to play a leading role in the Power Sector so that the management can channelize the expertise of CEA officers in an effective manner.

12.1 Induction Training programme

A 13-week training programme for 29 newly recruited Assistant Directors of the CPES Cadre was conducted during 2025–26 to provide exposure to various aspects of the power sector. The programme covered areas such as Power Generation (both conventional and non-conventional), Transmission and Distribution systems, the role and functioning of the Central Electricity Authority (CEA), renewable energy technologies, grid interface technology, energy storage systems including pumped storage projects (PSPs), and the regulatory framework governing the Indian Power Sector. The training was held across four campuses of the National Power Training Institute (NPTI): NPTI Faridabad, NPTI Nangal, NPTI Neyveli, and NPTI Bengaluru.

12.2 Mid-Career/ Refresher Training Programmes

1. A two-week mid-career training program for 11 Directors of CEA, was conducted at NPTI, Kerala. The training focused on conflict resolution, project planning & Delegating, Contract Management, managing effective meetings, leadership innovation, and emerging technology in the power sector.

2. A two-week mid-career training program for 09 Deputy Directors of CEA, conducted at NPTI, Guwahati. The training focused on the regulatory framework in the power sector, flexible operation of thermal power plants, Financial Management, innovations in distribution networks, Integration of Renewable Energy & Non-Renewable Energy strategies in Indian context, carbon trading and other related topics.

3. 43 domain-related training programs for CEA officers were conducted at professional institutes such as NTPC School of Business, IRPRI, ASCI, ESCI, NPTI, CBIP, National Solar Institute of Wind Energy and Power Sector Skill Council etc. During the year 2025-26, a total of 222 officers attended these programs, which included technical courses, workshops, seminars, and conferences.

12.3 Training under Apprentice Act, 1961(Amendment rules 2015)

As per Apprentice Act 1961, (amendment rules 2015), Apprenticeship Training is being imparted at CEA to Graduate/Diploma Engineers. As per the requirement of the Board of Apprentice Training (BOAT), six modules namely Planning of Power sector, Thermal Power Projects, Hydroelectric Power Project, Power System Planning, Power Grid Operation and Power Distribution System were developed and the Apprenticeship Training is being imparted as per these modules. During the year 2025-26, 3 apprentice trainee has joined & pursuing the apprenticeship under the Apprentice Act 1961.

12.4 Summer / Winter Internship Training

During the financial year 2025-26, Internship training were given to a total 19 number of students in CEA from reputed institutes of India.

12.5 In-house Presentations

In-house presentations are organized time to time in collaboration with various industries and organizations to keep CEA officers updated on the latest technologies. During the year 2025-26, a total of 11 technical and non-technical presentations were conducted for CEA officers at Headquarters & officers posted in all 14 Sub-Offices of CEA joined via video conferencing.

A Two-day Vigilance Awareness, in compliance with the direction of CVC, was conducted for officers of CEA to provide general overview on Conduct Rules, Procurement, Ethics and Governance, System and Procedures of the Organization and Cyber hygiene and Security.

12.6 i-GOT-Mission Karamyogi:

All officers and staff of CEA have been duly registered on the i-GOT Karmayogi Portal under Mission Karmayogi, in line with the Government's capacity-building initiatives. Mandatory courses, aligned with the functional requirements and competency frameworks of the organization, have been carefully developed and systematically uploaded to the individual i-GOT accounts of all officers and staff to facilitate structured learning and continuous professional development. In addition, a comprehensive question bank for assessment purposes has been developed to evaluate the understanding and learning outcomes of the participants. The same has been uploaded to the respective i-GOT accounts, enabling standardized and objective assessment across all levels.

Further, these mandatory courses and the corresponding comprehensive assessments have been duly integrated and linked with the individual APAR accounts of all officers and staff of CEA on the SPARROW portal.

12.7 Recognition of Training Institutes

To fulfill its statutory duty specified under Section 73(g) of Electricity Act 2003 and Central Electricity Authority (measures relating to safety and electric Supply) Regulations 2023, CEA has been assessing the Power Sector training institutes in terms of infrastructure, utilization and quality of training programmes and facilitating CEA's accreditation for them in line with the following Guidelines

(i) CEA Guidelines for Recognition of Training Institutes in the field of Generation of Electricity including details of Training Curriculum for Engineers, Supervisors and Technicians January 2024,

(ii) CEA Guidelines for Recognition of Training Institutes in the field of Transmission of Electricity including details of Training Curriculum for Engineers, Supervisors and Technicians October 2025,

(iii) Revised CEA Guidelines for Recognition of Training Institutes in the field Distribution of Electricity including details of Training Curriculum for Engineers, Supervisors and Technicians December 2024 &

(iv) Revised Statutory Guidelines fo Training and Certification of Load Despatchers & Recognition of Training Institutes, December, 2024.

CEA has been advising /recommending various measures to the training institutes for improvement in the training infrastructure and methodologies for enhancing the skills and productivity of the personnel.

During the period 2025-26, the following 16 nos. Training institutes were granted recognition in imparting training to the personal engaged in O&M of Generation / Transmission / Distribution / Load Despatch fields of Power Sector:

Sl. No.	Name of Institute	Field of Training
1	Adani Power Training and Research Institute (APTRI), Dahanu, Palghar, Maharashtra	Thermal Generation (for 3 years)
2	Gujarat Energy Knowlege Centre, Wanakbori TPS, Kheda (Gujarat)-GTI	Thermal Generation (for 3 years)
3	Recognition of Rosa Learning & Development Centre, Rosa Power, Supply Co. Ltd., Shahjahanpur (U. P.)	Thermal Generation (for 5 years)
4	Dnyanprakash Regional Training Center, MSETCL, 400 kV RS Akola, Akola, Maharasthra	Transmission (for 3 Years)
5	Regional Training Center, MSETCL, Padghe, Thane, Maharashtra	Transmission (for 3 Years)
6	Regional Training Center, MSETCL, Jejuri, EHV CC, O&M Zone Pune, Building Third Floor, Block no 402, Rasta Peth	Transmission (for 3 Years)
7	Regional Training Center, Kohlapur, MSETCL, Talandage, Karad Zone, Kolhapur	Transmission (for 3 Years)
8	Dept. of Training & Safety, Eklahare, MSEDCL, Eklahare, Nashik-422105	Distribution (for 4 Years)
9	Essar Power Learning Centre, Devbhumi, Dwarka, Khambhaliya-361 305, Gujarat	Thermal Generation (for 4 Years)
10	Central Training Institute, Nayagaon, Jabalpur (M.P.)	Distribution (for 3 Years)
11	Recognition of Tata Power Skill Development Institute, Maithon, Dhanbad (Jharkhand)	Thermal Generation (for 3 Years)
12	HLTC EDC-PGCIL, 400 KV Sub-station, Hyderabad (T. S.), Ghatkesar, RR, Distt, Telengana- 501301	Transmission With Hotline Training (for 4 Years)
13	REC Institute of Power Management & Training, Shivrampalli Village,Telangana 500052 Hyderabad	Transmission, Distribution (for 4 Years)
14	TPSDI, Jojobera, Dist. Jamshedpur, Jharkhand	Thermal Generation (for 3 Years)
15	Koradi Training Centre, Nagpur, Koradi (Maharashtra)	Thermal Generation (for 5 Years)
16	Distribution Training Institute, CESC Limited, Taratala Road, Kolkata	Distribution (for 5 Years)

12.8 Meeting of newly recruited CPES officers with Hon'ble President of India

A meeting of 67 newly recruited CPES Officers of 2022, 2023 and 2024 Batches has been arranged with the Hon’ble President of India on 27.03.2026 at Rashtrapati Bhavan, New Delhi

12.9 Revision of Guidelines for Recognition of Training Institute in Power Sector

In accordance with the provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply, 2023, the following

guidelines have been updated and reissued in October 2025. These revised guidelines supersede the earlier versions published in January 2024:

1. **Revised Guidelines for Recognition of Training Institutes in the Field of Transmission of Electricity, Including Detailed Training Curriculum for Engineers, Supervisors, and Technicians**, **December 2024**.

Further CEA is in the process of developing a portal within the National Single Window Clearance System. This portal will enable training institutes to submit their applications online for grant of recognition.

12.10 Foreign Visits/Training programmes for CEA Officers

The CEA officers were deputed to the Foreign visits/ training programmes to give them exposure to technological trends in the developed countries.

During the period of 2025-26, a total of 39 distinct number of officers of CEA at various levels visited foreign nations under 34 programme. The details of the foreign visits undertaken by the CEA officers is as follows:-

S.No.	Purpose of the Visit	Name of Officer	Designation of Officer	Country
1	16th Clean Energy Ministerial and the 10th Mission Innovation Ministerial (CEM16/MI-10)	Dhiraj Kumar Srivastava	Chief Engineer	Busan, South Korea
2	17th JTT meeting	BS Bairwa	Chief Engineer	Nepal
		Manish Kumar Verma	Assistant Director-I	
3	34th Clean Coal Day International Symposium	BC Mallick	PCE-II	Japan
4	ASEAN Wind Energy Expo 2026	OP Meena	Director	Thailand
5	BONN Conference 2025	Manoj Kumar	Deputy Director	Germany
6	BRICS Youth Summit 2025	Harkaran Singh	Assistant Director-I	Brazil
7	Capstone and Awarding Ceremony for WePOWER SAR-100-2.0 Program	Jyoti Singh	Deputy Director	Thailand
8	CCUS Study Tour	Talluri Venkateswarlu	Chief Engineer	Japan
9	Clean Energy Ministerial and Mission Innovation Senior Officials' Meeting 2025	Dhiraj Kumar Srivastava	Chief Engineer	South Korea
10	Collaboration on energy security with Mauritius	Ammi Ruhama Toppo	Chief Engineer	Mauritius
		Ishan Sharan	Chief Engineer	
		Girija Sankar Pati	Assistant Director-I	
11	Delegation led by Chairperson, CEA to Bhutan to deliberate on the strengthening of grid interconnections	Ghanshyam Prasad	Chairperson	Bhutan
		BS Bairwa	Chief Engineer	
12	Deputation of Shri Ajay Talegaonkar, Member (E&C), CEA to Vienna, Austria, France & UK for meetings with nuclear	Ajay Talegaonkar	Member	Vienna, Austria

	entities including IAEA, EDF, IEA, Rolls Royce and visit to their facilities			
13	DFC Study Tour on Energy Planning	Himanshu Nagpal	Assistant Director-I	Denmark
14	INDEP Technical visit on Grid Management and Operation	Brieflee Lyngkhoi	Chief Engineer	Denmark
		Om Kant Shukla	Director	
		Sandeep Kumar	Deputy Director	
		Shubhender Singh	Deputy Director	
		Mahendra Kumar Meena	Assistant Director-I	
15	Indian delegation for 17th Indo-Nepal Power Exchange Committee (PEC) meeting.	VK Singh	Member	Nepal
		BS Bairwa	Chief Engineer	
		Om Kant Shukla	Director	
16	Indian G20 Delegation for the Second Energy Transitions Working Group (ETWG) Meeting	Sachin K. Bhise	Director	South Africa
17	Inter-Ministerial delegation for COP 30	Sachin K. Bhise	Director	Brazil
18	Invitation to Fourth Session of the Committee on Energy	BS Bairwa	Chief Engineer	Thailand
19	Knowledge exchange visit to UK - Undersea grid interconnectors	NRLK Prasad	Chief Engineer	UK
20	Power Market Study Tour 2025 - 4 day residential training	Nimish Kumar	Assistant Director-I	Vienna, Austria
21	Punatsangchhu-II Hydro Electric Project site September'25	Rakesh Kumar	Chief Engineer	Bhutan
		Reetesh Tiwari	Deputy Director	
		Shyam Singal	Assistant Director-I	
22	SASEC Workshop	BS Bairwa	Chief Engineer	Sri Lanka
23	Seventh Meeting of the ISA Regional Committee for Asia and the Pacific Region	Ghanshyam Prasad	Chairperson	Sri Lanka
24	Singapore International Energy Week	Ghanshyam Prasad	Chairperson	Singapore
25	South Asia Subregional Economic Cooperation (SASEC) Program's Working Group Meetings and Senior Officials Meeting for 2025	BS Bairwa	Chief Engineer	Nepal
26	Steering committee and JWG Visit	Ishan Sharan	Chief Engineer	Denmark
27	Studies and site visits related to JTPT	BS Bairwa	Chief Engineer	Bhutan
		Manish Maurya	Deputy Director	
		Bhanwar Singh Choudhary	Assistant Director-I	

28	Study Tour on Flexibilisation of Existing Coal-Fired Power Plants in Germany	Himanshu Katiyar	Deputy Director	Germany
29	Technical Study visit of officials of CEA, CTUIL and Grid India to Germany for exposure to synchronous condenser	Pankaj Kumar Verma	Deputy Director	Germany
30	Technical visits to Denmark on power forecasting of variable renewable energy production	Deepak Choudhary	Deputy Director	Denmark
		Sadiq Imam	Deputy Director	
31	Tour to witness the Model testing of Turbine of Kwar (4 x135 = 540 MW) HE Project in Power machines Laboratory, Russia	Vontela Aravind Reddy	Assistant Director-I	Russia
32	Visit of CEA officers to Punatsangchhu-I Hydro Electric Project, (6X200 MW), Bhutan	Dev Kishan Chouhan	Deputy Director	Bhutan
		Sourabh Joshi	Assistant Director-I	
33	Visit of CEA team for monitoring of progress of works of Arun-III, Nepal	Budhbir Singh	Director	Nepal
		Sunil Kumar Jain	Chief Engineer	
34	Workshop on Cross-border Transmission Lines: Techno-Economic Analysis of the BIMSTEC Grid Interconnection Master Plan	BS Bairwa	Chief Engineer	Thailand
		A. Kesavan	Superintending Engineer	
		Manish Maurya	Deputy Director	

ANNEXURES

Annexure-3A

Details of Inter-regional Transmission lines as on 31.03.2026

Details of Inter-regional transmission lines	Transmission Capacity in MW (As on 31.03.2026)
EAST-NORTH	
Dehri-Sahupuri 220 kV S/c	130
Muzaffarpur-Gorakhpur 400 kV D/c (with Series Cap+TCSC)	2,000
Patna – Balia 400kV D/c (Quad)	1,600
Biharshariff – Balia 400kV D/c(Quad)	1,600
Barh – Balia 400kV D/c (Quad)	1,600
Gaya - Balia 765kV S/c	2,100
Sasaram-Allahabad/Varanasi 400kV D/C line (Sasaram HVDC back to back has been bypassed)	1,000
Sasaram - Fatehpur 765kV2x S/c	4,200
Barh-II-Gorakhpur 400kV D/c (Quad) line	1,600
Gaya-Varanasi 765 kV S/c line	2,100
LILO of Biswanath Chariali - Agra +/- 800 kV, 3000 MW HVDC Bi-pole at new pooling station in Alipurduar and addition of second 3000 MW module	3,000
Biharsharif-Varanasi 400kV D/c line (Quad)	1,600
Sub-total	**22,530**
EAST-WEST	
Budhipadar-Korba 220 kV 3 ckts.	390
Rourkela-Raipur 400 kV D/c with series comp.+TCSC	1,400
Ranchi –Sipat 400 kV D/c with series comp.	1,200
Rourkela-Raipur 400 kV D/c (2nd) with series comp.	1,400
Ranchi - Dharamjayagarh - WR Pooiling Station 765kV S/c line	2,100
Ranchi - Dharamjaygarh 765kV 2nd S/c	2,100
Jharsuguda-Dharamjaygarh 765kV D/c line	4,200
Jharsuguda-Dharamjaygarh 765kV 2nd D/c line	4,200
Jharsuguda- Raipur 765kV D/c line	4,200
Jeypore-Jagdalpur 400 kV D/c line	1,600

Sub-total	**22,790**
WEST- NORTH	
Auriya-Malanpur 220 KV D/c	260
Kota - Ujjain 220 KV D/c	260
Vindhyachal HVDC back-to-back	500
Gwalier-Agra 765 kV 2 x S/c	4,200
Zerda-Kankroli 400kV D/c	1,000
Champa Pool- Kurukshetra HVDC Bipole	3,000
Gwalior-Jaipur 765kV 2xS/c lines	4,200
RAPP-Sujalpur 400kV D/c	1,000
Adani(Mundra) - Mahendranagar HVDC bipole	2,500
Upgradation of Champa Pool- Kurukshetra HVDC Bipole	3,000
Jabalpur - Orai 765kV D/c line	4,200
LILO of Satna - Gwalior 765kV 2xS/c line at Orai	4,200
Banaskantha-Chittorgarh 765kV D/c line	4,200
Vindhyachal-Varanasi 765kV D/c line	4,200
Neemuch PS – Chhittorgarh (PG) s/s 400 kV D/C line	1,600
Sub-total	**38,320**
EAST- SOUTH	
Balimela-Upper Sileru 220kV S/c	130
Gazuwaka HVDC back-to-back	1,000
Talcher-Kolar HVDC bipole	2,000
Upgradation of Talcher-Kolar HVDC Bipole	500
Angul - Srikakulum	4,200
Sub-total	**7,830**
WEST- SOUTH	
Chandrapur HVDC back-to-back	1,000
Kolhapur-Belgaum 220kV D/c	260
Ponda – Nagajhari 220kV D/c	260
Raichur - Sholapur 765kV S/c line (PG)	2,100
Raichur - Sholapur 765kV S/c line (Pvt. Sector)	2,100
Narendra - Kolhapur 765kV D/c (ch at 400kV)	2,200
Wardha - Hyderabad 765kV D/c line (Part of Wardha – Nizamabad line)	4,200
Raigarh –Pugalur HVDC line with with Raigarh and Pugalur Station HVDC Terminal (Pole-I, Pole-II,	6,000

Pole-III & Pole-IV each 1500 MW charged)	
Warora Pool - Warangal (New) 765kV D/c line	4,200
Sub-total	**22,320**
EAST- NORTH EAST	
Birpara-Salakati 220kV D/c	260
Malda - Bongaigaon 400 kV D/c	1,000
Siliguri - Bongaigaon 400 kV D/c (Quad) line	1,600
Reconductoring of Alipurduar (ER) - Salakati (NER) 220 KV D/C Line	90
Re-conductoring of Siliguri – Bongaigaon 400kV D/c line with Twin HTLS conductor under North Eastern Region Strengthening Scheme-XII (NERSS-XII)	600
Sub-total	**3,550**
NORTH EAST-NORTH	
Biswanath Chariali - Agra +/- 800 kV, 3000 MW HVDC Bi-pole$	3,000
Sub-total	**3,000**
TOTAL (CUMULATIVE)	**120,340**

Annexure – 3B

Names of the Schemes notified through Tariff Based Competitive Bidding (TBCB) as on 31.03.2026

a) Schemes already commissioned by Transmission Service Providers: (79 Nos.)

S.N.	Transmission scheme
1	Western Region System Strengthening – II under Project – B (Maharashtra)
2	Transmission System Associated with Krishnapattnam UMPP- Synchronous interconnection between SR and WR (Part-B)
3	Scheme for enabling import of NER/ER surplus by NR
4	System strengthening for WR
5	System strengthening common for WR and NR
6	Western Region System Strengthening – II under Project – C (Gujarat)
7	Transmission system for Strengthening in Southern Region for import of Power from ER
8	Transmission System required for evacuation of power from Kudgi TPS (3x800 MW in Phase-I) of NTPC Ltd.
9	Part ATS for RAPP U-7&8 in Rajasthan
10	ATS of Unchahar TPS
11	Eastern Region System Strengthening Scheme-VII
12	Northern Region System Strengthening Scheme (NRSS) - XXXI (Part-B)
13	Transmission System for Patran 400 kV S/S
14	NR System strengthening Scheme-NRSS-XXXI (Part-A)
15	Eastern Region System Strengthening Scheme-VI(ERSS-VI)
16	Connectivity lines for Maheshwaram 765/400 kV Pooling Station
17	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-B)
18	Transmission System associated with Gadarwara STPS (2x800 MW) of NTPC (Part-A)
19	Northern Region System Strengthening Scheme (NRSS-XXIX)
20	Transmission System Strengthening associated with Vindhyachal- V
21	Common Transmission system for phase-II generation projects in Orissa and immediate evacuation system for OPGC project (Orissa)
22	Transmission system associated with IPPs of Nagapattinam / Cuddalore Area- Package A
23	Additional system strengthening for Sipat STPS
24	Additional system strengthening for Chhattisgarh (B)
25	System strengthening for IPPs in Chhattisgarh and other generation projects in western region
26	Transmission system strengthening in Indian system for transfer of power from new HEP’s in Bhutan
27	Strengthening of Transmission System beyond Vemagiri
28	Creation of new 400 kV GIS in Gurgaon area and Palwal as a part of ISTS

S.N.	Transmission scheme
29	North Eastern Region Strengthening Scheme (NERSS-VI)
30	Transmission system for NER System Strengthening Scheme-II (Part-B) and V (NER-IIB & V)
31	Transmission system associated with LTA applications from Rajasthan SEZ Part-A
32	New WR- NR 765 kV Inter-Regional corridor
33	Transmission System for Ultra Mega Solar Park in Fatehgarh, Distt. Jaisalmer Rajasthan (SPV:Fatehgarh-Bhadla Transmission Ltd)
34	Transmission system associated with LTA applications from Rajasthan SEZ Part-B
35	Transmission System Associated with LTA applications from Rajasthan SEZ Part-D
36	Eastern Region Strengthening Scheme-XXI
37	Transmission system associated with LTA applications from Rajasthan SEZ Part-C
38	Connectivity system for Khargone TPP (2x660 MW)
39	Eastern Region Strengthening Scheme-XVIII
40	(WRSS – 21) Part – A – Trasnsmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to Re-injections in Bhuj PS
41	Transmission System for Transmission System Associated with RE Generations at Bhuj-II, Dwarka & Lakadia
42	Transmission System for Jam Khambaliya Pooling Station and Interconnection of Jam Khambaliya Pooling Station for Providing Connectivity to RE Projects (1500 MW)
43	Transmission System for providing connectivity to RE Projects at Bhuj-II (2000 MW) in Gujarat
44	WRSS – 21 Part – B – Transmission System Strengthening for Relieving Over Loadings Observed in Gujarat Intra-State System Due to RE-injections in Bhuj PS
45	Transmission system associated with LTA applications from Rajasthan SEZ Part-F, Phase-II
46	Development of Additional Inter regional AC link for import into Southern region i.e Warora-Warangal and Chilakaluripeta – Hyderabad – Kurnool 765 kV link
47	Transmission System for Karur Pooling Station (at a location in between Karur Wind zone and Tiruppur wind zone) along with LILO of both circuits of Pugalur – Pugalur (HVDC) 400 kV D/C line (with Quad Moose ACSR Conductor) at Karur PS
48	Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part A
49	Evacuation of power from RE sources in Koppal Wind Energy Zone (Karnataka) (2500MW)
50	Transmission scheme for evacuation of 3GW RE injection at Khavda P.S. under Phase-I
51	Transmission system for evacuation of power from Neemuch Solar Park (1000 MW
52	Transmission System for evacuation of power from RE projects in Rajgarh (2500 MW) SEZ in Madhya Pradesh
53	Transmission System for evacuation of power from RE Projects in Osmanabad area (1 GW) in Maharashtra
54	Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part B, SPV Name: POWERGRID Bhadla Transmission Ltd.
55	Transmission Scheme for Solar Energy Zone in Gadag (1000 MW), Karnataka – Part-A, Phase-I

S.N.	Transmission scheme
56	Western Region Strengthening Scheme-XIX (WRSS-XIX) and North Eastern Region Strengthening Scheme-IX (NERSS-IX)
57	Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part D, SPV Name: POWERGRID Aligarh Sikar Transmission Ltd.
58	Establishment of new 220/132kV substation at Nangalbibra
59	Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part C
60	WRES-XXVIII & WRES-XXIX
61	WRES-XXVII
62	Transmission scheme for evacuation of 4.5 GW RE injection at Khavda P.S. under Phase-II – Part A
63	Transmission scheme for injection beyond 3 GW RE power at Khavda PS1 (KPS1)
64	System Strengthening Scheme for Eastern and North Eastern Regions (ERSS-XXV & NERSS-XV)
65	Inter-regional ER-WR Interconnection, SPV Name: ERWR Power TRANSMISSION Ltd
66	Transmission Network Expansion in Gujarat associated with integration of RE projects from Khavda potential RE zone
67	Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE Park
68	Immediate evacuation for North Karanpura (3x660MW) generation project of NTPC (ERSS XIX)
69	System strengthening in northern region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 kV D/C line at Babai (RVPNL)
70	Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under phase III –Part A1
71	Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs – Connectivity System
72	Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part G
73	Transmission scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part B
74	Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park
75	Transmission system associated with LTA applications from Rajasthan SEZ Part-E, Phase-II
76	Transmission scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part C
77	Transmission Scheme for Solar Energy Zone in Gadag (1500 MW), Karnataka – Part-A, Phase-II
78	Transmission System for Evacuation of Power from REZ in Rajasthan (20GW) under Phase-III Part G
79	Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1

b) Schemes under implementation by the Transmission Service Providers: (84 Nos.)

