25

STANDING COMMITTEE ON ENERGY

(2021-22)

SEVENTEENTH LOK SABHA

MINISTRY OF POWER

DEMANDS FOR GRANTS
2022-23

TWENTY-FIFTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

March, 2022/ Phalguna, 1943 (Saka)

TWENTY-FIFTH REPORT

STANDING COMMITTEE ON ENERGY
(2021-22)

(SEVENTEENTH LOK SABHA)

MINISTRY OF POWER

DEMANDS FOR GRANTS
(2022-23)

Presented to Lok Sabha on 22.03.2022

Laid in Rajya Sabha on 22.03.2022

LOK SABHA SECRETARIAT
NEW DELHI

March, 2022/Phalguna, 1943 (Saka)

COE NO. 349

Price: **Rs.....**

© 2022 by Lok Sabha Secretariat

Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Sixteenth Edition) and Printed by

CONTENTS

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

*****

Shri Rajiv Ranjan Singh *alias* Lalan Singh – *Chairperson*

MEMBERS
LOK SABHA

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

RAJYA SABHA

22 Shri Ajit Kumar Bhuyan
23 Shri T. K. S. Elangovan
24 Shri Rajendra Gehlot*
25 Shri Muzibulla Khan
26 Shri Maharaja Sanajaoba Leishemba
27 Shri S.Selvaganabathy*
28 Shri Sanjay Seth
29 Dr. Sudhanshu Trivedi
30 Shri K.T.S. Tulsi
31 Vacant $

SECRETARIAT

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

---

^ Nominated as Member of the Committee *w.e.f* 01.12.2021 *vice* Smt. Sajda Ahmed.
@ Nominated as Member of the Committee *w.e.f* 07.02.2022*vice* Shri Ramesh Chander Kaushik.
# Vacant since constitution of the Committee
* Nominated as Member of the Committee *w.e.f.* 11.11.2021
$ Shri Jugalsinh Lokhandwala resigned from the membership of the Committee w.e.f. 02.12.2021

List of abbreviations

AB	Aerial Bundled
ACS	Average Cost of Supply
AI	Artificial Intelligence
AMI	Advanced Metering Infrastructure
APDRP	Accelerated Power Development Reform Programme
APTEL	Appellate Tribunal for Electricity
ARR	Average Revenue Realized
AT&C	Aggregated Transmission and Commercial
BBMB	Bhakra Beas Management Board
BE	Budgetary Estimate
BEE	Bureau of Energy Efficiency
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CKM	Circuit Kilo Meter
COVID	Corona Virus Disease
CPRI	Central Power Research Institute
CPSU	Central Public Sector Undertaking
CTU	Central Transmission Utility
CVPPL	Chenab Valley Power Projects (P) Ltd.
DDUGJY	Deendayal Upadhyaya Gram Jyoti Yojana
DISCOM	Distribution Company
DMS	Distribution Management System
DPR	Detailed Project Report
DT	Distribution Transformer
DVC	Damodar Valley Corporation
EAP	Energy Action Plan
EBR	Extra Budgetary Resource
EC	Energy Conservation
ERP	Enterprise Resource Planning
ESCO	Energy Service Company
FRBM	Fiscal Responsibility and Budget Management
FY	Financial Year
GBS	Gross Budgetary Support
GIS	Geographic Information System
GoI	Government of India
HEP	Hydro Electric Project
HT	High Tension

ICT	Information and Communication Technology
IEBR	Internal and Extra Budgetary Resources
IPDS	Integrated Power Development Scheme
IT	Information Technology
J&K	Jammu & Kashmir
JERC	Joint Electricity Regulatory Commission
KV	Kilo Volt
kWp	Kilo Watt Peak
LT	Low Tension
MoP	Ministry of Power
MW	Mega Watt
NEEPCO	North Eastern Electric Power Corporation Limited
NER	North Eastern Region
NERPSIP	North Eastern Region Power System Improvement Project
NPTI	National Power Training Institute
NSGM	National Smart Grid Mission
OT	Operational Technology
PFC	Power Finance Corporation Limited
PGCIL	Power Grid Corporation of India Limited
PMDP	Prime Minister Development Package
POSOCO	Power System Operation Corporation
PSDF	Power System Development Fund
PSU	Public Sector Undertaking
R-APDRP	Restructure-Accelerated Power Development Reform Programme
RDSS	Revamped Reforms-based and Results-linked, Distribution Sector Scheme
RE	Revised Estimate
ROSHANEE	Roadmap of Sustainable and Holistic Approach to National Energy Efficiency
SCADA	Supervisory Control and Data Acquisition
SDMC	South Delhi Municipal Corporation
SDA	State Designated Agency
SDL	State Development Loan
SLDC	State Load Despatch Centres
UDAY	Ujwal DISCOM Assurance Yojana
UG	Under Ground
UTs	Union Territories

INTRODUCTION

I, the Chairperson, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Twenty-Fifth Report on Demands for Grants (2022-23) of the Ministry of Power.

2. The Committee examined the Demands for Grants under Rule 331E (1) (a) of the Rules of Procedure and Conduct of Business in Lok Sabha.

3. The Committee took oral evidence of the representatives of the Ministry of Power on 22nd February, 2022. The Committee wish to express their thanks to the representatives of the Ministry for appearing before the Committee for evidence and furnishing the information desired by the Committee in connection with the issues relating to the subject.

4. The Report was considered and adopted by the Committee at their sitting held on 15th March, 2022.

5. The Committee place on record their appreciation of the assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

6. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in Part-II of the Report.

NEW DELHI
15th March, 2022
Phalguna 24, 1943 (Saka)

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

REPORT

PART-I

NARRATION ANALYSIS

I. INTRODUCTORY

1.1 Electricity is a concurrent subject at Entry 38 in List III of the seventh Schedule of the Constitution of India. The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry's responsibility *inter-alia* includes prospective planning, policy formulation, processing of projects for investment decision, monitoring of the implementation of power projects, training and manpower development and the administration and enactment of legislation in regard to thermal, hydro power generation, transmission and distribution.

1.2 The main items of work dealt with by the Ministry of Power are as given below:

- General Policy in the electric power sector and issues relating to energy policy and coordination thereof. (Details of short, medium and long-term policies in terms of formulation, acceptance, implementation and review of such policies, cutting across sectors, fuels, regions and intra-country and inter-country flows);
- All matters relating to hydro-electric power (except small/mini/micro hydel projects of and below 25 MW capacity), thermal power and transmission & distribution system network;
- Research, development and technical assistance relating to hydro-electric and thermal power, transmission system network and distribution systems in the States/UTs;
- Administration of the Electricity Act, 2003, (36 of 2003), the Energy Conservation Act, 2001 (52 of 2001), the Damodar Valley Corporation Act, 1948 (14 of 1948) and the Bhakra Beas Management Board as provided in the Punjab Reorganisation Act, 1966 (31 of 1966);

- All matters relating to the Central Electricity Authority, Appellate Tribunal for Electricity and Central Electricity Regulatory Commission;
- Rural Electrification;
- Power schemes and issues relating to power supply/development schemes/programmes/decentralized and distributed generation in the States and Union Territories;
- Matters relating to the following Undertakings/Organizations:
  (a) Damodar Valley Corporation (DVC);
  (b) Bhakra Beas Management Board (except matters relating to irrigation);
  (c) National Thermal Power Corporation Limited (NTPC);
  (d) National Hydro-electric Power Corporation Limited (NHPC);
  (e) Rural Electrification Corporation Limited (REC);
  (f) North Eastern Electric Power Corporation Limited (NEEPCO);
  (g) Power Grid Corporation of India Limited (PGCIL);
  (h) Power Finance Corporation Limited (PFC);
  (i) THDC India Limited;
  (j) SJVN Limited;
  (k) Central Power Research Institute (CPRI);
  (l) National Power Training Institute (NPTI); and
  (m) Bureau of Energy Efficiency (BEE).

- All matters concerning energy conservation and energy efficiency pertaining to the Power Sector.

1.3 In all technical and economic matters, the Ministry of Power is assisted by the Central Electricity Authority (CEA). While the Authority (CEA) is a Statutory Body constituted under section 3 of the repealed Electricity (Supply) Act, 1948 and continued under section 70 of the Electricity Act, 2003, where similar provisions exist, the office of the CEA is an "Attached Office" of the Ministry of Power. The CEA is responsible for technical coordination and supervision of programmes and is entrusted with a number of statutory functions. The CEA is headed by a Chairperson, who is also ex-officio Secretary to the Government of India, and comprises six full time Members of the rank of Ex-officio Additional

Secretaries to the Government of India. They are designated as Member (Thermal), Member (Hydro), Member (Economic & Commercial), Member (Power System), Member (Planning) and Member (Grid Operation and Distribution). 14 subordinate offices are functioning under the control of the Central Electricity Authority. The Ministry of Power has a monitoring system for capacity addition programmes for timely execution of the cleared projects. The monitoring mechanism operates at 3 broad levels, *viz.* by the Central Electricity Authority, by the Ministry of Power and through the Power Project Monitoring Panel (PPMP).

1.4 The National Electricity Policy, which has been evolved in consultation with and taking into account the views of the State Governments, the Central Electricity Authority (CEA), the Central Electricity Regulatory Commission (CERC) and other stakeholders, aims at laying guidelines for accelerated development of the power sector, providing supply of electricity to all areas and protecting the interests of consumers and other stakeholders, keeping in view the availability of energy resources, technology available to exploit these resources, economics of generation using different resources, and energy security issues.

II. ANALYSIS OF DEMANDS FOR GRANTS (2022-23)

2.1 Article 113 of the Constitution mandates that the estimates of expenditure from the Consolidated Fund of India included in the Annual Financial Statement and required to be voted by the Lok Sabha, be submitted in the form of Demands for Grants. The Demands for Grants are presented to the Lok Sabha along with the Annual Financial Statement. Generally, one Demand for Grant is presented in respect of each Ministry or Department. The Demands for Grants of the Ministry of Power (**Demand No. 79**) was laid on 10th February, 2022.

2.2 The Demands show a budgetary provision of GBS of Rs. 16,074.74 crore. The Central Plan Outlay, including IEBR, i.e. Rs. 51,470.14 crore, however, stands at Rs. 67,544.88 crore. The scheme-wise Demands for Grants of the Ministry are given as **Annexure-I**.

2.3 The Ministry of Power, however, had sought an outlay of Rs. 23,949.99 crore (GBS component). The details of funds demanded by the Ministry of Power and funds allocated by the Ministry of Finance are as follows:

(Rs. in crore)

S.No	Name of the scheme	Requirement in BE 2022-23 by M/o Power	Final BE 2022-23 allocation as per ceiling
1	Energy Conservation	80.00	60.00
2	Payment to SDMC- Badarpur thermal Power Station	16.08	16.08
3	Payment pertaining to International Arbitration case	28.00	28.00
4	Reimbursement of Claim for any expenditure already incurred by NTPC on Lohari Nagpala Hydro Power Projects	104.40	104.40
5	Advance ultra supercritical plant in sipat, chattisgarh	0.01	0.01
6	Deen Dayal Upadhyaya Gram Jyoti Yojna	0.00	0.00
7	Integrated Power Development Scheme (IPDS)	0.00	0.00
8	Reform Linked Distribution Scheme	13,190.00	7,565.59
9	Smart Grid	35.73	35.73
10	Interest Subsidy to National Electricity Fund	750.00	582.89

S.No	Name of the scheme	Requirement in BE 2022-23 by M/o Power	Final BE 2022-23 allocation as per ceiling
11	GoI fully service bond- issue expenditure and interest (PFC Bonds)	376.40	376.40
12	GoI fully service bond- issue expenditure and interest (REC Bonds)	1,986.57	1,986.52
13	Support for Flood moderation storage Hydro Electric Projects	80.00	0.00
14	Support for Cost of Enabling Infrastructure i.e., roads/ bridge	0.01	0.00
15	Central assistance for Pakul Dul HEP under J&K PMDP 2015 as grant and loan to Chenab Valley power projects pvt limited (CVPPPL)	1,455.98	1,455.98
16	Grant towards cost of Downstream protection work of Subansiri Lower project (NHPC)	56.98	56.98
17	Green Energy Corridor	13.11	13.11
18	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim	944.00	644.00
19	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	2,667.00	1,700.00
20	Creation of a Central Transmission Utility (CTU)	0.01	0.01
21	Power System Development Fund (PSDF)	1,103.62	604.48
22	Dispute Resolution Authority	0.01	0.00
23	Manufacturing zones under Atma Nirbhar Bharat Package	100.00	100.00
24	Subsidy to Indian shipping companies	10.00	10.00
A	**Total Schemes (Central sector schemes + Other central sector schemes)**	**22,997.91**	**15,340.18**
25	Central Power Research Institute, Bengaluru	382.77	302.77
26	National Power Training Institute (NPTI)	90.00	50.00
27	Bureau of Energy Efficiency	200.00	150.00
28	Secretariat	65.73	56.00
29	APTEL	48.98	41.30
30	JERC	19.49	13.49
31	CERC	205.00	205.00
32	Less: met from CERC fund	-205.00	-205.00
33	CEA	145.11	121.00
B	**Other than Total Schemes**	**952.08**	**734.56**
	Total (A + B)	**23,949.99**	**16,074.74**

2.4 The details of Internal & Extra Budgetary Resources (I&EBR) for the year 2022-23 are given below:

S.No.	Name of the CPSE	TOTAL CAPEX (2021-22)	Exp upto Dec,21	Exp in Jan, 22	Total Exp. upto Jan, 22	% Exp.	CAPEX Target for FY 2022-23
1	**NTPC**	23,736.00	20,528.25	1,557.16	22,085.41	93.04	22,454.00
2	**PGCIL**	7,500.00	6,795.00	735.00	7,530.00	100.40	7,500.00
3	**NHPC**	8,057.44	3,906.23	307.04	4,213.27	52.29	7,361.05
4	**SJVNL**	5,000.00	4,509.62	231.26	4,740.88	94.81	8,000.00
5	**THDC**	2,730.00	2,330.99	207.51	2,538.50	92.98	3,207.54
6	**NEEPCO**	810.02	354.96	65.90	420.86	51.95	900.81
7	**DVC**	2,857.06	1,970.29	250.23	2,220.52	77.74	2,009.87
8	**POSOCO**	0	0	0	0	0	36.87
	TOTAL	**50,690.52**	**40,395.34**	**3,354.10**	**43,750.04**	**86.31**	**51,470.14**

2.5 The Committee were informed that the internal accruals out of operations (of CPSUs) and borrowings (both domestic and foreign) constitute I&EBR. The CAPEX plan of CPSUs (for generation/transmission projects) is funded substantially through I&EBR. In fact, the budgetary support (to CapEx plan) is provided only to Hydel CPSUs (NHPC, THDC and NEEPCO), that too, on a limited scale. The expenditure under I&EBR is not routed through government budget/demand for grant. It is managed by the Board of the respective PSUs.

2.6 It was further informed that the GBS, on the other hand, is the gross budgetary support/demand for grant provided from out of the Consolidated Fund of India for implementation of various schemes of the Ministry, forming part of the Five Year Plan/Annual Plans. The expenditure under GBS is routed through the Ministry's budget. Further, Extra Budgetary Resources (EBR) is the borrowing raised by the Government entities for the Government Scheme.

2.7 In regard to provisions made under EBR for fiscal 2022-23, the Secretary Power during the evidence on the subject deposed before the Committee as under:

> *"There is no EBR now in the budget. In the previous years, there was an EBR. Now, whatever is to be given by the budget, it is provided in the*

Demand for Grants itself. There are no borrowings outside budget from this year only. It is all CAPEX by the CPSEs."

2.8 When the Committee sought the views of the Ministry of Power regarding less than the demanded fund allocation to them by the Ministry of Finance, the Ministry of Power in their written reply have submitted that in case of any further requirement of funds in any scheme/project, it will be managed by sending a request for additional Budget Allocation to Ministry of Finance at RE stage/ supplementary.

2.9 On being asked by the Committee as to how Demands for Grants (2022-23) of the Ministry of Power is in accordance with the long term planning for the Power Sector, the Ministry of Power has submitted as under:

"The viability of distribution Companies is a serious concern. Ministry of Power, the Government of India has notified the Revamped Distribution Sector Schemes – A Reforms based and Results linked Scheme" with the objective of improving the quality and reliability of power supply to consumers through a financially sustainable and operationally efficient distribution Sector. The total outlay of the Scheme is Rs.305984 crore to achieve the long term targets. The objectives of this scheme will be to further strengthen the Sub-transmission and Distribution network, ensure quality power supply to all domestic and industrial customers, reduction in national ACS-ARR gap to zero by 2024-25. The total funds have been provisioned for the Budget Estimate of FY 2022-23 is Rs.7,565.59 crore. Also, strengthening of the transmission and distribution network in the north eastern region is another priority of the power sector. So, provisions of the budget are in tune with the long term objectives and planning of the power sector."

2.10 The Ministry of Power has allocated Rs. 100 crore for the year 2022-23 for Manufacturing Zones under *Atmanirbhar Bharat* Package. When the Committee desired to know more about this, the Secretary Power apprised the Committee as under:

"This scheme earlier proposed three manufacturing zones. The Ministry of Finance has agreed us to take up one pilot project as one manufacturing zone initially. Depending on its experience, we will consider two zones further. The SFC has approved one manufacturing zone's template. This is a scheme which is being implemented jointly with MNRE with budget provision in the Ministry of Power's budget. For one zone we have kept the Budget of Rs.400 crore. First year we have requested Rs.100 crore. We have devised the marketing criteria. In the next one month we will float the request for proposal from States. States will be able to propose their industrial parks and industrial areas where they will give the land. At what rate they will give the land, what will be the rate for power supply, other facilities, and based on the criteria which has been now decided and which will be floated again with the request for proposal, we will rate the proposals and the best proposal will be awarded this scheme of one manufacturing zone. We intend to use this zone for manufacturing of renewable energy related equipment and in power sector the transmission and distribution related equipment."

III. ANALYSIS OF PAST FINANCIAL PERFORMANCE OF THE MINISTRY

3.1 The Ministry of Power was allocated Rs. 15,874.82 for 2020-21. Scheme-wise details of BE, RE and the actual expenditure (upto 31.01.2021) are given below:

(Rs. in crore)

S. N.	Name of Scheme	2020-21				2021-22			
		BE	RE	Actual	% of BE	BE	RE	Actual upto 15.02.2022	% of BE
	Central Sector Schemes (A)								
1	Integrated Power Development Scheme	5300.0	4000.0	3962.8	**74.8**	5300.0	3574.1	2834.7	**53.5**
2	Deen Dayal Upadhyaya Gram Jyoti Yojana	4500.0	2000.0	1984.8	**44.1**	3600.0	3103.3	2871.4	**79.8**
3	Central Power Research Institute	200.0	80.0	80.0	**40.0**	180.0	120.0	110.0	**61.1**
4	Bureau of Energy Efficiency	103.4	56.3	56.0	**54.2**	117.8	117.8	61.5	**52.2**
5	Interest Subsidy to National Electricity Fund	200.0	200.0	200.0	**100.0**	200.0	1000.0	1000.0	**500.0**
6	Strengthening of Transmission System in Arunachal Pradesh & Sikkim	800.0	300.0	300.0	**37.5**	600.0	1600.0	890.0	**148.3**
7	Power System improvement in North Eastern States excluding Arunachal Pradesh and Sikkim	770.0	281.0	281.0	**36.5**	600.0	675.0	530.0	**88.3**
8	Power System Development Fund	574.2	824.2	821.4	**143.1**	574.2	574.2	434.6	**75.7**
9	Payment to SDMC-Badarpur Thermal Power Station	0.0	32.2	32.2		16.1	16.1	3.6	**22.3**
10	Creation of a Central Transmission Utility (CTU)	0.0	8.0	0.0		30.0	0.1	0.0	**0.0**
11	Central Assistance for Pakal Dul HEP under J and K PMDP 2015 Project as grant to Chenab Valley Power Projects Private Limited(CVPPL)	373.7	203.7	203.7	**54.5**	602.5	764.0	602.5	**100.0**

12	Interest Payment and issuing expenses on the bond (PFC Bonds)	376.4	376.4	376.4	**100.0**	376.4	376.4	243.4	**64.7**
13	Interest Payment and issuing expenses on the bond (REC Bonds)	1920.9	1920.9	1920.8	**100.0**	2416.0	1945.0	1285.8	**53.2**
14	Lohari Nagpala-reimbursement to NTPC	104.4	60.7	60.7	**58.2**	104.4	43.3	11.2	**10.8**
15	Grant towards cost of Down Stream protection work of Subansiri Lower project (NHPC)	0.0	105.0	0.0	**0.0**	145.0	74.1	74.1	**51.1**
16	Payment to Law Firm (P&A Associates)	28.0	8.4	4.2	**14.9**	28.0	12.0	9.8	**35.1**
17	Establishment expenditure (Secretariat, CEA, APTEL and JERC)	209.3	211.4	211.4	**101.0**	226.6	210.1	164.3	**72.5**
18	National Power Training Institute	82.3	26.0	18.5	**22.4**	70.0	30.0	12.0	**17.1**
19	Energy Conservation	110.0	37.0	5.0	**4.6**	80.0	40.0	0.0	**0.0**
20	National Hydro Power Corporation -Loan	84.3	65.3	65.3	**77.5**	0.0	0.0	0.0	**0.0**
21	Green Energy Corridors	33.0	18.7	18.7	**56.6**	15.0	18.2	9.1	**60.7**
22	Smart Grid	40.0	20.0	16.1	**40.2**	40.0	28.4	2.2	**5.6**
23	Support for cost of enabling infrastructure i.e. roads/bridge	65.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
24	Reforms linked Distribution Scheme	0.0	0.0	0.0	**0.0**	0.0	1000.0	0.0	**0.0**
25	Manufacturing Zones under *AtmanirbharBharat* Package	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
26	Advance ultra supercritical plant in Sipat, Chhattisgarh	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
27	Subsidy to Indian Shipping companies	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
28	Support for Flood Moderation Storage-Hydro electric projects	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
29	Tehri Hydro Development Corporation	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
30	NEEPCO	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
31	Subhagaya Rural	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	**0.0**
	Total - Expenditure	**15874.8**	**10835.1**	**10581.9**	**66.7**	**15322.0**	**15322.0**	**11150.2**	**72.8**

3.2 The details of the demands posted by the Ministry of Power and the funds allocated by the Ministry of Finance since the financial year 2018-19, are as under:

Financial Year	Demand posted by Ministry of Power	Fund allocated by the Ministry of Finance	Cut
2018-19	36,843.32	15,046.92	59.2 %
2019-20	32,001.11	15,874.82	50.4 %
2020-21	33,366.75	15,874.82	52.4 %
2021-22	30,155.40	15,322.00	49.2 %
2022-23	23,949.99	16,074.74	32.88%

3.3 Major Head wise details of BE, RE and the actual utilization during the last three years under Major Heads of the Ministry of Power, are given below:

(Rs in crore)

S. No.	Major Head	RE 2019-20	Actual utilisation upto 31.03.2020	RE 2020-21	Actual utilisation upto 31.03.2021	BE 2021-22	RE 2021-22 *	Actual utilisation upto 15.02.2022
1	2552-NER	2247.80	1981.02	1031.00	1031.00	1772.50	2792.51	1875.77
2	2801-Power	11757.50	11680.86	9369.55	9123.99	11925.67	12745.07	8158.56
3	3451-Sectt.	47.40	44.94	50.58	42.95	58.86	45.50	40.40
4	4552-	171.00	0.00	0.00	0.00	0.00	0.00	0.00
5	4801-Capital Outlay on Power Projects	196.48	182.97	18.69	18.67	14.97	18.16	9.07
6	6552-Loans & Advances(NER)	90.00	90.00	25.00	25.00	120.00	10.00	8.92
7	6801-Loans for Power Projects	1364.64	1342.09	340.31	340.31	1430.00	2124.92	1057.46
		15874.82	**15321.88**	**10835.13**	**10581.92**	**15322.00**	**15322.00**	**11150.18**

3.4 Details of year-wise budgetary allocation of the Ministry of Power both at BE and RE stages and its actual utilization since the year 2017-18 are given below:

				(Rs. in crore)
Financial Year	**Component**	**BE**	**RE**	**Actual**

2017-18	GBS	13,881.14	14,914.93	13975.00
	EBR	0.00	4,000.00	4,000.00
	IEBR	61,880.92	60,317.69	55,447.01
	Total	75,762.06	79,232.62	73,422.01
2018-19	GBS	15,046.92	15,625.19	15,575.84
	EBR	0.00	20,504.76	19,331.70
	IEBR	53,468.66	52,683.96	54,681.86
	Total	68,515.58	88,813.91	89,589.40
2019-20	GBS	15,874.82	15,874.82	15,321.88
	EBR	9,000.00	8,500.00	3,782.00
	IEBR	42,407.41	43,946.70	58,853.92
	Total	67,282.23	68,321.52	77,957.80
2020-21	GBS	15,874.82	10,835.13	10,581.92
	EBR	5,500.00	5,500.00	2,500.00
	IEBR	44,384.38	44,745.72	44,830.33
	Total	65,759.20	61,080.85	57,912.25
2021-22	GBS	15,322.00	15,322.00	11,150.18 (upto 15.02.2022)
	IEBR	59,990.52	49,006.30	43,749.44
	Total	75,312.52	64,382.30	53,183.97

3.5 When the Committee asked for the reasons for the variation between BE, RE and the actual expenditure, the Ministry, in their written reply, have submitted as under:

> **"2017-18:**
>
> Against the Budget allocation of Rs. 13,881.14 crore at BE stage, the RE 2017-18 was enhanced to Rs. 14,914.93 crore due to the launch of Har Ghar Shaj Bijli Yojana (Saubhagya) Scheme. The actual expenditure was Rs. 13,975.00 which was 100.68 % of BE and 93.70% of RE. The fund under the Prime Minister Development Package (PMDP) could not be utilized due to the unspent balance of the previous year.
>
> **2018-19:**

During the year 2018-19 against the allocation of Rs. 15,046.92 crore in BE, the RE 2018-19 was enhanced to Rs. 15,625.19 crore due to requirement of funds under NERPSIP and Comprehensive scheme for Strengthening of Transmission System in the States of Arunachal Pradesh & Sikkim. The actual expenditure was Rs. 15,575.84 which is 103.51 % of BE and 99.68 % of RE. As such there is no short fall in expenditure.

2019-20:

During the year 2019-20, Budget allocation of Rs. 15,874.82 crore at BE stage was kept at the same level at RE stage. The actual expenditure was Rs. 15,321.88 crore which is 96.52 % of BE and 96.52 % of RE.

2020-21:

During the year 2020-21 against the allocation of Rs.15,874.82 crore in BE and Rs.10,835.13 crore in RE 2020-21, the actual expenditure is Rs. 10,581.92 crore which is 66.65 % of BE and 97.66 % of RE.

2021-22:

During the year 2021-22 Budget allocation of Rs.15,322.00 crore at BE stage was kept at same level at RE stage of Rs.15,322.00 crore. The actual expenditure incurred upto 15th February, 22 is Rs. 11,150.18 crore which is 72.77% of BE and RE both. The remaining fund of Rs.4,171.82 crore may be utilized during February/March, 2022."

3.6 The details of the year-wise CAPEX targets and achievements since financial year 2019-20 are given below:

Year	Original	Revised	Actual	Actual (% BE)	Actual (% RE)
2019-20	43,667.05	44,693.34	59,408.56	136.04	132.92
2020-21	44,468.65	44,811.00	44,811.03	100.76	100.00
2021-22	50,690.52	49,006.30	43,750.04 (upto 31.01.2022)	86.31	89.27
2022-23	51,470.14	-	-	-	-

3.7 The details of CPSE-wise CAPEX targets and expenditures for the year 2020-21 are given below:

S.No.	Name of the CPSE	TOTAL CAPEX (2021-22)	Total Exp. upto January, 22	% Exp.	CAPEX Target for FY 2022-23
1	**NTPC**	23,736.00	22,085.41	93.04	22,454.00
2	**PGCIL**	7,500.00	7,530.00	100.40	7,500.00
3	**NHPC**	8,057.44	4,213.27	52.29	7,361.05
4	**SJVNL**	5,000.00	4,740.88	94.81	8,000.00
5	**THDC**	2,730.00	2,538.50	92.98	3,207.54
6	**NEEPCO**	810.02	420.86	51.95	900.81
7	**DVC**	2,857.06	2,220.52	77.74	2,009.87
8	**POSOCO**	0	0	0	36.87
TOTAL		**50,690.52**	**43,750.04**	**86.31**	**51,470.14**

3.8 The monthly expenditure plan for the Ministry of Power for the year 2021-22 is as under:

(₹ in crore)

Month माह	Total जोड़	Cumulative Expenditure संचयी व्यय
April	1326.02	1326.02
May	996.81	2322.83
June	1266.80	3589.63
July	806.63	4396.26
August	1282.07	5678.33
September	1343.57	7021.90
October	1457.33	8479.23
November	1509.73	9988.96
December	1657.33	11646.29
January	1298.39	12944.68
February	1414.02	14358.70
March	963.30	15322.00
Total	**15322.00**	

3.9 The Ministry have furnished the details of quarter-wise utilization of budget allocations during the last five years which are given below:

(Rs. in crore)

FY (Allocation in BE)		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Total
2017-18 (13881.14)	**Actuals (Rs.)**	2,676.57	2,323.30	4,151.72	4,823.41	13,975.00
	Percentage	**19.28**	**16.74**	**29.91**	**34.75**	**100.67**
2018-19 (15046.92)	**Actuals (Rs.)**	8,038.03	2,096.32	1,942.02	3,499.93	15,576.30
	Percentage	**53.42**	**13.93**	**12.91**	**23.26**	**103.59**

2019-20 (15874.82)	**Actuals (Rs.)**	4,451.55	5,737.51	2,606.30	2,526.52	15,321.88
	Percentage	**28.04**	**36.14**	**16.41**	**15.91**	**83.65**
2020-21 (15874.82-BE) (10835.13-RE)	**Actuals (Rs.)**	2,170.00	2,348.94	1,538.32	4,488.66	1,0581.92
	Percentage against RE	**20.02**	**21.68**	**14.20**	**41.42**	**97.66**
2021-22 (15322.00-BE) (15322.00-RE)	**Actuals (Rs.)**	1,728.45	2,790.49	3,693.63	2,937.61*	11,150.18*
	Percentage against RE	**11.28**	**18.21**	**24.10**	**19.17**	**72.77**

*upto 15.02.2022

3.10 When the Committee asked the reasons for deviation in quarterly spending, the Ministry, in their written reply, stated as under:

> *"The progress of expenditure/release of scheme funds depends on various factors such as the time of receipt of proposals for release of funds, availability of utilization certificates which are due for the funds released in the past, position regarding unspent balances at the time of receipt of proposals, completion of the process of appraisal and approval of investment proposals. These have been the major factor for variation in the expenditure across different quarters."*

3.11 In regard to utilization of the allocated budgetary allocation, the Secretary Power during the evidence on the subject deposed before the Committee as under:

> *"This is an overview of the budget expenditure. The Ministry has been continuously utilizing the available budget close to 97-98 per cent. This year also, we have made good progress of 72.77 per cent. Our expenditure has already exceeded the total expenditure made in the last financial year. We have also raised an additional demand of around Rs.4,000 crore for third supplementary which we are hopeful. Our expenditure will be exceeding Rs.18,000 crore by 31st March."*

IV. MINISTRY OF POWER SCHEMES (FUNDED THROUGH GBS)

A. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

4.1 The Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) is the scheme introduced by the Government of India in 2014-15. The following components have been prescribed under the DDUGJY:

(i) Separation of agriculture and non-agriculture feeders to facilitate DISCOMS in the judicious rostering of supply to agricultural and uninterrupted quality power supply to non-agricultural consumers.
(ii) Strengthening and Augmentation of Sub Transmission & Distribution infrastructure in rural areas, including metering of Distribution Transformers/feeders/consumers and
(iii) Rural Electrification: The erstwhile Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) scheme which was launched by Government of India in April, 2005 for providing access to electricity to all households has been subsumed under DDUGJY Scheme as Rural Electrification component. The outlay of RGGVY scheme for the 12th and 13th Plans shall be carried forward under DDUGJY.