S.N.	Transmission Scheme
1	Transmission scheme for Solar Energy Zone in Ananthpuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh
2	Transmission system associated with LTA applications from Rajasthan SEZ Phase-III Part-C1
3	Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part H
4	Transmission Scheme for integration of Renewable Energy Zone (Phase-II) in Koppal-II (Phase-A & B) and Gadag-II (Phase- A) in Karnataka

S.N.	Transmission Scheme
5	Transmission System for evacuation of additional 7 GW RE Power from Khavda RE Park under Phase-III Part B
6	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex): PART-A
7	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex): PART-D
8	Transmission Scheme for Solar Energy Zone in Bidar (2500 MW), Karnataka
9	Transmission Scheme for Evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part D
10	Transmission Scheme for Evacuation of power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part E2
11	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part C
12	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part E
13	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part B
14	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex): Part D
15	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/ Barmer Complex): Part H1
16	Augmentation of transformation capacity at Jam Khambhaliya PS(GIS)
17	Transmission System for Evacuation of Power from Potential Renewable Energy Zone in Khavda Area of Gujarat under Phase-IV (7 GW): Part B
18	Transmission System Strengthening for interconnections of Bhadla-III and Bikaner-III complex
19	Transmission System for Evacuation of Power from Rajasthan REZ Ph- IV (Part-2: 5.5 GW) (Jaisalmer/ Barmer Complex): Part F (by clubbing Part F1 & F2)
20	Transmission System for Evacuation of Power from Rajasthan REZ PH-IV (PART-3: 6 GW) [BIKANER COMPLEX]:PART-A
21	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8GW): Part A
22	Dynamic Reactive Compensation at KPS1 and KPS3
23	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-3: 6GW) [Bikaner complex]: Part-B
24	Additional Transmission System for evacuation of Power from Bhadla-III PS as part of Rajasthan REZ Phase III Scheme (20 GW)
25	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-4: 3.5 GW): Part A
26	Transmission System under ISTS for evacuation of power from Kudankulam Unit - 3 & 4 (2x1000 MW)
27	System Strengthening at Koppal-II and Gadag-II for integration of RE generation projects
28	Augmentation of transformation capacity at Bidar PS
29	Augmentation of transformation capacity at KPS2 & KPS2 (Phase V Part B1 & B2)
30	Augmentation of Banaskantha (Raghanesda) PS (GIS)
31	Transmission System for Integration of Kurnool-IV REZ – Phase-I (for 4.5 GW)
32	Rajasthan REZ Ph-V (Part-1: 4 GW) [Sirohi/Nagaur] Complex
33	Transmission Scheme for integration of Davanagere/ Chitradurga and Bellary REZ in Karnataka
34	Augmentation at Fatehgarh-II PS, Fatehgarh-IV PS (Section-II) and Barmer-I PS
35	Transmission system strengthening at Kurnool- III PS for integration of additional RE generation projects
36	Transmission System for evacuation of power from Mahan Energen Limited Generating Station in Madhya Pradesh

S.N.	Transmission Scheme
37	Transmission System Strengthening at Davanagere for Integration of RE Generation
38	Augmentation of Transformation Capacity and Implementation of Line Bays at Mandsaur S/S for RE Interconnection
39	Inter-regional (NR-WR) Transmission System strengthening to relieve the loading of 765 kV Vindhyachal-Varanasi D/c line
40	Inter-Regional Strengthening between SR Grid and WR Grid
41	Transmission System Strengthening for integration of additional RE Potential at Davanagere (0.25 GW) and Bellary (2.75 GW)
42	Inter-Regional Strengthening between SR Grid and ER Grid
43	Network Expansion Scheme in Maharashtra for removal of Transmission constraints in Pune Region-I (765/400kV AIS Pune East)
44	Additional 400 kV feed to Goa and additional system for power evacuation from generation projects pooled at Raigarh (Tamnar) Pool - Goa Tamnar Transmission Project (GTTPL)
45	Transmission System for 400 kV Udupi (UPCL) – Kasargode D/C Line
46	Transmission System for Evacuation of Power from REZ in Rajasthan (20GW) under Phase-III Part F
47	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex): PART-B
48	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part C
49	Transmission System for Integration of Ananthapur-II REZ - Phase-I (for 4.5 GW)
50	North-Eastern Region Expansion Scheme-XXV Part-A (NERES)
51	ISTS Network Expansion scheme in Western Region & Southern Region for export of surplus power during high RE scenario in Southern Region
52	Transmission System for evacuation of additional 7 GW RE Power from Khavda RE Park under Phase-III Part A
53	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-IV (7 GW): Part A
54	Transmission System for Network Expansion Scheme in Navinal (Mundra) area of Gujarat for drawal of power in the area
55	Network Expansion scheme in Gujarat for drawl of about 3.6 GW load under Phase-I in Jamnagar area
56	Potential REZ in Khavda area of Gujarat under Phase-IV (7GW): Part D
57	Transmission System for Evacuation of Power from REZ in Rajasthan (20GW) under Phase III Part I
58	Transmission system for supply of power to Green Hydrogen/ Ammonia manufacturing potential in Mundra area of Gujarat under Phase-I: Part B1 scheme (3 GW at Navinal S/s)
59	Network Expansion scheme in Western Region to cater to Pumped storage potential near Talegaon (Pune)
60	Transmission System for Evacuation of Power from potential renewable energy zone in Khavda area of Gujarat under Phase-V (8GW): Part C
61	Network Expansion Scheme for drawal of power at South Kalamb S/s: Part A
62	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex): PART-C
63	Eastern Region Expansion Scheme - XXXIX (ERES-XXXIX)
64	Eastern Region Expansion Scheme ERES-XXXIV: Paradeep
65	Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part C
66	Transmission scheme for evacuation of Power from Dhule 2 GW REZ

S.N.	Transmission Scheme
67	Western Region Network Expansion Scheme in Kallam area of Maharashtra
68	Ratle HEP (850 MW) & Kiru HEP (624 MW): Part-A
69	Transmission system for Evacuation of Power from RE Projects in Morena SEZ in Madhya Pradesh-Phase I (2500MW)
70	Transmission system for evacuation of power from RE projects in Rajgarh (1000 MW) SEZ in Madhya Pradesh-Phase II
71	Transmission scheme for integration of Tumkur-II REZ in Karnataka
72	Transmission Scheme for integration of Bijapur REZ in Karnataka
73	Transmission system for Evacuation of Power from RE Projects in Rajgarh (1500 MW) SEZ in Madhya Pradesh-Phase III and Evacuation of Power from RE Projects in Neemuch (1000 MW) SEZ in Madhya Pradesh-Phase II
74	400 kV D/c Khandukhal (Srinagar) – Rampura (Kashipur) line (Twin HTLS) (KRTL)
75	Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under phase III –Part A3
76	Western Region Expansion Scheme XXXIII (WRES-XXXIII): Part B
77	Transmission System for Evacuation of Power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer / Barmer Complex): Part-A
78	Transmission system for evacuation of power from RE projects in Solapur (1500 MW) SEZ in Maharashtra
79	Transmission Scheme for North Eastern Region Expansion Scheme-XVI (NERES-XVI)
80	Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-4: 3.5 GW): Part B
81	Transmission System for evacuation of RE power from Raghanesda area of Gujarat – 3GW under Phase-I
82	Augmentation of transformation capacity at 765/400 kV Lakadia S/s in Gujarat - Part B
83	Eastern Region Generation Scheme-I (ERGS-I)
84	Transmission System for Integration of Ananthapuram-II REZ-Phase-II (3 GW)

Annexure – 3C

Transmission schemes approved/recommended by National Committee on Transmission during 2025-26

1. 29th meeting of National Committee on Transmission held on 17.04.2025

(i). Modification in the schemes: NCT approved the Revision in Implementation Schedule for Communication schemes approved in 26th and 27th NCT meeting as mentioned below:

a) Redundant Communication for Salal (NHPC) station

b) Redundant Communication for Tuticorin GIS (PG) Substation

c) OPGW replacement on 132kV Kahilipara-Umiam Stg. III-Umiam Stg. I - NEHU link & OPGW on 132kV Sarusajai -Umtru line & UGFO NERLDC Guwahati to Kahilipara for backup NERLDC

d) OPGW replacement on 132kV NehuNeigrihms-Khliehriat Ckt-1 & UGFO from Tower 25 of 132kV NehuMawlyndep line to NERLDC Shillong

e) OPGW installation on 765 kV FatehpurVaranasi S/c line and 765 kV Fatehpur-Sasaram S/c line (proposed to be LILOed at New Prayagraj)

f) Supply and installation of OPGW on existing 765 kV Gwalior-Satna S/c Line which is proposed to be LILOed at Karera (near Datiya) S/s under TBCB Project namely "Western Region Expansion Scheme XXXIII (WRESXXXIII): Part B"

(ii). ISTS Transmission schemes, costing greater than 500 Crore, recommended by NCT to ₹ MoP under TBCB: The ISTS transmission schemes recommended by NCT to MoP are given below:

a) Inter-Regional Strengthening between SR Grid and ER Grid

b) Inter-Regional Strengthening between SR Grid and WR Grid

(iii). ISTS Transmission schemes, costing between Rs 100 Crore to Rs 500 Crore, approved by NCT: The transmission schemes approved by NCT under RTM route is given below:

a) Augmentation of 2x500 MVA (7th & 8th), 400/220 kV ICTs along with 220 kV Sectionalizer bay (1 set), 220 kV BC (1 No.) bay and 220 kV TBC (1 No.) bay at Bikaner-IV PS

(iv). Communication schemes approved by NCT:

a) OPGW laying work on 132 kV DharamnagarDullavcherra and 132 kV Dullavcherra-Halaikandi line

2. 30th meeting of National Committee on Transmission held on 30.05.2025

(i). Modification in the schemes:

a) DPR Project cost variation in "Augmentation of Transformation capacity at Bhuj-II PS (GIS)" awarded under RTM

(ii). ISTS Transmission schemes, costing greater than 500 Crore, recommended by NCT to ₹ MoP under TBCB: The ISTS transmission schemes recommended by NCT to MoP are given below:

a) Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part5: 6 GW) [Barmer Complex] Barmer-II: 6 GW (Solar) (LCC Configuration)

(iii). Communication schemes approved by NCT

a) OPGW installation (48F) on existing 400 kV Sikar (PG) – Agra (PG) D/c line (owned by PG) which is proposed to be LILO at 400 kV GSS Kumher (RRVPN)

b) OPGW installation (48F) on existing 220 kV Chittorgarh (RVPN)-RAPP B (NPCIL) D/c Line (owned by PG) which is proposed to be LILO at RRVPNLs 220 kV GSS Begun (Chittorgarh

3. 31st meeting of National Committee on Transmission held on 14.07.2025

(i). Modification in the schemes: Modification in Time-line of 400/220 kV 500 MVA ICT (7th) at Mandsaur PS being implemented under "Augmentation of transformation capacity and Implementation of line bays at Mandsaur S/s for RE Interconnection" scheme:

NCT approved the revision in time-line of 400/220 kV, 500 MVA ICT (7th) at Mandsaur PS mentioned at Sl. 6 from 24.03.2027 to 15.06.2027

a) Creation of New 400 kV and 765 kV Bus Section-II through Sectionaliser arrangement

b) Augmentation of Transformation capacity by 1x1500 MVA, 765/400 kV ICT (4th) (Terminated at 400 kV and 765 kV Bus Section-II)

c) Augmentation of Transformation capacity by 1x500 MVA, 400/220 kV ICT (6th) (Terminated on 400 kV Bus Section-I and 220 kV Bus Section-II)

d) 1 No. 220 kV line bay (on 220 kV Bus Sec-II) at Mandsaur PS for interconnection of Solar project of Waaree Renewable Technologies Ltd. (WRTL) (2200001192) (300 MW)

e) 1 No. 400 kV line bay at Mandsaur PS (on 400 kV Bus Sec-II) for interconnection of Solar project of NTPC Renewable Energy Ltd. (NTPCREL) (2200001301) (300 MW)

f) Augmentation of Transformation capacity by 1x500 MVA, 400/220 kV ICT (7th) (Terminated on 400 kV Bus Section-II and 220 kV Bus Section-III) at Mandsaur PS

g) Creation of New 220 kV Bus Section-3 with Sectionaliser arrangement at Mandsaur PS

h) 1 No. 220 kV line bay at Mandsaur PS (220 kV New Bus Section-3) for interconnection of wind project of JSP Green Pvt. Ltd. (JSPGPL) (2200001356) (350 MW)

i) 1 No. 220 kV line bay at Mandsaur PS (220 kV New Bus Section-3) for interconnection of Hybrid project of TEQ Green Power XXII Pvt. Ltd. (TGP XXII PL) (2200001431) (250 MW)

(ii). ISTS Transmission schemes, costing greater than 500 Crore, recommended by ₹ NCT to MoP under TBCB: The ISTS transmission schemes recommended by NCT to MoP are given below:

a) Network Expansion Scheme for drawal of power at South Kalamb S/s: Part A

b) Transmission system strengthening for integration of additional RE potential at Davanagere (0.25 GW) and Bellary (2.75 GW)

c) Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)

(iii). ISTS Transmission schemes, costing between Rs 100 Crore to Rs 500 Crore, approved by NCT: The transmission schemes approved by NCT under RTM route is given below:

a) Network Expansion Scheme for drawal of power at South Kalamb S/s: Part B (WTPL line reconductoring)

b) Network Expansion Scheme for drawal of power at South Kalamb S/s: Part C (POWERGRID Bay Upgradation)

c) Transmission System for providing connectivity to RE applicant(s) at Navinal (Mundra)(GIS)

d) North Eastern Region Expansion SchemeXXIII (NERES-XXIII)

(iv). Communication schemes approved by NCT

a) OPGW installation on 765kV Sasan – Vindhyachal PS 2 x S/c Lines which are proposed to be bypassed at Vindhyachal PS (Part A & Part B)

4. 32nd meeting of National Committee on Transmission held on 12.08.2025

(i). Modification in the schemes: NCT approved the modification in the scheme “Transmission System for Kurnool-IV REZ – PhaseII" recommended in 28th NCT meeting as mentioned below:

a) Shadnagar – Shadnagar (TGTRANSCO) 400 kV quad D/c line (about 50 kms) {TGTRANSCO to upgrade Shadnagar (TGTRANSCO) to 400 kV in matching time frame}

(ii). ISTS Transmission schemes, costing greater than ₹ 500 Crore, recommended by NCT to MoP under TBCB: The ISTS transmission schemes recommended by NCT to MoP are given below:

a) WR-ER Inter-Regional Network Expansion Scheme-Part A

b) WR-ER Inter-Regional Network Expansion Scheme-Part C

c) NERGS-III Siang Basin

d) Transmission system for integration of Kurnool-V REZs-Phase-I

e) Transmission system for integration of Ananthapuram-III REZsPhase-I

f) Transmission system for proposed Green Hydrogen / Green Ammonia projects in Vizag area, Andhra Pradesh (Phase-I)" Tentative implementation timeframe:

(iii). ISTS Transmission schemes, costing less than Rs 500 Crore, approved by NCT: The transmission schemes approved by NCT under RTM route is given below:

a) Augmentation of 1x500 MVA, 400/220kV ICT (3rd) at Thrissur VSC HVDC Station in Kerala

b) WR-ER Inter-Regional Network Expansion Scheme-Part B

5. 33rd meeting of National Committee on Transmission held on 16.09.2025

(i). Modification in the earlier approved/notified communication schemes:

a) Creation of 400/220 kV, 2x315 MVA Substation at Siot, Jammu & Kashmir

b) Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)

c) Inter-Regional Strengthening between SR Grid and ER

(ii). ISTS Transmission schemes, approved/ recommended by NCT: The ISTS transmission schemes approved/recommended by NCT are given below:

a) Shifting of 2 Nos. of 63 MVAr line reactors at Madhugiri S/s to vacant 400 kV bays (space) to use as bus reactors

b) Scheme to resolve High loading on Lara-I – Raigarh (Kotra) 400kV D/c line

c) Installation of 2 Nos. of Synchronous Condensers (SynCon) units at 765/400/220kV Fatehgarh-II PS

(iii). Communication schemes approved by NCT

a) Redundant communication for Narora Atomic Power Plant (NPCIL)

b) Redundant communication for Saharanpur S/s (PG)

c) Redundant communication for Manesar S/s

d) Communication requirement incidental to upcoming CN'Halli ISTS S/s

e) Replacement of 15 no. of FOTE at critical ISTS location in Southern Region

6. 34th meeting of National Committee on Transmission held on 10.11.2025

(i). Route and Cost optimization of transmission schemes recommended by National Committee on Transmission (NCT) for approval of Ministry of Power (MoP)

(ii). Modification in "NERGS-III Siang Basin" Scheme

(iii). Proposed Location of 765/400 kV Shadnagar S/s associated with Kurnool-IV REZ Phase-II (3 GW) Transmission system

(iv). Transmission system for evacuation of power from Shongtong Karcham HEP (450 MW) and Tidong HEP (150 MW)

7. 35th meeting of National Committee on Transmission held on 19.11.2025

(i). Transmission System for integration of Kurnool-V REZ Phase-I

(ii). Transmission system strengthening at Tumkur-II for integration of additional RE potential (1.5 GW)

(iii). Transmission system for proposed Green Hydrogen / Green Ammonia projects in Vizag area, Andhra Pradesh (Phase-l)

(iv). Modification in the proposal for "WR– ER Inter-Regional Network Expansion Scheme – Part A

8. 36th meeting of National Committee on Transmission held on 30.12.2025

(i). Modification in the Transmission scheme "Transmission system for proposed Green Hydrogen / Green Ammonia projects in Vizag area, Andhra Pradesh (Phase-I)

(ii). Transmission System for Redundant Power Supply to Dholera

(iii). Upgradation / Conversion of Udumalpet – Madurai 400kV S/c line to Udumalpet – Madurai 400kV (quad) D/c line

(iv). Reconductoring of Tirunelveli – Udumalpet and Pugalur – Madurai 400kV D/c lines with HTLS conductor

(v). Pusauli HVDC Upgradation.

9. 37th meeting of National Committee on Transmission held on 19.01.2026

(i). Transmission system for Integration of Power from RE Projects in Jam Khambhaliya REZ in Gujarat - Phase II (5500MW) and Jamnagar Phase-I (1000 MW)

(ii). Transmission system for Integration of Power from RE Projects in Lakadia REZ in GujaratPhase II (7500MW)

(iii). Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5GW), Jam Khambhaliya (Phase-II: 5.5GW) and Jamnagar (Phase-I: 1GW)-Part A

(iv). Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5GW), Jam Khambhaliya (Phase-II: 5.5GW) and Jamnagar (Phase-I: 1GW)-Part B

(v). Common Transmission System for evacuation of power from Lakadia (Phase-II: 7.5GW), Jam Khambhaliya (Phase-II: 5.5GW) and Jamnagar (Phase-I: 1GW)-Part C

(vi). Augmentation at BhadlaIII, Ramgarh PS and Kanpur (PG)

10. 38th meeting of National Committee on Transmission held on 25.02.2026

(i). Transmission Network Expansion Scheme in Western Region to cater to pumped storage potential near Satara (up to 4500 MW):Part A

(ii). Transmission Network Expansion Scheme in Western Region to cater to pumped storage potential near Satara (up to 4500 MW):Part B

(iii). ERES-47: Nawada – Durgapur – Jeerat (New) 765kV corridor

(iv). Transmision scheme for evacuation of power from Sunni Dam HEP (382 MW) & Luhri Stage-I (210 MW)

(v). Modification in scope of Transmission System for Integration of Power from RE Projects in Lakadia REZ in Gujarat - Phase II (7500MW)

11. 39th meeting of National Committee on Transmission held on 17.03.2026

(i). Modification in proposed location of Kakinada GIS substation

Annexure-3D

Transmission Lines Completed During FY- 2025-26						
				As on 31-March-2026		
S. No.	**Name of Transmission Lines**	**Circuit Type**	**Executing Agency**	**ISTS / Intra State**	**Line Length (cKM)**	**Month of Completion**
1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
765 kV						
CENTRAL SECTOR						
1	Ckt-1 of 765 kV D/C KPS2-KPS3 line under Project Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE Park (SPV Name POWERGRID KPS3 TRANSMISSION LIMITED)	S/C	PGCIL	ISTS	15	JUN-25
2	765 kV D/C Banaskantha-Ahemadabad line under Project: Transmission Network Expansion in Gujarat associated with integration of RE projects from Khavda potential RE zone (SPV: POWERGRID KHAVDA RE TRANSMISSION SYSTEM LIMITED)	D/C	PGCIL	ISTS	270	Jul-25
3	Ckt-2 of 765 kV D/C KPS2-KPS3 line under Project Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE Park (SPV Name POWERGRID KPS3 TRANSMISSION LIMITED)	S/C	PGCIL	ISTS	15	Aug-25
4	LILO of 765 kV S/c Meerut – Bhiwani line at Narela under Project: Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part G (SPV Name: POWERGRID Narela Transmission Limited)	S/C	PGCIL	ISTS	68	Oct-25
5	Khetri - Narela 765 kV D/C Line under project: Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part G	D/C	PGCIL	ISTS	340	Dec-25
6	765 kV D/C Lakadia PS - Ahmedabad Line under project: Transmission scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part B	D/C	PGCIL	ISTS	368	Dec-25
7	Bhadla II - Sikar II 765 kV D/C line (2nd) under project: Transmission system associated with LTA applications from Rajasthan SEZ Part-E, Phase-II (SPV: POWERGRID Bhadla Sikar Transmission Limited)	D/C	PGCIL	ISTS	628	Jan-26
8	LILO of Ckt-1 of Jaipur (Phagi)-Gwalior 765 kV D/c at Dausa under Project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part H (SPV: POWERGRID Beawar DausaTransmission Ltd.)	D/C	PGCIL	ISTS	67	Jan-26
9	765 kV D/C Ahemdabad- New Navsari (South Gujrat) line under Project: Transmission scheme for evacuation of 4.5 GW RE injection at Khavda PS under	D/C	PGCIL	ISTS	590	Jan-26

	Phase II- Part C (SPV Name: POWERGRID Khavda II-C Transmission Limited)					
10	Bhadla-III PS – Sikar-II S/s 765 kV D/c line under Project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1 (SPV: POWERGRID Bhadla-III Transmission Ltd.)	D/C	PGCIL	ISTS	650	Feb-26
11	Ramgarh PS- Bhadla-III PS 765kV D/C line under Project: Transmission system associated with LTA applications from Rajasthan SEZ Phase-III Part-C1 (SPV: POWERGRID Ramgarh-II Transmission Ltd.)	D/C	PGCIL	ISTS	372	Feb-26
12	LILO of circuit - II of Jaipur (Phagi)-Gwalior 765 kV D/c at Dausa under Project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part H (SPV: POWERGRID Beawar DausaTransmission Ltd.)	D/C	PGCIL	ISTS	66	Mar-26
13	Navsari (New) (South Gujarat) (GIS) – Padghe (GIS) 765 kV D/c line under Project: Transmission Network Expansion in Gujarat to increase its ATC from ISTS Part B	D/C	PGCIL	ISTS	452	Mar-26
Total of CENTRAL SECTOR					**3901**	
PRIVATE SECTOR						
14	765 kV Mainpuri- Bara Line	S/C	Tata Power	Intra state	381	Jan-26
15	765 kV Mainpuri - Unnao Line	S/C	Tata Power	Intra state	194	Jan-26
16	Fatehgarh 3– Beawar 765 kV D/c line (2nd) (Transmission System for Evacuation of Power from REZ in Rajasthan (20GW) under Phase-III Part G)	D/C	Resonia (formerly Sterlite)	ISTS	635	Mar-26
Total of PRIVATE SECTOR					**1210**	
Total of 765 kV					**5111**	
400 kV						
CENTRAL SECTOR						
17	400 kV D/C Jeypore (POWERGRID)-Jagdalpur (CSPTCL) line under Project Inter-regional ER-WR Interconnection (SPV Name ERWR Power Transmission Ltd.)	D/C	PGCIL	ISTS	136	JUN-25
18	LILO of both circuits of Agra – Jaipur (south) 400kV D/c at Dausa under project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part H (SPV: POWERGRID Beawar DausaTransmission Ltd)	M/C	PGCIL	ISTS	44	Jul-25
19	Stringing of Second circuit of Kishenpur - Dulhasti 400 kV D/c (Quad) line (Kishtwar-Kishenpur section) under Project: Transmission system for evacuation of Power from Pakaldul HEP in Chenab Valley HEPs - LTA System	S/C	PGCIL	ISTS	121	Oct-25
20	Removal of LILO of Bawana- Mandola 400 kV D/C line at Maharanibagh S/S and Extension of above LILO section from Maharanibagh upto Narela S/S so as to form 2X400 kV D/C Maharanibagh - Narela line (Ckt- 1,2,3 & 4) under Project: Transmission System Strengthening Scheme for Evacuation of Power from Solar Energy Zones in Rajasthan (8.1GW) under Phase-II-Part G1	M/C	PGCIL	ISTS	114	Nov-25
21	Ananthpuram PS-Kurnool-III PS 400 kV D/c Line under Project: Transmission	D/C	PGCIL	ISTS	171	Jan-26

	scheme for Solar Energy Zone in Ananthpuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh (SPV: POWERGRID Ananthpuram Kurnool Transmission Ltd.)					
22	LILO of both circuits of 400 kV Bikaner (PG)-Bikaner-II D/c line at Bikaner-III PS under Project: Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-1) (Bikaner Complex): PART-A	D/C	PGCIL	ISTS	74	Mar-26
Total of CENTRAL SECTOR					**660**	
STATE SECTOR						
23	LILO of Kobra (West)-Khedamara (Bhilai) S/c line at Dhardehi (Bilaspur) S/s	S/C	CSPTCL	Intra state	14	APR-25
24	Manali-Korattur S/c Line (Manali to Manjambakkam gantry point-OH line and Manjambakkam gantry point to Koratur-UG Cable)	S/C	TANTRANSCO	Intra state	16	APR-25
25	LILO of Gokarna-New Chanditala line at Satgachia GIS	D/C	WBSETCL	Intra state	21	MAY-25
26	LILO of one circuit of 400 kV D/C Lahal - Chamera (Rajera) line at Tower No- T-08 to Kutehr HEP (240 MW) in Distt- Chamba-	D/C	HPPTCL	Intra state	2	Jul-25
27	400 kV D/c PVUNL - Katia (Patratu) line	D/C	JUSNL	Intra state	13	Aug-25
28	400 kV Veltoor - Yedula line (Circuit -I &II)	D/C	TGTRANSCO	Intra state	94	Sep-25
29	400 kV yedula -Vettam (Circuit-II)	D/C	TGTRANSCO	Intra state	30	Sep-25
30	Yadadri TPP - Choutuppal line	D/C	TGTRANSCO	Intra state	185	Sep-25
31	400 kV D/C from SSCTPS - Babai line	D/C	RRVPNL	Intra state	491	Oct-25
32	LILO of one ckt of 400 kV Soja - Zerda line at 400 kV Veloda S/s	D/C	GETCO	Intra state	61	Nov-25
33	LILO of 400 kV Orai- Banda Line at Maheba (400kV) (GEC-II)	D/C	UPPTCL	Intra state	30	Feb-26
34	LILO of existing 400 kV Sattenapalli- Vemagiri line at 400 kV Gudivada SS	M/C	APTRANSCO	Intra state	102	Feb-26
35	Shapar - Pachcham (Fedra) Line (GEC-I)	D/C	GETCO	Intra state	200	Mar-26
36	LILO of one circuit of 400 kV Damoh (PGCIL) - Bhopal line at Sagar 400 kV S/s	D/C	MPPTCL	Intra state	38	Mar-26
37	400 kV D/C Vattem to Uddandapur line	D/C	TGTRANSCO	Intra state	68	Mar-26
38	400 kV D/C Maheswaram to Uddandapur line	D/C	TGTRANSCO	Intra state	120	Mar-26
39	LILO of Ckt-I of 400 kV D/C Orai (PG)- Orai Line at Garautha (400) (GEC-II)	D/C	UPPTCL	Intra state	91.00	Mar-26
Total of STATE SECTOR					**1576**	
PRIVATE SECTOR						
40	LILO of one ckt. of 400 kV D/c Kalisindh-Anta Line at Sangod GSS (Intra state TBCB_Rajasthan)	D/C	ADANI	Intra state	11	APR-25
41	LILO of one ckt. of 400 kV Greater Noida (765kV)- Pali, Gr. Noida DC line at 400 kV S/s Metro Depot (Gr. Noida) (Intra state TBCB_UP)	D/C	Tata Power	Intra state	4	Nov-25
42	North Karanpura-Gaya 400 kV D/C line (Immediate evacuation for North Karanpura (3x660 MW) generation project of NTPC (ERSS XIX)	D/C	Adani	ISTS	196	Dec-25
43	Koteshwar - Rishikesh 400 kV D/C line (System strengthening in northern region (NRSS XXXVI) along with LILO of Sikar-Neemrana 400 kV D/C line at Babai (RVPNL))	D/C	Tata Power	ISTS	77	Dec-25

44	Fatehgarh-4 PS- Fatehgarh-3 PS 400 kV D/c line (Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under phase III –Part A1)	D/C	Apraava Energy	ISTS	43	Dec-25
45	LILO of one circuit of Kishenpur – Dulhasti 400 kV D/c line at Kishtwar (Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs)	D/C	Resonia (formerly Sterlite)	ISTS	3	Dec-25
46	LILO of Pirana (PG) – Pirana (T) 400 kV line at Ahmedabad S/s (Transmission scheme for evacuation of 4.5 GW RE injection at Khavda PS under Phase II- Part D)	D/C	Torrent	ISTS	240	Feb-26
47	LILO of One Ckt of Tanda - Basti Line at Gonda (400 kV) Intra state TBCB_UP	D/C	Tata Power	Intra state	154	Feb-26
48	Gadag PS- Koppal PS 400 kV D/c line (Transmission Scheme for Solar Energy Zone in Gadag (1500 MW), Karnataka – Part-A, Phase-II)	D/C	Renew Power	ISTS	100	Mar-26
Total of PRIVATE SECTOR					**828**	
Total of 400 kV					**3064**	
230 kV						
STATE SECTOR						
49	LILO Korattur-Kilpauk 230 kV Feeder at Ganesh Nagar GIS SS (UG Cable)	D/C	TANTRANSCO	Intra state	3	Aug-25
50	Overhead (OH) portion of 230 line from 400 kV Sholinganallur (Ottiyambakkam) SS to 230 kV Kits Park SS (Ottiyambakkam SS to loc.34 upto Cable termination tower)	S/C	TANTRANSCO	Intra state	6	Aug-25
51	Underground cable portion of 230 kV line from 400 kV Sholinganallur (Ottiyambakkam) SS to 230 kV Kits Park SS (from Loc. No. 35 to Kits Park SS)	S/C	TANTRANSCO	Intra state	3	Sep-25
52	230 kV D/c line from Tharamani SS to Kits Park (OH Portion+ UG Cable)	D/C	TANTRANSCO	Intra state	19	Dec-25
53	LILO of 230 kV Mylapore - Taramani S/C UG feeder at Thiruvanmiyur 230 KV GIS	D/C	TANTRANSCO	Intra state	1	Mar-26
54	LILO of 230 kV Thiruvalam to Singarapet S/c line at Sathumadurai SS (OH Portion- 3.5 ckm + UG Portion - 1.76 ckm)	D/C	TANTRANSCO	Intra state	5	Mar-26
55	Thiruvalam 400/230 KV SS to Thiruvalam 230/110 KV SS as Link -III (3rd Circuit) Feeder	D/C	TANTRANSCO	Intra state	9	Mar-26
Total of STATE SECTOR					**46**	
Total of 230 kV					**46**	
220 kV						
CENTRAL SECTOR						
56	Kathalguri (NEEPCO)-Namsai (POWERGRID) 220 kV D/C line under Project System Strengthening Scheme for Eastern and North Eastern Regions (SPV Name POWERGRID ER NER Transmission Limited)	D/C	PGCIL	ISTS	142	JUN-25
57	LILO of MTPS (A) - Borjora line at MTPS (B)	M/C	DVC	Intra state	86	Aug-25
58	Laying of cable between Minamarg & Zojilla top section of Alusteng-Drass 220 kV Section under Project: Transmission System Stregthening for Srinagar-Leh TS	S/C	PGCIL	ISTS	12	Nov-25
Total of CENTRAL SECTOR					**240**	

STATE SECTOR						
59	220 kV Nunna-Gunadala line (Monopole)	D/C	APTRANSCO	Intra state	17	MAY-25
60	LILO of ckt-2 of Mohana-Samalkha line at Jajji SS	D/C	HVPNL	Intra state	7	JUN-25
61	LILO of Sector-65 - Palli line at 400 kV Kadarpur SS	D/C	HVPNL	Intra state	26	MAY-25
62	Ghanagapura S/S Kalaburagi (Ferozabad) S/s to Kapnoor line	D/C	KPTCL	Intra state	21	JUN-25
63	Kushtagi-Yelburga line	D/C	KPTCL	Intra state	58	APR-25
64	220 kV Shivajinagar to Ampyr Renewables Energy resources Solar power Park (at Bhamer and Bhadgaon Tal. Sakri Dist Dhule)	S/C	MSETCL	Intra state	11	MAY-25
65	220 kV Umred-Nagbhid line (Part-II)	D/C	MSETCL	Intra state	49	MAY-25
66	220 kV Uppalwadi-Pardi underground cable (circuit I)	D/C	MSETCL	Intra state	13	MAY-25
67	LILO of one ckt of Mhaisal-Jath at Alkud SS (Jath to Alkud Portion)	D/C	MSETCL	Intra state	22	JUN-25
68	LILO of Virur-Gadchiroli line at 220 kV Konsari substation (by M/s Lloyds Metal and Energy Ltd.)	D/C	MSETCL	Intra state	32	MAY-25
69	Nagewadi- Bhokardhan line	D/C	MSETCL	Intra state	90	APR-25
70	Keonjhar (PGCIL SS) to Turumunga GSS	D/C	OPTCL	Intra state	34	JUN-25
71	Nayagarh GSS to Railway Traction Substation at Nayagarh	S/C	OPTCL	Intra state	14	MAY-25
72	Nuapada (Cuttack)-Pratapsason line	D/C	OPTCL	Intra state	92	APR-25
73	Lilo of one ckt of Jamalpur-Dhandari Kalan line at Sherpur SS (by replacing 66 kV Existing multi circuit line to 220kV)	D/C	PSTCL	Intra state	2	MAY-25
74	LILO of 220 kV Akal-Giral Line at 220 kV GSS Sheo	D/C	RVPNL	Intra state	8	JUN-25
75	LILO of 220 kV Balotra-HRRL Line at 400 kV GSS Pachpadra	D/C	RVPNL	Intra state	10	JUN-25
76	220 kV Khair-Harduaganj Line	D/C	UPPTCL	Intra state	77	MAY-25
77	Bhadohi-Sahupuri Line	S/C	UPPTCL	Intra state	77	APR-25
78	Kurud-Rajim (Circuit-I)	D/C	CSPTCL	Intra state	33	Jul-25
79	LILO of one ckt of Kanhan- Umred line at Pachgaon SS	D/C	MSETCL	Intra state	22	Jul-25
80	LILO of one ckt of Mhaisal-Jath at Alkud (400 kV S/S) (Mhaissal to Alkud Portion)	S/C	MSETCL	Intra state	22	Jul-25
81	LILO of 220 kV Barmer-Akal line at 220 kV GSS Sheo	D/C	RRVPNL	Intra state	17	Jul-25
82	220 kV Edapon to Pathanamthitta line	D/C	KSEBL	Intra state	57	Jul-25
83	220 kV Janagon to Husnabad line	D/C	TGTRANSCO	Intra state	79	Jul-25
84	LILO of Ckt-I of Mohana-Samalkha line at Jajji SS	M/C	HVPNL	Intra state	7	Jul-25
85	LILO of Tepla - Madanpur line and Tepla -Raiwali line at Sadhaura SS	M/C	HVPNL	Intra state	105	Jul-25
86	LILO of 220 kV Narendra-Mahalingapur D/c line at 220 kV Salahalli S/S	M/C	KPTCL	Intra state	9	Aug-25
87	220 kV Sahakarinagar to Mathikere GIS (UG Cable)	S/C	KPTCL	Intra state	6	Aug-25
88	220 kV Uppalwadi-Pardi line Ckt-II (UG Cable)	D/C	MSETCL	Intra state	13	Aug-25
89	220 kV Vishwind- Bhenda line	D/C	MSETCL	Intra state	86	Aug-25
90	STPS to Raghunathpur (220 kV SS)	D/C	WBSETCL	Intra state	46	Aug-25
91	220 kV Mansa- Budhlada line (ckt-I)	D/C	PSTCL	Intra state	26	Aug-25

92	LILO of existing Birpara-Alipurduar 220 kV D/C line of PGCIL at Falakata SS	M/C	WBSETCL	Intra state	16	Sep-25
93	220 kV D/C line from Bhadson (800 kV SS) to Ramana - Ramani SS	D/C	HVPNL	Intra state	47	Sep-25
94	LILO of one ckt. of 220 kV D/C Nissing to Salempur line at 220 kV substation Ramana Ramani	D/C	HVPNL	Intra state	17	Sep-25
95	LILO of one ckt of 220 kV Nuapada (Cuttack) - Pratapsason D/c line at Balianta GSS	D/C	OPTCL	Intra state	21	Sep-25
96	Nagarbhavi: LILO of 220 kV Peenya-Singarpet line at Nagarbhavi S/S (UG Cable)	D/C	KPTCL	Intra state	5	Oct-25
97	White field (Hagadur): 220 kV UG cable from Hoody to Hagadur S/s	S/C	KPTCL	Intra state	8	Oct-25
98	Dudda: Reorientation of Shimoga-Shantigrantigrama line and Mugulavally-Shantigrantigrama line by doing LILO-220 kV line from 220 kV Mugulavally to Dudda S/s and then to 400 kV PGCIL Shantigrantigrama S/S (M1 Line) and from 220 kV Shivamoga to 220 kV Dudda to 220 kV Hassan and then to Shantigrantigrama S/S (M2 line)	D/C	KPTCL	Intra state	14	Oct-25
99	220 kV Mansa- Budhlada line (Ckt-II)	D/C	PSTCL	Intra state	26	Oct-25
100	220 kV D/c line from Dhanansu SS to Tata Steel plant, Kadiana Khurd Ckt-I (late reported, commissioned in September-2025)	D/C	PSTCL	Intra state	5	Oct-25
101	LILO of Bhilwara -Beawer S/C line at Rayla (220 kV GSS)	D/C	RRVPNL	Intra state	26	Oct-25
102	220 kV Indirapuram- Sector 62 Noida Line	D/C	UPPTCL	Intra state	3	Oct-25
103	LILO of 220 kV Kalwa - Bapgaon D/c line at Mankoli substation (late reported, commissioned in October-2025)	D/C	MSETCL	Intra state	1	Nov-25
104	LILO of one Circuit of 220 kV D/C Cheka-Sonta line at 220 kV Neemwala (Late reported, commissioned in October-2025)	D/C	HVPNL	Intra state	3	Nov-25
105	Hindupur to Pampanurthanda line -II (Circuit-III) (GEC-I)	D/C	APTRANSCO	Intra state	74	Nov-25
106	220 kV Birdha- Lalitpur SC line	S/C	UPPTCL	Intra state	28	Nov-25
107	220 kV Shamli- Badhaikalan line (Ckt.-I & II)	D/C	UPPTCL	Intra state	67	Nov-25
108	LILO of 220 kV Nara- Jansath line at Meerut (765) (Late reported, commissioned in June-2025)	D/C	UPPTCL	Intra state	95	Nov-25
109	Mundayad - Mylatty 220 kV line (part of Kanhirode Mylatty line) (Kolathunad Lines Strengthening Package-KLSP- Project B)	D/C	KSEB	Intra state	150	Dec-25
110	Kurud-Gurur line	D/C	CSPTCL	Intra state	74	Dec-25
111	220 kV D/C Sonipat (PG) -Pocket-A IMT Kharkhoda line	D/C	HVPNL	Intra state	42.00	Dec-25
112	220 kV Pocket-A IMT Kharkhoda - MSIL line (one ckt).	S/C	HVPNL	Intra state	4.00	Dec-25
113	220 kV line from Bajakhana SS to RTSS Romana Albel singh	S/C	PSTCL	Intra state	14	Dec-25
114	LILO of Unnao (400)-Bithoor Line at Trans Ganga City (400)	D/C	UPPTCL	Intra state	9	Dec-25
115	LILO of one ckt of 220 kV Domjur – Arambagh Line at Khanakul 220 KV GIS	D/C	WBSETCL	Intra state	23	Dec-25
116	Hindupur to Pampanurthanda line -II (Circuit-IV) (GEC-I)	D/C	APTRANSCO	Intra state	74	Dec-25
117	LILO of both circuits of 220 kV KAPP - Vapi line (ISTS line of Sterlite) at 400 kV Vapi- II (ISTS SS)	D/C	GETCO	Intra state	17	Jan-26

118	LILO of both circuits of Shapar - Babara line at Kamlapur (220 kV SS) (GEC-II)	D/C	GETCO	Intra state	42	Jan-26
119	LILO of the 220 kV Talangpore (Sachin)–Navsari line and 220 kV Talangpore (Sachin)–Vav line at 765 kV Navsari (New) Substation	D/C	GETCO	Intra state	61	Jan-26
120	220 kV UG Cable from Mathikere GIS to NRS SS (Late reported, commissioned in December-2025)	S/C	KPTCL	Intra state	7	Jan-26
121	220 kV M/C line from 765/400 kV Shikrapur PGCIL SS to LILO point (400 kV Babhaleshwar SS to 220 kV Ranjangaon SS Package-A	M/C	MSETCL	Intra state	17	Jan-26
122	LILO of 220 kV Mohali 1 to Lalru at 220 kV Mohali-2.	D/C	PSTCL	Intra state	3	Jan-26
123	220 kV Meerut (765)- Mawana Line	D/C	UPPTCL	Intra state	37.00	Jan-26
124	Bhiwani (765 kV PGCIL SS) to Isherwal (220 kV SS)	D/C	HVPNL	Intra state	100	Jan-26
125	220 kV line from Dehar HEP of BBMB to Kangoo Sub-Station (2nd circuit)	D/C	HPPTCL	Intra state	4	Feb-26
126	LILO of Chintamani-Mittemari D/ C line at 220 kV Chikkaballapura I/A CTT	M/C	KPTCL	Intra state	111	Feb-26
127	220 kV, UG Cable from 220 kV Chikkaballapura I/A CTT to 220/66 kV C.B. pura I/A Sub-station	M/C	KPTCL	Intra state	2	Feb-26
128	220 kV D/C Sangod (400 kV PPP)- Baran Line	D/C	RRVPNL	Intra state	55	Feb-26
129	LILO of one Ckt. Of 220 kV D/C Ratangarh (400 kV GSS) - Khetri Line at 220 kV GSS Jhunjhunu	D/C	RRVPNL	Intra state	3	Feb-26
130	LILO of 220 kV Dholpur-Bharatpur Line at 220 kV GSS Maniya	D/C	RRVPNL	Intra state	29	Feb-26
131	220 kV Shamli (400)- Deoband Line	D/C	UPTCL	Intra state	93.00	Feb-26
132	220 kV DC line from 765/400 kV Shikrapur PGCIL SS to 220 kV Khed city SS - Package B (using the existing corridor of Bableshwar- Ranjangaon)	D/C	MSETCL	Intra state	27.00	Feb-26
133	LILO of existing 220 kV Nunna - KTPS single circuit line to 220 kV Tiruvuru SS	D/C	APTRANSCO	Intra state	6	Feb-26
134	220 kV Jammalamadugu-Mylavaram PS-03 line.	D/C	APTRANSCO	Intra state	17	Feb-26
135	LILO of 220 kV S/C Ambheta (Chikhli)-Vapi line at Atul ss	D/C	GETCO	Intra state	9	Mar-26
136	220 kV D/C BHOGAT - MOTI GOP LINE	D/C	GETCO	Intra state	140	Mar-26
137	220 kV D/C Motigop Babarzar line (AP 7 to Motigop gantry)	D/C	GETCO	Intra state	32	Mar-26
138	220 kV S/C Dhama - Bechraji line (Tap location of existing 220 kV Bechraji – Surel line to 220 kV Dhama S/S)	S/C	GETCO	Intra state	12	Mar-26
139	220 kV D/C Dhama Munjpur line	D/C	GETCO	Intra state	60	Mar-26
140	220 kV D/C Botad - Chorania line	D/C	GETCO	Intra state	103	Mar-26
141	220 kV S/C Jetpur - Bhesan line	S/C	GETCO	Intra state	16	Mar-26
142	220 kV D/C Gavasad - Salejada line	D/C	GETCO	Intra state	194	Mar-26
143	Ckt-I of 220 kV D/C line from Pocket-A, IMT Kharkhoda to Pocket-B, IMT Kharkhoda (GIS)	D/C	HVPNL	Intra state	7	Mar-26
144	LILO of 220 kV Kudgi-Vajramatti D/C line at Savalgi SS (near Chikkalaki Cross)	M/C	KPTCL	Intra state	65	Mar-26
145	Conversion of 220 kV Lingapura-Ittagi-Neelagunda-Guttur S/C line by 220 kV D/C line (GEC-II)	D/C	KPTCL	Intra state	123	Mar-26
146	LILO of Sabarigiri - Edamon line at Pathanamthitta GIS Substation	D/C	KSEBL	Intra state	53	Mar-26

147	LILO of one ckt of 220 kV Padghe-Wada D/C line at 220 kV Abhitghar S/S	D/C	MSETCL	Intra state	16	Mar-26
148	Reorientation of 220kV Babhaleshwar- Ranjangaon & Lonikand- Ranjangaon at 220kV Khed City SS (Package-B)	D/C	MSETCL	Intra state	11	Mar-26
149	LILO of one ckt of Nashik (OCR) — Navsari D/C line at Deosane S/s.	D/C	MSETCL	Intra state	12	Mar-26
150	LILO of both ckts of Kolshet-Wada & Padghe-Wada D/C line at 400kV Kudus S/s	M/C	MSETCL	Intra state	36	Mar-26
151	LILO of one ckt of Balimela Malkangiri D/C line at Govindpali SS	D/C	OPTCL	Intra state	75	Mar-26
152	LILO of 220 kV Muzaffarnagar (400) - Shamli (220) Line at Khatauli (220)	D/C	UPPTCL	Intra state	29.00	Mar-26
Total of STATE SECTOR					**3658**	
PRIVATE SECTOR						
153	Juna Renewable Energy Private Limited Solar Power Plant (switchyard located in Village Kawani District-Bikaner Rajasthan)-Bikaner-II (ISTS) Pooling station 220 kV line	S/C	Juna Renewable Energy	Intra state	16	JUN-25
154	220 kV Interconnecting cable from Metro Depot (400) to RC Green (Intra state TBCB_UP)	S/C	Tata Power	Intra state	2	Nov-25
155	220 kV Interconnecting cable from Metro Depot (400) to Metro Depot (220) (Intra state TBCB_UP)	S/C	Tata Power	Intra state	2	Nov-25
Total of PRIVATE SECTOR					**20**	
Total of 220 kV					**3918**	
Grand Total					**12139**	

Annexure-3E

Substations Completed During FY- 2025-26						
						As on 31-March-2026
Sl No	**Name of Sub Stations**	**Voltage Ratio (kV/kV)**	**Executing Agency**	**ISTS / Intra State**	**Capacity (MW/MVA)**	**Month of Completion**
1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**
	765 kV					
CENTRAL SECTOR						
1	1x1500 MVA, 765/400 kV ICT-1 at Fathehgarh-3 (New Section) under Project Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1	765/400	PGCIL	ISTS	1500	APR-25
2	1x1500 MVA, 765/400 kV ICT-1 at KPS 2 Substation under Project: Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park	765/400	PGCIL	ISTS	1500	APR-25
3	1x1500 MVA, 765/400 kV ICT-1 at KPS3 Substation under Project: Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE Park (SPV Name: POWERGRID KPS3 TRANSMISSION LIMITED)	765/400	PGCIL	ISTS	1500	JUN-25
4	1x1500 MVA, 765/400 kV ICT-2 at Fathehgarh-3 (New Section) under Project: Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1- Given to PRTL (POWERGRID Ramgarh Transmission Limited)	765/400	PGCIL	ISTS	1500	JUN-25
5	2x1500 MVA, 765/400 kV ICT-1 & 2 at Navsari (New) Substation under Project: Transmission Network Expansion in Gujarat to increase its ATC from ISTS Part B	765/400	PGCIL	ISTS	3000	APR-25
6	2x1500 MVA, 765/400 kV ICT-2 & 3 at KPS3 Substation under Project: Establishment of Khavda Pooling Station-3 (KPS3) in Khavda RE Park (SPV Name: POWERGRID KPS3 TRANSMISSION LIMITED)	765/400	PGCIL	ISTS	3000	Jul-25
7	1x1500 MVA, 765/400 kV ICT-2 at KPS2 Substation under Project: Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park (SPV: POWERGRID KPS2 TRANSMISSION LIMITED)	765/400	PGCIL	ISTS	1500	Jul-25
8	1X1500 MVA, 765/400 KV ICT-5th at Raigarh Kotra Section B under Project: Western Region Expansion Scheme-XXV (WRES-XXV)	765/400	PGCIL	ISTS	1500	Jul-25
9	1x1500 MVA, 765/400 kV 4th ICT at Bikaner Substation under Project: Transmission Sysytem for evacuation of Power from Rajasthan Phase-IV Part -I Bikaner Complex Part E	765/400	PGCIL	ISTS	1500	Aug-25
10	1x1500 MVA, 765/400 kV ICT-3 at Fathehgarh-3 (New Section) under Project:	765/400	PGCIL	ISTS	1500	Sep-25

	Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1- Given to PRTL (POWERGRID Ramgarh Transmission Limited)					
11	2x1500 MVA, 765/400 kV ICT-1 & 2 at Ahmedabad New SS under Project: Transmission scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part C (POWERGRID Khavda II C Transmission Limited)	765/400	PGCIL	ISTS	3000	Sep-25
12	3x1500 MVA, 765/400 kV ICT-1,2 and 3 at Narela GIS under Project: Transmission system strengthening scheme for evacuation of power from solar energy zones in Rajasthan (8.1 GW) under phase-II- Part G (SPV Name: POWERGRID Narela Transmission Limited)	765/400	PGCIL	ISTS	4500	Oct-25
13	1x1500 MVA, 765/400 kV ICT-3 at KPS 2 Substation under Project: Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park (SPV: POWERGRID KPS2 TRANSMISSION LIMITED)	765/400	PGCIL	ISTS	1500	Nov-25
14	1X1500 MVA, 765/400 KV ICT-7th at Raigarh Kotra (Section B) under Project: Western Region Expansion Scheme-XXV (WRES-XXV)	765/400	PGCIL	ISTS	1500	Nov-25
15	1x1500 MVA, 765/400 kV ICT-3 at Ahmedabad New SS under Project: Transmission scheme for evacuation of 4.5GW RE injection at Khavda PS under Phase II- Part C (POWERGRID Khavda II C Transmission Limited)	765/400	PGCIL	ISTS	1500	Nov-25
16	1x1500 MVA, 765/400 kV ICT-4 at KPS 2 Substation under Project: Establishment of Khavda Pooling Station-2 (KPS2) in Khavda RE Park	765/400	PGCIL	ISTS	1500	Dec-25
17	2x1500 MVA, 765/400 kV ICT 1 & 2 at Dausa under Project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part H (SPV: POWERGRID Beawar DausaTransmission Ltd.)	765/400	PGCIL	ISTS	3000	Jan-26
18	1x1500 MVA, 765/400 kV ICT (3rd) at Indore S/S under Project: Augmentation of Transformation Capacity at 765/400 kV Indore S/s in Madhya Pradesh	765/400	PGCIL	ISTS	1500	Jan-26
19	2x1500 MVA, 765/400 kV ICT 1 & 2 at Bhadla-III under Project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1 (SPV: POWERGRID Bhadla-III Transmission Ltd.)	765/400	PGCIL	ISTS	3000	Feb-26
20	2x1500MVA, 765/400kV ICT 1 & 2 at Ramgarh PS under Project: Transmission system associated with LTA applications from Rajasthan SEZ Phase-III Part-C1 (SPV: POWERGRID Ramgarh-II Transmission Ltd.)	765/400	PGCIL	ISTS	3000	Feb-26
21	1x1500 MVA, 765/400 kV ICT-3rd at Kurnool New under Project: Augmentation of 1x1500 MVA (3rd), 765/400 kV transformation capacity at Kurnool New Substation	765/400	PGCIL	ISTS	1500	Mar-26
22	1x1500 MVA, 765/400 kV ICT- 4th at Bhiwani under Project: Augmentation of 765/400 kV, 1500MVA transformer (4th) at Bhiwani S/s (De-linked from Transmission System for evacuation of Power from RE parks in Leh (5 GW Leh-	765/400	PGCIL	ISTS	1500	Mar-26

	Kaithal Transmission Corridor))					
23	1x1500 MVA 765/400 KV ICT- 1st at Fatehgarh-III under Project: Transmission System for Evacuation of Power from REZ in Rajasthan (20GW) under Phase III-Part E2	765/400	PGCIL	ISTS	1500	Mar-26
24	1x1500 MVA 765/400 kV ICT- 3rd at Navsari under Project: Transmission Network Expansion in Gujarat associated with integration of RE projects from Khavda potential RE Zone	765/400	PGCIL	ISTS	1500	Mar-26
25	1x1500 MVA (3rd), 765/400 kV ICT at Maheswaram (PG) under Project: Augmentation of Transformation Capacity by 1X1500 MVA (3rd), 765/400 KV ICT at Maheswaram (PG) Substation in Telangana	400/220	PGCIL	ISTS	1500	Mar-26
	TOTAL CENTRAL SECTOR				**49500**	
PRIVATE SECTOR						
26	2x1500 MVA ICT (3rd & 4th) at KPS 1 (Augmentation of Khavda PS1 by 4X1500 MVA, 765/400 kV ICT) (Taken Over by Adani)	765/400	MEGHA	ISTS	3000	APR-25
27	Augmentation of transformation capacity at KPS1 (GIS) by 1X1500 MVA, 765/400 kV ICT (8th) on bus section-I	765/400	ADANI	ISTS	1500	Jul-25
	TOTAL PRIVATE SECTOR				**4500**	
	TOTAL 765 kV				**54000**	
400 kV						
CENTRAL SECTOR						
28	1x500 MVA, 400/220 kV ICT-1 at Fathehgarh-3 (New Section) under Project: Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1- Given to PRTL (POWERGRID Ramgarh Transmission Limited)	400/220	PGCIL	ISTS	500	Jul-25
29	1x500 MVA, 400/220 kV (4th) ICT at Nalagarh Substation under Project: Augmentation of Transformation Capacity at 400/220 kV Nalagarh substation by 400/220 kV, 1x500 MVA (4th) ICT	400/220	PGCIL	ISTS	500	Aug-25
30	1x500 MVA, 400/220 kV (3rd) ICT at Hassan Substation under Project: Augmentation of Transformation Capacity at 400/220 kV Hassan Substation in Karnataka by 400/220 kV, 1x500 MVA ICT (3rd)	400/220	PGCIL	ISTS	500	Aug-25
31	1x500 MVA, 400/220 kV ICT-2 at Fathehgarh-3 (New Section) under Project: Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1- Given to PRTL (POWERGRID Ramgarh Transmission Limited)	400/220	PGCIL	ISTS	500	Aug-25
32	Replacement of 315 MVA ICT-3 with 500 MVA ICT at Bawana (DTL) Substation under Project: Replacement of 400/220 kV, 315 MVA ICT-3 with 400/220 kV,500 MVA ICT at 400/220/66 kV Bawana (DTL) Substation	400/220	PGCIL	ISTS	185	Oct-25
33	1X500 MVA, 400/220 kV ICT-5 at Kurnool-III under Project: Transmission	400/220	PGCIL	ISTS	500	Oct-25