4.2 The Ministry have stated that under DDUGJY, Projects worth Rs. 44,416 crore have been sanctioned by the Inter-Ministerial Monitoring Committee of DDUGJY. Besides this, additional projects with a total cost of Rs. 14,270 crore have also been sanctioned for the creation of infrastructure to support household electrification under Saubhagya. The Scheme is available till 2021-22. The Government of India has released a grant of Rs. 55,332.02 crore since 2014-15 upto 31.01.2022. The year-wise details are as under:

Year	Budget (Rs in Crore)	GOI Grant Released (Rs in Crore)	Raised through EBR	Total Release
2014-15	3,386.38	3,374.41	-	3,374.41
2015-16	4,500.00	4,500.00	-	4,500.00
2016-17	3,000.00	2,965.87	5,000.00	7,965.87
2017-18	5,400.00	5,049.96	4,000.00	9,049.96
2018-19	3,800.00	3,799.79	12,627.00	16,426.79

2019-20	4,066.00	3,926.21	3,282.30	7,208.51
2020-21	2,000.00	1,984.77	2,500.00	4,484.77
2021-22 (up to 31.01.2022)	3,600.00	2,321.70	-	2,321.70
TOTAL	**26,152.38**	**27,922.71**	**26,909.30**	**55,332.02**

4.3 The Ministry stated that the States have reported that all the inhabited census villages across the country stand electrified on 28.04.2018.It was also stated by the Ministry that the overall progress in the country is 99%.

4.4 In regard to the work undertaken under DDUGJY, the Ministry in their written reply stated as under:

> "DDUGJY scheme is available till 2021-22. However, the Government of India is impressing upon States for completion of all the components of DDUGJY, including separation of agriculture and non-agriculture feeders, strengthening and augmentation of sub-transmission & distribution infrastructure before the scheduled time.
> The States have reported that feeder separation involving 1,21,609 ckm of 11 KV line has been completed.
> Under system strengthening component States have reported that 4,186 new Sub-Stations have been established/augmented;
> 6,13,723 nos. DT installed;
> 4,91,671Ckm LT and 2,17,679 km HT (11KV and 33/66 KV) line erected upto 31.12.2021.
> The progress in some of the States is slow due to delay in award of the contract, delay in getting forest & railway clearances, land acquisition for sub-stations, Right of Way (RoW) issues, law & order issues, difficult terrain, COVID-19 pandemic etc."

4.5 Replying to the query of the Committee regarding less utilization of funds under the two flagship programme of the Ministry i.e. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) and the works that remain to be completed, the Secretary Power deposed before the Committee as under:

"DDUGJY and IPDS, these are the sunset years for these two schemes. Whatever works are to be done by 31st March 2022; their liabilities may be paid in the next year from RDSS budget. So, what happened was that in the initial 7 months of this year because of COVID and closure progress, expenditure was less in these two schemes. So, the Ministry of Finance revised the allocations at RE stage. But now, the closures are coming and it has picked up full pace. As you will notice, out of Rs.3,103 crore of DDUGJY, we have already spent Rs.2,871 crore. Similarly, in IPDS also, out of Rs.3,574 crore, Rs.2834 crore has been spent. In fact, we have requested the Ministry of Finance for allocating Rs.1,616 crore for Deendayal Upadhyaya Gram Jyoti Yojanain third supplementary and Rs.1,267 crore for IPDS in third supplementary and Rs.200 crore for PSDF. This estimate is based on the closure reports that we have got."

4.6 He further added:

"We have estimated the work which we will have to pay for. Most of the work has been completed. Most of the closure schemes have come. Now, only very few are coming. We are reviewing it on a weekly basis. So, we are very sure that whatever project was undertaken, those works will be completed by 31st March much before. We will be able to sanction all the closure reports by 31st March, 2022. If there is any amount which is remaining because of the difference in estimation, that will be paid from the RDSS budget because schemes have been subsumed. The PMDP project for Jammu and Kashmir has a sunset clause up to 31st March, 2023. So, their liabilities will be paid from RDSS in the next financial year."

B. Integrated Power Development Scheme (IPDS)

4.7 Integrated Power Development Scheme (IPDS) was approved by the Government of India as a central sector scheme for implementation during XII and XIII Plan to extend financial assistance against capital expenditure for addressing the gaps in sub-transmission & distribution network and metering in urban areas to supplement the resources of DISCOMS/Power Departments. The scheme was notified by the Ministry of Power on December 03, 2014. The sunset timeline for the scheme is upto 31stMarch, 2022 except project sanction for underground cabling in *Ayodhya* which has a sunset timeline of March 2023.

4.8 The major components envisaged under the scheme include:

- Strengthening of sub-transmission and distribution networks in the urban areas
- Metering of distribution transformers / feeders / consumers in the urban areas
- Schemes for Enterprise Resource Planning (ERP) and IT enablement of balance urban towns
- Smart metering solution for performing UDAY States
- Gas Insulated Switchgear (GIS) substations at locations where space constraint exists
- Real Time-Data Acquisition System (RT-DAS)
- Carrying forward of R-APDRP scheme to IPDS: IT enablement of distribution sector and strengthening of distribution network under R-APDRP for 12th and 13th plans by carrying forward the approved outlay for R-APDRP to IPDS.

4.9 The Ministry have stated that the IPDS scheme intends to supplement the efforts of States/DISCOMS and synergize with other initiatives of GoI (viz. UDAY, DDUGJY, SAUBHAGYA) etc. Substantial Power infrastructure has been created in States under the scheme which has also contributed in improvement in power supply in the urban areas. As per independent surveys, the availability of power in the urban areas has gone up to around 22 hours in the year 2020. Further, the

Pan India AT&C losses of State sector DISCOMS have reduced from 26.12 % (in FY 2014-15) at the time of the start of the scheme to 21.73 % in FY 2019-20 based on the PFC report on Performance of State Utilities.

4.10 It is also stated that AT&C losses of DISCOMS comprise of performance in both Rural and Urban areas, along with several other administrative parameters, including the release of the full complement of subsidies by the State Governments, and effective billing and collection management. IPDS has allowed the DISCOMS to strengthen their Distribution Networks, and to provide necessary tools to ensure effective monitoring of Billing and collection and identification of loss pockets through various IT/OT interventions such as ERP and IT Phase –2 enablement.

4.11 In regard to the financial progress of implementation of IPDS (as on 31.12.2021) the Ministry have furnished the following information:

> "Under IPDS scheme Projects worth Rs. 30,834 crore have been sanctioned by the Monitoring Committee, covering 33 States/UTs. As on 31.12.2021, Rs. 16,697 crore has been released under IPDS to States and Rs. 258 crore released to PFC for other enabling activities under IPDS."

4.12 The detail of the grant released by the Government of India under IPDS is as under:

(Rs. crore)

Scheme	Approved Project Cost	GoI Component	Grant Released Cum.	Grant Released FY 21-22
IPDS	30,834	19,350	16,697	1036

4.13 In regard to physical progress of IPDS, the Ministry have stated that out of the 547 circles sanctioned under IPDS to 58 State Utilities, system strengthening works in 544 circles have been successfully completed. So far, 54 Utilities have

reported 100% completion of system strengthening works. It was also stated that the overall physical progress under the scheme is 98%. The item-wise progress of IPDS system strengthening projects is given below:

Items (Unit)	New Power Sub Station (Nos.)	HT Lines (cKm)	LT Lines (cKm)	AB Cable (cKm)	UG Cable (cKm)	Roof Top Solar Panels (kWp)
Scope	999	24,133	10,718	65,016	21,894	46,500
Completed	985	23,489	10,416	62,816	20,588	45,725

R-APDRP Scheme [Subsumed in IPDS w.e.f. December 03, 2014]

4.14 Further, the overall status of funds released under IPDS (including RAPDRP) during the last 5 years is given below:

(Rs. in crore)

Year	BE	RE	Fund released by MoP
2016-17	5,500.00	4,524.01	4,366.28
2017-18	5,821.22	4,372.00	3,810.99
2018-19	3,985.00	3,750.00	3,679.81
2019-20	5,280.45	5,662.72	5,560.13
2020-21	5,300.00	4,000.00	3,540.00
2021-22 (upto 31.12.2021)	5,300.00	3,574.00	1,354.00

4.15 Year wise achievement of IPDS system strengthening project completion is tabulated below:

Year	Progressive circle completion (Cumm.)
FY 2018-19	223 Circles
FY 2019-20	428 Circles
FY 2020-21	499 Circles
FY 2020-21 (upto 31.12.2021)	539 Circles

4.16 On being specifically asked by the Committee about the monetary value of the extant AT&C losses in the country, the Ministry have stated that keeping in view the power purchase costs, input energy as well as the AT&C losses for the year 2019-20, the monetary value of the AT&C losses across the country is Rs 1.22 lakh crore. However, the data has to be interpreted in terms of the amount of inherent losses available in the networks, as well as the losses currently passed through in tariffs by the Regulators.

C. Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS)

4.17 Revamped Distribution Sector Scheme (RDSS) is aimed for improving the operational efficiencies and ensuring financial sustainability of the distribution sector. These objectives are proposed to be met through financial assistance to DISCOMS for strengthening of supply infrastructure.

4.18 The Ministry have stated that one pillar of this scheme is reforms, a part of which goes as pre-qualifying criteria for applying funds under this scheme. Subsequently, the utilities are proposed to be evaluated under a Results Evaluation Framework (REF) which will check the outcomes of the investments and thereby enable additional grants under the scheme.

4.19 The objectives of the scheme are to:

- Improve the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.
- Reduce the AT&C losses to Pan-India levels of 12-15% by 2024-25.
- Reduce ACS-ARR gap to zero by 2024-25.

4.20 The state-wise targets for each year will depend on their current levels of AT&C losses and ACS-ARR gap. The Revamped Distribution Sector Scheme has the following parts:

Part A – Metering & Distribution Infrastructure Works:

• Facilitating in installing prepaid smart meters for all consumers along with associated AMI, communicable meters for DTs & Feeders, ICT including Artificial Intelligence (AI), Machine Learning (ML), etc. based solutions for power Sector and a unified billing and collection system;

• Distribution infrastructure works as required for strengthening and modernizing the system as well as measures for loss reduction. The infrastructure strengthening works will include separation of Agriculture feeders to enable implementation of the KUSUM scheme, Aerial Bunch cables and HVDS for loss reduction, replacement of HT/LT lines as required, construction of new/ up-gradation of substations, SCADA and DMS system etc. Each DISCOM/ State will draw up the scheme according to its requirement with the end objective of reducing losses and ensuring 24 x 7 supply.

Part B - Training & Capacity Building and other Enabling & Supporting Activities:

Supporting and enabling components, such as Nodal Agency fee, enabling components of MoP (communication plan, publicity, consumer awareness, consumer survey and other associated measures such as third party evaluation etc.), up-gradation of Smart Grid Knowledge Centre, training and capacity building, awards and recognitions etc.

4.21 On being asked by the Committee about the Budgetary Support and Timelines for this scheme, it has been stated that a total layout of Rs. 3,03,758 Cr including Gross Budgetary Support (GBS) of Rs. 97,631 Cr. The scheme duration is 5 years (FY 2021-22 to FY 2025-26). The sunset of this scheme will be 31.03.2026. The year-wise phasing of GBS under the scheme as provided in the EFC note of the scheme is as under:

Financial Year	**Amount in** (Rs. Crore)
2021-22	7,500
2022-23	10,000

2023-24	25,800
2024-25	27,400
2025-26	29,558
Total	**1,00,258**

4.22 The Ministry further stated that the Expenditure Finance Committee (EFC) had recommended a total GBS of Rs. 97,631 crore and accordingly Cabinet Committee on Economic Affair (CCEA) has approved a total GBS of Rs. 97,631 Crore. For the Financial Year 2021-22, a provision of Rs. 1,000 crore has been made in the RE (Revised Estimate) Budget and for the Financial Year 2022-23, provision of Rs. 7,565.59 crore has been made.

4.23 During the evidence, the Secretary Power further elaborated about the funding mechanism for RDSS as under:

> *"Total outlay of RDSS of Rs. 3 lakh crore, consist of 2 major parts. First half is for Smart metering which is approximately of Rs. 1.5 lakh crore and this will be done in PPP mode. The contribution from GBS is only Rs. 23,000 crore and rest is from private investment. In the balance outlay of Rs. 1.5 lakh crore, as per the funding pattern, maximum 60% of the project cost would be funded in normal States and maximum 90% of project cost would be funded in Special Category States. Rest of the portion would be funded by the States through their own resources or through loans. This Scheme has an outlay of Rs. 3 lakh crore. As per the budget arrangement, Rs. 97,000 crore is the budgetary funding from the Government of India."*

4.24 When the Committee raised the issue of moderate allocation for the Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) for the year 20220-23, the Secretary Power deposed before the Committee as under:

> *"We have a budget of Rs.1000 crore which will be released at the initial five per cent grant for the projects which will be sanctioned. The Monitoring Committee has met a number of times. We have scheduled a number of meetings in the remaining period of this year. We have got the DPRs from almost all the States. We have already considered six States*

and another six States are lined up for a meeting on the fourth of March. We are sure that almost all the States' DPR will be considered and sanctioned within the period of March 2022. We will have to release the five per cent of the initial advance against the DPR. That we will meet from Rs.1000 crore. If there is anything remaining, we will pay from the next year's budget of Rs.7,565 crore. The pace of the expenditure will depend on the evaluation of the progress of reforms and the works by the States. That evaluation will happen sometime in November this year. Depending on the actual requirement, the Ministry will raise further demand with the Ministry of Finance at the supplementary stage. So, this has been kept at Rs.7,565 crore. This is good enough for us up till November. We will demand more money depending on the progress made by the States."