	System for Kurnool Wind Energy Zone/ Solar Energy Zone (AP) – Part-A & Part-B					
34	1x500 MVA, 400/220 kV ICT-3 at Fathehgarh-3 (New Section) under Project: Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1- Given to PRTL	400/220	PGCIL	ISTS	500	Dec-25
35	1x500 MVA, 400/220 kV ICT (9th) at Bhuj under Project: Augmentation of Transformation Capacity at 400/220 kV Bhuj PS in Gujarat by 1x500 MVA, 400/220 kV ICT (9th)	400/220	PGCIL	ISTS	500	Jan-26
36	1x500 MVA, 400/220 kV ICT (3rd) at Bhachau under Project: Augmentation of Transformation Capacity at 400/220 kV Bhachau Substation in Gujarat by 400/220 KV, 1x1500 MVA ICT (3rd)	400/220	PGCIL	ISTS	500	Jan-26
37	1x500 MVA, 400/220 kV ICT (1st) at Ananthpuram under Project: Transmission scheme for Solar Energy Zone in Ananthpuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh (SPV: POWERGRID Ananthpuram Kurnool Transmission Ltd.)	400/220	PGCIL	ISTS	500	Jan-26
38	2x500 MVA, 400/220 kV ICT 1 & 2 at Ramgarh PS under Project: Transmission system associated with LTA applications from Rajasthan SEZ Phase-III Part-C1 (SPV: POWERGRID Ramgarh-II Transmission Ltd.)	400/220	PGCIL	ISTS	1000	Feb-26
39	1x500 MVA, 400/220 kV (4th) ICT at Allahabad under Project: Augmentation of Transformation Capacity at 400/220 kV Allahabad (PG) substation by 400/220 kV, 1x500 MVA (4th) ICT	400/220	PGCIL	ISTS	500	Feb-26
40	2x500 MVA, 400/220 kV ICT- 1 & 2 at Lakhisarai under Project: ERES-XXXVII)	400/220	PGCIL	ISTS	1000	Feb-26
41	3x500 MVA, 400/220 kV ICT 1, 2 & 3 at Bhadla-III under Project: Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under Phase-III Part B1 (SPV: POWERGRID Bhadla-III Transmission Ltd.)	400/220	PGCIL	ISTS	1500	Mar-26
42	3x500 MVA, 400/220 kV ICT (2nd, 3rd & 4th) at Ananthpuram under Project: Transmission scheme for Solar Energy Zone in Ananthpuram (Ananthapur) (2500 MW) and Kurnool (1000 MW), Andhra Pradesh (SPV: POWERGRID Ananthpuram Kurnool Transmission Ltd.)	400/220	PGCIL	ISTS	1500	Mar-26
43	1x500 MVA, 400/220 kV ICT (3rd) at Navsari (New) under Project: Transmission Network Expansion in Gujarat to increase its ATC from ISTS Part B	400/220	PGCIL	ISTS	500	Mar-26
44	1x500 MVA 400/220 kV (3rd) ICT at Kotputli PG under Project: TS for evacuation of Power from Rajasthan Phase-IV Part -I Bikaner Complex Part E	400/220	PGCIL	ISTS	500	Mar-26
45	2x500MVA, 400/220 kV (1st & 2nd) ICT at Fatehgarh-III under Project: Transmission System for Evacuation of Power from REZ in Rajasthan (20GW)	400/220	PGCIL	ISTS	1000	Mar-26

	under Phase III- Part E2					
	TOTAL CENTRAL SECTOR	-	-	-	**12185**	-
STATE SECTOR						
46	Julwaniya 400 kV S/s (Aug.)	400/220	MPPTCL	Intra state	500	APR-25
47	Dhanansu (400 kV SS) (Aug.)	400/220	PSTCL	Intra state	500	JUN-25
48	Korattur SS (ICT-II) (upgradation from 230 kV to 400 kV GIS)	400/230	TANTRANSCO	Intra state	500	JUN-25
49	Korattur SS (upgradation from 230 kV to 400 kV GIS) (2X200 MVA)	400/110	TANTRANSCO	Intra state	400	APR-25
50	Korattur SS (upgradation from 230 kV to 400 kV GIS) T/F-I	400/230	TANTRANSCO	Intra state	500	APR-25
51	K.R. Thoppur S/S (Aug.)	400/230	TANTRANSCO	Intra state	500	APR-25
52	Sriperumbudur SS (Aug.) (500-315 MVA)	400/230	TANTRANSCO	Intra state	185	MAY-25
53	Upgradation of Satgachia GIS (from 220 kV SS to 400 kV)	400/220	WBSETCL	Intra state	1000	MAY-25
54	Sattenapalli SS in Guntur Dist (Aug.) (500-315 MVA)	400/220	APTRANSCO	Intra state	185	Jul-25
55	Dhardehi (Bilaspur)SS (2X315 MVA)	400/220	CSPTCL	Intra state	630	Jul-25
56	Khedamara (Bhilai) (Aug.)	400/220	CSPTCL	Intra state	315	Aug-25
57	400 kV Kansari (Aug.) (500-315 MVA)	400/220	GETCO	Intra state	185	Aug-25
58	New Duburi GSS (Aug.)	400/220/33	OPTCL	Intra state	500	Aug-25
59	Ukai	400/220	GETCO	Intra state	500	Sep-25
60	Kalisindh TPS (RVUN) Aug. (500-315 MVA) (Late reported, commissioned in September-2025)	400/220	RRVPNL	Intra state	185	Oct-25
61	400 kV Nagothane substation (Aug.) (3x167 MVA)	400/220	MSETCL	Intra state	500	Nov-25
62	400 kV S/s Unnao (Capacity Augmentation T/F-II- 500-315 MVA)	400/220	UPPTCL	Intra state	185	Nov-25
63	400 kV S/s Badnawar (Aug.) (500 MVA)	400/220	MPPTCL	Intra	500	Dec-25

				state		
64	400 kV Thaptitanda (3x167 MVA)	400/220	MSETCL	Intra state	500	Dec-25
65	400 kV GSS Heerapura (Aug.)	400/220	RRVPNL	Intra state	500	Dec-25
66	400kV Kalawad GIS (2X500 MVA)	400/220	GETCO	Intra state	1000	Dec-25
67	400 kV substation Mandsaur (Aug.)	400/220	MPPTCL	Intra state	500	Feb-26
68	400 kV S/s Maheba (Jalaun)(T/F-II) (GEC-II)	400/220	UPPTCL	Intra state	500	Feb-26
69	400 kV Vadavi (Augmentation)	400/220	GETCO	Intra state	60	Mar-26
70	400 kV Veloda (Augmentation)	400/220	GETCO	Intra state	315	Mar-26
71	400 kV ICT at Kumbhargaon S/S (Aug.)	400/ 220/ 33	MSETCL	Intra state	500	Mar-26
72	400 kV Behman Jassa Singh S/s (2x500 MVA)	400/220	PSTCL	Intra state	1000	Mar-26
73	400 kV SS Rachagunneri in Chittoor Dist. (Aug.)	400/220	APTRANSCO	Intra state	500	Mar-26
74	400 kV S/s Garautha (Jhansi) (T/F-I) (GEC-II)	400/220	UPPTCL	Intra state	500	Mar-26
	TOTAL STATE SECTOR				**13645**	
PRIVATE SECTOR						
75	Sangod GSS (2X500 MVA) (Intra-state TBCB_Rajasthan)	400/220	ADANI	Intra state	1000	APR-25
76	Hazira S/S	400/220	Arcelor Mittal Nippon Steel (formerly Essar)	ISTS	500	Oct-25
77	Metro Depot S/s (Greater. Noida) (T/F-I & II) Intra state TBCB_UP	400/220	Tata Power	Intra state	1000	Nov-25
78	5x500 MVA, 400/220 kV pooling station at Fatehgarh-4 (Transmission system for evacuation of power from REZ in Rajasthan (20 GW) under phase III –Part A1)	400/220	Apraava Energy	ISTS	2500	Dec-25
79	7 x 66.67 MVA, 400/132 kV Kishtwar (Transmission System for evacuation of power from Pakaldul HEP in Chenab Valley HEPs)	400/132	Resonia (formerly Sterlite)	ISTS	400	Dec-25

80	Koppal PS (Aug.) (6th ICT) (Late reported, commissioned in Dec-2025)	400/220	Indigrid	ISTS	500	Jan-26
81	Augmentation of transformation capacity at 765/400 kV Lakadia S/s (WRSS XXI (A) Transco Ltd.) in Gujarat-Part A (Creation of 220 kV switchyard at Lakadia 765/400 kV S/s along with 220kV line bays for RE Interconnection (2x500 MVA)	400/220	ADANI	ISTS	1000	Feb-26
82	400/220 kV AIS S/s Gonda (T/F-I & II) Intra state TBCB_UP	400/220	Tata Power	Intra state	630	Feb-26
83	Augmentation of 400/220 kV Gadag Substation with 3x500 MVA ICT (Transmission Scheme for Solar Energy Zone in Gadag (1500 MW), Karnataka – Part-A, Phase-II)	400/220	Renew Power	ISTS	1500	Mar-26
	TOTAL PRIVATE SECTOR				**9030**	
	TOTAL 400 kV				**34860**	
230 kV						
STATE SECTOR						
84	Mambakkam SS (T/F-I)	230/110	TANTRANSCO	Intra state	100	MAY-25
85	Ambattur 3rd Main Road (Aug.)	230/110	TANTRANSCO	Intra state	100	Jul-25
86	Hosur SS (Aug.) (160-100 MVA)	230/110	TANTRANSCO	Intra state	60	Jul-25
87	230/33 kV Ganesh Nagar GIS SS (2x100 MVA)	230/33	TANTRANSCO	Intra state	200	Aug-25
88	Arani SS (Aug.) (100-80 MVA)	230/110	TANTRANSCO	Intra state	20	Dec-25
89	Vinnamangalam (Aug.)	230/110	TANTRANSCO	Intra state	100	Dec-25
90	Oragadam 230 kV SS (Aug.)(160-100 MVA)	230/110	TANTRANSCO	Intra state	60	Jan-26
91	Koyambedu 230 kV GIS SS (Aug.)	230/110	TANTRANSCO	Intra state	100	Jan-26
92	Kadapperi 230 kV SS(Aug.) (160-100 MVA)	230/110	TANTRANSCO	Intra state	60	Jan-26
93	Ulundurpet 230/110 KV SS (Aug.) (160-100 MVA)	230/110	TANTRANSCO	Intra state	60	Feb-26
94	Cuddalore 230/110 KV SS(Aug.) (160-100 MVA)	230/110	TANTRANSCO	Intra state	60	Feb-26
95	Uddanapally 230/110 kV SS (Aug.) (3rd 100 MVA Auto Tr.)	230/110	TANTRANSCO	Intra state	100	Mar-26

	TOTAL STATE SECTOR				**1020**	
	TOTAL 230 kV				**1020**	
			220 kV			
CENTRAL SECTOR						
96	2x160 MVA, 220/132 kV ICT-1&2 at Namsai S/S under Project: System Strengthening Scheme for Eastern and North Eastern Regions (SPV Name: POWERGRID ER NER Transmission Limited) NERSS-XV	220/132	PGCIL	ISTS	320	JUN-25
	TOTAL CENTRAL SECTOR				**320**	
STATE SECTOR						
97	220 kV Gorantla S/S in Ananthapur Dist	220/132	APTRANSCO	Intra state	160	MAY-25
98	220 kV Racherlapadu SS in Nellore District (Aug.)	220/132	APTRANSCO	Intra state	100	APR-25
99	Pampanurthanda SS in Ananthapur Dist (T/F-II)	220/132	APTRANSCO	Intra state	160	JUN-25
100	Gopalganj SS (Aug.)	220/132	BSPTCL	Intra state	200	APR-25
101	Hajipur (T/F-I)	220/132	BSPTCL	Intra state	200	MAY-25
102	Tajpur SS (2X160 MVA)	220/132	BSPTCL	Intra state	320	JUN-25
103	220 kV Radhanpur (Aug.) (420-310 MVA)	220/66	GETCO	Intra state	110	MAY-25
104	220 kV Talangpore (Aug.) (800-740 MVA)	220/66	GETCO	Intra state	60	MAY-25
105	220 kV GIS Transport Hub, Sector-8 IMT Manesar (T/F-II)	220/66	HVPNL	Intra state	100	APR-25
106	220 kV Palla (Aug.) (160-100 MVA)	220/66	HVPNL	Intra state	60	APR-25
107	Rajokheri SS (Aug.)	220/66	HVPNL	Intra state	160	JUN-25
108	Antharasanahalli (Aug.) (150-100 MVA)	220/66	KPTCL	Intra state	50	MAY-25
109	Basarkod-T/F-II	220/110	KPTCL	Intra state	100	MAY-25
110	Yelburga SS (2×100 MVA)	220/110	KPTCL	Intra state	200	APR-25
111	220 kV Konsari SS (2 x 100 MVA ICTs) (by M/s Lloyds Metal & Energy Ltd.)	220/132	MSETCL	Intra	200	MAY-25

				state		
112	Nagbhid S/s (1 x 100 MVA ICT I)	220/132	MSETCL	Intra state	100	MAY-25
113	Nagbhid S/s (1 x 25 MVA T/F)	220/33	MSETCL	Intra state	25	MAY-25
114	Pardi substation (2 x100 MVA ICTs)	220/132	MSETCL	Intra state	200	MAY-25
115	Mendhasal GSS (Aug.) (40-20 MVA)	220/33	OPTCL	Intra state	20	MAY-25
116	Nayagarh (Aug.) (40-20 MVA)	220/33	OPTCL	Intra state	20	APR-25
117	220 kV Humbran SS (Aug.) (160-100 MVA)	220/66	PSTCL	Intra state	60	APR-25
118	220 kV Mohali-1(Aug.) (160-100 MVA)	220/66	PSTCL	Intra state	60	APR-25
119	Addl 100 MVA at 220 KV S/S Ikolaha	220/66	PSTCL	Intra state	100	JUN-25
120	Moga (Singhawala) (220 kV SS) (Aug.)	220/66	PSTCL	Intra state	100	MAY-25
121	Patti (200 kV S/S) (Aug.)	220/66	PSTCL	Intra state	100	APR-25
122	Sherpur S/S (Aug.)	220/66	PSTCL	Intra state	160	JUN-25
123	Sherpur SS (Upgradation from 66 kV to 220 kV)	220/66	PSTCL	Intra state	160	JUN-25
124	220 kV GSS Danta Ramgarh (Aug.)	220/132	RVPNL	Intra state	100	MAY-25
125	220 kV GSS Gangapur City (Aug.) (160-100 MVA)	220/132	RVPNL	Intra state	60	MAY-25
126	220 kV GSS Sheo (Upgradation)	220/132	RVPNL	Intra state	160	JUN-25
127	220 kV IG Nagar SS (Aug.) (160-100 MVA)	220/132	RVPNL	Intra state	60	APR-25
128	Chandrayanagutta SS (Aug.)	220/132	TSTRANSCO	Intra state	160	APR-25
129	Jurala SS (Aug.) (160-100 MVA)	220/132	TSTRANSCO	Intra state	60	JUN-25
130	Sivarampally (Aug.) (160-100 MVA)	220/132	TSTRANSCO	Intra	60	APR-25

				state		
131	Wanaparthy SS (Aug.)	220/132	TSTRANSCO	Intra state	160	APR-25
132	220 kV Hafizpur S/s, Azamgarh Aug. (200-160 MVA)	220/132	UPPTCL	Intra state	40	APR-25
133	220 kV S/s Banda (Aug.)	220/132	UPPTCL	Intra state	160	MAY-25
134	220 kV S/s Bhelupur, Varanasi (Aug.)	220/33	UPPTCL	Intra state	60	MAY-25
135	400 kV S/s Jaunpur (Machhlishshar) (T/F-II)	220/132	UPPTCL	Intra state	160	MAY-25
136	Chinturu SS in East Godavari District (2nd T/F)	220/33	APTRANSCO	Intra state	50	Jul-25
137	220 kV SS Renigunta in Chittoor Dist (Aug.) (160-100 MVA)	220/132	APTRANSCO	Intra state	60	Jul-25
138	Rajim SS (T/F-II)	220/132	CSPTCL	Intra state	160	Jul-25
139	220 kV Anjar (Augmentation)	220/66	GETCO	Intra state	160	Jul-25
140	220 kV Pachgaon Substation (2 x50 MVA T/F's)	220/33	MSETCL	Intra state	100	Jul-25
141	Turumunga GSS (20 MVA T/F-II)	220/33	OPTCL	Intra state	20	Jul-25
142	Rengali GSS (Aug.) (40-20 MVA)	220/33	OPTCL	Intra state	20	Jul-25
143	Turumunga GSS (160 MVA T/F-II) (Late reported, charged in June-2025)	220/132	OPTCL	Intra state	160	Jul-25
144	220 kV Husnabad SS	220/132	TGTRANSCO	Intra state	100	Jul-25
145	220 kV Siddipet SS (Aug.) (160-100 MVA)	220/132	TGTRANSCO	Intra state	60	Jul-25
146	400 kV Charal (Aug.)	220/66	GETCO	Intra state	160	Aug-25
147	Establishing Salahalli (Bannur) S/s (2X100 MVA)	220/110	KPTCL	Intra state	200	Aug-25
148	Establishing 220/66 kV Mathikere GIS (2x150 MVA)	220/66	KPTCL	Intra state	300	Aug-25
149	Wazirabad S/s (1X160 MVA)	220/66	PSTCL	Intra	160	Aug-25

				state		
150	220 kV GSS Karoli (Upgradation)	220/132	RRVPNL	Intra state	160	Aug-25
151	220 KV GSS Phulera	220/132	RRVPNL	Intra state	100	Aug-25
152	220/132 kV Ammavaripeta (T/F-II)	220/132	TGTRANSCO	Intra state	100	Aug-25
153	Raghunathpur 220 kV GIS (Upg) (1X160 MVA & 1X150 MVA)	220/132	WBSETCL	Intra state	310	Aug-25
154	220 kV Samalkha SS (Aug.) (160 -100 MVA)	220/132	HVPNL	Intra state	60	Aug-25
155	220 kV Lula Ahir SS (Aug.)	220/33	HVPNL	Intra state	100	Aug-25
156	220 kV Agthala (Augmentation)	220/66	GETCO	Intra state	160	Sep-25
157	Pandhurna 220 kV S/s (Aug.) (200-160 MVA)	220/132	MPPTCL	Intra state	40	Sep-25
158	220 kV S/s Gajraula, Amroha T/F-III (Aug.)	220/132	UPPTCL	Intra state	160	Sep-25
159	220kV S/s Sikandra Rao, Hathras T/F-III (Aug.)	220/132	UPPTCL	Intra state	160	Sep-25
160	Falakata 220 kV GIS	220/132	WBSETCL	Intra state	320	Sep-25
161	220 kV Ramana Ramani SS (2×160 MVA)	220/132	HVPNL	Intra state	320	Sep-25
162	220 kV Ramana Ramani SS (2×100 MVA)	220/33	HVPNL	Intra state	200	Sep-25
163	Urla (Raipur)	220/132	CSPTCL	Intra state	160	Sep-25
164	220 kV SS Bommuru in East Godavari Dist. (Aug.) (160-100 MVA)	220/132	APTRANSCO	Intra state	60	Sep-25
165	220 kV SS Pydibhimavaram in Srikakulam Dist. (Aug.)	220/132	APTRANSCO	Intra state	160	Sep-25
166	220 kV Dhansura (Augmentation)	220/66	GETCO	Intra state	110	Oct-25
167	400 kV Hadala (Augmentation)	220/66	GETCO	Intra state	110	Oct-25
168	Nagarbhavi SS (2x150 MVA)	220/66	KPTCL	Intra	300	Oct-25

				state		
169	White field (Hagadur) GIS: (2X150 MVA)	220/66	KPTCL	Intra state	300	Oct-25
170	Dudda SS (HassanTaluk, Hassan distict): (220/66 kV, 100 MVA T/F)	220/66	KPTCL	Intra state	100	Oct-25
171	Dudda SS (HassanTaluk, Hassan distict): (220/110 kV, 100 MVA T/F)	220/110	KPTCL	Intra state	100	Oct-25
172	220 kV Chakan S/s (1x50 MVA T/F)	220/ 22	MSETCL	Intra state	50	Oct-25
173	220 kV Kaul (Kaithal)	220/132	HVPNL	Intra state	160	Oct-25
174	Racherla SS in chittoor dist.	220/132	APTRANSCO	Intra state	100	Oct-25
175	220 kV S/S Dhandari Kalan-2 (Aug.) (160-100 MVA)	220/66	PSTCL	Intra state	60	Oct-25
176	220 kV Budhlada SS (1X100 MVA T/F) (Upgraded from 66kV to 220 kV)	220/66	PSTCL	Intra state	100	Oct-25
177	220 kV GSS Rayla (Upg.)	220/132	RRVPNL	Intra state	160	Oct-25
178	220 kV GSS Dechu (Aug.) (200-100 MVA)	220/132	RRVPNL	Intra state	100	Oct-25
179	220 kV S/s Harduaganj, Aligarh (Capacity Augmentation T/F-II)	220/132	UPPTCL	Intra state	160	Oct-25
180	Hajipur (T/F-II -200 MVA)	220/132	BSPTCL	Intra state	200	Oct-25
181	220 kV Keshod (Augmentation)	220/66	GETCO	Intra state	60	Nov-25
182	220 kV Thavar (Augmentation)	220/66	GETCO	Intra state	60	Nov-25
183	220 kV Sartanpar (Augmentation)	220/66	GETCO	Intra state	160	Nov-25
184	MRS Shivamogga (Aug.) (3rd 100 MVA)	220/110	KPTCL	Intra state	100	Nov-25
185	220 kV Mankoli GIS S/s (2x50 MVA)	220/ 22	MSETCL	Intra state	100	Nov-25
186	220 kV Gadchiroli substation (Aug.) (100-50) MVA	220/132	MSETCL	Intra state	50	Nov-25
187	Bidanasi SS	220/132	OPTCL	Intra	160	Nov-25

				state		
188	220 kV GSS Sanchore (Aug.) (200-100 MVA)	220/132	RRVPNL	Intra state	100	Nov-25
189	220 kV Janagaon (Aug.) (160-100 MVA)	220/132	TGTRANSCO	Intra state	60	Nov-25
190	220/132 kV S/s Amaria (Capacity Augmentation T/F-I- 160-100)	220/132	UPPTCL	Intra state	60	Nov-25
191	220 kV Jind (Aug.)	220/132	HVPNL	Intra state	60	Nov-25
192	220 kV Badhana (Aug.)	220/132	HVPNL	Intra state	60	Nov-25
193	Bobbili SS Growth Center (Aug.)	220/132	APTRANSCO	Intra state	160	Nov-25
194	220 kV S/S Nabha (Aug.) (160-100 MVA)	220/66	PSTCL	Intra state	60	Nov-25
195	Legship Pool (under comprehensive scheme)	220/132	PD, Sikkim	Intra state	200	Nov-25
196	NRS Substation (Augmentation) (2x150 - 2X100 MVA)	220/66	KPTCL	Intra state	100	Dec-25
197	220 kV GIS at Pocket A, IMT Kharkhoda Sonipat	220/33	HVPNL	Intra state	100	Dec-25
198	220 kV Sec-15 (II) Gurugram (Aug.)	220/66	HVPNL	Intra state	100	Dec-25
199	220 kV Sec-20 Gurugram (Aug.)	220/66	HVPNL	Intra state	60	Dec-25
200	220 kV Samain (Aug.)	220/132	HVPNL	Intra state	100	Dec-25
201	220 kV Deroli Ahir (Aug.)	220/132	HVPNL	Intra state	100	Dec-25
202	220 kV A-4, Faridabad (Aug.) (160-100 MVA)	220/66	HVPNL	Intra state	60	Dec-25
203	220 kV Meerpur Kurali (Aug.) 160-100 MVA)	220/66	HVPNL	Intra state	60	Dec-25
204	220 kV Nuna Majra (Aug.) (160-100 MVA)	220/132	HVPNL	Intra state	60	Dec-25
205	220 kV S/s Barwaha (Aug.) (200-160 MVA)	220/132	MPPTCL	Intra state	40	Dec-25
206	220 kV Hinganghat (Aug.) (100-80 MVA) (late reported, commissioned in	220/132	MSETCL	Intra	20	Dec-25

	August-2025)			state		
207	220 kV Lote (Aug.) (1X50 MVA)	220/ 33	MSETCL	Intra state	50	Dec-25
208	220 kV Kaulewada (Aug.) (50-25 MVA)	220/ 33	MSETCL	Intra state	25	Dec-25
209	220/33 KV Grid Substation Narasinghpur (Aug.) (40-20 MVA)	220/132	OPTCL	Intra state	20	Dec-25
210	220 kV S/S Budhlada (1X160 MVA T/F) (Upgraded from 66kV to 220 kV)	220/66	PSTCL	Intra state	160	Dec-25
211	220kV GSS Mandawar (Aug.) (200-100 MVA)	220/132	RRVPNL	Intra state	100	Dec-25
212	220/132 kV Banswada SS (Aug.) (3rd T/F)	220/132	TGTRANSCO	Intra state	100	Dec-25
213	220 kV GIS S/s Trans Ganga City (Unnao) (2X60 MVA)	220/132	UPPTCL	Intra state	120	Dec-25
214	Khanakul 220/33 kV GIS	220/33	WBSETCL	Intra state	100	Dec-25
215	220 kV Savdas na Muvada (Augmentation)	220/66	GETCO	Intra state	100	Dec-25
216	220 kV Botad (Augmentation)	220/66	GETCO	Intra state	60	Dec-25
217	Ponda SS (Aug.) (ICT-II)	220/33	GED	Intra state	63	Dec-25
218	220/132 kV Kangoo Substation (Aug.)	220/132	HPPTCL	Intra state	200	Jan-26
219	220 kV Handiya SS (Aug.)(200-160 MVA)	220/132	MPPTCL	Intra state	40	Jan-26
220	220 kV Bhopal SS (Aug.)	220/132	MPPTCL	Intra state	200	Jan-26
221	220 kV Temghar (Aug.) (100-50 MVA)	220/22-22	MSETCL	Intra state	50	Jan-26
222	220 kV Kaulewada SS (Aug.) (50-25 MVA)	220/33	MSETCL	Intra state	25	Jan-26
223	220 kV BBMB Jalandhar (Aug.)(160-100 MVA)	220/66	PSTCL	Intra state	60	Jan-26
224	220 kV GSS Kishangarh (Aug.)	220/132	RRVPNL	Intra state	100	Jan-26
225	220/132 kV Renjal SS (Aug.) (160-100 MVA)	220/132	TGTRANSCO	Intra	60	Jan-26

				state		
226	KTPP Bhupalapally SS	220 / 132	TGTRANSCO	Intra state	100	Jan-26
227	220 kV S/s Etah (Mainpuri) (Capacity Augmentation T/F-III)	220/132	UPPTCL	Intra state	160	Jan-26
228	220 kV S/s Mawana (Meerut) (T/F-I)	220/132	UPPTCL	Intra state	160	Jan-26
229	Barn SS (Aug.) (late, reported, commissioned in Dec-2025)	220/132	JKPTCL	Intra state	50	Jan-26
230	220 kV SS Nagari in Chittoor Dist (Aug.) (160-100 MVA)	220/132	APTRANSCO	Intra state	60.00	Jan-26
231	220 kV Ramavaram in East Godavari Dist (Aug.)	220/132	APTRANSCO	Intra state	160	Jan-26
232	220 kV SS Gunadala in Krishna Dist (Aug.)	220/132	APTRANSCO	Intra state	160	Jan-26
233	220 kV SS Garividi in Vizianagaram Dist. (Aug.) (160-100 MVA)	220/132	APTRANSCO	Intra state	60	Jan-26
234	220 kV SS Racherla in Chittoor Dist (T/F-II- 160 MVA)	220/132	APTRANSCO	Intra state	160	Jan-26
235	Patratu SS (Late reported, commissioned in December-2025)	220/132	JUSNL	Intra state	400	Jan-26
236	220 kV Sadhaura Ambala SS (2x100 MVA)	220/66	HVPNL	Intra state	200	Jan-26
237	220 kV GIS at Pocket A, IMT Kharkhoda Sonipat, (100 MVA T/F-II)	220/33	HVPNL	Intra state	100	Jan-26
238	220 kV Durala	220/132	HVPNL	Intra state	100	Jan-26
239	220 kV Bhuna (Aug.) (100 to 160)	220/132	HVPNL	Intra state	60	Jan-26
240	Chikkaballapura I/A: (WorkA) Establishing 2x100 MVA 220/66 kV Sub-station	220/66	KPTCL	Intra state	200	Feb-26
241	220/132 kV GSS Tarkara (Aug.)(160-100 MVA)	220/132	OPTCL	Intra state	60	Feb-26
242	400 kV GSS Babai (Aug.) (200-160 MVA)	220/132	RVPNL	Intra state	40	Feb-26
243	220 kV Sadashivpet (Aug.) (160-100 MVA)	220/132	TGTRANSCO	Intra state	60	Feb-26
244	220 kV Barejadi (Augmentation)	220/66	GETCO	Intra	160	Feb-26

				state		
245	220 kV Bhat (Augmentation)	220/66	GETCO	Intra state	60	Feb-26
246	220 kV Kheralu (Augmentation)	220/66	GETCO	Intra state	60	Feb-26
247	220 kV Khanpur (Augmentation)	220/66	GETCO	Intra state	160	Feb-26
248	220 kV Chandrapura (Augmentation)	220/66	GETCO	Intra state	50	Feb-26
249	220 kV Otha (Augmentation)	220/66	GETCO	Intra state	60	Feb-26
250	220 kV Sadhaura Ambala SS (1x100 MVA)	220/33	HVPNL	Intra state	100	Feb-26
251	220 kV Panipat	220/132	HVPNL	Intra state	60	Feb-26
252	220 kV Panchanand (Taloja) GIS substation (2X50 MVA)	220/33	MSETCL	Intra state	100	Feb-26
253	220 kV Halkarni S/s (Aug.) (1x (50-25) MVA)	220/33	MSETCL	Intra state	25	Feb-26
254	220 kV SS Palamaneru in Chittoor Dist. (Aug.) (1x100 MVA)	220/132	APTRANSCO	Intra state	100	Feb-26
255	220 kV Kukma (Augmentation)	220/66	GETCO	Intra state	160	Mar-26
256	220 kV Viramgam (Augmentation)	220/66	GETCO	Intra state	60	Mar-26
257	220 kV Munjpur SS (T/F-I)(GEC-II)	220/66	GETCO	Intra state	160	Mar-26
258	220 kV Sarigam (Augmentation)	220/66	GETCO	Intra state	160	Mar-26
259	220 kV Maglana SS (2X160 MVA)	220/66	GETCO	Intra state	320	Mar-26
260	400 kV Charanka (Augmentation)	220/66	GETCO	Intra state	160	Mar-26
261	220 kV Agiyol (Augmentation)	220/66	GETCO	Intra state	60	Mar-26
262	220 kV Vankda	220/66	GETCO	Intra state	320	Mar-26
263	220 kV Kudiyana	220/66	GETCO	Intra	160	Mar-26

				state		
264	220 kV Dhama (T/F-I)(GEC-II)	220/66	GETCO	Intra state	160	Mar-26
265	220 kV Anjar (Augmentation)	220/66	GETCO	Intra state	60	Mar-26
266	220 kV Faredi (Augmentation)	220/66	GETCO	Intra state	160	Mar-26
267	220 kV Ambheta (Augmentation)	220/66	GETCO	Intra state	60	Mar-26
268	220 kV Vapi (Augmentation)	220/66	GETCO	Intra state	60	Mar-26
269	Savalagi SS (near Chikkalaki Cross): Establishing 2x100 MVA, 220/110 kV Sub-Station (GEC-II)	220/110	KPTCL	Intra state	200	Mar-26
270	220 kV GIS Substation Kakkad	220/110	KSEBL	Intra state	100	Mar-26
271	Chhatarpur SS (Aug.)	220/132	MPPTCL	Intra state	200	Mar-26
272	220/22 kV Abhitghar GIS (2X50 MVA)	220/ 22	MSETCL	Intra state	100	Mar-26
273	220/ 33 kV Deosane S/S (2X25 MVA)	220/ 33	MSETCL	Intra state	50	Mar-26
274	220 kV ONGC Panvel S/S (Aug.)	220/ 33	MSETCL	Intra state	50	Mar-26
275	220/ 22 kV Vasai S/S (Aug.)	220/ 22	MSETCL	Intra state	50	Mar-26
276	220 kV Georai S/S (Aug.) (2x25 MVA)	220/ 33	MSETCL	Intra state	50	Mar-26
277	220 kV Malegaon (Zodga) S/S (Aug.)	220/ 132	MSETCL	Intra state	100	Mar-26
278	220 kV Vita S/S (Aug.)	220/ 33	MSETCL	Intra state	50	Mar-26
279	220/ 22 kV Mahape S/S, (100-50 MVA) (Aug.)	220/ 22-22	MSETCL	Intra state	50	Mar-26
280	400 kV Lonikand-II S/S, (2x (200-100 MVA)) (Aug.)	220 /132	MSETCL	Intra state	200	Mar-26
281	220 kV Chakan Phase-II S/S, (200-100 MVA) (Aug.)	220 /132	MSETCL	Intra state	100	Mar-26
282	220 kV Alephata S/S, (2X (200-100) MVA) (Aug.)	220/ 132	MSETCL	Intra	200	Mar-26

				state		
283	220 kV Kolshet S/S, (100-50 MVA) (Aug.)	220/ 22-22	MSETCL	Intra state	50	Mar-26
284	220/132/33 kV GSS Bargarh New (Aug.)	220/132	OPTCL	Intra state	160	Mar-26
285	220/132/33 kV GSS Balianta (Aug.)	220/132	OPTCL	Intra state	160	Mar-26
286	220 kV GSS Bilara (District: Jodhpur) (Aug.) (200-100 MVA)	220/132	RRVPNL	Intra state	100	Mar-26
287	220/132 kV Yeddumailaram SS (Aug.)	220/132	TGTRANSCO	Intra state	100	Mar-26
288	220 kV S/s Jhajra (Aug.)	220/132	PTCUL	Intra state	160	Mar-26
289	Creation of 132 kV at existing 220/11 kV SS Settypalli in Kurnool Dist	220/132	APTRANSCO	Intra state	160	Mar-26
290	220 kV Gudivada SS in Krishna Dist (Aug.) (160-100 MVA)	220/132	APTRANSCO	Intra state	60	Mar-26
291	220 kV Prathipadu SS in Guntur Dist (Aug.) (160-100 MVA)	220/132	APTRANSCO	Intra state	60	Mar-26
292	220 kV S/s Faridpur (Bareilly (Aug.) (160-100 MVA)	220/132	UPPTCL	Intra state	60	Mar-26
	TOTAL STATE SECTOR				**22653**	
PRIVATE SECTOR						
293	Sangod GSS (Intra-state TBCB)	220/132	ADANI	Intra state	160	APR-25
	TOTAL PRIVATE SECTOR				**160**	
	TOTAL 220 kV				**23133**	
	GRAND TOTAL				**113013**	

Annexure-3F

Approvals granted by Designated Authority for Import/Export (Cross Border) of Electricity during 2025-26

S. No.	DA Approval Date	Type	Capacity (MW)	Source Project / Destination Country	Agency	Market / Mode	Transmission Route	Validity Period
1.	19.05.2025	Import	Up to 140 MW	Kaligandaki 'A' Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	19.05.2025 to 30.04.2026
2.	19.05.2025	Import	Up to 67 MW	Marsyangdi Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	19.05.2025 to 30.04.2026
3.	19.05.2025	Import	Up to 68 MW	Middle Marsyangdi Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	19.05.2025 to 30.04.2026
4.	19.05.2025	Import	Up to 51 MW	Likhu IV Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	19.05.2025 to 30.04.2026
5.	19.05.2025	Import	Up to 22.8 MW	Solu Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	19.05.2025 to 30.04.2026
6.	07.05.2025	Import	Up to 37.3 MW	Upper Kalangagad Hydro Power Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Tanakpur–Mahendranagar 132 kV S/c line	07.05.2025 to 30.04.2026
7.	01.07.2025	Import	Up to 38.8 MW	Upper Chameliya Hydro Power Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Tanakpur–Mahendranagar 132 kV S/c line	01.07.2025 to 30.06.2026

8.	12.06.2025	Import	14.55 MW	Devighat Hydropower Project, Nepal	NVVN	Bilateral (Haryana Discoms)	Muzaffarpur–Dhalkebar 400 kV D/c line	12.06.2025 to 31.10.2025 and 01.06.2026 to 31.10.2027 (every year from 2026 to 2027)
9.	11.08.2025	Import	199.70 MW	Likhu-2, Likhu Khola A, Lower Solu, Thulo Khola, Super Kabeli Khola A and Super Kabeli Hydropower Projects, Nepal	NVVN	Bilateral (Haryana)	Muzaffarpur–Dhalkebar 400 kV D/c line	11.08.2025 to 31.10.2025; 15.06.2026 to 31.10.2026; 15.06.2027 to 31.10.2027; and 15.06.2028 to 31.10.2028
10.	21.08.2025	Import	79.54 MW	Mewa Khola and Karuwa Seti Hydropower Projects, Nepal	PTCIL	Bilateral (Bihar)	Bihar–Nepal 132 kV lines	21.08.2025 to 31.10.2025 and from 15.06.2026 to 31.10.2026
11.	29.10.2025	Import	Up to 24.25 MW	Upper Dordi Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	28.10.2025 to 31.08.2026
12.	29.10.2025	Import	Up to 19.4 MW	Lower Modi Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	28.10.2025 to 30.09.2026
13.	29.10.2025	Import	Up to 24.25 MW	Kabeli B-1 Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	28.10.2025 to 30.09.2026
14.	29.10.2025	Import	34.92 MW	Upper Balephi Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	28.10.2025 to 31.05.2026
15.	29.10.2025	Import	179.79 MW	Likhu-2, Lower Solu,	NVVN	Indian Power	Muzaffarpur–Dhalkebar	01.11.2025 to

				Likhu Khola A and Thulo Khola Hydropower Projects, Nepal		Exchange(s) (DAM & RTM)	400 kV D/c line	14.06.2026
16.	02.12.2025	Import	75 MW	Likhu-1 Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	03.12.2025 to 31.05.2026
17.	02.12.2025	Import	26.19 MW	Dordi Khola Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	03.12.2025 to 31.05.2026
18.	02.12.2025	Import	10.70 MW	Upper Tadi Khola Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	03.12.2025 to 31.07.2026
19.	02.12.2025	Import	24.25 MW	Seti Nadi Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	03.12.2025 to 31.07.2026
20.	02.12.2025	Import	204.58 MW	Multiple hydropower projects (Karuwa Seti, Mewa Khola, Gandak, Modi Khola, Upper Khimti, Upper Khimti-II, Dudhkunda Khola, Upper Solu Khola, Maya Khola, Down Piluwa, Lower Khare and Dordi-1, Nepal)	PTCIL	Indian Power Exchange(s) (DAM & RTM)	Bihar–Nepal 132 kV lines	03.12.2025 to 14.06.2026
21.	30.12.2025	Import	83.42 MW	Solu Khola (Dudhkoshi) Hydropower Project, Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	30.12.2025 to 31.05.2026

22.	28.10.2025	Export	Up to 50 MW	To Nepal	PTCIL	Indian Power Exchange(s) (DAM & RTM)	Nautanwa–Mainhaiya 132 kV D/c line	28.10.2025 to 31.12.2025 (modified & extended to 03.01.2026 to 31.08.2026)
23.	28.10.2025	Export	Up to 300 MW	To Nepal	PTCIL	Indian Power Exchange(s) (DAM & RTM)	Bihar–Nepal 132 kV lines	28.10.2025 to 31.12.2025 (modified & extended to 03.01.2026 to 31.08.2026)
24.	02.11.2025	Export	Up to 600 MW (RTC)	To Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Muzaffarpur–Dhalkebar 400 kV D/c line	02.11.2025 to 31.12.2025 (modified & extended to 01.01.2026 to 31.08.2026)
25.	02.11.2025	Export	Up to 54 MW (RTC)	To Nepal	NVVN	Indian Power Exchange(s) (DAM & RTM)	Tanakpur–Mahendranagar 132 kV S/c transmission line	02.11.2025 to 31.12.2025 (modified & extended to 01.01.2026 to 31.08.2026)
26.	02.01.2026	Export	Up to 80 MW and 100 to 100 MW	To Nepal (from Meenakshi Energy Limited)	PTCIL	Bilateral	Bihar–Nepal 132 kV lines and Muzaffarpur–Dhalkebar 400 kV D/c line	03.01.2026 to 31.05.2026
27.	19.05.2025	Import	62 MW	Basochhu Hydropower Project, Bhutan	PTCIL	Indian Power Exchange(s) (DAM & RTM)	India–Bhutan Interconnection point	19.05.2025 to 31.10.2025
28.	19.05.2025	Import	37.24 MW	Nikachhu Hydropower Project, Bhutan	PTCIL	Indian Power Exchange(s) (DAM &	India–Bhutan Interconnection point	19.05.2025 to 31.10.2025

						RTM)		
29.	14.05.2025	Import	17.61 MW	Suchhu Hydropower Project, Bhutan	TPTCL	Indian Power Exchange(s) (DAM & RTM)	India–Bhutan Interconnection point	14.05.2025 to 31.10.2025
30.	28.10.2025	Export	Up to 1250 MW	To Bhutan	PTCIL	Indian Power Exchange(s) (DAM & RTM)	India–Bhutan Interconnection point	01.11.2025 to 31.12.2025 (modified & extended to 01.04.2026 to 31.05.2026)

Annexure-3G

Representation/ Nomination in the Committees

S. No.	Committee / Group	Brief Purpose	CEA Representation
1	Committee on Renewable Energy Projects	Deliberates and recommends on renewable energy issues	Co-Chairmanship of AS, MNRE and AS, MoP CE (PSPA-I) – Member
2	Working Group on Green Hydrogen Connectivity	Examines connectivity issues for Green Hydrogen developers	CE (PSPA-I) – Member
3	JKPTCL Board of Directors	Board representation	Director (PSPA-I)
4	Bid Evaluation Committee (ISTS-TBCB)	Evaluation of ISTS projects under TBCB	Director (PSE&TD/PSPA), Members
5	Bid Opening Committee (ISTS-TBCB)	Opening of bids for ISTS schemes	Deputy Directors
6	Joint Technical Team (JTT) – UAE & Saudi Arabia	Electrical interconnection and bilateral technical cooperation	CE (PSPA-I) – Leader
7	OSOWOG Task Force	One Sun One World One Grid initiative	DD (PSPA-I & II)/CEA Representatives
8	Empowered Committee on Transmission (Haryana)	Implementation of intra-state TBCB transmission projects	Chair- ACS (Energy), Govt. of Haryana CE (PSPA-I) – Member
9	State Bid Evaluation Committees	Evaluation of intra-state TBCB transmission projects	Director/DD (PSPA-I/PSPA-II)
10	Technical Working Committee (Uttarakhand)	Technical review of transmission matters	CE (PSPA-I)- Member
11	Standing Committee on EHV Transmission Tower Failures	Investigation of 220 kV and above Voltage class tower failures and remedial measures	CE(PSETD) – Chairman; Director (PSETD) – Member Secretary
12	Standing Committee on Transformer & Reactor Failures	Investigation of failures of 220 kV and above Voltage class transformers/reactors and and recommend measures to avert recurrence	CE(PSETD) – Chairman; Director (PSETD) – Member Secretary
13	Green GIS Technology Committee	Promotion and implementation of Green GIS technology	CE(PSETD) – Chairman; Director (PSETD) – Member Secretary
14	Committee on Insulator Failures	Root cause analysis and recommendations on Insulator Failures	CE(PSETD) – Member; Director (PSETD) – Member Secretary
15	Micro Substation Committee	Addresses technical challenges in Micro Substations	Chair- Member (Power Systems) Director (PSETD) – Member Secretary
16	Monitoring Committee for Sub-sea Cable Project	Monitors feasibility study and techno-commercial analysis for Domestic	CE(PSETD) – Chairman; Director (PSETD) – Member Secretary

		Manufacturing, Safe Laying and Maintenance of Sub-sea Cables	
17	Technical Committee on Transmission Research	Reviews and monitors R&D proposals under IHRD, RSOP, NPP schemes of MoP	CE(PSETD) – Member
18	Cost Committee for TBCB Schemes	Cost estimation of transmission projects	CE(PSETD) – Chairman; Director (PSETD) – Member Secretary
19	Committee on Transformer & Reactor Specifications	Reviews technical standards and stakeholder issues	Chair- Member (Power Systems) CE (PSETD) – Member Convener
20	BIS Technical Committees	Development of Indian Standards for transmission equipment	CE (PSETD) – Principal Member; other officers (PSETD) – Alternate Members
21	CEA Tender Scrutiny Committee	Scrutiny of Public Procurement having value Rs. 500 crores and above	Director (PSETD) – Member
22	Sub group for Techno- Economic appraisal of DPRs for system improvement under PSDF funding	Techno-economic appraisal of DPRs	Director (PSETD) – Member
23	PMU Guidelines Committee	Harmonization of PMU installation guidelines under the Renewable Energy Projects	Chairmanship of Member (Power Systems) Director (PSETD) – Member Secretary
24	Committee to review the specifications of STATCOM	Reviews future STATCOM specifications i.e., fully dynamic VSC vis-a-vis combination of VSC with MSC and MSR in future schemes	CE(PSETD) – Chairman; Director (PSETD) – Member Secretary
25	Joint Steering Committee (JSC)	Cross-border power cooperation with with Nepal, Bhutan, Bangladesh, and Myanmar	Chairperson, CEA – Member of Indian side
26	Electro Technical Division Council of Bureau of Indian Standards (BIS)	National standards development	Member (Power Systems) – Chairman
27	Joint Working Group (JWG)	Regional power cooperation with Nepal, Bangladesh, Myanmar, Bhutan and Sri Lanka	CEA – Member
28	Digital Twin Technology Committee	Studies application of Digital Twin in Indian Grid	Member (PS) – Chairman; CE (PSPA-II) – Member Secretary
29	Joint Technical Team (JTT) – Nepal, Bangladesh, Myanmar & Sri Lanka	Cross-border transmission coordination	CE (PSPA-II) – Leader of Indian side
30	Joint Operation Committee (JOC)	Cross-border grid operation coordination	CE (PSPA-II) – Leader of Indian side
31	SASEC Energy Working Group	Regional energy cooperation	CE (PSPA-II) – Focal Point
32	BIMSTEC Grid Interconnection Coordination Committee (BGICC)	BIMSTEC grid interconnection coordination	CEA Nominee

Annexure – 4A

Power Supply Position for 2025-26

Power Supply Position for 2025-26								
State /System /Region	Energy				Peak			
	April,2025 - March,2026				April,2025 - March,2026			
	Energy Requirement	Energy Supplied	Energy not Supplied		Peak Demand	Peak Met	Demand not Met	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
Chandigarh	1,879	1,879	1	0.0	460	460	0	0.0
Delhi	38,556	38,548	8	0.0	8,442	8,442	0	0.0
Haryana	70,493	70,427	66	0.1	14,084	14,084	0	0.0
Himachal Pradesh	13,642	13,595	47	0.3	2,310	2,310	0	0.0
UT of J&K and Ladakh	20,185	20,166	19	0.1	3,325	3,325	0	0.0
Punjab	75,409	75,308	101	0.1	16,670	16,670	0	0.0
Rajasthan	1,10,657	1,10,657	0	0.0	19,617	19,617	0	0.0
Uttar Pradesh	1,63,501	1,63,475	26	0.0	31,486	31,486	0	0.0
Uttarakhand	16,538	16,475	63	0.4	2,910	2,910	0	0.0
Northern Region (##)	**5,12,458**	**5,12,127**	**331**	**0.1**	**91,335**	**90,772**	**563**	**0.6**
Chhattisgarh	42,933	42,925	8	0.0	6,819	6,819	0	0.0

Gujarat	1,56,588	1,56,588	0	0.0	26,457	26,457	0	0.0
Madhya Pradesh	1,03,711	1,03,696	15	0.0	19,902	19,895	7	0.0
Maharashtra	2,02,867	2,02,854	13	0.0	31,128	31,128	0	0.0
Dadra & Nagar Haveli and Daman & Diu	11,182	11,182	0	0.0	1,416	1,416	0	0.0
Goa	5,449	5,449	0	0.0	864	864	0	0.0
Western Region (##)	**5,36,483**	**5,36,445**	**37**	**0.0**	**83,081**	**83,081**	**0**	**0.0**
Andhra Pradesh	81,204	81,197	7	0.0	14,005	14,005	0	0.0
Telangana	87,274	87,266	8	0.0	18,548	18,548	0	0.0
Karnataka	95,791	95,780	11	0.0	18,655	18,655	0	0.0
Kerala	31,157	31,154	3	0.0	5,819	5,819	0	0.0
Tamil Nadu	1,32,328	1,32,317	11	0.0	19,932	19,932	0	0.0
Puducherry	3,508	3,504	3	0.1	560	552	8	1.5
Lakshadweep (#)	73	73	0	0.0	14	14	0	0.0
Southern Region (##)	**4,31,311**	**4,31,267**	**43**	**0.0**	**73,805**	**73,805**	**0**	**0.0**
Bihar	47,440	47,425	14	0.0	8,597	8,594	4	0.0
DVC	24,755	24,751	3	0.0	3,532	3,523	9	0.3
Jharkhand	15,435	15,430	5	0.0	2,353	2,350	3	0.1
Odisha	44,199	44,193	6	0.0	7,147	7,129	18	0.3
West Bengal	72,970	72,906	64	0.1	13,108	13,108	0	0.0
Sikkim	554	554	0	0.0	126	126	0	0.0

Andaman- Nicobar (#)	423	403	20	4.7	72	54	18	24.9
Eastern Region (##)	**2,05,417**	**2,05,324**	**93**	**0.0**	**33,527**	**33,452**	**75**	**0.2**
Arunachal Pradesh	1,194	1,194	0	0.0	223	223	0	0.0
Assam	13,616	13,615	1	0.0	2,812	2,812	0	0.0
Manipur	1,178	1,176	3	0.2	277	277	0	0.0
Meghalaya	2,095	2,095	0	0.0	374	374	0	0.0
Mizoram	754	754	0	0.0	182	182	0	0.1
Nagaland	996	996	0	0.0	202	191	11	5.6
Tripura (*)	1,903	1,903	0	0.0	377	377	0	0.0
North-Eastern Region (##)	**21,825**	**21,821**	**4**	**0.0**	**4,157**	**4,157**	**0**	**0.0**
All India	**17,07,493**	**17,06,985**	**508**	**0.0**	**2,45,444**	**2,45,416**	**28**	**0.0**

(#) Lakshadweep and Andaman & Nicobar Islands are stand- alone systems, power supply position of these, does not form part of regional requirement and supply.

(*) Excludes the supply to Bangladesh.

Note:

1. Power Supply Position Report has been compiled based on the data furnished by State Utilities/ Electricity Departments. The MU & MW figures has been rounded off to nearest unit place.

2. (##) The Regional figures include data of other miscellaneous entities drawing power directly from ISTS.

Annexure - 4B

Allocation from Conventional Central Generating Stations and Bhutan Stations as on 31.03.2026

S.No.	Region / State	Firm Share						Dedicated Power	Un-Allocated Power							Total Share from C.G.S. and Bhutan Stations		
		Firm Power from Regional Pool and Bhutan	Firm from Other Regions and Bhutan	Non Firm	Total Firm Power				Unallocated Power from Regional Pool and Bhutan			Allocation from other Region / Bhutan	Total Allocation of Un-Allocated Power (*)					
		MW	MW	MW	MW	% Regional Total	% of All India Total	MW	MW	% Regional Total	% of All India Total	MW	MW	% Regional Total	% of All India Total	MW	% Regional Total	% of All India Total
		1	2	3	4=1+2+3	5	6	7	8	9	10	11	12=8+11	13	14	15=4+7+12	16	17
1	Chandigarh	171.4	4.9	0.0	176.3	0.6	0.2	0.0	169.6	5.4	1.5	0.0	169.6	4.9	1.4	345.9	1.1	0.3
2	Delhi	3465.7	741.7	0.0	4207.4	15.3	4.7	0.0	0.0	0.0	0.0	30.0	30.0	0.9	0.3	4237.3	13.0	3.9
3	Haryana	2037.5	434.4	48.0	2519.9	9.1	2.8	431.0	8.7	0.3	0.1	15.0	23.7	0.7	0.2	2974.6	9.1	2.7
4	Himachal Pradesh	1506.2	23.0	0.0	1529.2	5.5	1.7	0.0	274.4	8.8	2.5	0.0	274.4	8.0	2.3	1803.5	5.5	1.7
5	UT of Jammu & Kashmir and Ladakh	1665.2	127.9	35.0	1828.1	6.6	2.0	89.0	984.8	31.6	8.9	118.1	1102.8	32.1	9.3	3020.0	9.3	2.8
6	Punjab	1672.2	820.3	100.0	2592.5	9.4	2.9	0.0	45.2	1.4	0.4	30.0	75.2	2.2	0.6	2667.7	8.2	2.5
7	Rajasthan	2768.2	167.1	125.0	3060.3	11.1	3.4	550.0	1486.2	47.6	13.5	15.0	1501.2	43.8	12.7	5111.5	15.7	4.7
8	Uttar Pradesh	9431.5	693.1	66.0	10190.6	37.0	11.4	440.0	148.7	4.8	1.3	101.9	250.6	7.3	2.1	10881.2	33.5	10.0
9	Uttarakhand	1176.3	28.1	0.0	1204.4	4.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1204.4	3.7	1.1

10	PowerGrid	6.3	0.0	0.0	6.3	0.0	0.0	0.0	3.3	0.1	0.0	0.0	3.3	0.1	0.0	9.6	0.0	0.0
11	Railways NR	0.0	263.7	0.0	263.7	1.0	0.3	0.0	0.0			0.0	0.0			263.7		0.2
12	NDMC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0			0.0		0.0
	Northern Region	**23900.6**	**3304.1**	**374.0**	**27578.7**	**100.0**	**30.7**	**1510.0**	**3120.9**	**100.0**	**28.3**	**309.9**	**3430.8**	**100.0**	**28.9**	**32519.6**	**100.0**	**30.0**
13	Chhattisgarh	2489.9	241.9	0.0	2731.8	12.3	3.0	50.0	25.0	0.8	0.2	0.0	25.0	0.8	0.2	2806.8	9.6	2.6
14	Gujarat	4875.9	1679.5	0.0	6555.4	29.6	7.3	160.0	300.4	9.8	2.7	32.7	333.1	10.6	2.8	7048.5	24.0	6.5
15	Madhya Pradesh	4894.5	613.3	0.0	5507.8	24.9	6.1	1520.0	600.5	19.6	5.4	40.0	640.5	20.4	5.4	7668.2	26.1	7.1
16	Maharashtra	6022.6	216.7	0.0	6239.3	28.2	7.0	2028.7	791.8	25.8	7.2	0.0	791.8	25.2	6.7	9059.8	30.9	8.3
17	DNH &DD	272.7	5.0	0.0	277.7	1.3	0.3	248.7	1198.9	39.1	10.9	0.0	1198.9	38.2	10.1	1725.2	5.9	1.6
18	Goa	434.0	103.0	0.0	536.9	2.4	0.6	19.7	116.1	3.8	1.1	0.0	116.1	3.7	1.0	672.7	2.3	0.6
19	PowerGrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.2	0.1	0.0	7.3	0.2	0.1	7.3	0.0	0.0
20	HWP of DAE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.5	0.1	0.0	14.0	0.4	0.1	14.0	0.0	0.0
21	BARC Facilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.3	0.1	0.0	10.0	0.3	0.1	10.0	0.0	0.0
22	Railways WR	0.0	312.1	0.0	312.1	1.4	0.3	0.0	2.3	0.1	0.0	0.0	2.3	0.1	0.0	314.4	1.1	0.3
	Western Region	**18989.5**	**3171.4**	**0.0**	**22160.9**	**100.0**	**24.7**	**4027.1**	**3066.1**	**100.0**	**27.8**	**72.7**	**3138.8**	**100.0**	**26.5**	**29326.8**	**100.0**	**27.0**
23	Andhra Pradesh	1854.3	0.0	0.0	1854.3	10.2	2.1	0.0	316.4	12.5	2.9	0.0	316.4	11.4	2.7	2170.7	10.2	2.0
24	Telangana	3377.0	0.0	0.0	3377.0	18.6	3.8	0.0	232.1	9.2	2.1	200.1	432.2	15.5	3.6	3809.2	17.9	3.5
25	Karnataka	3597.7	450.0	0.0	4047.7	22.3	4.5	0.0	473.5	18.7	4.3	0.0	473.5	17.0	4.0	4521.3	21.2	4.2
26	Kerala	1537.5	327.0	0.0	1864.5	10.3	2.1	360.0	584.4	23.1	5.3	0.0	584.4	21.0	4.9	2808.9	13.2	2.6
27	Tamil Nadu	6104.8	369.9	0.0	6474.8	35.6	7.2	0.0	578.5	22.8	5.2	50.5	629.0	22.6	5.3	7103.8	33.3	6.5
28	Puducherry	338.6	0.0	0.0	338.6	1.9	0.4	0.0	340.7	13.4	3.1	0.0	340.7	12.2	2.9	679.3	3.2	0.6
29	NLC	166.0	0.0	0.0	166.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	166.0	0.8	0.2
30	PowerGrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.3	0.1	0.0	8.3	0.3	0.1	8.3	0.0	0.0
32	Railways	0.0	65.9	0.0	65.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.9	0.3	0.1
	Southern Region	**16976.0**	**1212.9**	**0.0**	**18188.9**	**100.0**	**20.3**	**360.0**	**2534.0**	**100.0**	**22.9**	**250.5**	**2784.5**	**100.0**	**23.5**	**21333.4**	**100.0**	**19.7**
33	Bihar	6618.9	0.0	0.0	6618.9	36.3	7.4	710.0	1228.7	64.9	11.1	0.0	1228.7	64.9	10.4	8557.5	40.5	7.9
34	DVC	3328.3	28.8	0.0	3357.1	18.4	3.7	0.0	8.0	0.4	0.1	0.0	8.0	0.4	0.1	3365.1	15.9	3.1
35	Jharkhand	2628.6	0.0	0.0	2628.6	14.4	2.9	0.0	196.9	10.4	1.8	0.0	196.9	10.4	1.7	2825.5	13.4	2.6

36	Odisha	2291.1	200.0	0.0	2491.1	13.7	2.8	0.0	250.4	13.2	2.3	0.0	250.4	13.2	2.1	2741.5	13.0	2.5
37	West Bengal	2628.7	68.8	0.0	2697.5	14.8	3.0	292.0	202.5	10.7	1.8	0.0	202.5	10.7	1.7	3192.0	15.1	2.9
38	Sikkim	172.8	0.0	0.0	172.8	0.9	0.2	0.0	4.5	0.2	0.0	0.0	4.5	0.2	0.0	177.3	0.8	0.2
39	PowerGrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.1	0.0	0.0	2.5	0.1	0.0	2.5	0.0	0.0
40	Railways	252.8	0.0	0.0	252.8			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	252.8	1.2	0.2
	Eastern Region	**17921.1**	**297.6**	**0.0**	**18218.7**	**100.0**	**20.3**	**1002.0**	**1893.5**	**100.0**	**17.1**	**0.0**	**1893.5**	**100.0**	**16.0**	**21114.2**	**100.0**	**19.5**
41	Arunachal Pradesh	392.9	0.0	0.0	392.9	10.9	0.4	0.0	5.5	1.3	0.1	6.7	12.2	2.0	0.1	405.0	9.6	0.4
42	Assam	1330.6	499.6	0.0	1830.2	50.7	2.0	0.0	190.2	44.1	1.7	160.9	351.1	56.8	3.0	2181.3	51.6	2.0
43	Manipur	232.9	5.7	0.0	238.6	6.6	0.3	0.0	35.2	8.2	0.3	0.0	35.2	5.7	0.3	273.8	6.5	0.3
44	Meghalaya	276.3	0.0	0.0	276.3	7.6	0.3	0.0	140.7	32.7	1.3	0.0	140.7	22.8	1.2	417.0	9.9	0.4
45	Mizoram	200.6	0.0	0.0	200.6	5.6	0.2	0.0	36.6	8.5	0.3	4.9	41.5	6.7	0.3	242.1	5.7	0.2
46	Nagaland	183.9	0.0	0.0	183.9	5.1	0.2	0.0	18.7	4.3	0.2	14.7	33.4	5.4	0.3	217.3	5.1	0.2
47	Tripura	482.5	0.0	0.0	482.5	13.4	0.5	0.0	3.9	0.9	0.0	0.0	3.9	0.6	0.0	486.4	11.5	0.4
48	PowerGrid	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
49	Railways	0.0	5.5	0.0	5.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.1	0.0
	North-Eastern	**3101.1**	**510.8**	**0.0**	**3612.0**	**100.0**	**4.0**	**0.0**	**430.9**	**100.0**	**3.9**	**187.2**	**618.0**	**100.0**	**5.2**	**4230.0**	**100.0**	**3.9**
	All India	**80,888**	**8,497**	**374**	**89,759**	**100**	**100**	**6,899**	**11,045**	**100**	**100**	**820**	**11,866**	**100**	**100**	**1,08,524**	**100**	**100**
Note :	1. Firm share includes merchant power and capacity allocated / diverted from other stations located within / outside the region.																	
	2. Grand Total power does not include power allocated to IL&FS/OTPC and Bangladesh. Total Power allocated to Bangladesh = 250 MW (250 MW from ER NTPC stations' unallocated power vide MoP order dated 31.05.2025).																	
	3. Grand Total power does not include surrendered power by various beneficiaries.																	
	(*) It includes specific allocation to various beneficieries.																	