4.25 The Ujwal Discom Assurance Yojna (UDAY) scheme was a financial reforms scheme aimed towards taking over the financial losses of the DISCOMS. This scheme was approved by the Union Cabinet on 5thNovember 2015. When the Committee desired to know as to how the newly launched scheme *viz*. Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS) is different from UDAY, the Ministry in their written reply have furnished the following information:

Parameter	**UDAY**	**RDSS**
Infrastructure funding	This scheme was not directed towards infrastructure creation but was aimed at initiating reforms along with financial restructuring.	The scheme has three major areas for funding of infrastructure creation by the DISCOMS ● Loss reduction initiatives including IT ● Up-gradation of distribution network ● Smart metering of consumers, DTs and Feeders The scheme combines the interventions of Distribution infrastructure creation schemes and Reforms, and

		operates as a Scheme that links financial assistance for infrastructure creation linked to initiation of reforms and achievement of results.
Financial layout	There was no financial implication to the Government of India in the Scheme	Total layout of Rs. 3,03,758 Cr including Gross Budgetary Support (GBS) of Rs. 97,631 Cr.
Targeted Reforms	Yes: Activity Feeder Metering DT Metering Consumer indexing & GIS Mapping Upgradation of DT, Meters etc. Smart meter for consumers AT&C losses Elimination ACS-ARR gap	Yes: Smart Metering: Phase 1: 10 Cr Smart Meters by Dec 2023 Phase 2: 25 Cr by March 2025 AT&C Loss: 12-15% by FY 2025 at national level ACS-ARR Gap: Reduce ACS-ARR gap to zero by 2024-25
Incentive structure	Incentives were front ended. For example, the financial restructuring through floating of SDL bonds outside the fiscal deficit limits placed by the FRBM Act were given under a promise to reform.	Incentives are backloaded. For example, the financial assistance under the scheme would be provided against initiation of reforms and achievement of results. Therefore, if the action is not taken by the States and the DISCOMS to reform and perform to the extent required, financial assistance cannot be released to the States

4.26 The Secretary Power during the evidence on the subject further explained the difference between the two schemes:

> *"UDAY scheme was basically a financial restructuring scheme. The States were allowed additional space in the FRBM limit. The outstanding dues of the DISCOMS up to a cut-off date were taken over by the States in terms of bonds. There were some works to be taken up like smart metering, theft*

control and all. But there was no investment component in the UDAY scheme. The investment was coming from two separate schemes of IPDS and Deendayal Upadhyaya Gram Jyoti Yojana. RDSS is unique in a way that it has both components together. The investment scheme in the infrastructure for loss reduction and modernisation of the distribution sector is a part of the same scheme as is the smart metering and the reforms programme. In UDAY, the audited accounts were coming with a gap of two years. In this scheme, every year, we will get the audited accounts by November-December. We will evaluate the progress of the DISCOMS on the reforms every year and further release of grants will be dependent on their meeting the pre-qualifications as well as showing the progress as per the trajectory which they have agreed in the action plans. So, this scheme is very unique and different."

4.27 On being asked, the Ministry have stated that AT&C loss of one per cent amounts to approximately Rs.6,959 crore. As per the information available, the overall AT&C losses in the country amount to 22.03% in FY 2018-19. Thus, the overall monetary value of AT&C losses in the power sector is Rs.1,53,307 crore.

V. STATUTORY/AUTONOMOUS BODIES

A. Bureau of Energy Efficiency (BEE)

5.1 The Bureau of Energy Efficiency (BEE) is the nodal central statutory body to assist the Government in implementing the provisions of the Energy Conservation Act. As a quasi-regulatory and policy advisory body, the Bureau helps in developing policies and strategies that emphasize self-regulation and market principles to achieve the primary objective of reducing the energy intensity of the Indian Economy. The Energy Conservation Act also empowers the State Government to facilitate and enforce the efficient use of energy through their respective State Designated Agencies (SDAs) in consultation with BEE. It also empowers the Central Government to specify energy performance standards.

5.2 The Bureau of Energy Efficiency is implementing schemes / programmes for promoting Energy Efficiency in the country. The details of schemes / programmes and other initiatives relating to Energy Conservation have been given below:

- National Level Painting Competition
- National Energy Conservation Award
- National Energy Efficiency Innovation Awards (NEEIA)
- Standards & Labelling
- Energy Conservation Building Code (ECBC)
- Enhancing energy efficiency in Industries – Implementation of Perform Achieve and Trade (PAT)
- Demand Side Management (DSM)
- Energy Efficiency in Small and Medium Enterprises (SMEs)
- Improving Energy Efficiency in Transport Sector
- Energy Accounting in DISCOMS
- Strengthening of State Designated Agencies (SDA) To Promote Efficient Use of Energy and its Conservation.

5.3 The details of budgetary allocation for BEE during the last five years and their actual utilization are as below:

Bureau Energy Efficiency
Year wise Budget allocation/ Actual Utilization

(Rs. In Crore)

Schemes	BE	RE	Actual Utilization					Reason for deviation
			Q1	Q2	Q3	Q4	Total	
2017-18								1. The SFC approval got delayed as the Niti Aayog instructed BEE to further club all proposed 5 schemes to 2 i.e. per Account head 1 scheme. 2. Both schemes were approved in 2018. 3. BEE utilized the allocated Budget Estimate/Revised Estimate since, the schemes were ongoing in nature. 4. BEE completed all those activities, which were not dependent on funds but were contributing for the energy conservation in the country.
BEE Schemes	49.00	27.00	-	-	27.00	-	27.00	
Ongoing EAP Scheme under "BEE" head	1.00	-	-	-	-	-	-	
Energy Conservation Schemes	50.54	50.00	-	36.99	-	-	36.99	
Total	**100.54**	**77.00**	**-**	**36.99**	**27.00**	**-**	**63.99**	
Utilization in Percentage w.r.t RE			0%	48%	35%	0%	83%	
2018-19								
BEE Schemes	100.16	10.49	-	-	-	10.49	10.49	
Ongoing EAP Scheme under "BEE" head	3.21	3.21	-	3.21	-	-	3.21	
Energy Conservation Schemes	55.00	27.00	-	15.00	-	11.49	26.49	
Total	**158.37**	**40.70**	**-**	**18.21**	**-**	**21.98**	**40.19**	
Utilization in Percentage w.r.t RE			0%	45%	0%	54%	99%	
2019-20								
BEE Schemes	100.16	100.16	23.69	14.70	30.47	31.30	100.16	
Ongoing EAP Scheme under "BEE" head	3.21	3.21	-	0.50	-	-	0.50	
Energy Conservation Schemes	110.00	110.00	-	13.51	62.50	20.00	96.01	
Total	**213.37**	**213.37**	**23.69**	**28.71**	**92.97**	**51.30**	**196.67**	
Utilization in Percentage w.r.t RE			11%	13%	44%	24%	92%	
2020-21 (Scheme extended upto 31.03.2021)								
BEE Schemes	100.16	56.32	15.00	21.00	-	20.00	56.00	
Ongoing EAP Scheme under "BEE" head	3.21	0.01	-	-	-	-	-	
Energy Conservation Schemes	109.99	36.95	-	-	-	5.00	5.00	
Total	**213.36**	**93.28**	**15.00**	**21.00**	**-**	**25.00**	**61.00**	
Utilization in Percentage w.r.t RE			16%	23%	0%	27%	65%	
2021-22								1. The SFC in respect of NMEEE Scheme approved on 11/01/2022. 2. The EFC in respect of BEE Scheme is under approval stage.
BEE Schemes	115.82	115.82	-	20.00	41.52	-	61.52	
Ongoing EAP Scheme under "BEE" head	2.00	2.00	-	-	-	-	-	
Energy Conservation Schemes	80.00	40.00	-	-	-	-	-	
Total	**197.82**	**157.82**	**-**	**20.00**	**41.52**	**-**	**61.52**	
Utilization in Percentage w.r.t RE			0%	13%	26%	0%	39%	

5.4 The Energy Conservation Building Code (ECBC) of BEE sets minimum energy performance standards for commercial buildings having a connected load of 100kW or contract demand of 120 KVA and above. While the Central

Government has powers under the EC Act, the State Governments have the flexibility to modify the code to suit local or regional needs and notify them. The Ministry have stated that as on December 2021, 18 States and 2 Union Territories namely, Andaman & Nicobar, Andhra Pradesh, Assam, Arunachal Pradesh, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Mizoram, Odisha, Punjab, Puducherry, Rajasthan, Sikkim, Telangana, Tripura, Uttarakhand, Uttar Pradesh and West Bengal have notified ECBC for implementation in their respective states. Further, among the above 20 states and UTs, 8 States namely, Andaman & Nicobar Island, Andhra Pradesh, Telangana, Punjab, Uttarakhand, West Bengal, Rajasthan, Haryana, Uttar Pradesh have incorporated ECBC in Municipal Bye-laws. About 50 ULBs have been covered under these states for compliance.

5.5 The Committee was informed that the Ministry of Power have issued a notification to include all the Electricity Distribution Companies (DISCOMS) under the preview of EC Act. Further, Regulations for Energy Accounting and Auditing in DISCOMS were notified by BEE on 6th October, 2021 with the approval of the Ministry of Power, under the provisions of Energy Conservation (EC) Act, 2001 to mandate Energy Audit in DISCOMS.

5.6 The Ministry informed the Committee that 36 States/UTs have nominated a SDA in their respective State/UT. These agencies differ from State to State with Renewable Energy Development Agency comprising 44%, Power Department comprising 22%, Electrical Inspectorate comprising 17%, Distribution Companies comprising 17%, and Stand-Alone SDA comprising 6%. Only two States – Kerala and Andhra Pradesh have established Stand-Alone SDA.

5.7 The Ministry stated that NMEEE has been revised to Road Map of sustainable and Holistic Approach to National Energy Efficiency (ROSHANEE). ROSHANEE has a broader vision and takes into account all the potential areas of energy efficiency in each sector, covering the macro level in policy and further delineating the respective schemes. The ROSHANEE document also includes all existing activities of BEE that have contributed significantly towards enhancing energy efficiency and consequent CO2 mitigation and the activities proposed in future, some of which have been identified and others which need to be explored. The proposed programme will also have a dedicated component for the financing of energy efficiency activities in India. Through the ROSHANEE document, NMEEE is being strengthened with a review of existing approaches and planning a new portfolio of strategies to strengthen energy efficiency across all sectors in the country till 2030.

5.8 It was further stated that ROSHANEE will help in consolidation of all activities and their consequent contribution towards meeting the NDC goals. The activities proposed to be undertaken under ROSHANEE are estimated to lead to a savings of 887 million tonnes of CO2 savings by 2030. The estimated expenditure for implementation of activities under ROSHANEE is Rs. 10,370.37 crore. ROSHANEE document has been approved by the Executive Committee on Climate Change. The Ministry of Environment, Forest and Climate Change (MoEFCC) has also accorded in-principle approval for the ROSHANEE document.

5.9 On being asked by the Committee about the achievements of Energy Efficiency Schemes/ Programmes, the Ministry have furnished the following information:

- Electrical energy savings of 159.24 Billion Units, worth INR 95,544 crore and resulted in reduction of 130 Million tonne of CO2 emissions.

- Thermal energy savings of 15.59 Million Tonnes of oil Equivalent, worth INR 28,683 crore and resulted in reduction of 58.675 Million tonne of CO2 emission.
- Total energy savings of 29.28 Million Tonnes of oil Equivalent i.e. 3.15% of total primary energy supply of the country.
- Total cost savings worth INR 1,24,227 crore.
- Total reduction in CO2 emission is around 188.6 Million Tonnes
- Total CO2 reduction including LED bulbs sold by private industry is 320 Million Tonnes.

5.10 The Ministry have further stated that owing to the various energy efficiency measures taken so far, energy intensity of the country has declined from 0.2787MJ/rupee in 2012 to 0.2232 MJ/rupee by 2019-20 indicating decrease of 19%.

B. Central Power Research Institute (CPRI)

5.11 Central Power Research Institute (CPRI) was established by the Government of India in 1960. It became an Autonomous Society in the year 1978 under the aegis of the Ministry of Power, Government of India. Central Power Research Institute (CPRI) with its Head Office in Bangalore has Units at Bhopal, Hyderabad, Nagpur, Noida and Kolkata. Establishment of a new unit at Nasik is under progress.

5.12 The core activities of CRPI are as follow:

- Applied Research in electrical power engineering
- Testing & Certification of Power equipment
- Consultancy and Field testing services to Power Utilities and Industries
- Third Party Inspection and Vendor Analysis
- Organizing Customized Training programs for Utilities and Industries

5.13 The details of the budgetary allocation for CPRI during the last five years and their actual utilization is as under:

Financial Year	BE	RE	Actual	(% utilization of BE)
2018-19	150.00	94.34	94.34	62.8%
2019-20	200.00	200.00	178.00	89.0%
2020-21	200.00	80.00	80.00	40.0%
2021-22	180.00	120.00	110.00	61.1%
2022-23	302.77	-	-	-

5.14 When the Committee asked about the measures being taken to ensure that the funds allocated to CPRI are fully utilized, the Ministry stated that CPRI estimates the fund allocation based on the current progress of the ongoing schemes/projects. While preparing the budget estimate, the purchase orders to be placed, Letter of credit to be opened, part payments to CPWD with respect to civil work, balance payments for equipment installed and commissioned, outlay of approved research projects are taken into consideration. Any delay in the above is taken into consideration while making the Revised Estimate (RE) and accordingly the fund is utilized.

5.15 When the Committee desired to know the achievements of CPRI so far, it was stated as under:

> *"The Institute has rendered six decades of dedicated service to the power sector since its inception. The Institute has a strength of around 545 personnel of which over 200 are well qualified and experienced Scientists/Engineers. CPRI is the only testing Laboratory in the world having all the test facilities for power equipment under one roof. The Institute has completed over more than 450 R&D projects and has been awarded 42 patents over the years and 48 patents are in process for the award. To its credit, the Institute has published over 3800 technical and research papers in national & international forums. The Institute has also brought out over 450 technical reports which are widely referred to by both the utilities and industry. The senior scientists & Engineers represent CPRI in various Electro-Technical Committees of*

BIS. CPRI officers are members of various International Standards Committees like IEC, IEEE, and CIGRE etc."

C. National Power Training Institute (NPTI)

5.16 National Power Training Institute (NPTI) an ISO 9001 & 14001 organization is a National Apex body under the Ministry of Power, Govt. of India for fulfilling the training and Human Resource Development requirements of the power sector in the country. It serves as a National Certification Authority for the purpose of certification of competence to ensure availability of properly trained professionals. NPTI has Pan India presence with 11 Institutes in the different zones of the country with Manpower Strength of 181 including 83 Officers and has trained over 3,76,350 power professionals in its regular programs over the past more than five decades.

5.17 The Committee was informed that the main objective of NPTI is to:

- To function as a National Organization for training in the field of (a) operation and maintenance of Power Stations; and (b) all other aspects of Electrical Energy Systems including Transmission, Sub-Transmission and Distribution.
- To act as an apex body for initiating and coordinating training programmes in the power sector in the country.
- To establish and run training Institutes for Engineers, Operators, Technicians and other personnel of Power Sector.

5.18 The details of budgetary allocations for NPTI for the last five years and their actual utilization are as under:

Financial Year	BE	RE	Actual	(% utilization of BE)
2018-19	100.55	100.55	100.55	100%
2019-20	69.00	50.00	28.90	41.8%
2020-21	82.34	25.96	18.45	22.4%

2021-22	70.00	30.00	12.00 (upto 15.02.2022)	17.1%
2022-23	50.00	-	-	

5.19 In regard to constraints being faced by the NPTI in achieving its objectives, it was stated as under:

- *"NPTI was mainly involved in catering the training needs of Thermal and Hydro Sector besides distribution and transmission sector. Now the focus of the Power Sector is in the area of New & Renewable Energy/Alternative Sources of Energy. Consequently, the demand of training in the conventional Sector has decreased.*
- *The number of training institutes has multiplied in recent years. NPTI has to compete with a number of training institutes in Public and Private sector resulting in tough competition in getting new trainees.*
- *Due to outbreak of COVID-19 pandemic in 2020-21, the physical/offline training at the institutes has become difficult."*

5.20 When the Committee pointed out the lesser budgetary allocation for NPTI for the year 2022-23, the Secretary Power deposed before the Committee as under:

> *"We give assistance to NPTI on two heads. The pension fund, their liabilities are to be funded by the Ministry of Power. We had proposed to fully fund this requirement in the next two financial years. Some part will be given for CAPEX. Their CAPEX requirements are not huge. They have made a number of new centres but their revenue earning has come down partly because of COVID and partly because of the long-term aspect of their dropping the degree-course which they were doing without AICTE recognition. That course has been closed down because there were some difficulties. The demand from the CPSEs has come down because they have opened their own training institutions. NPTI is now focusing on capacity building of the distribution utilities. They are not able to fund much courses from their financial resources.*

5.21 He further stated:

"*We are funding the NPTI training courses from RDSS. We need a lot of skill building of the DISCOMS staff in the area of smart grid and cyber security. There are two other areas. For our energy conservation schemes, Bureau of Energy Efficiency will also conduct training through NPTI. Similarly, POSOCO will conduct the training of the load dispatch centre NPTI. We are trying to see that sufficient training courses are run by NPTI. We support them under various schemes and programmes of the Ministry of Power so that they become self-sufficient in their revenue expenditure vis-à-vis their earnings. We would like to moderate CAPEX. There is no point in building new centres and not using them. They have got liabilities also to pay. We are making an action plan for NPTI so that they are financially sustainable within the next two years on this action plan. Meanwhile, we will give them enough Budget for their pension fund liabilities*"

5.22 When the Committee asked for the details of the assessment made about the requirement of manpower for the power sector, it was stated as under:

"NPTI was a part of the assessment process of CEA's National Electricity Plan (2017-22) - Chapter No. 14 titled "Human Resource Requirement". This document identified that for a capacity addition of 1,76,140 MW in 2017-22, the additional manpower requirement would be more than 253760 out of which 194910 would be technical and 58580 non-technical. The total manpower by the end of 2017-22 would be 1617720, out of which 1232950 would be technical and 384770 non-technical."

5.23 On being asked by the Committee about the particular areas/fields that have shortage of trained manpower, it was replied as under:

"As per the various studies following are the two new areas where shortage of trained manpower is felt:

- **Lack of Cyber Security expertise:** Cyber security is a mission-critical priority for organizations. But the cyber profession continues to face a major challenge: a substantial talent gap. There are not enough qualified individuals to fill millions of open positions globally. It is projected that the population of cyber workers would have to grow 145 percent to meet the global demand.
- **Smart Distribution Sector Professionals:** The upcoming Industry 4,0 standards require manpower to understand and

implement digitalization. New technologies like AMI, SCADA, Smart Grid, ADMS (Advanced Distribution Management System) and Smart Metering have to implement for AT&C Loss reduction and Efficiency Improvement of distribution sector. Also Machine Learning, Artificial Intelligence, Data Analytics, Data Mining, ERP Software are some of the new technologies which will need trained manpower for modernization of distribution sector from Classical network to Modern Grid network to achieve Smart Power Distribution System in the Coming years.

- **Certified Trained Manpower:** There is also a need to certify and train the manpower who are working on contract basis in the Power Sector, starting from the linemen to Supervisor in the field of Electrical Safety, Behavior Science, Best Operation & Maintenance Practices, Information Technology in Power sector and overview of Smart Power Distribution System etc."

VI. DEVELOPMENT OF POWER SECTOR

A. Strengthening of Power Systems

6.1 Under 'Strengthening of Power System' programme, following works are included:

- North Eastern Region Power System Improvement Project (NERPSIP) for Six (6) States (Assam, Manipur, Meghalaya, Mizoram, Tripura and Nagaland) for strengthening of the Transmission and Distribution Systems (33kV and above).
- Comprehensive Scheme for Strengthening of Transmission and Distribution System in Arunachal Pradesh and Sikkim.
- Setting up of Renewable Energy Management Centre under Green Energy Corridor.
- National Smart Grid Mission.
- National Electricity Fund.

6.2 Transmission system plays an important role in the power delivery system by establishing the vital link between the generating stations and the distribution system, which is connected to the ultimate consumer. The transmission network has expanded over the years for evacuation of power from Intra-state & Inter-State generating stations to load centres through Intra-State and Inter-State Transmission System (ISTS) and strengthening of existing network to cater to the projected peak demand. However, bottlenecks have been observed in intra-state transmission and distribution network in the North Eastern Region including Sikkim.

6.3 Year-wise details of budgetary allocation both Budgetary Estimate and Revised Estimate stages and its actual utilization during 2017-18, 2018-19, 2019-20,2020-21 & 2021-22 (upto 31.12.2021) are as follows:

	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (NERPSIP)			Strengthening of transmission System in the States of Arunachal Pradesh and Sikkim (Comprehensive Scheme)			Green Energy Corridor (REMC)		
FY	**BE**	**RE**	**Actual**	**BE**	**RE**	**Received**	**BE**	**RE**	**Actual**
2017-18	179	282.5	282.5	193	300	300	Nil	Nil	Nil
2018-19	282	1,282.5	1,282.5	300	800	800	10	105	105
2019-20	570	770	770	595	800	800	15	1.5	1.5
2020-21	770	281	281	800	300	300	33	18.67	18.7
2021-22	600	675	530	600	1100	600	14.95	18.16	9.07
2022-23	644	-	-	1,700	-	-	13.11	-	-

6.4 In regard to utilization of fund the Ministry stated as under:

"The yearly budget in r/o PSDF is provided based on the actual progress of the approved projects, which are generally furnished by the project executing entities and are released in phases as per the approved guideline of the Ministry of Power. Fund released has been fully utilized. However, the delay in project execution is mainly attributed to the following reasons:

- *Poor response from the vendors*
- *High difference between the quoted cost and the estimated cost."*

B. National Smart Grid Mission (NSGM)

6.5 The Government of India had established NSGM in 2015 to plan and monitor implementation of policies and programs related to Smart Grid activities in India. NSGM was operationalized in January 2016 with the formal appointment of Director, NPMU. NSGM is the focal point for coordinating all the activities being undertaken for creation of Smart Grid Infrastructure including Smart Grid training of distribution utility engineers/officials. The Smart Grid being under evolution stage worldwide, NSGM is also tasked with international coordination with ISGAN and Mission Innovation apart from interfacing with other

Departments/ministries such as New and Renewable Energy, Heavy Industries, Communication and IT, Telecom, Urban Development etc.

6.6 The Ministry stated that as per NSGM guidelines, under NSGM, the following are the scope of works pertaining to Smart Grid deployments:

- Deployment of Smart Meters and AMI
- Technical up-gradation with deployment of Gas Insulated Substations (GIS) wherever economically feasible
- Development of medium sized micro grids upto 1MW
- Development of Distributed Generation in form of rooftop solar PVs
- Real time monitoring and control of Distribution transformers
- Provision of harmonic filtering and other power quality measures
- Creation of EV charging infrastructure for supporting proliferation of EVs

6.7 Advanced metering Infrastructure (AMI) can be used in:

- Measurement of RE output from Solar Rooftops
- Integration of RE into Distribution automation
- Enabling Dynamic Pricing and Demand Response schemes
- Enabling Net Metering

6.8 Smart Grid is an evolving concept involving advanced technologies with increased dependence on complex IT solutions requiring the highest level of cyber and physical safeguarding. However, it requires large scale investments which are not viable for most of the financially ailing utilities. As the projects are under implementation, detailed cost benefit analysis is possible once they are completed. However, NSGM has developed two tools namely Smart Grid Readiness – Self Assessment Tool (SGR-SAT) and Cost Benefit Analysis (CBA) tool to assist utilities in developing their own specific Smart Grid roadmaps as well as investment analysis for enabling required Smart Grid functionalities. These tools are hosted on web portal and are ready to be used by the DISCOMS to evaluate

their roadmaps and cost benefit analysis so that incremental steps towards creation of Smart Grids can be achieved.

6.9 The year wise physical and financial progress of NSGM scheme is as below:

Year	Targets	Financial Progress	Remarks
2015-16	Establishment of NSGM	Rs.1.31 Cr	Operationalized in Jan 2016
2016-17	Sanction and deployment of Smart Grid projects, collaboration with stakeholders, enhancement of Smart Grid ecosystem, training and capacity building of utility professionals	Rs.4.50 Cr.	Chandigarh Sub Division 5, Amravati and Congress Nagar (Nagpur), Maharashtra, Kanpur sanctioned and AVVNL Smart Grid Pilot completed and demonstrated business case in deploying smart meters
2017-18		Rs.3.07 Cr	Kanpur project surrendered by KESCO
2018-19		Rs.7.125 Cr.	Amravati & Congress Nagar projects surrendered by MSEDCL
2019-20		Rs.6.103 Cr.	6 towns under JVVNL in Rajasthan sanctioned Raipur and Bilaspur project under approval at MoP
2020-21		Rs.16.08 Cr.	Lockdowns and field restrictions hampered field implementations. However, utilities have progressed in implementations
2021-22	Continuation of NSGM with completion of sanctioned Smart Grid projects and handholding of DISCOMS	Rs.2.24 Cr.	SFC for NSGM extension till 2023-24 under process at MoP.

6.10 When the Committee desired to the reasons for low budgetary allocation of Smart Grid component, the Secretary Power explained as under:

> "For Smart Grid component, this liability of Rs.35 crore is estimated based on the continuing projects which might take about one year to close. There are two projects going on. All other new activities under Smart Grid will be funded from RDSS because there is a very large component of smart metering and modernisation of the IT-OT systems in the DISCOMS which will be funded from RDSS. So, the national Smart

Grid mission will continue in a very skeletal form to support the technological part. But the investment part will be coming from the new reform, the RDSS scheme. That is why the provisions are kept only for funding the ongoing projects."

***

Part – II

Observations/ Recommendations of the Committee

Budgetary Allocation

1. The Committee note that as against the sought outlay of Rs. 23,949.99 crore, Budgetary allocation for the Ministry of Power for the Financial year 2022-23 has been made as Rs.16,074.74 crore which is 4.9% more than the previous year's allocation. For the year 2021-22, the Ministry had posted a demand of Rs. 30,155.40 crore for which they got only Rs. 15,322 crore. Also, for the year 2020-21, against their demand of Rs. 33,366.75 crore, only Rs. 15,874.82 crore was allocated. Thus during all these years the Ministry of Power have been allocated only half or even less of their demand projections. The Committee, however, are happy to note that the performance of the Ministry in regard to utilization of the allocated funds have been exemplary as they could utilize 100.7%, 103.5% and 96.5% of their Budgetary Estimates for the year 2017-18, 2018-19, 2019-20 respectively. In the year 2020-21, the Ministry could utilize only 66.7% of the allocated fund due to the COVID-19 pandemic. For fiscal 2021-22, the Ministry have reported that up to 15th February, 2022, they have utilized 72.8% of the budgetary allocation and are hopeful to exceed the target by the end of this financial year. Considering the performance of the Ministry, the Committee are a bit surprised over the less demand posted by the Ministry themselves for 2022-23 than the previous year's. The Committee was expecting a significant rise in the demand for the year 2022-23 on the basis of a good track record of their financial performance. Apart from that the Ministry have also initiated a major scheme namely Revamped Reforms-

based and Results-linked, Distribution Sector Scheme (RDSS) for that a significant budgetary provision is required.

The Committee are aware that a major task of village electrification and electricity connections to households has been accomplished by the Ministry. Nonetheless, there are several challenges for the power sector, particularly in the distribution sector that merits the attention of the Government. The Committee are of the view that the Ministry should not become complacent and keep on striving for the betterment of the power sector by accelerating further the pace of implementation of various important programmes. The Committee, therefore, desire that instead of curtailing/rationalizing the requirement of funds themselves, the Ministry of Power should post their demands for funds based on their actual financial performance as well as functional requirements. The Committee specifically recommend that the Ministry should try to fully utilize the funds allocated at the BE stage of 2022-23 in a time bound manner so that additional demands can be posted at the time of supplementary Demands for Grants.

(Para No.1, Recommendation No.1)

Quarterly Expenditure

2. The Committee note that the expenditure for Qtr.1, Qtr.2, Qtr.3 and Qtr.4 (up to 15.02.2021)for the year 2021-22 have been 11.28%, 18.21%, 24.10% and 19.17 %of the budgetary allocation respectively. Thus, the cumulative spending so far stands at 72.8% of the BE. The Ministry have also raised an additional demands of around Rs. 400 crore for this supplementary. The Committee find that to fully utilize the budgetary allocation for the year, the Ministry need to further spend 27.2% of the BE plus Rs. 400 crore during

the remaining time period of the current fiscal i.e. one and half month. In that scenario, the total spending in the Qtr.4 would stand at around 50% of the total allocation. Thus, in view of the Committee, such erratic quarterly expenditure performance is undesirable. The Ministry have assigned COVID-19 as the reason for such lopsided spending. The Committee do understand that the pandemic had slowed down the implementation of various schemes of the Ministry. The Committee, nonetheless, would like to recommend that sincere efforts be made by the Ministry to fully utilize the allocated funds during the current fiscal. The Committee also desire that utmost effort be made in future to ensure that the funds are evenly utilized during each quarter as per the norms prescribed by the Ministry of Finance in this regard.

(Para No.2, Recommendation No.2)

Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

3. The Committee are aware that fiscal 2021-22 is the sunset year for DDUGJY scheme thus no funds under the scheme has been allocated for the year 2022-23. The Committee note that against the budgetary allocation of Rs. 3,600 crore for the year 2021-22 only Rs. 2,321.71 crore have been utilized till 31.01.2022. The Committee also note that under the 'Rural Electrification' component of DDUGJY scheme all the inhabited census villages across the country stand electrified on 28.04.2018. The Committee further note that apart from 'Rural Electrification' there are two other components of DDUGJY i.e. Separation of agriculture and non-agriculture feeders, and Strengthening and Augmentation of Sub Transmission & Distribution infrastructure in rural areas, including metering of

Distribution Transformers/feeders/consumers. The Committee find that overall progress under the scheme in the country is 99%. The Committee are appreciative of the massive work undertaken under the DDUGJY scheme and that too in a time-bound manner. They believe that the work done under the scheme will not only provide an impetus for the economic and social upliftment of a large population but also increase the electricity demand and its per capita consumption in the country. Though the States have submitted that all the villages have been electrified and electricity connections to all households have been provided, the Committee desire that the Ministry through the nodal agency of this scheme carry out an audit to ascertain that no willing household of any village/hamlet is left un-electrified. The Committee also recommend that all-out efforts be made to complete the remaining work under the DDUGJY scheme in the current fiscal itself.

(Para No.3, Recommendation No.3)

Integrated Power Development Scheme (IPDS)

4. The Committee note that the Integrated Power Development Scheme (IPDS) was launched in 2014 to extend financial assistance against capital expenditure for addressing the gaps in sub-transmission & distribution networks and metering in urban areas to supplement the resources of DISCOMS/Power Departments. The Committee also observe that one of the main objectives of the scheme is to reduce the AT&C losses in the country to the level of 15%. The Committee are also aware that the Government had initiated Accelerated Power Development and Reforms Programme (APDRP) with a similar objective as early as the year 2000-01. The scheme was revised in 2008 as Restructured-Accelerated Power Development and

Reforms Programme (R-APDRP). The Committee further note that the level of AT&C losses which was 23.7% in the year 2015-16 reduced to 20.93% in 2019-20. However, it is still way below the targeted level of 15%. Considering the low levels of AT&C losses in the developed countries, the Committee have been of the view that even the target of 15%, is too moderate. The very fact that the monetary value of the AT&C losses across the country is to the tune of Rs 1,22,000 crore which speaks volumes about this problem. The scrutiny of the Committee has revealed that in five states of the country, AT&C losses range as high as 40% to 60%. though the overall losses have decreased since 2015-16.

In regard to the physical progress of IPDS, the Committee note that out of the 547 circles sanctioned, system strengthening works in 544 circles have been completed. The Committee do understand that reducing the level of AT&C losses is a challenging work considering the fact that the power distribution is a State matter. Since 2021-22 is the sunset year for IPDS, the Committee feel that there is a need for a fair and transparent study to assess the overall impact of this scheme on the distribution system and to find out the reasons as to why the efforts of the Central Government have not yielded the desired results in the reduction of AT&C losses so that reinvigorated efforts be made in future. Moreover, in most of the circles, the Supervisory Control and Data Acquisition (SCADA) System is now in place, it would now be easier to pinpoint the problematic areas. The Committee, therefore, recommend that the Ministry should do the data/system analysis and put the report of such exercise in the public domain also.

(Para No.4, Recommendation No.4)

Revamped Reforms-based and Results-linked, Distribution Sector Scheme (RDSS)

5. The Committee note that the Ministry have launched a new scheme *viz*. Revamped Distribution Sector Scheme (RDSS) which aims for improving operational efficiencies and ensuring the financial sustainability of the distribution sector. They further note that the objectives of this scheme are to improve the quality, reliability and affordability of power supply to consumers through a financially and operationally efficient distribution sector, reduction in AT&C losses at pan India levels of 12-15% by 2024-25, and reduction in ACS-ARR gap to zero by 2024-25. They also note that these objectives are proposed to be met through financial assistance to DISCOMS for strengthening of supply infrastructure.