Annexure- 5A

PFRS under 50 000 MW Hydroelectric Initiative
Statewise List of Schemes

Sl. No.	Scheme	Consultant	Installed Capacity			Head (m)	Annual Energy (GWh)	Tariff (Rs/kWh)
			Nos of Units	Size (MW)	Total (MW)			
Andhra Pradesh								
1	Pondugala	WAPCOS	3	27	81	18.67	399.36	3.48
	Total (Andhra Pradesh) - 1 Nos. scheme		**3**		**81**			
	Arunachal Pradesh							
2	Agoline	NHPC	3	125	375	163.00	1267.38	3.51
3	Amulin	NHPC	3	140	420	132.00	1716.40	3.37
4	Ashupani	NHPC	2	15	30	395.00	126.45	8.75
5	Attunli	NHPC	4	125	500	264.00	2247.32	2.35
6	Badao	NEEPCO	4	30	120	154.50	441.00	2.32
7	Bhareli-I	NEEPCO	8	140	1120	97.00	4112.40	1.85
8	Bhareli-II	NEEPCO	5	120	600	51.00	2345.00	1.67
9	Chanda	NEEPCO	4	27.5	110	175.67	401.91	2.67
10	Demwe	NHPC	12	250	3000	138.00	10823.82	1.97
11	Dengser	NHPC	4	138	552	120.00	2666.71	3.26
12	Dibbin	NEEPCO	2	50	100	151.24	335.72	2.23
13	Duimukh	NHPC	3	50	150	65.00	551.48	8.50
14	Elango	NHPC	3	50	150	363.00	583.14	5.00
15	Emini	NHPC	4	125	500	125.00	1695.45	3.51
16	Emra-II	NHPC	3	130	390	278.00	1648.09	3.02
17	Etabue	NHPC	3	55	165	378.00	683.66	3.43
18	Etalin	NHPC	16	250	4000	385.00	16071.60	1.70
19	Hirong	NHPC	4	125	500	285.00	2535.80	1.62
20	Hutong	WAPCOS	12	250	3000	166.77	9901.00	1.28
21	Kalai	WAPCOS	10	260	2600	193.21	10608.64	1.01
22	Kameng Dam	NEEPCO	5	120	600	65.00	2345.55	2.29
23	Kapakleyak	NEEPCO	4	40	160	245.00	627.95	1.74
24	KurungI&II	NHPC	3	110	330	151.00	1435.40	4.04
25	Mihumdon	NHPC	4	100	400	286.00	1451.75	3.60
26	Mirak	NHPC	3	47	141	136.40	748.44	3.42
27	Naba	NHPC	4	250	1000	221.00	3995.25	2.14
28	Nalo	NHPC	4	90	360	221.00	1733.00	3.27

29	Naying	NHPC	4	250	1000	245.00	5077.15	1.18
30	Niare	NHPC	4	200	800	205.00	3356.62	2.02
31	Oju-I	NHPC	4	175	700	257.00	3291.58	2.08
32	Oju-II	NHPC	4	250	1000	322.00	4629.93	1.46
33	Pakke	NEEPCO	2	55	110	452.50	335.26	3.33
34	Papu	NEEPCO	2	100	200	238.00	505.00	2.94
35	Phanchung	NEEPCO	2	30	60	157.13	174.83	3.24
36	Ringong	NHPC	3	50	150	166.50	659.07	3.61
37	Sebu	NEEPCO	2	40	80	123.00	227.53	3.71
38	Simang	NHPC	3	30	90	125.00	417.82	5.43
39	Talong	NEEPCO	3	100	300	171.67	915.50	2.24
40	Tarangwarang	NEEPCO	2	15	30	185.55	93.81	2.88
41	Tato-II	NHPC	4	175	700	168.00	3465.90	1.48
42	Tenga	NEEPCO	4	150	600	875.00	1046.50	3.52
43	Utung	NEEPCO	3	33.3	100	291.00	359.13	3.10
	Total (Arunachal Pr.) - 42 Nos. schemes		**182**		**27293**			
	Chhattisgarh							
44	Kotri	WAPCOS	3	50	150	36.99	330.95	5.48
45	Nugur-I	WAPCOS	5	34	170	24.54	316.13	4.89
46	Nugur-II	WAPCOS	5	42	210	16.66	787.78	4.16
47	Rehar-I	WAPCOS	3	57	171	46.84	264.38	8.70
48	Rehar-II	WAPCOS	3	49	147	38.17	290.32	5.16
	Total (Chhattisgarh) - 5 Nos. schemes		**19**		**848**			
	Himachal Pradesh							
49	Bajoli Holi	HPSEB	3	60	180	278.00	762.98	2.03
50	Bardang	HPSEB	*3*	*38*	114	55.00	438.41	2.91
51	Chamba	HPSEB	3	42	126	110.00	646.82	1.48
52	Chhatru	HPSEB	3	36	108	160.00	455.72	2.89
53	Gharopa	HPSEB	3	38	114	169.00	534.25	2.09
54	Gondhala	HPSEB	3	48	144	134.00	586.08	1.92
55	Jangi Thopan	HPSEB	3	160	480	174.14	1779.45	2.00
56	Khab-I	SJVNL	3	150	450	170.00	1551.00	2.24
57	Khab-II	SJVNL	3	62	186	70.00	640.00	3.04
58	Khoksar	HPSEB	3	30	90	99.00	351.91	2.46
59	Luhri	HPSEB	3	155	465	88.00	1825.13	2.41
60	Thopan Powari	HPSEB	3	160	480	161.14	1786.26	1.81
61	Tidong-I	HPSEB	2	30	60	511.50	211.65	2.71
62	Tidong-II	HPSEB	2	35	70	575.00	256.18	2.02
63	Yangthang	HPSEB	3	87	261	186.45	938.02	2.08
	Total (Himachal Pr.) - 15 Nos. schemes		**43**		**3328**			
	Jammu & Kashmir							

64	Barinium	WAPCOS	2	120	240	117.77	1170.34	2.54
65	Bichlari	WAPCOS	2	17.5	35	462.60	148.29	1.11
66	Dumkhar	NHPC	3	15	45	27.80	219.18	4.66
67	Kanyunche	NHPC	3	15	45	28.76	223.02	4.71
68	Karkit	NHPC	3	10	30	26.90	153.11	5.40
69	Kawar	WAPCOS	4	80	320	74.00	1426.56	1.09
70	Khalsi	NHPC	3	20	60	33.00	272.60	4.10
71	Kiru	WAPCOS	4	107.5	430	105.33	1935.77	0.77
72	Ratle	WAPCOS	4	140	560	92.33	2483.37	1.40
73	Shamnot	WAPCOS	4	92.5	370	56.33	1650.19	1.69
74	Shuas	WAPCOS	2	115	230	115.70	1117.87	2.94
75	Takmaching	NHPC	3	10	30	18.53	145.52	5.54
76	Ujh	WAPCOS	4	70	280	143.33	465.06	5.06
	Total (J & K) - 13 Nos. schemes		**41**		**2675**			
Karnataka								
77	Agnashini	KPCL	4	150	600	427.00	1431.00	1.07
78	Gangavali	KPCL	2	200	400	378.30	759.00	1.46
79	Gundia	KPCL	2	150	300	600.00	616.00	1.41
80	Kalinadi Stage-III	KPCL	2	150	300	407.67	610.00	1.67
81	Tamankal	KPCL	2	150	300	87.29	401.00	3.32
	Total (Karnataka) - 5 Nos. schemes		**12**		**1900**			
Kerala								
82	Karappara Kuriarkutty PH1	WAPCOS	2	18	66	390.00	126.10	7.88
	PH2		2	15		307.00		
83	Perianjakully	WAPCOS	2	30	60	282.90	86.30	6.25
	Total (Kerala) - 2 Nos. schemes		**6**		**126**			
Madhya Pradesh								
84	Basania	NHPC	3	30	90	38.00	240.00	17.23
85	Bauras	NHPC	3	18.33	55	17.50	248.43	3.96
86	Hoshangabad	NHPC	3	20	60	16.50	288.21	4.10
	Total (Madhya Pradesh) - 3 Nos. schemes		**9**		**205**			
Maharashtra								
87	Ghargaon	WAPCOS	4	13	52	9.84	74.47	15.50
88	Hiranyakeshi	WAPCOS	2	9	18	36.10	23.76	20.26
89	Kadvi	WAPCOS	2	11	22	36.30	29.59	34.03
90	Kasari	WAPCOS	2	12.5	25	40.67	33.32	18.16
91	Kumbhi	WAPCOS	2	8.5	17	37.48	22.93	35.19
92	Kunghara	WAPCOS	4	18	72	12.77	133.40	11.34
93	Pranhita	WAPCOS	2	24	48	25.30	135.96	10.32
94	Samda	WAPCOS	4	13	52	10.64	83.40	14.11
95	Wainganga	WAPCOS	5	21	105	19.74	246.15	3.86

	Total (Maharashtra) - 9 Nos. schemes		**27**		**411**			
	Manipur							
96	Khongnum Chakka st.-II	WAPCOS	2	33.5	67	281.25	192.84	4.59
97	Nunglieban	WAPCOS	2	52.5	105	82.42	268.93	5.16
98	Pabaram	WAPCOS	2	95	190	116.67	474.77	4.33
	Total (Manipur) - 3 Nos. schemes		**6**		**362**			
	Meghalaya							
99	Mawblei	WAPCOS	2	70	140	400.33	303.66	4.44
100	Mawhu	WAPCOS	3	40	120	438.15	482.96	1.40
101	Mawput	WAPCOS	3	7	21	93.42	83.95	4.07
102	Nongkolait	WAPCOS	2	60	120	463	332.87	1.97
103	Nongnam	WAPCOS	2	25	50	215.17	212.59	2.44
104	Rangmaw	WAPCOS	2	32.5	65	321.00	229.60	2.32
105	Selim	WAPCOS	2	85	170	433.67	534.68	2.02
106	Sushen	WAPCOS	2	32.5	65	114.58	220.6	3.85
107	Umduna	WAPCOS	3	19	57	253.17	231.24	1.68
108	Umjaut	WAPCOS	3	23	69	375.20	276.70	1.51
109	Umngi	WAPCOS	2	27	54	304.75	89.65	2.86
	Total (Meghalaya) - 11 Nos. schemes		**26**		**931**			
	Mizoram							
110	Boinu	WAPCOS	4	160	640	158.67	1118.93	4.83
111	Lungleng	WAPCOS	5	163	815	219.67	1169.06	4.17
112	Tlawng	WAPCOS	2	22.5	45	123.67	151.67	5.84
	Total (Mizoram) - 3 Nos. schemes		**11**		**1500**			
	Nagaland							
113	Dikhu	NEEPCO	4	35	140	79.44	513.41	2.80
114	Tizu	NEEPCO	3	50	150	64.19	568.41	2.56
115	Yangnyu	NEEPCO	2	20	40	115	176.45	4.48
	Total (Nagaland) - 3 Nos. schemes		**9**		**330**			
	Orissa							
116	Baljori	WAPCOS	2	89	178	165.75	479.8	5.90
117	Lower Kolab	WAPCOS	3	155	465	196.9	845.86	7.10
118	Naraj	WAPCOS	7	41	287	16.14	759.31	4.92
119	Tikarpara	WAPCOS	7	37	259	16.97	828.37	3.69
	Total (Orissa) - 4 Nos. schemes		**19**		**1189**			
	Sikkim							
120	Dikchu	NHPC	3	35	105	352	469	2.15
121	Lachen	NHPC	3	70	210	350	865.94	2.35
122	Lingza	NHPC	3	40	120	736	477.51	2.85
123	Panan	NHPC	4	50	200	312	762	2.15
124	Rangyong	NHPC	3	47	141	723.18	639.52	2.70
125	Ringpi	NHPC	2	35	70	1106.37	317.41	3.17

126	Rongni Storage	NHPC	3	65	195	442	510.35	8.60
127	Rukel	NHPC	3	11	33	537.1	149.41	5.48
128	Talem	NHPC	3	25	75	393.19	305.48	4.34
129	Teesta-I	NHPC	4	80	320	576.85	1298.12	1.80
	Total (Sikkim) - 10 Nos. schemes		**31**		**1469**			
	Uttaranchal							
130	Arakot Tiuni	UJVNL	3	24	72	250.2	382.9	1.00
131	Badrinath	WAPCOS	2	70	140	459.67	702.7	0.81
132	Bagoli Dam	UJVNL	3	24	72	139.5	340.7	4.10
133	Bhaironghati	WAPCOS	2	32.5	65	108.9	293.18	1.80
134	Bogudiyar - Sirkari Bhyal	WAPCOS	2	85	170	344.47	744	1.99
135	Bokang Baling	WAPCOS	3	110	330	455.2	1124.62	1.68
136	Chhunger - Chal	WAPCOS	2	120	240	292.83	853.28	1.13
137	Deodi	WAPCOS	2	30	60	560.3	296.76	1.37
138	Devsari	WAPCOS	3	100	300	227.5	878.5	2.77
139	Gangotri	WAPCOS	1	55	55	336.33	264.76	1.62
140	Garba Tawaghat	WAPCOS	3	210	630	470.97	2483.11	0.90
141	Gohana Tal	WAPCOS	2	30	60	584.52	269.35	1.64
142	Harsil	WAPCOS	3	70	210	281.33	920.57	1.10
143	Jadh Ganga	WAPCOS	2	25	50	142.6	220.88	2.19
144	Jakhol Sankri	UJVNL	3	11	33	364	144.24	1.71
145	Jelam Tamak	WAPCOS	2	30	60	195.58	268.12	1.71
146	Kalika Dantu	WAPCOS	2	115	230	99.75	1067.3	2.95
147	Karmoli	WAPCOS	2	70	140	419.67	621.31	1.30
148	Khartoi Lumti Talli	WAPCOS	2	27.5	55	56.6	241.51	3.00
149	Lata Tapovan	UJVNL	4	77.5	310	265	1123	2.21
150	Maleri Jelam	WAPCOS	2	27.5	55	200.33	243.07	1.80
151	Mapang - Bogidiyar	WAPCOS	2	100	200	465.07	882.04	1.30
152	Naitwar-Mori	UJVNL	3	11	33	76	151	1.85
153	Nand Prayag	UJVNL	3	47	141	72	794	2.05
154	Ramganga	UJVNL	3	22	66	100.1	327	3.25
155	Rishi Ganga - 1	WAPCOS	2	35	70	536.17	327.3	1.18
156	Rishi Ganga - II	WAPCOS	1	35	35	236.96	164.64	2.22
157	Rupsiabagar Khasiyabara	WAPCOS	2	130	260	449.47	1195.63	1.59
158	Sela Urthing	WAPCOS	2	115	230	255.5	816.73	1.40
159	Sirkari Bhyol Rupsiabagar	WAPCOS	3	70	210	388.97	967.97	1.55
160	Taluka Sankri	UJVNL	2	70	140	564.9	559.47	1.33
161	Tamak Lata	UJVNL	4	70	280	291.4	1040.7	2.30
162	Urthing Sobla	UJVNL	4	70	280	414.96	1360.2	1.49
	Total (Uttaranchal) - 33 Nos. schemes		**81**		**5282**			
	Grand Total - 162 Nos. schemes		**525**		**47930**			

Annexure-5B

Hydro Capacity Addition during the Year 2024-25

Sl. No.	Name of Project	State/ Implem. Agency	Unit No.	Capacity (MW)		Capacity Addition		Reason for slippage
				Target	Actual	As Programmed/ Anticipated	Actual (A)	
A	**Hydro**							
	Central Sector							
1	Parbati-II /NHPC (4*200=800 MW)	Himachal Pradesh/NHPC	U-1 to U-4	800	600	Mar''25	Mar'25 (U-1 to U-3 Commissioned)	
		Sub- total (Central):		**800**	**600**			
	State Sector							
1	Pallivasal (2x30= 60 MW)	Kerala/ KSEB Ltd.	U-1 to U-2	60	60	Mar'25	Commissioned on 24.12.2024	
2	Uhl-III (3*33.3=100 MW)	Himachal Pradesh/BVPCL	U-1 to U-3	100	100	Mar''25	Commissioned on 05.03.2025	
3	Thottiyar (1x30 + 1x10 = 40 MW)	Kerala/ KSEB Ltd.	U-1 to U-2	40	40	Commissioned on 18.10.2024	Commissioned on 18.10.2024	
		Sub- Total (State):		**200**	**200**			
Total Hydro (CS+SS+PS)				**1000**	**800**			
Total (PSP+Hydro) (FY 2024-25)				**1000**	**800**			

Annexure-5C

Hydro Capacity Addition during the 2025-26

Sl. No.	Name of Project	State/ Implem. Agency	Unit No.	Capacity (MW)		Capacity Addition		Reason for slippage
				Target	Actual	As Programmed/ Anticipated	Actual (A)	
A	**Hydro**							
	Central Sector							
1	Parbati-II /NHPC (4*200=800 MW)	Himachal Pradesh/NHPC	U-4	200	200	Apr'25	Commissioned on 13.04.2025	
2	SUBANSIRI LOWER /NHPC	Arunachal Pradesh/NHPC	U-1 to 4	1000	750	Mar'26	Unit 1, Unit 2 and Unit 3 are commissioned on 28.02.2026, 18.12.2025 and 24.01.2026 respectively & Unit 4 is Slipped to 2026-27	
		Sub- total (Central):		**1200**	**950**			
	State Sector							
1	Lower Kopili /APGCL	Assam/APGCL	U-1 to 2	110	0	Mar'26	Slipped to 2026-27	
		Sub- Total (State):		**110**	**0**			
	Private Sector							
1	Kutehr/JSW	Himachal Pradesh/JSW	U-1 to 3	240	240	Aug'25	Commissioned in Aug'2025	
		Sub- Total (Private):		**240**	**240**			
Total Hydro (CS+SS+PS)				**1550**	**1190**			

B	**PSP**							
	Central Sector							
1	Tehri PSS/THDC	Uttarakhand	U-1 to 4	1000	750	Mar'26	Unit 1, Unit 2 and Unit 3 commissioned in 05.08.202, 31.07.2025 and 08.08.2025 respectively & Unit 4 is Slipped to 2026-27	
		Sub- total (Central):		**1000**	**750**			
	Private Sector							
1	Pinnapuram/Greenko	Andhra Pradesh	U-1 to 8	1680	1680	Oct'2025	Unit Commissioning Date 1 04.06.2025 2 27.05.2025 3 30.05.2025 4 27.06.2025 5 23.10.2025 6 24.06.2025 7 14.08.2025 8 14.08.2025	
		Sub- Total (Private):		**1680**	**1680**			
Total Hydro (CS+SS+PS)				**2680**	**2430**			
Total (PSP+Hydro) (FY 2025-26)				**4230**	**3620**			

Annexure-5D

Hydro Capacity Addition Programme for 2026-27

F Y. 2026-27						
S.No	**Project Name/ Impl. Agency**	**Sector**	**State**	**Unit No.**	**Capacity (MW)**	**Anticipated Trial Run Date**
A	**Hydro**					
1	Lower Sileru Extension /APGENCO)	State	Andhra Pradesh	U-1 to 2	230	Aug'2026
2	Tidong-I /M/s Statkraft India Pvt. Ltd.	Private	Himachal Pradesh	U-1 to 3	150	Sept'2026
3	Lower Kopili /APGCL	State	Assam	U-1 to 5	120	Oct'2026
4	Rangit-IV/NHPC	Central	Sikkim	U-1 to 3	120	Nov'2026
5	SUBANSIRI LOWER /NHPC	Central	Arunachal Pradesh	U-4 to 8	1250	Mar'2027
6	Pakal Dul /CVPPL	Central	Jammu & Kashmir	U-1 to U-4	1000	Dec'2026
7	Kiru /CVPPL	Central	Jammu & Kashmir	U-1 to 4	624	Dec'2026
8	Dhaulasidh /SJVN	Central	Himachal Pradesh	U-1 to 2	66	Mar'2027
Sub-Total (Hydro)					**3560**	
B	**PSP**					
1	Tehri PSS/THDC	Central	Uttarakhand	U-4	250	Apr'2026
2	MP30 Gandhi Sagar PSP (Greenko MP01 IREP Private Limited)	Private	Madhya Pradesh	U-1 to U-9	1920	Dec'2026
3	Kundah Pumped Storage (Phase-I, Phase-II & Phase-III) /TANGEDCO	State	Tamil Nadu	U-1 to 4	500	Feb'2027
4	Chitravathi PSP(M/s Adani Renewable Energy Forty-Two Limited)	Private	Andhra Pradesh	U-1 to 2	500	Feb'2027
Sub-Total (PSP)					**3170**	
Total (FY 2026-27)					**6730**	

Annexure-5E

State-wise List of Hydro RMU&LE schemes programmed for completion during 2022-27

Sl. No	Name of Project, Agency Inst. Cap. (No.x MW)	CS/SS	Capacity Covered Under RMU&LE (No.x MW)	Est. Cost (Rs. in Crs.)	Actual Exp. (Rs. in Crs.)	Benefits (MW)	Capacity after RMU&LE	Category	Year of Completion
A. COMPLETED SCHEMES									
Himachal Pradesh									
1	Bhabha Power House, HPSEB (3x40)	SS	3x40	90.14	43.01	120(LE)	120	RM&LE	Completed in 2022-23
2	Bhakra LB, BBMB (5x108)	CS	5x108	489.77	583.86	540 (LE) + 90 (U)	630	RMU&LE	Completed in 2023-24
Uttarakhand									
3	Tiloth (Maneri Bhali - I), UJVNL (3x30)	SS	3x30	384.66	206.17	90 (LE)	90	RM&LE	Completed in 2022-23
4	Dhalipur, UJVNL (3x17)	SS	3x17	152.65	137.45	51 (LE)	51	RM&LE	Completed in 2023-24
Uttar Pradesh									
5	Rihand, UPJVNL (6x50)	SS	6x50	132.20	129.67	300 (LE)	300	RM&LE	Completed in 2022-23
6	Obra, UPJVNL (3x33)	SS	3x33	58.80	49.85	99 (LE)	99	RM&LE	Completed in 2025-26
Telangana									
7	Nagarjuna Sagar Phase-II works, TSGENCO (1x110+7x100.8)	SS	1x110+7x100.8	21.67	14.34	-	815.6	R&M	Completed in 2022-23
8	Nagarjuna Sagar Left Canal Power House, TSGENCO (2x30.6)	SS	2x30.6	30.99	1.50	-	61.2	R&M	Completed in 2022-23
Karnataka									
9	Munirabad Dam Power House,	SS	2x9 + 1x10	4.60	2.20	-	28	R&M	Completed in 2022-23

	KPCL (2x9 + 1x10)								
10	Linganamakki Dam Power House, KPCL (2x27.5)	SS	2x27.5	1.34	1.34	-	55	R&M	Completed in 2022-23
11	Gerusoppa Dam Power House (Sharavathy Tail Race), KPCL (4x60)	SS	4x60	59.66	2.026	-	240	R&M	Completed in 2023-24
Assam									
12	Kopili Power Station, NEEPCO (4x50)	CS	4x50	1075.19	1201.65	200 (LE)	200	RM&LE	Completed in 2024-25
13	Khandong Power Station, NEEPCO (2x23)	CS	2x23	277.74	441.33	46(LE)	46	RM&LE	Completed in 2025-26
Sub Total(A)			**2645.80**	**2779.41**	**2814.40**	**1536 [1446(LE)+ 90(U)]**	**2735.80**		
B. Ongoing Schemes – UNDER IMPLEMENTATION									
Uttarakhand									
14	Dhakrani, UJVNL (3x11.25)	SS	3x11.25	137.31	117.63	33.75 (LE)	33.75	RM&LE	2026-27
Telangana									
15	Pochampad HPS Stage -1, TSGENCO (3x9)	SS	3x9	10.691	1.291	-	27	R&M	2026-27
Tamil Nadu									
16	Moyar PH, TNPGCL (3x12)	SS	3x12	121.127	100.15	36 (LE) + 6 (U)	42	RMU&LE	2026-27
17	Kodayar PH-I, TNPGCL (1x60)	SS	1x60	80.96	35	60 (LE) + 10 (U)	70	RMU&LE	2026-27
Karnataka									
18	Shivasamudram, KPCL (6x3+4x6)	SS	6x3+4x6	169.18	106	42 (LE)	42	RM&LE	2026-27
19	Kadra Dam Power House,	SS	3x50	44.47	2.627	-	150	R&M	2026-27
20	Kodasalli Dam Power House,	SS	3x40	50.60	2.654	-	120	R&M	2026-27
21	Sharavathy Generating Station, KPCL (10x103.5)	SS	10x103.5	196.56	8.33	1035 (LE)	1035	RM&LE	2026-27
Kerala									

22	Kuttiyadi, KSEB (3x25)	SS	3x25	90.18	63.11	75 (LE) + 7.5 (U)	82.5	RMU&LE	2026-27
Odisha									
23	Balimela, OHPCL (6x60)	SS	6x60	382.91	238.06	360 (LE)	360	RM&LE	2026-27
Jharkhand									
24	Panchet U-1, DVC (2x40)	CS	1x40 (U-1)	121.85	99.47	40 (LE) + 6 (U)	46	RMU&LE	2026-27
Meghalaya									
25	Umiam St.III, (Kyrdemkulai) MePGCL (2x30)	SS	2x30	408.00	237.66	60 (LE) + 6 (U)	66	RMU&LE	2026-27
Sub Total (B)			**2038.75**	**1813.84**	**1011.98**	**1777.25 [1741.75(LE)+ 35.50(U)]**	**2074.25**		
C. Ongoing Schemes – UNDER TENDERING									
Karnataka									
26	Supa Dam Power House, KPCL (2x50)	SS	2x50	47.91	-	-	100	R&M	2026-27
Sub Total (C)			**100**	**47.91**	**0.00**	**0 [0(LE)+0(U)]**	**100.00**		
Total (A+B+C)			**4784.55**	**4641.16**	**3826.38**	**3313.25 [3187.75(LE)+ 125.50(U)]**	**4910.05**		