The Committee further note that the total outlay for the scheme is Rs. 3,03,758 crore including Gross Budgetary Support (GBS) of Rs. 97,631 crore. The scheme duration is 5 years, from 2021-22 to 2025-26. The Smart Metering component alone has a share of Rs. 1,50,000 crore. For the year 2022-23, a provision of Rs. 7,565.59 crore has been made for the scheme. The Committee find that the amount allocated for the new scheme is less than the total budgetary allocation of Rs. 8,900 crore for 2021-22 of the two schemes i.e. DDUGJY and IPDS which will be subsumed in it. The Committee also note that as per the planning of the Expenditure Finance Committee, there had to be a budgetary allocation of Rs. 10,000 crore for this scheme for fiscal 2022-23. The Committee appreciate this much-needed initiative and believe that it is a step in the right direction in making the distribution sector financially sustainable. However, they also express their concern over the less allocation of funds for this important scheme and recommend

that the Ministry should earnestly pursue for enhancement of the budgetary allocation for this scheme at RE stage and also for the next financial year.

(Para No.5, Recommendation No.5)

Bureau of Energy Efficiency (BEE)

6. The Committee note that the Bureau of Energy Efficiency (BEE) is the nodal central statutory body to assist the Government in implementing the provisions of the Electricity Conservation Act. The Committee also note that the past performance of BEE in terms of fund utilization has been extremely poor. In 2020-21, BEE could utilize only Rs. 61 crore against the budgetary estimate of Rs. 213 crore. In 2021-22, they have utilized only Rs. 61 crore which is a meagre 31% of the budgetary estimate of Rs. 197 crore. The Committee further note that due to energy efficiency schemes/programmes there have been electrical energy savings of 159.24 Billion Units, worth Rs. 95,544 crore and resulted in a reduction of 130 Million tonne of CO2 emissions. Also, there were thermal energy savings of 15.59 Million Tonnes of oil Equivalent, worth Rs. 28,683 crore and resulted in the reduction of 58.675 Million tonne of CO2 emission. There was a total energy savings of 29.28 Million Tonnes of oil Equivalent i.e. 3.15% of the total primary energy supply of the country. Considering the quantum of benefits derived from the energy efficiency schemes, the Committee may not accept the under-utilization of funds by BEE. The Committee, therefore, recommend that sincere efforts be made to ensure that the funds allocated to BEE are fully utilized to achieve the targets of energy efficiency schemes/programmes.

(Para No.6, Recommendation No.6)

Road Map of sustainable and Holistic Approach to National Energy Efficiency (ROSHANEE)

7. The Committee note that the National Mission on Enhanced Energy Efficiency (NMEEE) has been revised to the Road Map of sustainable and Holistic Approach to National Energy Efficiency (ROSHANEE). ROSHANEE has a broader vision and takes into account all the potential areas of energy efficiency in each sector, covering the macro level in policy and further delineating the respective schemes. The Committee have been apprised that ROSHANEE will help in the consolidation of all activities and their consequent contribution towards meeting the Nationally Determined Contribution (NDC) goals. The activities proposed to be undertaken under ROSHANEE are estimated to lead to a savings of 887 million tonnes of CO2 by 2030. The estimated expenditure for the implementation of activities under ROSHANEE is Rs. 10,370.37 crore. Considering the compelling need for reduction of greenhouse gases and the mammoth potential of monetary savings from energy efficiency, the Committee recommend that the scheme shall be expeditiously implemented on priority basis so as to achieve Nationally Determined Contribution goals in time bound manner.

(Para No.7, Recommendation No.7)

State Designated Agencies (SDAs)

8. The Committee note that the Energy Conservation Act empowers the State Government to facilitate and enforce the efficient use of energy through their respective State Designated Agencies (SDAs) in consultation with the Bureau of Energy Efficiency. The Committee further note that 36 States/UTs have nominated an SDA in their respective State/UT. These agencies differ from State to State with Renewable Energy Development Agency comprising

44%, Power Department comprising 22%, Electrical Inspectorate comprising 17%, Distribution Companies comprising 17%, and stand-alone SDA comprising 6%. Only two States – Kerala and Andhra Pradesh have established stand-alone SDAs.

The Committee are of the belief that the role of States in implementing energy efficiency measures and hence, meeting the Nationally Determined Contribution (NDC) targets is crucial. The Committee also observe that the SDAs with the additional responsibilities are generally deprived of dedicated physical and fiscal resources for the implementation of Energy Conservation activities in the State. This dampens the pace and direction of Energy Conservation initiatives within the States. The Committee find that the States where stand-alone SDAs exist, are working more aggressively for the implementation of Energy Conservation programmes and are in a better position to perform the mandated functions in comparison to States, where such designated agencies are not available. Moreover, the Committee also believe that an effective enforcement mechanism is imperative for the implementation of all regulatory schemes. The creation of stand-alone SDAs will also facilitate in smooth and effective institutionalization of structure/machinery responsible for effective enforcement of provisions of the Energy Conservation Act. The Committee, therefore, recommend the Ministry to persuade the remaining States to have stand-alone SDAs. The Committee also expect the Ministry to provide all possible support/assistance to them in this regard.

(Para No.8, Recommendation No.8)

Central Power Research Institute (CPRI)

9. The Committee observe that the past performance of the Central Power Research Institute (CPRI) in regard to utilization of the allocated fund has not been satisfactory. In 2020-21, CPRI could utilize only 40% of the BE of Rs. 200 crore. In 2021-22, CPRI have utilized only Rs. 110 crore against the BE of Rs. 180 crore. The Committee in their previous reports have been emphasizing the need and importance to augment the base of Research and Development in the country by enhancing the budgetary provisions for this purpose and the Ministry have increased the budgetary estimation for CPRI by 68% for 2022-23 from their previous year's BE making it Rs. 302.7 crore. The Committee are of the opinion that R&D is of prime importance for a sector to thrive. As innovations are coming up across the globe at a faster pace, research activities especially in the Power Sector is required not only to ensure that the nation is not lagging in the know-how but also to provide an opportunity for our Nation to take a lead role in Technology Innovations across the world. However, the Committee find it astonishing that despite the compelling need for technological innovation and up-gradation, the premier research institute of the Power Sector is not able to fully utilize the allocated funds. In view of this, the Committee strongly recommend that the Ministry of Power in consultation with CPRI and other agencies concerned should prepare a Road-Map to augment the R&D activities at a large scale so that we can develop indigenous solutions for our peculiar problems and fulfill our changing needs. The Committee also desire that the development of the latest technologies such as Advanced Battery Storage System, Green Hydrogen, Efficient Solar Panel, Internet of Things (IoT), Smart Meter, Data Analytics, Cyber Security, Nano-Materials etc. should be on the top priority list. If needed, there should also be collaborations with advanced countries

in these fields. The Committee expect that with the augmentation of their base and activities, CPRI would be able to fully utilize the allocated funds.

(Para No.9, Recommendation No.9)

National Power Training Institute (NPTI)

10. The Committee find that NPTI – a National Apex Body for fulfilling the training and Human Resource Development requirements of the Power Sector in the country, has a poor track record of fund utilization. The actual utilization of funds by NPTI for the years 2019-20, 2020-21, 2021-22(up to 15.02.2022) have been 41.8%, 22.4% and 12% of the budgetary estimate respectively. Regarding the reasons for the under-utilization of funds, the Ministry have stated that the CAPEX requirements of NPTI are not huge. They have made a number of new centres but their revenue earning has come down partly because of COVID and partly because of the long-term aspect of their dropping the degree-course which they were doing without AICTE recognition. The demand from the CPSEs has come down because they have opened their own training institutions. Similarly, POSOCO will also conduct the training of the Load Dispatch Centres. The Committee also note that for the year 2022-23, there is an allocation of Rs. 50 crore only which is 29% less than the previous year's BE of Rs. 70 crore for NPTI.

The Committee observe that there is a shortage of trained manpower, especially in the field of Cyber Security and the Smart Distribution Sector. The Committee also note that as per National Electricity Plan (2017-22) - for a capacity addition of 1,76,140 MW in 2017-22, the additional manpower requirement would be more than 2,53,760 out of which 1,94,910 would be technical and 58,580 non-technical. The Committee believe that the number

would be much larger in the latest assessment made under the upcoming National Electricity Plan (2022-27). The Committee observe that the training institutes in the country have multiplied in recent years. Nevertheless, the Committee are of the view that there is still great scope for the expansion of NPTI as it has vast experience and expertise in its field. The Committee, however, feel that to remain relevant in the present scenario, NPTI needs to reinvent itself and augment their training infrastructure to cater to the training needs of the Power Sector of the country which is dynamically changing with technology integration and energy transition path. The Committee, therefore, recommend that NPTI should get regular feedback from the power industry to know their rapidly changing requirements. Since NPTI is a premier institute of the field, the Committee feel that NPTI should also coordinate with Power Sector Public Undertakings and organizations for formulation of courses and conduct of training programmes as per their requirements. The Committee also expect that sincere efforts will be made to fully utilize the funds allocated to NPTI for the year 2022-23 and if needed raise the demand of more funds at RE stage.

(Para No.10, Recommendation No.10)

Strengthening of Power Systems

11. The Committee are happy to note that for the 'Comprehensive Scheme for Strengthening of Transmission and Distribution System in Arunachal Pradesh and Sikkim' a budgetary estimation of Rs. 1,700 crore has been made which is 283% more than the previous year's estimation. The Committee also note that the fund of Rs. 600 crore estimated for the scheme

for fiscal 2021-22 has been fully utilized. The Committee observe that the scheme aims at strengthening the Intra-State Transmission & Distribution Infrastructure in Arunachal and Sikkim and creating reliable State power grids to improve North-Eastern States' connectivity to the upcoming load centres and extend the benefits of the grid-connected power to all categories of consumers. The Committee, therefore, appreciate the Government for the significant increase in fund allocation to expedite such an important project. They also desire that every effort should be made to fully utilize the enhanced budgetary provision during the current Financial year.

(Para No.11, Recommendation No.11)

National Smart Grid Mission

12. The Committee note that the Government had established the National Smart Grid Mission(NSGM) in 2015 to plan and monitor the implementation of policies and programs related to Smart Grid activities in India. As per NSGM guidelines, deployment of Smart Meters and Advanced Metering Infrastructure (AMI), Development of medium-sized micro grids upto1MW, Real-time monitoring and control of Distribution transformers, etc. are the scope of works pertaining to Smart Grid deployments. The Committee believe that introduction of Smart Meters marks a paradigm shift in the distribution sector that has the potential not only to ensure financial sustainability of the DISCOMS but also to empower the end consumers to control their electricity consumption in a hassle-free manner. The Committee, however, note with concern that there was an allocation of Rs. 40 crore for Smart Grid for the year 2020-21, however, the actual utilization was Rs.16.1 crore only and the poor utilization continues in the year 2021-22, as only Rs. 2.2 crore could be spent (up to 15.02.2022) against the

budgetary estimation of Rs. 40 crore. There is a provision of Rs. 35.73 crore under this head for fiscal 2022-23. The Committee, therefore, do not approve such poor utilization of budget allocation and desire that funds are fully utilized under this important head for expeditious augmentation of the manufacturing capacity of Smart Meters in the country to match their increasing demand, installation of Smart Meters in the country at a large scale. Moreover, the quality and reliability of the Smart Meters should be ensured through their mandatory quality check by independent institutions like CPRI and the Government should consider running awareness programmes so that any doubt relating to the working of Smart Meters in the minds of end consumers can be dispelled.

(Para No.12, Recommendation No.12)

Support for flood moderation storage hydroelectric projects

13. The Committee note that the Ministry of Power had submitted a requirement of Rs. 80 crore under the head of 'Support for flood moderation storage hydroelectric projects'. The Committee, however, are disappointed with the 'Nil' allocation as per ceiling at Final BE 2022-23 for such a vital tool for the promotion of hydroelectric power. The Committee have long been advocating for such financial incentives and support for the hydroelectric projects to give a much-needed boost to the sector. The Committee, therefore, strongly recommend the Ministry of Power to take up this matter at the appropriate level and make efforts to get the allocation for this vital programme at the time of Supplementary Demands.

(Para No.13, Recommendation No.13)

Manufacturing Zones under Atmanirbhar Bharat Package

14. The Committee are happy to note that there is an allocation of Rs. 100 crore for the year 2022-23 for setting up Manufacturing Zones under *Atmanirbhar Bharat* Package. This is a scheme that is being implemented jointly with the Ministry of New and Renewable Energy (MNRE) with budgetary provision in the Ministry of Power's budget. The Committee further note that the Government intend to use this zone for the manufacturing of renewable energy and transmission & distribution related equipment. The Committee laud this initiative by the Government and believe that it would immensely help in decreasing dependency of the Power Sector on import for critical equipment. The Committee recommend the Ministry to make utmost efforts to fully utilize the allocated funds so that timely completion of the proposed Manufacturing Zones can be ensured.

(Para No.14, Recommendation No.14)

New Delhi;
15th March, 2022
Phalguna 24, 1943 (Saka)

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

MINISTRY OF POWER

DEMAND NO. 79

Ministry of Power

(In ₹ crores)

		Actual 2020-2021			Budget 2021-2022			Revised 2021-2022			Budget 2022-2023		
		Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
	Gross	14556.51	383.98	14940.49	17727.03	3180.77	20907.80	15583.08	2153.08	17736.16	18421.11	13.11	18434.22
	Recoveries	*-4344.57*	*-14.00*	*-4358.57*	*-3970.00*	*-1615.80*	*-5585.80*	*-1346.70*	*-1067.46*	*-2414.16*	*-2359.48*	*...*	*-2359.48*
	Receipts	*...*	*...*	*...*	*...*	*...*	*...*	*...*	*...*	*...*	*...*	*...*	*...*
	Net	**10211.94**	**369.98**	**10581.92**	**13757.03**	**1564.97**	**15322.00**	**14236.38**	**1085.62**	**15322.00**	**16061.63**	**13.11**	**16074.74**
A. The Budget allocations, net of recoveries, are given below:													
CENTRE'S EXPENDITURE													
Establishment Expenditure of the Centre													
1. Secretariat		42.95	...	42.95	58.86	...	58.86	45.50	...	45.50	56.00	...	56.00
		-0.13	...	-0.13	...	...	...	...	...	...	...	...	...
	Net	*42.82*	*...*	*42.82*	*58.86*	*...*	*58.86*	*45.50*	*...*	*45.50*	*56.00*	*...*	*56.00*
2. *Statutory Authorities*													
2.01 Central Electricity Authority		113.96	...	113.96	130.66	...	130.66	129.05	...	129.05	121.00	...	121.00
2.02 Setting up of Joint Electricity Regulatory Commission (JERC) for UTs and Goa		10.38	...	10.38	14.00	...	14.00	12.00	...	12.00	13.49	...	13.49
2.03 Appellate Tribunal for Electricity		21.32	...	21.32	23.08	...	23.08	23.50	...	23.50	41.30	...	41.30
2.04 Central Electricity Regulatory Commission (CERC) Fund		...	...	...	220.00	...	220.00	290.00	...	290.00	205.00	...	205.00
2.05 Less- Amount met from CERC Fund		...	...	...	-220.00	...	-220.00	-290.00	...	-290.00	-205.00	...	-205.00
	Net	*145.66*	*...*	*145.66*	*167.74*	*...*	*167.74*	*164.55*	*...*	*164.55*	*175.79*	*...*	*175.79*
Total-Establishment Expenditure of the Centre		**188.48**	**...**	**188.48**	**226.60**	**...**	**226.60**	**210.05**	**...**	**210.05**	**231.79**	**...**	**231.79**
Central Sector Schemes/Projects													
Conservation and Energy Efficiency													
3. *Energy Conservation Schemes*													
3.01 Energy Conservation		5.02	...	5.02	80.00	...	80.00	40.00	...	40.00	60.00	...	60.00
Deen Dayal Upadhyaya Gram Jyoti Yojna													
4. Deen Dayal Upadhyaya Gram Jyoti Yojna		1984.77	...	1984.77	3600.00	...	3600.00	3103.29	...	3103.29	...	...	...
Integrated Power Development Scheme													
5. *Integrated Power Development Scheme*													
5.01 Transfer to Central Road and Infrastructure		3523.01	...	3523.01	3750.00	1550.00	5300.00	482.54	1067.46	1550.00	...	...	...

(In ₹ crores)

		Actual 2020-2021			Budget 2021-2022			Revised 2021-2022			Budget 2022-2023		
		Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
	Fund (CRIF)												
5.02	IPDS-Grant	3662.74	...	3662.74	3750.00	...	3750.00	2506.66	...	2506.66	...	...	...
5.03	IPDS-Loans	...	300.00	300.00	...	1550.00	1550.00	...	1067.46	1067.46	...	...	...
5.04	Less- Amount Met from Central Road and Infrastructure Fund (CRIF)	-3523.01	...	-3523.01	-3750.00	-1550.00	-5300.00	-482.54	-1067.46	-1550.00	...	...	...
	Net	*3662.74*	*300.00*	*3962.74*	*3750.00*	*1550.00*	*5300.00*	*2506.66*	*1067.46*	*3574.12*	...	...	...
Strengthening of Power Systems													
6.	*Strengthening of Power Systems*												
6.01	Smart Grids	16.07	...	16.07	40.00	...	40.00	28.40	...	28.40	35.73	...	35.73
6.02	Green Energy Corridors	...	18.67	18.67	...	14.95	14.95	...	18.16	18.16	...	13.11	13.11
6.03	Interest Subsidy to National Electricity Fund	200.00	...	200.00	200.00	...	200.00	1000.00	...	1000.00	582.89	...	582.89
6.04	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (Program Component)	81.00	...	81.00	335.00	...	335.00	380.00	...	380.00	371.00	...	371.00
6.05	Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (EAP Component)	200.00	...	200.00	265.00	...	265.00	295.01	...	295.01	273.00	...	273.00
6.06	Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim	300.00	...	300.00	600.00	...	600.00	1600.00	...	1600.00	1700.00	...	1700.00
	Total- Strengthening of Power Systems	*797.07*	*18.67*	*815.74*	*1440.00*	*14.95*	*1454.95*	*3303.41*	*18.16*	*3321.57*	*2962.62*	*13.11*	*2975.73*
Power System Development Fund													
7.	*Power System Development Fund*												
7.01	Transfer to Power System Development Fund (PSDF)	821.42	...	821.42	574.16	...	574.16	574.16	...	574.16	604.48	...	604.48
7.02	Scheme for Power System Development	370.48	...	370.48	121.54	...	121.54	121.54	...	121.54	151.86	...	151.86
7.03	Payment of interest for loan	450.94	...	450.94	452.62	...	452.62	452.62	...	452.62	452.62	...	452.62
7.04	Less-Amount met from Power System Development Fund	-821.42	...	-821.42	-574.16	...	-574.16	-574.16	...	-574.16	-604.48	...	-604.48
	Net	*821.42*	...	*821.42*	*574.16*	...	*574.16*	*574.16*	...	*574.16*	*604.48*	...	*604.48*
8.	*Reform Linked Distribution Scheme*												
8.01	Transfer to Central Road and Infrastructure Fund (CRIF)	...	...	...	...	...	...	...	...	...	1550.00	...	1550.00
8.02	Reform Linked Distribution Scheme	...	...	...	0.01	...	0.01	1000.00	...	1000.00	7565.59	...	7565.59
8.03	Less - Amount met from Central Road and Infrastructure Fund (CRIF)	...	...	...	...	...	...	...	...	...	-1550.00	...	-1550.00
	Net	...	...	...	*0.01*	...	*0.01*	*1000.00*	...	*1000.00*	*7565.59*	...	*7565.59*
Total-Central Sector Schemes/Projects		**7271.02**	**318.67**	**7589.69**	**9444.17**	**1564.95**	**11009.12**	**10527.52**	**1085.62**	**11613.14**	**11192.69**	**13.11**	**11205.80**
Other Central Sector Expenditure													
Autonomous Bodies													
9.	*Training and Research*												
9.01	Central Power Research Institute	80.00	...	80.00	180.00	...	180.00	120.00	...	120.00	302.77	...	302.77

(In ₹ crores)

	Actual 2020-2021			Budget 2021-2022			Revised 2021-2022			Budget 2022-2023		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
9.02 National Power Training Institute	18.45	...	18.45	70.00	...	70.00	30.00	...	30.00	50.00	...	50.00
Total- Training and Research	*98.45*	...	*98.45*	*250.00*	...	*250.00*	*150.00*	...	*150.00*	*352.77*	...	*352.77*
10. Conservation and Energy Efficiency												
10.01 Bureau of Energy Efficiency (Program Component)	56.00	...	56.00	115.82	...	115.82	115.82	...	115.82	148.00	...	148.00
10.02 Bureau of Energy Efficiency (EAP Component)	60.72	...	60.72	2.00	...	2.00	2.00	...	2.00	2.00	...	2.00
Total- Conservation and Energy Efficiency	*116.72*	...	*116.72*	*117.82*	...	*117.82*	*117.82*	...	*117.82*	*150.00*	...	*150.00*
Total-Autonomous Bodies	**215.17**	**...**	**215.17**	**367.82**	**...**	**367.82**	**267.82**	**...**	**267.82**	**502.77**	**...**	**502.77**
Public Sector Undertakings												
11. Assistance to CPSUs												
11.01 National Hydro Electric Power Corporation Ltd	...	65.31	65.31	...	...	...	...	...	...	...	...	...
11.02 Tehri Development Corporation (THDC)	...	-14.00	-14.00	...	...	...	...	...	...	...	...	...
11.03 Central Assistance for Pakul Dul HEP under J and K PMDP 2015 as grant to Chenab Valley Power Projects Private Limited (CVPPPL)	203.73	...	203.73	602.53	...	602.53	763.99	...	763.99	1455.98	...	1455.98
11.04 GoI fully serviced bond issue expenditure and interest (PFC bonds)	376.39	...	376.39	376.40	...	376.40	376.40	...	376.40	376.40	...	376.40
11.05 GoI fully serviced bond issue expenditure and interest (REC Bonds)	1920.82	...	1920.82	2416.00	...	2416.00	1945.00	...	1945.00	1986.52	...	1986.52
11.06 Reimbursement of Claim for any expenditure already incurred by NTPC on Lohari Nagpala Hydro Power	...	...	...	104.40	...	104.40	43.32	...	43.32	104.40	...	104.40
11.07 Grant towards cost of downstream protection work of Subansiri Lower Project (NHPC)	...	...	...	145.00	...	145.00	74.08	...	74.08	56.98	...	56.98
Total- Assistance to CPSUs	*2500.94*	*51.31*	*2552.25*	*3644.33*	...	*3644.33*	*3202.79*	...	*3202.79*	*3980.28*	...	*3980.28*
12. Acquistion of Coal bearing areas for NTPC												
12.01 Acquisition of coal bearing areas	...	...	...	...	65.80	65.80	...	...	...	...	...	...
12.02 Less Recoveries	...	...	...	...	-65.80	-65.80	...	...	...	...	...	...
Net	...	...	...	...	...	...	...	...	...	...	...	...
Total-Public Sector Undertakings	**2500.94**	**51.31**	**2552.25**	**3644.33**	**...**	**3644.33**	**3202.79**	**...**	**3202.79**	**3980.28**	**...**	**3980.28**
Others												
13. Advance Ultra Super Critical plant in Sipat, Chattisgarh	...	...	...	0.01	...	0.01	0.01	...	0.01	0.01	...	0.01
14. Payment to Law firm P and A Law associates in KOWEPO case	4.18	...	4.18	...	...	...	...	...	...	...	...	...
15. Payment to SDMC- Badarpur Thermal Power Station	32.15	...	32.15	16.08	...	16.08	16.08	...	16.08	16.08	...	16.08
16. Support for cost of enabling infrastructure i.e Roads/ Bridge etc	...	...	...	...	0.01	0.01	...	...	...	...	...	...
17. Support for flood moderation storage- Hydro electric projects	...	...	...	...	0.01	0.01	...	...	...	...	...	...
18. Dispute Resolution Authority	...	...	...	0.01	...	0.01	...	...	...	...	...	...
19. Creation of a Central Transmission Utility (CTU)	...	...	...	30.00	...	30.00	0.10	...	0.10	0.01	...	0.01

(In ₹ crores)

	Actual 2020-2021			Budget 2021-2022			Revised 2021-2022			Budget 2022-2023		
	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total	Revenue	Capital	Total
20. Payment Pertaining to International Arbitration Case	...	...	...	28.00	...	28.00	12.00	...	12.00	28.00	...	28.00
21. Manufacturing Zones under Atmanirbhar Bharat Package	...	...	...	0.01	...	0.01	0.01	...	0.01	100.00	...	100.00
22. Subsidy to Indian Shipping Companies	...	...	...	...	...	...	...	...	...	10.00	...	10.00
Total-Others	**36.33**	**...**	**36.33**	**74.11**	**0.02**	**74.13**	**28.20**	**...**	**28.20**	**154.10**	**...**	**154.10**
Total-Other Central Sector Expenditure	**2752.44**	**51.31**	**2803.75**	**4086.26**	**0.02**	**4086.28**	**3498.81**	**...**	**3498.81**	**4637.15**	**...**	**4637.15**
Grand Total	***10211.94***	***369.98***	***10581.92***	***13757.03***	***1564.97***	***15322.00***	***14236.38***	***1085.62***	***15322.00***	***16061.63***	***13.11***	***16074.74***
B. Developmental Heads												
Economic Services												
1. Power	10169.12	...	10169.12	11925.67	...	11925.67	11398.37	...	11398.37	13661.63	...	13661.63
2. Secretariat-Economic Services	42.82	...	42.82	58.86	...	58.86	45.50	...	45.50	56.00	...	56.00
3. Capital Outlay on Power Projects	...	4.67	4.67	...	14.97	14.97	...	18.16	18.16	...	13.11	13.11
4. Loans for Power Projects	...	365.31	365.31	...	1430.00	1430.00	...	1057.46	1057.46	...	...	...
Total-Economic Services	**10211.94**	**369.98**	**10581.92**	**11984.53**	**1444.97**	**13429.50**	**11443.87**	**1075.62**	**12519.49**	**13717.63**	**13.11**	**13730.74**
Others												
5. North Eastern Areas	...	...	...	1772.50	...	1772.50	2792.51	...	2792.51	2344.00	...	2344.00
6. Loans for North Eastern Areas	...	...	...	...	120.00	120.00	...	10.00	10.00	...	...	...
Total-Others	**...**	**...**	**...**	**1772.50**	**120.00**	**1892.50**	**2792.51**	**10.00**	**2802.51**	**2344.00**	**...**	**2344.00**
Grand Total	**10211.94**	**369.98**	**10581.92**	**13757.03**	**1564.97**	**15322.00**	**14236.38**	**1085.62**	**15322.00**	**16061.63**	**13.11**	**16074.74**

	Budget Support	IFRR	Total	Budget Support	IFRR	Total	Budget Support	IFRR	Total	Budget Support	IFRR	Total
C. Investment in Public Enterprises												
Power System Operation Corporation Limited												
9. Power System Operation Corporation Limited	...	19.30	19.30	...	...	...	...	34.01	34.01	...	36.87	36.87
Total-Power System Operation Corporation Limited	**...**	**19.30**	**19.30**	**...**	**...**	**...**	**...**	**34.01**	**34.01**	**...**	**36.87**	**36.87**
National Hydro Electric Power Corporation Limited												
2. National Hydro Electric Power Corporation Limited	65.31	5230.69	5296.00	...	8057.44	8057.44	...	6772.21	6772.21	...	7361.05	7361.05
Total-National Hydro Electric Power Corporation Limited	**65.31**	**5230.69**	**5296.00**	**...**	**8057.44**	**8057.44**	**...**	**6772.21**	**6772.21**	**...**	**7361.05**	**7361.05**
Damodar Valley Corporation Limited												
3. Damodar Valley Corporation Limited	...	2342.00	2342.00	...	2857.06	2857.06	...	2536.95	2536.95	...	2009.87	2009.87

	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total	Budget Support	IEBR	Total
Total-Damodar Valley Corporation Limited	...	**2342.00**	**2342.00**	...	**2857.06**	**2857.06**	...	**2536.95**	**2536.95**	...	**2009.87**	**2009.87**
North Eastern Electric Power Corporation Limited												
4. North Eastern Electric Power Corporation Limited	...	965.00	965.00	...	810.02	810.02	...	733.20	733.20	...	900.81	900.81
Total-North Eastern Electric Power Corporation Limited	...	**965.00**	**965.00**	...	**810.02**	**810.02**	...	**733.20**	**733.20**	...	**900.81**	**900.81**
Satluj Jal Vidyut Nigam Limited												
5. Satluj Jal Vidyut Nigam Limited	...	2880.00	2880.00	...	5000.00	5000.00	...	5000.00	5000.00	...	8000.00	8000.00
Total-Satluj Jal Vidyut Nigam Limited	...	**2880.00**	**2880.00**	...	**5000.00**	**5000.00**	...	**5000.00**	**5000.00**	...	**8000.00**	**8000.00**
Tehri Hydro Development Corporation Limited												
6. Tehri Hydro Development Corporation Limited	...	1828.03	1828.03	...	2730.00	2730.00	...	2693.93	2693.93	...	3207.54	3207.54
Total-Tehri Hydro Development Corporation Limited	...	**1828.03**	**1828.03**	...	**2730.00**	**2730.00**	...	**2693.93**	**2693.93**	...	**3207.54**	**3207.54**
Power Grid Corporation of India Limited												
7. Power Grid Corporation of India Limited	...	10500.00	10500.00	...	7500.00	7500.00	...	7500.00	7500.00	...	7500.00	7500.00
Total-Power Grid Corporation of India Limited	...	**10500.00**	**10500.00**	...	**7500.00**	**7500.00**	...	**7500.00**	**7500.00**	...	**7500.00**	**7500.00**
Rural Electrification Corporation												
8. Rural Electrification Corporation	...	2500.00	2500.00	...	9300.00	9300.00	...	...	...	...	...	...
Total-Rural Electrification Corporation	...	**2500.00**	**2500.00**	...	**9300.00**	**9300.00**	...	...	...	...	...	...
National Thermal Power Corporation Limited												
1. National Thermal Power Corporation Limited	...	21000.00	21000.00	...	23736.00	23736.00	...	23736.00	23736.00	...	22454.00	22454.00
Total-National Thermal Power Corporation Limited	...	**21000.00**	**21000.00**	...	**23736.00**	**23736.00**	...	**23736.00**	**23736.00**	...	**22454.00**	**22454.00**
Total	**65.31**	**47265.02**	**47330.33**	...	**59990.52**	**59990.52**	...	**49006.30**	**49006.30**	...	**51470.14**	**51470.14**

1. **Secretariat:** Provision is made for expenditure on establishment matters of the Secretariat of the Ministry of Power.

2.01. **Central Electricity Authority:** The Central Electricity Authority (CEA) as a statutory organization is responsible for overall power sector planning, coordination, according concurrence to hydro-electric schemes, promoting and assisting the timely completion of projects, specifying technical standards and safety requirements, Grid Standards and conditions for installation of meters applicable to the Power Sector of the country.

2.02. **Setting up of JERC for UTs and Goa:** The Central Government has set up a Joint Electricity Regulatory Commission (JERC) for Goa and all Union Territories except Delhi. Expenditure of the Joint Commission is borne by the Central Government and the Government of Goa in the ratio of 6:1.