Annexure- 5F

State wise list of Hydro RMU&LE schemes programed for completion during 2027-32

Sl. No	Name of Project, Agency Inst. Cap. (No.X MW)	CS/ SS	Capacity Covered Under RMU&LE (No.x MW)	Est. Cost (Rs. in Crs.)	Actual Exp.	Benefits (MW)	Capacity after RMU&LE	Category	Completion Target
A.Ongoing Schemes – UNDER IMPLEMENTATION									
Uttarakhand									
1	Chilla (Ph B), UJVNL (4x36)	SS	4x36	459.98	138.46	144 (LE) + 12 (U)	156	RMU&LE	2027-28
Madhya Pradesh									
2	Gandhi Sagar, MPPGCL	SS	5x23	464.55	-	115 (LE) + 10.83 (U)	125.83	RMU&LE	2029-30
Gujrat									
3	Kadana PSS, GSECL (4X60)	SS	4x60	89.82	35.61	240(LE)+20(U)	260	RMU&LE	2027-32
Andhra Pradesh									
4	Upper Sileru Power House, APGENCO (4x60)	SS	4x60	22.39	0.642	-	240	R&M	2027-28
5	Nagarjunasagar Right Canal Power House, APGENCO (3x30.6)	SS	3x30.6	26.77	1.68	-	91.8	R&M	2027-28
6	Srisailam Right Bank Power House, APGENCO (7x110)	SS	7x110	24.67	17.974	-	770	R&M	2027-28
7	Tungabhadra Dam, APGENCO (4x9)	SS	4x9	6.65	2.517	-	36	R&M	2027-32
8	Hampi Canal PH, APGENCO (4x9)	SS	4x9	-	-	-	36	R&M	2027-32
Karnataka									
9	Nagjhari (Unit-1 to 3) KPCL (6x150)	SS	3x150 (U-1 to 3)	266.00	142.16	450 (LE)	450	RM&LE	2028-29
Manipur									
10	Loktak, NHPC (3x35)	CS	3x35	273.59	175.87	105 (LE)	105	RM&LE	2027-28
Sub Total(A)			**2227.8**	**1634.4225**	**514.913**	**1096.83 1054(LE) + 42.83 (U)**	**2270.63**		
B.Ongoing Schemes – UNDER TENDERING									
Himachal Pradesh									
11	Pong Power House, BBMB (6x66)	CS	6x66	402.00	1.15	396 (LE) + 54 (U)	450	RMU&LE	2028-29
Punjab									
12	UBDC St.I & St.II, PSPCL (3x15+ 3x15.45)	SS	3x15+ 3x15.45	-	-	91.35 (LE)	91.35	RM&LE	2027-32
Rajasthan									
13	Rana Pratap Sagar RRVUNL (4x43)	SS	4x43	264.52	57.52	172 (LE) + 6 (U)	178	RMU&LE	2027-32
Madhya Pradesh									
14	Bargi, MPPGCL (2x45)	SS	2x45	249.81		90(LE)+4(U)	94	RMU&LE	2029-30
West Bengal									

15	Maithon, DVC (2x20+1x23.2-U#2)	CS	2x20	136.4	-	40(LE)	40	RM&LE	2027-32
Sub Total(B)			**789.35**	**1052.73**	**58.67**	**853.35 789.35 (LE)+ 64(U)**	**853.35**		
C. Ongoing Schemes – UNDER DPR PREPARATION/FINALISATION/APPROVAL									
Himachal Pradesh									
16	Giri, HPSEBL (2x30)	SS	2x30	440.12	-	60(LE)	60	RM&LE	2028-29
Punjab									
17	Anandpur Sahib Hydel Project, PSPCL (4x33.5)	SS	4x33.5	-	-	134(LE)	134	RM&LE	2027-32
18	Mukerian St.I, St.II, St.III & St.IV, PSPCL (3x15, 3x15, 3x19.5& 3x19.5)	SS	3x15, 3x15, 3x19.5& 3x19.5	-	-	207(LE)	207	RM&LE	2027-32
Uttarakhand									
19	Ramganga,UJVNL (3x66)	SS	3x66	-	-	198(LE)	198	RM&LE	2027-32
20	Kulhal ,UJVNL (3x10)	SS	3x10	120.89	-	30(LE)	30	RM&LE	2027-32
Madhya Pradesh									
21	Pench, MPPGCL (2x80)	SS	2x80	556.52	-	160(LE)+2.5(U)	162.5	RMU&LE	2029-30
Andhra Pradesh									
22	Lower Sileru, APGENCO (4x115)	SS	4x115	699.65	1.8	460(LE)	460	RM&LE	2029-30
23	Machkund St.I & St.II, APGENCO (3x17+ 3x23)	SS	3x17+ 3x23	-	-	120(LE)+9(U)	129	RMU&LE	2027-32
Kerala									
24	Idukki 1st and 2nd stage, KSEB (6x130)	SS	6x130	3.887	3.498	780 (LE)	780	RM&LE	2027-32
25	Idamalayar, KSEB (2x37.5)	SS	2x37.5	98	0.839	75(LE)	75	RM&LE	2027-32
Tamil Nadu									
26	Kodayar PH-II, TNPGCL (1x40)	SS	1x40	-	-	40 (LE) + 6 (U)	46	RMU&LE	2027-32
Sub Total(C)			**2264.00**	**1919.07**	**6.137**	**2281.5 2264(LE) + 17.5(U)**	**2281.5**		

D. Ongoing Schemes – UNDER RLA STUDIES									
Jammu & Kashmir (UT)									
27	Salal Stage-I, (Unit 1,2 &3) NHPC (3x115)	CS	3x115	-	-	345(LE)	345	RM&LE	2027-32
28	Salal Stage-II, (Unit 4,5 &6) NHPC (6x115)	CS	3x115	-	-	345 (LE)	345	RM&LE	2027-32
Punjab									
29	Shanan HEP, PSPCL (1x50+ 4x15)	SS	1x50+ 4x15	-	-	110 (LE)	110	RM&LE	2027-32
Himachal Pradesh									
30	Chamera-I, NHPC (3x180)	CS	3x180	-	-	540 (LE)	540	RM&LE	2027-32
Uttarakhand									
31	Tanakpur, NHPC (3x31.4)	CS	3x31.4	-	-	94.2 (LE)	94.2	RM&LE	2027-32
32	Chibro, UJVNL (4x60)	SS	4x60	-	-	240 (LE)	240	RM&LE	2027-32
33	Khodri, UJVNL (4x30)	SS	4x30	-	-	120 (LE)	120	RM&LE	2027-32

Rajasthan

34	Jawahar Sagar Power Station, Jawahar Sagar (3x33)	SS	3x33	-	-	99(LE)	99	RM&LE	2027-32
Madhya Pradesh									
35	Bansagar Ton-I, MPPGCL (3x105)	SS	3x105	-	-	315 (LE)	315	RM&LE	2027-32
Maharashtra									
36	Vaitarna, MSPGCL (1x60)	SS	1x60	-	-	60 (LE)	60	RM&LE	2027-32
37	Koyna Dam foot (Right Bank), MSPGCL (2x20)	SS	2x20	-	-	40 (LE)	40	RM&LE	2027-32
38	Koyna St-3, MSPGCL (4x80)	SS	4x80	-	-	320 (LE)	320	RM&LE	2027-32
39	Tillari, MSPGCL (1x60)	SS	1x60	-	-	60(LE)	60	RM&LE	2027-32
40	Bhira Tail Race (2x40)	SS	2x40	-	-	80(LE)	80	RM&LE	2027-32
Jharkhand									
41	Subernrekha, JUUNL (2x65)	SS	2x65	262.9	-	130 (LE)	130	RM&LE	2029-30
Karnataka									
42	Varahi Underground Power House (4x115)	SS	2x115	-	-	-	230	R&M	2027-32
43	Linganamakki Dam Power House	SS	2x27.5	15.4	-	55(LE)	55	RM&LE	2027-32
Kerala									
44	Sabarigiri, (Unit-1,2,3, 5) KSEB (4x55)	SS	4x55 (Unit-1,2, ,3, & 5)	-	-	220 (LE) + 20 (U)	240	RMU&LE	2027-32
Tamil Nadu									
45	Kundah-I, TNPGCL (3x20)	SS	3x20	-	-	60 (LE)	60	RM&LE	2027-32
46	Kundah-II, TNPGCL(5x35)	SS	5x35	-	-	175 (LE)	175	RM&LE	2027-32
47	Kundah-III, TNPGCL (3x60)	SS	3x60	-	-	180 (LE)	180	RM&LE	2027-32
48	Kundah-IV, TNPGCL (2x50)	SS	2x50	-	-	100 (LE)	100	RM&LE	2027-32
49	Kundah-V, TNPGCL (2x20)	SS	2x20	-	-	40 (LE)	40	RM&LE	2027-32
50	Mettur Tunnel, TNPGCL (4x50)	SS	4x50	-	-	200 (LE)	200	RM&LE	2027-32
51	Sarkarpathy, TNPGCL(1x30)	SS	1x30	-	-	30 (LE)	30	RM&LE	2027-32
52	Sholayar-II, TNPGCL (1x25)	SS	1x25	-	-	25 (LE)	25	RM&LE	2027-32
53	Suruliyar, TNPGCL(1x35)	SS	1x35	-	-	35 (LE)	35	RM&LE	2027-32
54	Kadamparai PH, TNPGCL (4x100)	SS	4x100	-	-	400 (LE)	400	RM&LE	2027-32
55	Aliyar, TNPGCL (1x60)	SS	1x60	-	-	60 (LE)	60	RM&LE	2027-32
56	Lower Mettur-I , TNPGCL (2x15)	SS	2x15	-	-	30 (LE)	30	RM&LE	2027-32
57	Lower Mettur-II , TNPGCL (2x15)	SS	2x15	-	-	30 (LE)	30	RM&LE	2027-32
58	Lower Mettur-III , TNPGCL (2x15)	SS	2x15	-	-	30 (LE)	30	RM&LE	2027-32
59	Lower Mettur-IV , TNPGCL (2x15)	SS	2x15	-	-	30 (LE)	30	RM&LE	2027-32
Meghalaya									
60	Umiam-Umtru Stage-IV, MePGCL (2x30)	SS	2x30	-	-	60 (LE)	60	RM&LE	2027-32
			4888.20	**278.30**	**0.00**	**4678.20 [4658.2 (LE)+ 20(U)]**	**4908.20**		

Total (A+B+C+D)	**10169.35**	**4884.52**	**579.72**	**8909.88 [8765.55 (LE)+ 144.33(U)]**	**10313.68**	

Abbreviations: R&M – Renovation & Modernisation;. U – Uprating; LE – Life Extension; Res – Restoration; MW – Mega Watt; CS-Central Sector: SS- State Sector

Annexure-6A

Thermal Capacity Addition Programme for the year 2025-26

S.No.	Project Name	Unit No.	Targeted Cap. (MW)	Trial Run Schedule at the beginning of FY 2025-26	Capacity Achieved during 2025-26 (MW)	Anticipated/ Actual(A) date of capacity Addition	Remarks/ Reasons
1	North Karanpura STPP	U-3	660	Apr-2025	660	14-04-2025 (A)	Delayy in readiness of ACC
2	Barh STPP St-I	U-3	660	Apr-2025	660	05-06-2025 (A)	Delay in receiving Rotor from Russia
3	Obra-C STPP	U-2	660	Apr-2025	660	16-06-2025 (A)	Delay in trial run due to high bearing temp.
4	Yadadri TPS	U-1	800	Apr-2025	800	12-07-2025 (A)	Delay in trial run of Unit-3 due to unavailability of desired coal quality. Unloading Constraint in plant. U#5 delay in readiness of BoP areas
		U-4	800	Aug-2025	800	08-01-2026 (A)	
		U-3	800	Oct-2025	0	May-2026	
		U-5	800	Dec-2025	0	Sep-2026	
5	Khurja STPP	U-2	660	Jul-2025	660	22-09-2025 (A)	Delay in readiness of turbine
6	Patratu STPP	U-1	800	Jun-2025	800	16-10-2025 (A)	Delay in trial run of U#2 due to delay in readiness of ACC Streets, readiness of Tippler floor, CEP etc.
		U-2	800	Feb-2026	0	May-2026	
7	Buxar TPP	U-1	660	Jun-2025	660	05-11-2025 (A)	Delay in readiness of Raw water intake system due to land acquisition issues and readiness of CHP & AHP.
		U-2	660	Oct-2025	0	Jun-2026	
8	Ghatampur TPP	U-2	660	Jul-2025	660	23-11-2025 (A)	Delay in readiness of NDCT#3, CHP & AHP
		U-3	660	Nov-2025	0	May-2026	
9	North Chennai TPP St-III	U-1	800	Apr-2025	800	24-01-2026 (A)	Delay in completion of trial run as machine was unable to achieve full load without oil
10	Sagardighi TPP St-III *	U-5	660	Jun-2025	660	15-03-2026 (A)	Delay in supply of critical items by BHEL
11	Udangudi STPP St-I	U-1	660	Jul-2025	0	May-2026	Delay in obtaining statutory clearance by TNPGCL for port operation. Delay in readiness of AHP
		U-2	660	Oct-2025	0	Aug-2026	
Total			**12860**		**7820**		

Additional Capacity Achieved

S.No.	Project Name	Unit No.	Targeted Cap. (MW)	Commissioning Schedule at the beginning of FY 2024-25	Cap. Achieved during 2024-25 (MW)	Anticipated/ Actual(A) date of capacity Addition	Remarks/ Reasons
1	JSW Energy Utkal Limited	U-2	-	-	350	01-04-2025	
2	Meenakshi Energy Ltd, Ph-II	U-3	-	-	350	05-07-2025	
		U-4	-	-	350	21-08-2025	
3	Vedanta Ltd Chhattisgarh TPP	U-1	-	-	600	19-07-2025	
	Total				**1650**		

Annexure-6B

PLANT-WISE COAL RECEIPT AND CONSUMPTION IN 2025-26

S. No.	Name of Station	Capacity (MW) as on 31st March 2026	Receipt (in Thousand Tonnes)			Consumption (in Thousand Tonnes)
			Indigeneous	Import	Total	
1	JSW Mahanadi Power Company Limited	1800	7549	0	7549	7667
2	AMRAVATI TPS	1350	6025	0	6025	6117
3	AMARKANTAK EXT TPS	210	1120	0	1120	1136
4	ANPARA C TPS	1200	4852	0	4852	5246
5	ANPARA TPS	2630	12753	0	12753	12829
6	ANUPPUR TPP	1250	5578	0	5578	5594
7	ADANI POWER LIMITED RAIGARH TPP	600	2870	0	2870	2762
8	BAKRESWAR TPS	1050	5291	0	5291	5148
9	BALCO TPS	600	1390	0	1390	1414
10	BANDAKHAR TPP	300	1444	0	1444	1552
11	BANDEL TPS	270	1283	0	1283	1296
12	BARADARHA TPS	1200	5563	0	5563	5736
13	BARAUNI TPS	500	2181	0	2181	2158
14	BARH STPS	3300	11703	0	11703	11981
15	BARKHERA TPS	90	246	0	246	252
16	BELA TPS	270	1126	0	1126	1108
17	BELLARY TPS	1700	6487	56	6543	6391
18	BHADRADRI TPP	1080	3857	0	3857	4014
19	BHILAI TPS	500	2847	0	2847	2735

20	BHUSAWAL TPS	1870	7363	0	7363	7455
21	BINA TPS	500	2258	0	2258	2375
22	BINJKOTE TPP	600	3026	0	3026	3085
23	BOKARO TPS `A` EXP	500	1626	0	1626	1638
24	BONGAIGAON TPP	750	2622	0	2622	2693
25	BUDGE BUDGE TPS	750	3393	0	3393	3374
26	BUTIBORI TPP	600	1653	0	1653	1687
27	BUXAR TPP	660	740	0	740	705
28	CHANDRAPUR(MAHARASHTRA) STPS	2920	10486	601	11087	11559
29	CHANDRAPURA(DVC) TPS	500	2246	0	2246	2346
30	CHHABRA-I PH-1 TPP	500	938	0	938	1964
31	CHHABRA-I PH-2 TPP	500	3261	0	3261	2219
32	CHHABRA-II TPP	1320	3682	0	3682	3860
33	D.P.L. TPS	550	2497	0	2497	2541
34	DADRI (NCTPP)	1820	6321	0	6321	6162
35	DAHANU TPS	500	1909	0	1909	1992
36	DAMODARAM SANJEEVAIAH TPS	2400	7627	153	7780	7715
37	DARLIPALI STPS	1600	8258	0	8258	8077
38	DERANG TPP	1200	6764	0	6764	6585
39	DHARIWAL TPP	600	2779	0	2779	2786
40	Dr. N.TATA RAO TPS	2560	11211	0	11211	11253
41	DSPM TPS	500	2870	0	2870	2832
42	DURGAPUR STEEL TPS	1000	3929	0	3929	3970
43	FARAKKA STPS	2100	8293	0	8293	8497
44	GADARWARA TPP	1600	6213	0	6213	6328
45	GANDHI NAGAR TPS	630	851	0	851	808
46	GH TPS (LEH.MOH.)	920	3575	0	3575	3488

47	GHATAMPUR TPP	1320	3324	0	3324	2852
48	GMR WARORA TPS	600	2919	0	2919	2855
49	GOINDWAL SAHIB TPP	540	1416	0	1416	1508
50	HALDIA TPP	600	3291	0	3291	3238
51	HARDUAGANJ TPS	1265	3080	0	3080	3027
52	HIRANMAYE TPP	300	1662	0	1662	1507
53	IB VALLEY TPS	1740	9054	0	9054	8931
54	INDIRA GANDHI STPP	1500	4849	0	4849	5124
55	JAWAHARPUR STPP	1320	1510	0	1510	1496
56	JOJOBERA TPS	240	937	0	937	1049
57	KAHALGAON TPS	2340	12658	0	12658	12726
58	KAKATIYA TPS	1100	4102	0	4102	4158
59	KALISINDH TPS	1200	4266	0	4266	4271
60	KAMALANGA TPS	1050	6025	0	6025	6008
61	ADANI POWER LIMITED KAWAI TPP	1320	3771	700	4471	4709
62	KHAMBARKHERA TPS	90	229	0	229	242
63	KHAPARKHEDA TPS	1340	6329	334	6662	6636
64	KHARGONE STPP	1320	4798	0	4798	4906
65	KHURJA TPP	1320	3609	0	3609	3435
66	KODARMA TPP	1000	4345	0	4345	4398
67	KOLAGHAT TPS	840	3802	0	3802	3781
68	KORADI TPS	2190	9928	150	10078	9865
69	KORBA STPS	2600	14323	0	14323	14422
70	KORBA-WEST TPS	1340	7106	0	7106	6897
71	KOTA TPS	1240	5626	0	5626	5433
72	KOTHAGUDEM TPS (NEW)	1000	3256	0	3256	3551
73	KOTHAGUDEM TPS (STAGE-7)	800	2466	0	2466	2648

74	KUDGI STPP	2400	7462	0	7462	7249
75	KUNDARKI TPS	90	244	0	244	233
76	LALITPUR TPS	1980	7519	0	7519	7455
77	LARA TPP	1600	8036	0	8036	7811
78	MAHADEV PRASAD STPP	540	2553	0	2553	2558
79	Maadurga Thermal Power Company Ltd.	60	352	0	352	338
80	MAHAN TPP	1200	4952	0	4952	4948
81	MAHATMA GANDHI TPS	1320	4312	0	4312	4361
82	MAITHON RB TPP	1050	3780	0	3780	4089
83	MAQSOODPUR TPS	90	247	0	247	249
84	MARWA TPS	1000	5143	0	5143	5088
85	MAUDA TPS	2320	10666	0	10666	10591
86	MEJA STPP	1320	5198	0	5198	5119
87	MEJIA TPS	2340	9670	0	9670	9660
88	METTUR TPS	840	4011	5	4016	4033
89	METTUR TPS-II	600	2186	153	2339	2321
90	MIHAN TPS	246.01	0	0	0	0
91	MUZAFFARPUR TPS	390	1804	0	1804	1715
92	NABINAGAR TPP	1000	4230	0	4230	4122
93	PATRATU STPP	800	1148	0	1148	1206
94	NABINAGAR STPP	1980	8477	0	8477	8397
95	NASIK TPS	630	2573	83	2656	2635
96	NAWAPARA TPP	600	2679	0	2679	2699
97	NIGRI TPP	1320	5616	0	5616	5849
98	NORTH CHENNAI TPS STAGE 1	630	5701	50	5751	5720
99	NORTH CHENNAI TPS STAGE 2	1200	1922	0	1922	1894
100	NORTH CHENNAI TPS STAGE 3	800	157	77	234	414

101	NORTH KARANPURA TPP	1980	8594	0	8594	8789
102	**OBRA TPS**	2320	7920	0	7920	7584
103	OP JINDAL TPS	1000	6568	0	6568	6086
104	PAINAMPURAM TPP	1320	5204	771	5975	5737
105	PANIPAT TPS	710	2320	0	2320	2367
106	PANKI TPS EXT	660	1511	0	1511	1407
107	PARAS TPS	500	2255	0	2255	2246
108	PARICHHA TPS	920	3316	0	3316	3377
109	PARLI TPS	750	2426	0	2426	2394
110	PATHADI TPP	600	2965	0	2965	2866
111	PRAYAGRAJ TPP	1980	7407	0	7407	7428
112	RAGHUNATHPUR TPP	1200	4732	0	4732	4710
113	RAICHUR TPS	1720	5837	0	5837	6199
114	ADANI POWER LIMITED RAIPUR TPP	1370	6009	24	6033	5908
115	RAJIV GANDHI TPS	1200	3076	0	3076	3183
116	RAJPURA TPP	1400	5324	0	5324	5255
117	RAMAGUNDEM-B TPS	62.5	0	0	0	0
118	RAMAGUNDEM STPS	2600	8725	0	8725	8964
119	RAYALASEEMA TPS	1650	7184	0	7184	6884
120	RIHAND STPS	3000	13430	0	13430	13671
121	ROPAR TPS	840	2731	0	2731	2711
122	ROSA TPP Ph-I	1200	4431	0	4431	4316
123	SABARMATI (D-F STATIONS)	362	1321	79	1400	1442
124	SAGARDIGHI TPS	2260	8472	0	8472	7940
125	SANJAY GANDHI TPS	1340	5044	0	5044	5094
126	SANTALDIH TPS	500	2537	0	2537	2413
127	SASAN UMTPP	3960	17571	0	17571	17592

128	SATPURA TPS	500	2185	0	2185	2227
129	SEIONI TPP	600	3088	0	3088	3134
130	SGPL TPP	1320	3846	2577	6423	6160
131	SHIRPUR TPP	300	1311	0	1311	1307
132	SHREE SINGAJI TPP	2520	9213	0	9213	9109
133	SIMHADRI	2000	8995	0	8995	8951
134	SINGARENI TPP	1200	4611	0	4611	4820
135	SINGRAULI STPS	2000	9509	0	9509	9663
136	SIPAT STPS	2980	13452	0	13452	13956
137	SOLAPUR STPS	1320	5083	0	5083	5023
138	SOUTHERN REPL. TPS	135	285	0	285	296
139	VEDANTA TPP	600	2170	0	2170	2186
140	VEDANTA LTD CHHATTISGARH TPP	600	1736	0	1736	1742
141	SURATGARH TPS	1500	4177	0	4177	4108
142	SURATGARH STPS	1320	4314	0	4314	4477
143	TALCHER STPS	3000	15612	0	15612	15435
144	TALWANDI SABO TPP	1980	6706	0	6706	6546
145	TAMNAR TPP	2400	14616	0	14616	14503
146	TANDA TPS	1760	5786	0	5786	5828
147	TCP Limited	63.5	0	0	0	0
148	TELANGANA STPP PH-1	1600	5557	0	5557	5640
149	TENUGHAT TPS	420	1834	0	1834	1542
150	ADANI POWER LIMITED TIRODA TPP	3300	13586	157	13743	13398
151	NTPL TUTICORIN TPP	1000	3258	600	3858	4034
152	TUTICORIN (P) TPP	300	0	0	0	0
153	TUTICORIN TPS	1050	3244	0	3244	3370
154	UCHPINDA TPP	1440	5936	0	5936	6137

155	UKAI TPS	1110	3874	0	3874	3800
156	UNCHAHAR TPS	1550	6990	0	6990	6434
157	JSW Energy Utkal Limited	700	3369	0	3369	3439
158	UTRAULA TPS	90	256	0	256	243
159	Tulsyan NEC Limited	70	0	0	0	0
160	VALLUR TPP	1500	6342	0	6342	6411
161	VINDHYACHAL STPS	4760	22795	0	22795	23064
162	VIZAG TPP	1040	4512	0	4512	4469
163	WANAKBORI TPS	2270	5215	0	5215	5088
164	WARDHA WARORA TPP	540	2265	0	2265	2442
165	YADADRI TPS	2400	4713	0	4713	4668
166	YAMUNA NAGAR TPS	600	2538	0	2538	2464
167	YERMARUS TPP	1600	3267	195	3462	3432
168	CHAKABURA TPP	30	582	0	582	609
169	GEPL TPP Ph-I	120	0	0	0	0
170	KASAIPALLI TPP	270	1474	0	1474	1494
171	NIWARI TPP	90	411	0	411	457
172	RATIJA TPS	100	747	0	747	748
173	SVPL TPP	63	457	0	457	486
174	ITPCL TPP	1200	0	3483	3483	3103
175	JSW RATNAGIRI TPP	300	0	569	569	587
176	ADANI POWER LIMITED MUNDRA TPP - I & II	2640	0	7335	7335	7368
177	ADANI POWER LIMITED MUNDRA TPP - III	1980	0	6833	6833	6859
178	MUNDRA UMTPP	4000	0	3882	3882	2584
179	SHREE CEMENT LTD TPS	344	104	528	632	632
180	MUTHIARA TPP	1200	903	2600	3502	3431
181	SALAYA TPP	1200	0	2779	2779	2640

182	SIKKA REP. TPS	500	8	216	224	234
183	SIMHAPURI TPS	600	77	1277	1353	1414
184	MEENAKSHI ENERGY LTD	1000	362	585	947	976
185	TORANGALLU TPS(SBU-I)	260	0	486	486	486
186	TORANGALLU TPS(SBU-II)	600	0	1340	1340	1341
187	TROMBAY TPS	750	0	2228	2228	2350
188	OPG Power Generation Private Limited	414	597	911	1508	1487
189	TUTICORIN TPP ST-IV	525	72	1225	1297	1315
190	ADANI POWER LIMITED UDUPI TPP	1200	0	2345	2345	2317
	GRAND TOTAL	**221940**	808823	45384	854208	852587