2.03. **Appellate Tribunal for Electricity:** Under the provisions of Electricity Act, 2003, the Central Government has set up the Appellate Tribunal for Electricity. It hears appeals against the orders of the adjudicating officer or the Appropriate Commissions under the Electricity Act, 2003. Under the provisions of the Petroleum and Natural Gas Regulatory Board Act, 2006, APTEL is the Appellate Tribunal for the purpose of that Act.

2.04. **Central Electricity Regulatory Commission (CERC) Fund:** CERC is a statutory body constituted under the provision of the erstwhile Electricity Regulatory Commissions Act, 1998 and continued under Electricity Act, 2003 (which has since repealed inter alia the ERC Act, 1998). The main functions of the CERC are to regulate the tariff of generating companies owned or controlled by the Central Government, to regulate the tariff of generating companies other than those owned or controlled by the Central Government, if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State, to regulate the inter-State transmission of energy including tariff of the transmission utilities, to grant licences for inter-State transmission and trading and to advise the Central Government in formulation of National Electricity Policy and Tariff Policy.

3.01. **Energy Conservation:** The funds would be utilized for (i) carrying out awareness creation on Energy Conservation through print, electronic and other media for general public, (ii) Continuation of EC awards and painting competition on Energy Conservation, (iii) implementation of the National Mission for Enhanced Energy Efficiency (NMEEE) and (iv) the upscaling of the efforts to create and sustain market for energy efficiency to unlock investments. (v) Shields and certificates are given by MoP to generating stations, transmission and distribution utilities and rural distribution franchise for recognising meritorious performance in operation, project management and environmental protection.

4. **Deen Dayal Upadhyaya Gram Jyoti Yojna:** Deendayal Upadhyaya Gram Jyoti Yojna (DDUGJY)has the following objectives : (a) to separate agriculture and non-agriculture feeders to facilitate Discoms in the judicious rostering of supply to agricultural & non-agricultural consumers (b) strengthen and augment sub-transmission & Distribution infrastructure in rural areas and (c) Rural electrification. The scope of works covered under the scheme are Feeder separation, creation of new sub-stations, provision of micro-grid and off-grid distribution network, HT/LT lines, augmentation of sub-stations and metering at all levels. Under the scheme, Govt. of India is providing financial support in the form of grants to the DisComs for implementation of the scheme. All DisComs including Private Sector DisComs are eligible for availing financial support under the scheme. From the year 2022-23 the scheme subsumes in the 'Reform Linked Distribution Scheme'.

5. **Integrated Power Development Scheme:** The objective of the scheme is 24x7 power supply for consumers, reduction of AT&C losses and providing access to all households. The scheme has three major components namely improvement of sub-transmisison and distribution system in urban areas, metering & IT enablement in distribution sector under ongoing Restructured-Accelarated Power Development Reform Programme (R-APDRP) scheme, which has been subsumed under Integrated Power Development Scheme (IPDS). R-APDRP has two major components: Part-A includes projects for establishment of information technology-based energy accounting and audit system leading to finalization of verifiable base-line AT&C loss levels in the project areas; Part-B envisages distribution network strengthening investments leading to reduction in loss level. The scheme has both Grant and loan components. From the year 2022-23 the scheme subsumes in the 'Reform Linked Distribution Scheme'.

5.01. **Transfer to Central Road and Infrastructure Fund (CRIF):** The amount under the scheme is met from Central Road and Infrastructure Fund (CRIF).

5.02. **IPDS-Grant:** Grant is given to the utilities through the Nodal Agency for carrying out the activities under the Scheme within a specified time frame.

5.03. **IPDS-Loans:** Loan has been given to the utilities for carrying out the activities through the Nodal Agency, which will be converted into grant after successful completion of the programme.

6.01. **Smart Grids:** The scheme envisages setting up of an institutional mechanism by launching 'National Smart Grid Mission' which would serve the need of an electrical grid with automation, communication and IT systems that can monitor power flows from points of generation to points of consumption and ensure control of power flow or curtailment of loads matching generation on real time basis.

6.02. **Green Energy Corridors:** The scheme is proposed for maximization of renewable energy generation and integration with the main grid without compromising on the security and stability of power system.

6.03. **Interest Subsidy to National Electricity Fund:** The National Electricity Fund (NEF) is being set up to provide interest subsidy on loans to be disbursed to the Distribution Companies (DISCOMS) both in the Public and Private Sector, to improve the distribution network for areas not covered by RGGVY and R-APDRP scheme (since subsumed in DDUGJY and IPDS respectively) Project areas.

6.05. **Power System Improvement in North Eastern States excluding Arunachal Pradesh and Sikkim (Program Component):** The project is for Power System Improvement in six NER states viz. Assam, Manipur, Meghalaya, Mizoram, Tripura and Nagaland. It is funded by the World Bank. Intra-State Transmission & Distribution projects for Sikkim & Arunachal Pradesh have been segregated for implementation through budgetary support from Government of India in view of these States having sensitive borders.

6.07. **Strengthening of Transmission System in the States of Arunachal Pradesh and Sikkim:** A comprehensive scheme for strengthening of transmission, sub-transmission and distribution system in the entire NER including Sikkim has been conceptualized.

7. **Power System Development Fund:** The scheme envisages (a) strengthening of existing distribution and transmission infrastructure by part-funding through Grants.(Non-Gas component) (b) Provision for subsidy to DISCOMS purchasing electricty from stranded Gas based Power Plants (Gas component).

8. **Reform Linked Distribution Scheme:** The scheme is for Distribution sub-sector as a mix of Results and Reforms based financial support with an objective of ensuring 24X7 sustainable Power for all and a financially viable Distribution Sector. The scheme envisages support to DISCOMs in case of adoption of Reform Packages including Public Private Ownership of Distribution Companies, adoption of various franchisee models at distribution level including multiple supply franchisees.

9.01. **Central Power Research Institute:** Central Power Research Institute, Bengaluru serves as a National Laboratory for applied research in the field of electrical power and also functions as an independent authority for testing, evaluation and certification of electrical equipment and components.

9.02. **National Power Training Institute:** National Power Training Institute is engaged in imparting training in various aspects of power sector including operation and maintenance of power stations.

10. **Conservation and Energy Efficiency:** Funds are provided to Bureau of Energy Efficiency (BEE) for implementation of various energy efficiency initiatives in the areas of household lighting, commercial buildings, Standards & Labeling appliances, Demand Side Management in Agriculture or Municipalities, SMEs and large industries including the initiation of the process for development of Energy Consumption norms for industrial sub-sectors, capacity building of SDAs, DISCOMS etc.

11.03. **Central Assistance for Pakul Dul HEP under J and K PMDP 2015 as grant to Chenab Valley Power Projects Private Limited (CVPPPL):** It is part of Prime Minister development package (2015), the asistance is for the Pakul Dul HEP implemented through joint venture with Chenab Valley Power project Pvt limited.

11.04. **GoI fully serviced bond issue expenditure and interest (PFC bonds):** The allocation is required for expenses and on the issue of Bonds, interest payable on infrastructure bonds raise by Power Finance Corporation (PFC).

11.05. **GoI fully serviced bond issue expenditure and interest (REC Bonds):** Interest payment on account of EBR of Rs 4000 cr raised during FY 2017-18 and Rs 15000 crore to raised during FY 2018-19 for DDUGJY & Saubhagaya (Rural).

11.06. **Reimbursement of Claim for any expenditure already incurred by NTPC on Lohari Nagpala Hydro Power:** The scheme is for distribution of award in respect of Lohari Nag Pala Hydro Power Project.

11.07. **Grant towards cost of downstream protection work of Subansiri Lower Project (NHPC):** Expenditure on Downstream protection work of Subansiri Lower project (NHPC). As per decision taken in the meeting in NITI Aayog held on 24.09.2019, the cost of downstream protection work of Subansiri Lower project is to be borne by the Government of India.

12. **Acquistion of Coal bearing areas for NTPC:** The allocation is budget neutral as met through recoveries from NTPC on acquisition of Coal bearing areas for NTPC.

13. **Advance Ultra Super Critical plant in Sipat, Chattisgarh:** Setting up of technology demonstration project at Sipat, Chattisgarh.

15. **Payment to SDMC- Badarpur Thermal Power Station:** Payment to South Delhi Municipal Corporation on account of Land Lease in respect of Badarpur Thermal Power Station.

16. **Support for cost of enabling infrastructure i.e Roads/ Bridge etc:** Allocation for developing enabling infrastructure such as Roads, Bridges etc at site of Hydro Project.

17. **Support for flood moderation storage- Hydro electric projects:** Allocation for support for Flood moderation storage at Hydro electric projects.

18. **Dispute Resolution Authority:** Allocation is for Dispute Resolution Authority that has been envisaged for adjudication of disputes involving generating companies or transmission licensee and to refer any dispute for arbitration, as per Section 79(1)(f) of the Electricity Act, 2003

19. **Creation of a Central Transmission Utility (CTU):** Review the progress in separation of CTU from powergrid, it was decided that necessary action may be taken for creation of the separate CTU company. The same is under consideration of the Committee regarding Establishment Expenditure (CEE) for formation of CTU Ltd as a separate GoI company.

20. **Payment Pertaining to International Arbitration Case:** Payment to Law firm under the India Korea CEPA and India Korea BIT for defending case and dispute on behalf of GoI.

21. **Manufacturing Zones under Atmanirbhar Bharat Package:** This scheme is for setting up of 3 manufacturing Zones for Power and Renewable equipment to be set up in 3 different States. The manufacturing facilities in the zones shall be based on cutting edge, clean and energy efficient technology for minimizing dependency on import of equipment, critical components, basic raw material, critical spares etc. required for Power sector and renewable.

22. **Subsidy to Indian Shipping Companies:** To promote the objective of Atmnirbhar Bharat, the Government of India approved a scheme for five years as subsidy support to Indian Shipping Companies in Global tenders floated by Ministries/Departments and CPSEs for import of Government cargo

Appendix-I

MINUTES OF THE SEVENTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2021-22) HELD ON 22nd FEBRUARY, 2022 IN COMMITTEE ROOM 'D', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee met from 1100 hrs. to 1300 hrs.

PRESENT

LOK SABHA

Shri Rajiv Ranjan Singh *alias* Lalan Singh- Chairperson

2. Shri Gurjeet Singh Aujla
3. Shri Devendra Singh Bhole
4. Shri Kishan Kapoor
5. Dr. A. Chellakumar
6. Shri Uttam Kumar Reddy Nalamada
7. Shri Sunil Kumar Mondal
8. Shri Gyaneshwar Patil
9. Shri Dipsinh Shankarsinh Rathod
10. Shri Chandra Sekhar Bellana

RAJYA SABHA

11. Shri Rajendra Gehlot
12. Shri S. Selvaganabathy
13. Shri K.T.S. Tulsi

SECRETARIAT

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

LIST OF WITNESSES

S.N.	NAME	DESIGNATION
MINISTRY OF POWER		
1.	Shri Alok Kumar	Secretary
2.	Shri Ashish Upadhyaya	Additional Secretary & Financial Advisor
3.	Shri S.K.G. Rahate	Additional Secretary
4.	Shri Vivek Kumar Dewangan	Additional Secretary
5.	Shri Vishal Kapoor	Joint Secretary
6.	Shri Ghanshyam Prasad	Joint Secretary
7.	Shri Jithesh John	Economic Adviser
8.	Shri Pradeep Kumar Berwah	Chief Controller of Accounts
PSUs/ AUTONOMOUS BODIES/ STATUTORY BODIES		
9.	Shri B.K. Arya	Chairperson, CEA
10.	Shri Gurdeep Singh	CMD, NTPC & Dir (F), NTPC
11.	Shri Ravinder Singh Dhillon	CMD, PFC
12.	Shri R.K. Vishnoi	CMD, THDC
13.	Shri Nand Lal Sharma	CMD, SJVNL
14.	Shri S.R. Narasimhan	CMD, POSOCO
15.	Shri Vinod Kumar Singh	CMD, NEEPCO
16.	Shri Ram Naresh Singh	Chairman, DVC
17.	Shri Sanjay Srivastava	Chairman, BBMB
18.	Shri Abhay Bakre	Director General, BEE
19.	Shri V.S. Nandakumar	Director General, CPRI
20.	Smt. Tripta Thakur	Director General, NPTI
21.	Shri Ajoy Choudhary	Director (Finance), REC
22.	Shri Mohammed Taj Mukarrum	Director, PGCIL

2. At the outset, the Chairperson welcomed the Members and the representatives of the Ministry of Power to the sitting of the Committee and

apprised them of the agenda i.e. examination of the Demands for Grants of the Ministry of Power for the year 2022-23, the main topics for the discussion and the provisions of Directions 55(1) and 58 of the Directions by the Speaker.

3. Thereafter, the Ministry of Power made a PowerPoint presentation on the subject which *inter-alia* included major achievements in Power Sector in the last five years, budgetary allocations, details of CAPEX, major schemes of the Ministry, etc.

4. The Committee *inter-alia* deliberated upon the following points with the representatives of the Ministry of Power:

i. Budgetary allocation – utilization of funds during the previous years, financial provisions for 2022-23, Gross Budgetary Support (GBS) and Extra Budgetary Resources (EBR).

ii. Implementation of Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Saubhagya Scheme – targets and achievements, the remaining works under the schemes.

iii. Indian Power Development Scheme (IPDS) – targets and achievements, the remaining works under the scheme.

iv. Revamped Reforms Based and Results Linked Power Distribution Scheme – reasons for taking this initiative, targets, budgetary provisions, co-ordination with the States.

v. R&D and Training – fund allocation and utilization, need to augment such facilities in the country, work being done under the various research and development programmes, need for trained manpower and augmentation of training facilities.

vi. Energy Efficiency and Conservation – budgetary allocation and its utilization.

vii. Smart Grid and Smart Meters – issues relating to Smart Meters, need for expeditious execution of work, cyber security of Power System.

viii. National Electricity Policy, 2005 – need for formulation of a new Electricity Policy.

5. The Members also sought clarifications on various issues relating to Demands and the representatives of the Ministry replied to some of the questions. The Committee directed the representatives of the Ministry to furnish the written replies to the queries which could not be responded within seven days positively.

6. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

The Committee then adjourned.

The verbatim proceedings of the Sitting have been kept for record.

XXX not related to this Report

Appendix -II

MINUTES OF THE NINTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2021-22) HELD ON 15th MARCH, 2022 IN COMMITTEE ROOM 'B', PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1030 hours to 1100 hours

LOK SABHA

Shri Rajiv Ranjan Singh alias Lalan Singh - Chairperson

2. Shri Sunil Kumar Mondal
3. Shri Velusamy P.
4. Shri Parbatbhai Savabhai Patel
5. Shri Dipsinh Shankarsinh Rathod
6. Shri Gnanathiraviam S.
7. Shri Bellana Chandra Sekhar
8. Shri Shivkumar C. Udasi

RAJYA SABHA

9. Shri Ajit Kumar Bhuyan
10. Shri T.K.S. Elangovan
11. Shri Muzibulla Khan
12. Shri S. Selvaganabathy
13. Shri Sanjay Seth
14. Dr. Sudhanshu Trivedi

SECRETARIAT

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

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

(i) Report on 'Action-taken by the Government on recommendations contained in the 6th Report (17th Lok Sabha) of the Committee on Demands for Grants (2021-22) of the Ministry of New and Renewable Energy'.
(ii) Report on 'Action-taken by the Government on recommendations contained in the 7th Report (17th Lok Sabha) of the Committee on Demands for Grants (2021-22) of the Ministry of Power'.
(iii) Report on 'Demands for Grants (2022-23) of the Ministry of New and Renewable Energy'.
(iv) Report on 'Demands for Grants (2022-23) of the Ministry of Power'.

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

The Committee then adjourned.