Annexure-6C

CUMULATIVE REPORT ON FUEL SUPPLY/CONSUMPTION FOR GAS BASED POWER STATIONS FOR THE YEAR 2025-26

S. No	Name of Power Station	Installed Capacity (MW)	Name of the State	Generation (Million Unit)	Domestic Gas Allotted (MMSCMD)			RLNG (Imported)- Long Term Contracts	Gas Consumed/Supplied (MMSCMD)							Alternate fuel used (KL)	
					APM /Non-APM/ PMT	KGD-6 (Firm)	Total		Domestic			RLNG (Imported)			TOTAL	Naptha	HSD
									APM /Non APM/ PMT	KGD-6 / Auctioned Domestic Gas	Total	Long Term	SPOT	Total			
Plants connected with gas grid																	
A	**Central Sector**																
1	FARIDABAD CCPP	431.59	HARYANA	185.50	1.46	0.35	1.81	0.20	0.00	0.00	0.00	0.14	0.01	0.15	**0.15**	0.00	0.00
1	FARIDABAD CCPP	431.59	HARYANA	185.50	1.46	0.35	1.81	0.20	0.00	0.00	0.00	0.14	0.01	0.15	**0.15**	0.00	0.00
2	ANTA CCPP	419.33	RAJASTHAN	251.28	1.31	0.24	1.55	0.50	0.00	0.00	0.00	0.16	0.06	0.22	**0.22**	0.00	0.00
3	AURAIYA CCPP	663.36	UTTAR PRADESH	358.83	2.17	0.30	2.47	1.00	0.00	0.00	0.00	0.23	0.08	0.32	**0.32**	0.00	0.00
4	DADRI CCPP	829.78	UTTAR PRADESH	425.38	2.39	0.86	3.25	0.30	0.00	0.00	0.00	0.27	0.09	0.36	**0.36**	0.00	0.00
5	GANDHAR CCPP	657.39	GUJARAT	430.33	2.56	0.63	3.19	0.00	0.00	0.00	0.00	0.28	0.06	0.34	**0.34**	0.00	0.00
6	KAWAS CCPP	656.2	GUJARAT	420.90	3.64	2.08	5.72	0.00	0.00	0.00	0.00	0.28	0.06	0.35	**0.35**	0.00	0.00
7	RATNAGIRI CCPP	1967.08	MAHARASHTRA	866.13	0.90	7.60	8.50	1.75	0.00	0.00	0.00	0.08	0.43	0.51	**0.51**	0.00	0.00
	Sub Total	**5624.73**		**2938.35**	**14.43**	**12.06**	**26.49**	**3.75**	**0.00**	**0.00**	**0.00**	**1.44**	**0.80**	**2.24**	**2.24**	**0.00**	**0.00**
B	**State Sector**																
8	I.P.CCPP	270	DELHI	322.78	0.95	0.00	0.95	0.60	0.00	0.00	0.00	0.27	0.00	0.27	**0.27**	0.00	0.00

9	PRAGATI CCGT-III	1500	DELHI	1599.06	1.56	0.93	2.49	0.00	0.80	0.00	0.80	0.01	0.03	0.04	**0.85**	0.00	0.00
10	PRAGATI CCPP	330.4	DELHI	963.50	2.05	0.00	2.05	0.20	0.11	0.00	0.11	0.47	0.00	0.47	**0.58**	0.00	0.00
11	DHOLPUR CCPP	330	RAJASTHAN	10.06	1.50	0.10	1.60	0.00	0.00	0.00	0.00	0.00	0.01	0.01	**0.01**	0.00	0.00
12	DHUVARAN CCPP	594.72	GUJARAT	81.24	0.25	0.44	0.69	0.25	0.00	0.00	0.00	0.00	0.08	0.09	**0.09**	0.00	0.00
13	HAZIRA CCPP EXT	351	GUJARAT	202.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	**0.12**	0.00	0.00
14	PIPAVAV CCPP	702	GUJARAT	90.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07	**0.07**	0.00	0.00
15	UTRAN CCPP	374	GUJARAT	293.11	0.00	1.45	1.45	0.24	0.00	0.00	0.00	0.00	0.23	0.23	**0.23**	0.00	0.00
16	URAN CCPP	672	MAHARASHTRA	2725.57	3.50	1.40	4.90	0.00	1.84	0.00	1.84	0.00	0.00	0.00	**1.84**	0.00	0.00
17	JEGURUPADU CCPP PH I	235.4	ANDHRA PRADESH	0.00	1.10	0.21	1.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
18	YELAHANKA CCPP	370.05	KARNATAKA	732.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.39	**0.39**	0.00	0.00
	Sub total	**5729.57**		**7020.36**	**10.91**	**4.53**	**15.44**	**1.29**	**2.75**	**0.00**	**2.75**	**0.76**	**0.93**	**1.69**	**4.44**	**0.00**	**0.00**
B	**Private Sector**																
19	GAMA CCPP	225	UTTARAKHAND	157.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	**0.09**	0.00	0.00
20	SRAVANTHI CCPP	439	UTTARAKHAND	319.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.18	**0.18**	0.00	0.00
21	ESSAR CCPP	515	GUJARAT	0.00	0.00	1.17	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
22	SUGEN CCPP	1147.5	GUJARAT	2709.65	0.90	3.31	4.21	1.14	0.00	0.02	0.02	0.05	1.36	1.41	**1.43**	0.00	0.00
23	UNOSUGEN CCPP	382.5	GUJARAT	389.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.20	**0.20**	0.00	0.00
24	DGEN MEGA CCPP	1200	GUJARAT	1128.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.51	0.63	**0.63**	0.00	0.00
25	TROMBAY CCPP	180	MAHARASHTRA	1075.83	1.50	0.00	1.50	1.00	0.71	0.00	0.71	0.00	0.00	0.00	**0.71**	0.00	0.00
26	GREL CCPP (Rajahmundry)	768	ANDHRA PRADESH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
27	KONDAPALLI EXTN CCPP	366	ANDHRA PRADESH	311.49	0.00	1.46	1.46	0.00	0.02	0.00	0.02	0.00	0.16	0.16	**0.18**	0.00	0.00

28	VEMAGIRI CCPP	370	ANDHRA PRADESH	0.00	1.64	1.48	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
	Sub Total	**5593**		**6091.61**	**4.04**	**7.42**	**11.46**	**2.14**	**0.73**	**0.02**	**0.75**	**0.17**	**2.51**	**2.68**	**3.43**	**0.00**	**0.00**
I	**Pipeline Total (A+B+C)**	**16947.3**		**16050.32**	**29.38**	**24.01**	**53.39**	**7.18**	**3.48**	**0.02**	**3.50**	**2.37**	**4.24**	**6.62**	**10.12**	**0.00**	**0.00**
	Plants Connected with Isolated fields																
A	**Central Sector**																
1	KATHALGURI CCPP	291	ASSAM	1244.18	1.40	0.00	1.40	0.00	1.17	0.00	1.17	0.00	0.00	0.00	**1.17**	0.00	0.00
2	AGARTALA GT	135	TRIPURA	557.12	0.75	0.00	0.75	0.00	0.48	0.00	0.48	0.00	0.00	0.00	**0.48**	0.00	0.00
3	MONARCHAK CCPP	101	TRIPURA	459.32	0.50	0.00	0.50	0.00	0.30	0.00	0.30	0.00	0.00	0.00	**0.30**	0.00	0.00
4	TRIPURA CCPP	726.6	TRIPURA	3880.19	2.65	0.00	2.65	0.00	2.15	0.00	2.15	0.00	0.00	0.00	**2.15**	0.00	0.00
	Sub Total	**1253.6**		**6140.81**	**5.30**	**0.00**	**5.30**	**0.00**	**4.09**	**0.00**	**4.09**	**0.00**	**0.00**	**0.00**	**4.09**	**0.00**	**0.00**
B	**State Sector**																
5	RAMGARH CCPP	273.5	RAJASTHAN	645.99	1.65	0.00	1.65	0.00	0.84	0.00	0.84	0.00	0.00	0.00	**0.84**	0.00	0.23
6	KARAIKAL CCPP	32.5	PUDUCHERRY	184.66	0.20	0.00	0.20	0.00	0.13	0.00	0.13	0.00	0.00	0.00	**0.13**	0.00	0.00
7	KOVIKALPAL CCPP	107.88	TAMIL NADU	0.00	0.45	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
8	KUTTALAM CCPP	100	TAMIL NADU	600.84	0.45	0.00	0.45	0.00	0.34	0.00	0.34	0.00	0.00	0.00	**0.34**	0.00	0.00
9	VALUTHUR CCPP	186.2	TAMIL NADU	643.89	0.89	0.00	0.89	0.00	0.46	0.00	0.46	0.00	0.00	0.00	**0.46**	0.00	0.00
10	LAKWA GT	97.2	ASSAM	383.12	0.50	0.00	0.50	0.00	0.32	0.00	0.32	0.00	0.00	0.00	**0.32**	0.00	0.00
11	LAKWA REPLACEMENT POWER PROJECT	69.755	ASSAM	485.10	0.40	0.00	0.40	0.00	0.31	0.00	0.31	0.00	0.00	0.00	**0.31**	0.00	0.00
12	NAMRUP CCPP	139.4	ASSAM	747.99	0.66	0.00	0.66	0.00	0.49	0.00	0.49	0.00	0.00	0.00	**0.49**	0.00	0.00
13	BARAMURA GT	42	TRIPURA	0.00	0.40	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
14	ROKHIA GT	63	TRIPURA	143.64	0.50	0.00	0.50	0.00	0.18	0.00	0.18	0.00	0.00	0.00	**0.18**	0.00	0.00

	Sub Total	**1111.435**		**3835.23**	**6.10**	**0.00**	**6.10**	**0.00**	**3.07**	**0.00**	**3.07**	**0.00**	**0.00**	**0.00**	**3.07**	**0.00**	**0.23**
C	**Private Sector**																
15	P.NALLUR CCPP	330.5	TAMIL NADU	0.00	1.50	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00	0.00
	Sub Total	**330.5**		**0.00**	**1.50**	**0.00**	**1.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
II	**Total Isolated (A+B+C)**	**2695.5**		**9976.0**	**12.90**	**0.0**	**12.90**	**0.0**	**7.17**	**0.0**	**7.2**	**0.0**	**0.0**	**0.0**	**7.17**	**0.00**	**0.23**
	GRAND TOTAL=I+II	**19642.84**		**26026.36**	**42.28**	**24.01**	**66.29**	**7.18**	**10.65**	**0.02**	**10.67**	**2.37**	**4.24**	**6.62**	**17.29**	**0.00**	**0.23**

Gas Consumed/Supplied v/s Gas Allotted Summary:

Gas based Plants	**Installed Capacity (MW)**	**Generation (MU)**	**Domestic Gas Allotted (MMSCMD)**			**RLNG (Imported)- Long Term Contracts**	**Gas Consumed/Supplied (MMSCMD)**							**Cumulative PLF (%)**
			APM /Non-APM/ PMT	**KGD-6 (Firm)**	**Total**		**Domestic**			**RLNG (Imported)**			**TOTAL**	
							APM /Non APM/ PMT	**KGD-6 / Auctioned Domestic Gas**	**Total**	**Long Term**	**SPOT**	**Total**		
Plants connected with gas grid	16947.3	16050.32	29.38	24.01	**53.39**	7.18	3.48	0.02	3.50	2.37	4.24	**6.62**	10.12	11%
Plants Connected with Isolated fields	2695.5	9976.0	12.9	0.0	**12.9**	0.0	7.2	0.0	7.2	0.0	0.0	**0.0**	7.2	42%

Total	19642.84	**26026.32**	**42.28**	**24.01**	**66.29**	**7.18**	**10.65**	**0.02**	**10.67**	**2.37**	**4.24**	**6.62**	**17.29**	**15%**

APM: Administerd price mechanism, RLNG: Regasified liquefied natural gas, LT: Long term
MMSCM- Million Metric Standard Cubic Meters, MMSCMD - Million Metric Standard Cubic Metres/day=MMSCM/ (No. of Days in a month)
MU -- Million Unit, KL-- Kilo Litre, (KL=1.35*MT),

HSD -- High Speed Diesel

Essar CCPP: Out of total 515 MW capacity, 300 MW electricity is being supplied to grid & balance 215 MW is used as captive geneartion.

Annexure-6D

KEY OBSERVATIONS OF COMPREHENSIVE FIELD-BASED STUDY AT VARIOUS SIDING OF COAL COMPANIES

S. No.	Subsidiary / Mine	Name of TPP	Name of Lab	Loading End		Unloading End		Grade Slippage	Sampling at Loading End	Sampling at Unloading End
				GCV (kcal/kg)	Grade	GCV (kcal/kg)	Grade			
1	BCCL / Bastacola	Maithon TPP#	NML Jamshedpur	4795	G9	4067	G11	2	Manual (Top)	Manual (Top)
2		**Mejia TPP**		**5261**	**G7**	**3444**	**G13**	**6**	**Manual (Top)**	**Manual (Bottom)**
3		**DPL**		**5142**	**G8**	**3815**	**G12**	**4**	**Manual (Top)**	**Manual (Bottom)**
4	CCL / Amrapali	**Rosa TPP**	**NML / NCCBM**	**3670**	**G13**	**3579**	**G13**	**0**	**Manual (Top)**	**Manual (Top)**
5		**Harduaganj TPP**		**3826**	**G12**	**3410**	**G13**	**1**	**Manual (Top)**	**Manual (Top)**
6		NTPC Dadri#		4293	G11	Rake Diverted to Khargone			Manual (Top)	–
7	SECL / Chirimiri	Sanjay Gandhi TPS	MECL Nagpur	4981	G8	4787	G9	1	Manual (Top)	Manual (Top)
8		**Mouda TPP**		**5709**	**G6**	**4776**	**G9**	**3**	**Manual (Top)**	**Mechanized (Auger)**
9		**Koradi TPP#**		**5551**	**G6**	**4606**	**G9**	**3**	**Manual (Top)**	**Mechanized (Auger)**

*Mechanised Augur, ** Rake Diverted, # BIS sampling: 25% wagons in a Rake

10	MCL / Lingraj	NTPC Kaniha#	IICT Hyderabad	4415	G10	4290	G11	1	Manual (Top)	Manual (Top)
11		NTPC Simhadri*		3821	G12	3188	G14	2	AMS from Belt	Manual (Bottom)
12		GMR Kamalanga*		3768	G12	3011	G15	3	AMS from Belt	Manual (Bottom)
13	SCCL / Ramagundem	Singareni TPP	IICT Hyderabad	3935	G12	4090	G11	-1	Manual (Belt)	Manual (Belt)
14		N Tata Rao#		4063	G11	3883	G12	1	Manual (Belt)	Manual (Top)
15		Kothagudem TPP		3551	G13	3662	G13	0	Manual (Belt)	Manual (Top)

Annexure-9A

Annexure-9A

CENTRAL ELECTRICITY AUTHORITY
FINANCIAL STUDIES & ASSISTANCE DIVISION
STATEMENT SHOWING ESTIMATED AVERAGE RATES OF ELECTRICITY (FY 2024-25)

(Rates in Paise/KWh)

S. No.	Name of State/Utility	Tariff effective from	Domestic			Commercial			Agriculture			Small Industry	Medium Industry	Large Industry	Heavy Industry	Heavy Industry	Railway Traction
			1KW (100 KWh/ Month)	4KW (400 KWh/ Month)	10KW (1000 KWh/ Month)	2KW (300 KWh/ Month)	10KW (1500 KWh/ Month)	30KW (4500 KWh/ Month)	50KW (7500 KWh/ Month)	2HP (400 KWh/ Month)	5HP (1000 KWh/ Month)	10HP (2000 KWh/ Month)	10KW (1500 KWh/ Month)	(7500 KWh/ Month)	(11KV) 1000KW 60%L.F. (438000 KWh/ Month)	(11KV) 10000KW 60%L.F. (4380000 KWh/ Month)	(33KV) 20000KW 60%L.F. (8760000 KWh/ Month)	12500KW (2500000 KWh/ Month)
1	Andaman & Nicobar Islands	16.06.2024	355.00	755.00	990.00	1129.00	1609.00	1811.00	1851.00	250.00	250.00	250.00	1197.00	1364.00	1318.00	1319.00	1319.00	-
2	Andhra Pradesh	01.04.2024	321.00	653.00	856.00	971.00	1119.00	1150.00	1156.00	450.00 #	450.00 #	450.00 #	820.00	820.00	877.00	877.00	830.00	868.00
3	Arunachal Pradesh	01.07.2024	400.00	400.00	400.00	500.00	500.00	500.00	500.00	310.00	310.00	310.00	430.00	430.00	385.00	385.00	350.00	-
4	Assam	01.07.2024	807.00	941.00	991.00	1070.00	1070.00	1148.00	1148.00	691.00	691.00	691.00	800.00 U	998.00	935.00	935.00	923.00	1042.00
5	Bihar	01.04.2024	871.00 U	993.00 U	1017.00 U	1116.00 U	1150.00 U	1156.00 U	1157.00 U	729.00	729.00	729.00	1144.00	1200.00	1067.00	-	1051.00 at 132kV	1207.00 at 132 kV
			858.00 R	879.00 R	883.00 R	898.00 R	910.00 R	912.00 R	912.00 R									
6	Chandigarh	01.08.2024	314.00	442.00	524.00	504.00	647.00	670.00	674.00	285.00	285.00	285.00	494.00	621.00	501.00	587.00	486.00	-
7	Chhattisgarh	01.06.2024	463.00	557.00	750.00	829.00	1035.00	1050.00	1050.00	580.00	580.00	580.00	688.00	793.00	987.00	987.00	939.00	792.00
8	Dadra & Nagar Haveli and Daman &	16.06.2024	183.00	268.00	335.00	452.00	481.00	486.00	487.00	100.00	100.00	100.00	476.00	547.00	634.00	634.00	-	-
9	Delhi (BYPL/BRPL/TPDDL)	01.10.2021	335.00	444.00	678.00	885.00	1177.00	1177.00	1177.00	204.00	204.00	204.00	1089.00	1089.00	942.00	942.00	933.00	836.00
10	Delhi (NDMC)	01.10.2021	335.00	444.00	678.00	885.00	1177.00	1177.00	1177.00	204.00	204.00	204.00	1089.00	1089.00	942.00	942.00	933.00	836.00
11	Goa	16.06.2024	230.00	373.00	521.00	555.00	648.00	683.00	686.00	184.00	184.00	184.00	558.00	575.00	706.00	706.00	706.00	778.00 at 110/220 kV
12	Gujarat	01.06.2024	394.00 U	505.00 U	566.00 U	562.00	562.00	617.00	630.00	90.00	90.00	90.00	515.00	578.00	551.00	626.00	630.00	600.00 at 132 kV
			325.00 R	433.00 R	494.00 R													
13	Gujarat-Torrent Power Ltd.	01.06.2024	440.00	511.00	554.00	608.00	624.00	716.00	716.00	340.00	340.00	340.00	572.00	656.00	600.00	600.00	-	-
14	Gujarat-Torrent Power Ltd. (Surat)	01.06.2024	423.00	507.00	556.00	578.00	578.00	720.00	720.00	70.00	70.00	70.00	530.00	660.00	624.00	624.00	-	-
15	Haryana	01.04.2024	240.00	490.00	734.00	730.00	730.00	844.00	844.00	648.00	648.00	648.00	730.00	844.00	806.00	806.00	795.00	857.00 at 11kV
16	Himachal Pradesh	01.04.2024	672.00	643.00	649.00	799.00	760.00	887.00	887.00	599.00	584.00	578.00	632.00	816.00	832.00	832.00	832.00	1019.00 at 66 kV
17	Jammu & Kashmir	01.12.2023	238.00	323.00	395.00	457.00	790.00	790.00	790.00	100.00	100.00	100.00	541.00	541.00	529.00	529.00	518.00	812.00 at 11/33 kV
18	Jharkhand	01.10.2024	805.00 U	730.00 U	715.00 U	738.00 U	838.00 U	838.00 U	838.00 U	555.00	555.00	555.00	872.00	872.00	851.00	899.00	875.00	894.00
			743.00 R	687.00 R	675.00 R	693.00 R	727.00 R	727.00 R	727.00 R									
19	Karnataka	01.04.2024	763.00	763.00	763.00	1012.00	1012.00	1012.00	1012.00	0.00	0.00	0.00	790.00	790.00	838.00	838.00	836.00	897.00
20	Kerala	05.12.2024	485.00	911.00	1019.00	798.00	1097.00	1161.00	1161.00	266.00	266.00	266.00	653.00	810.00	756.00	756.00	756.00	776.00 at 110 kV
21	Ladakh	01.07.2024	265.00	357.00	440.00	492.00	847.00	847.00	847.00	135.00	135.00	135.00	579.00	579.00	572.00	572.00	565.00	-
22	Lakshadweep	16.06.2024	325.00	588.00	760.00	1240.00	1467.00	1504.00	1512.00	-	-	-	1048.00	1048.00	1366.00	1366.00	-	-
23	Madhya Pradesh	01.04.2024	653.00 U	983.00 U	1048.00 U	863.00 U	866.00 U	958.00 U	958.00 U	553.00	610.00	636.00	952.00 U	952.00 U	837.00	837.00	894.00	783.00 at 132/220kV
			628.00 R	972.00 R	1037.00 R	840.00 R	843.00 R	927.00 R	928.00 R				868.00 R	868.00 R				
24	Maharashtra	01.04.2024	831.00	1328.00	1747.00	1400.00	1233.00	2198.00	2198.00	482.00	482.00	482.00	849.00	1239.00	1239.00 B	1239.00 B	1239.00	1208.00
															1277.00 C	1277.00 C		
25	Mumbai (B.E.S.T)	01.04.2024	576.00	942.00	1324.00	1321.00	1167.00	1342.00	1342.00	472.00	472.00	472.00	1003.00	1280.00	1032.00	1032.00	-	1016.00 at 33/11kV
26	Mumbai (Adani Electricity)	01.04.2024	797.00	977.00	1145.00	1236.00	1083.00	1433.00	1433.00	713.00	713.00	713.00	971.00	1272.00	1062.00	1062.00	-	1032.00 at 33/11kV
27	Mumbai (TATA'S)	01.04.2024	888.00	1133.00	1358.00	1488.00	1334.00	1655.00	1655.00	-	-	-	1152.00	1452.00	1266.00	1266.00	-	1250.00 at 33/11kV
28	Manipur	16.06.2024	575.00	679.00	716.00	772.00	812.00	818.00	820.00	479.00	479.00	479.00	607.00	967.00	1038.00	1038.00	-	-
29	Mizoram	01.04.2024	540.00	760.00	826.00	886.00	896.00	898.00	898.00	399.00	399.00	399.00	833.00	853.00	1086.00	1086.00	-	-
30	Meghalaya	01.06.2024	485.00	608.00	666.00	793.00	822.00	827.00	828.00	401.00	401.00	401.00	809.00	890.00	890.00	890.00	857.00	-
31	Nagaland	01.04.2024	595.00	683.00	720.00	883.00	929.00	936.00	938.00	350.00	350.00	350.00	717.00	748.00	784.00	785.00	-	-
32	Odisha	01.04.2024	415.00	537.00	608.00	710.00	790.00	804.00	806.00	161.00	158.00	158.00	677.00	723.00	720.00	720.00	695.00	724.00 at 33/22 kV
33	Puducherry	16.06.2024	305.00	540.00	687.00	816.00	894.00	907.00	909.00	0.00 S	0.00 S	0.00 S	767.00	767.00	781.00	-	832.00	at 110/132k -
34	Punjab	16.06.2024	541.00	814.00	959.00	853.00	935.00	956.00	956.00	670.00 WS	670.00 WS	670.00 WS	823.00	906.00	921.00	948.00	948.00	997.00 at 132 kV
35	Rajasthan	01.08.2024	853.00	844.00	850.00	1035.00	1056.00	1177.00	1179.00	574.00	574.00	574.00	802.00	881.00	771.00	-	771.00	718.00
36	Sikkim	01.04.2024	160.00	298.00	365.00	493.00	609.00	704.00	708.00	-	-	-	691.00 U	748.00	909.00	909.00	-	-
37	Tamil Nadu	01.07.2024	118.00	596.00	921.00	1141.00	1141.00	1141.00	1141.00	0.00	0.00	0.00	741.00	883.00	918.00	918.00	918.00	1131.00
38	Telangana	01.11.2024	339.00	719.00	921.00	1031.00	1144.00	1163.00	1167.00	258.00 $	253.00 $	252.00 $	849.00	859.00	932.00	931.00	879.00	795.00 at 33 kV
39	Tripura	01.08.2024	634.00	742.00	931.00	825.00	936.00	936.00	936.00	482.00	482.00	621.00	888.00	919.00	-	-	-	969.00
40	Uttarakhand	01.04.2024	430.00	643.00	773.00	833.00	833.00	980.00	980.00	255.00	255.00	255.00	810.00	810.00	942.00	942.00	942.00	971.00
41	Uttar Pradesh	17.10.2024	693.00 U	739.00 U	774.00 U	1043.00 U	1174.00 U	1233.00 U	1245.00 U	665.00 U	665.00 U	665.00 U	993.00 U	993.00 U	985.00 U	985.00 U	944.00	1235.00 Below 132 KV
			446.00 R	574.00 R	633.00 R	670.00 R	670.00 R	670.00 R	670.00 R	235.00 R	235.00 R	235.00 R	918.00 R	918.00 R	911.00 R	911.00 R		1235.00 132 kV & above
42	West Bengal (WBSEDCL)	01.04.2024	654.00 U	879.00 U	982.00 U	905.00 U	1060.00 U	1079.00 U	1083.00 U	491.00	491.00	491.00	773.00 U	925.00 U	924.00	924.00	904.00	935.00
			641.00 R	871.00 R	979.00 R	905.00 R	1060.00 R	1079.00 R	1083.00 R				753.00 R	897.00 R				
43	D.V.C. Jharkhand Area	01.10.2024	531.00	475.00	463.00	556.00	556.00	556.00	556.00	315.00	315.00	315.00	641.00	641.00	622.00	655.00	638.00	671.00

B : General Industry C : Seasonal Industry U : Urban R : Rural

WS: Without Subsidy # Without Demand side management measures $ For Corporate Farmers S : With Subsidy

Tariffs notified have varying parameters for various categories of consumers. The above comparision is based on certain assumed loads and electricity consumption levels in a month.

Approvals granted by Designated Authority for Import/Export (Cross Border) of Electricity during 2025-26

All India Sector wise/ Utility-wise Program, Actual Generation & PLF (%) for the year 2025-26

Category /	APRIL 2025 - MAR-2026		
	PROGRAM (MU)	ACTUAL (MU)	PLF %
THERMAL			
CENTRAL SECTOR			
APCPL	8600.00	7434.66	56.58
BRBCL	7200.00	6090.01	69.52
DVC	45950.00	39720.57	69.33
JHAPL	3700.00	3909.11	74.37
K.B.U.N.L	2900.00	2482.53	72.67
MUNPL	9400.00	7744.56	66.98
NEEPCO.	3280.00	2260.62	
NLC	22190.00	16939.02	53.12
NPGCL	14150.00	12934.88	74.57
NSPCL	3800.00	3578.58	81.70
NTECL	9700.00	7990.93	60.81
NTPC Ltd.	373800.00	331375.01	71.39
NTPL	7000.00	5278.21	60.25
NUPPL	6900.00	4467.84	57.10
ONGC	4100.00	3880.19	
PVUNL	3600.00	2104.80	65.64
RGPPL	1945.00	866.13	
SJVNL	3700.00	1123.11	48.23
THDC	5300.00	6496.02	73.76

Grand Total	**537215.00**	**466676.78**	**69.50**
STATE SECTOR	**489227**	**391024.14**	**58.10**
PVT SECTOR	**19970**	**17473.17**	**61.92**
IPP SECTOR	**457250**	**431956.52**	**68.15**
TOTAL THERMAL	**1503662**	**1307130.61**	**65.18**
NUCLEAR			
CENTRAL SECTOR			
BHAVINI	0	0	0
DAE	0	0	0
NPCIL	56592	55190.52	71.98
CENTRAL SECTOR	**56592**	**55190.52**	**71.98**
TOTAL NUCLEAR	**56592**	**55190.52**	**71.98**
HYDRO			
CENTRAL SECTOR			
BBMB	9600.00	11173.34	
DVC	217.00	331.33	
NEEPCO.	5775.00	5832.25	
NHDC	4192.00	6017.29	
NHPC	28786.00	22761.38	
NTPC Ltd.	3100.00	3612.84	

SJVNL	9227.00	9914.64	
THDC	5240.00	6102.16	
CENTRAL SECTOR	**66137.00**	**65745.23**	
STATE SECTOR	**71074**	**82901.94**	
PVT SECTOR	**1480**	**1522.22**	
IPP SECTOR	**16983**	**17034.39**	
TOTAL HYDRO	**155674**	**167203.78**	
BHUTAN IMP			
	9472	**7831.24**	
ALL INDIA TOTAL	**1725400**	**1537356.15**	

Note: PLF is calculated for Coal & Lignite based power station only. Based on 2025-26 Actual Generation (Up to March, 25) from conventional sources Thermal/Hydro/Nuclear) with station capacity > 25 MW