

GOVERNMENT OF INDIA  
MINISTRY OF POWER

RAJYA SABHA  
UNSTARRED QUESTION NO.149  
ANSWERED ON 25.11.2024

DISCOM FINANCES

149. SHRI SANJAY KUMAR JHA:

Will the Minister of **Power** be pleased to state:

- (a) whether Government is aware of current long-running problem of DISCOM finances, if so, the details thereof;
- (b) whether Government has been able to identify the reasons that lead to DISCOMs problem ranging from revenue losses to others, if so, the details thereof, company-wise, if not, the reasons therefor;
- (c) whether Government's programme of Ujwal Discom Assurance Yojana (UDAY) to address DISCOMs' financial stress has helped the DISCOMs to come out of financial stress; and
- (d) if so, the details of the companies which have saved themselves from facing such conditions, State-wise?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

**(a) & (b) :** For the DISCOMs/Power Departments (PDs) in FY 23, at the National level the Aggregate Technical and Commercial (AT&C) Losses are 15.37%, the Gap between Average Cost of Supply (ACS) and Average Revenue Realised (ARR) i.e. ACS-ARR Gap is Rs. 0.45/kWh, the accumulated losses are Rs 6.48 lakh Cr and the accumulated debt is Rs. 6.84 lakh Cr. The key reasons for revenue losses include delay in tariff orders; poor billing and collection efficiencies; non-implementation of Fuel and Power Purchase Cost Adjustment (FPPCA), under-recovery of electricity dues of State Government departments and the subsidy amounts.

Government of India has been implementing various performance linked and result oriented schemes with the objective to have a financially secure, viable and sustainable power sector (distribution segment in particular). Several interventions have been made to improve financial and operational efficiencies of DISCOMs/PDs by linking to reform measures including Additional Borrowing space of 0.5% of GSDP to States linked to power sector reforms undertaken; introducing additional prudential norms for lending by Power Finance Corporation (PFC) Limited and REC Limited; and Revamped Distribution Sector Scheme (RDSS). Eligibility of States and DISCOMs under all these measures are conditional on their taking steps to improve their operational and financial efficiencies.

In addition, Rules have promulgated for automatic pass through of FPPCA, pass through of all prudent costs incurred by the distribution licensee, timely payments of subsidy by State Governments etc.

These initiatives have been designed to tackle financial and operational issues of DISCOMs/PDs to bring in desired financial discipline in DISCOMs and State Governments.

**(c) & (d):** UDAY was launched with an overall objective of operational and financial turnaround of State owned Distribution Utilities (DISCOMs) through efficiency improvements and financial restructuring in Distribution Sector. Recognising that the liabilities of the State owned utilities are the contingent liabilities of the States themselves, UDAY envisaged States taking over 75% of the debt of the DISCOMs as on 30.09.2015 by issuing State Development Loan (SDL) Bonds.**(State wise details placed at Annexure-I)**

As a result of participation of DISCOMs under UDAY and other efficiency measures, State Power Distribution Utilities have reported improvements which include:

- i. AT&C losses have reduced from 23.70% in FY2015-16 to 15.37% in FY2023.
- ii. ACS-ARR Gap reduced from Rs. 0.54/kWh in FY2015-16 to Rs. 0.45/kWh in FY2023.  
**(State wise details placed at Annexure-II)**

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## ANNEXURE-I

ANNEXURE REFERRED IN REPLY TO PARTS (c) & (d) OF UNSTARRED QUESTION  
NO. 149 ANSWERED IN THE RAJYA SABHA ON 25.11.2024

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*(All amounts in Rs Crores)*

S No.	State	Total DISCOM Liabilities as on 30-09-2015	DISCOM liabilities to be restructured as per MoU	Total bonds issued under UDAY
1.	Andhra Pradesh	14,721	11,008	8,256
2.	Assam	1,510	1,510	-
3.	Bihar	3,109	3,109	3,109
4.	Chhattisgarh	1,740	1,305	870
5.	Haryana	34,602	34,602	25,950
6.	Himachal Pradesh	3,854	3,854	2,891
7.	J&K	3,538	3,538	3,538
8.	Jharkhand	7,215	7,215	6,136
9.	Madhya Pradesh	34,739	7,360	7,360
10.	Maharashtra	22,097	6,613	4,960
11.	Meghalaya	167	167	125
12.	Punjab	20,838	20,838	15,629
13.	Rajasthan	83,229	83,229	74,790
14.	Tamil Nadu	30,420	30,420	22,815
15.	Telangana	11,897	11,897	8,923
16.	Uttar Pradesh	53,211	53,211	49,510
	<b>TOTAL</b>	<b>3,26,887</b>	<b>2,79,876</b>	<b>2,34,862</b>

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## ANNEXURE-II

## ANNEXURE REFERRED IN REPLY TO PARTS (c) &amp; (d) OF UNSTARRED QUESTION NO. 149 ANSWERED IN THE RAJYA SABHA ON 25.11.2024

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## AT&amp;C LOSS (in%)

States/ DISCOMs	2015-16	2022-23
<b>State Sector</b>	<b>23.65</b>	<b>15.78</b>
<b>Andaman &amp; Nicobar Islands</b>	<b>18.61</b>	<b>19.81</b>
Andaman & Nicobar PD	18.61	19.81
<b>Andhra Pradesh</b>	<b>10.36</b>	<b>7.98</b>
APCPDCL	-	11.46
APEPDCL	7.10	5.94
APSPDCL	12.03	8.08
<b>Arunachal Pradesh</b>	<b>54.58</b>	<b>51.70</b>
Arunachal PD	54.58	51.70
<b>Assam</b>	<b>26.02</b>	<b>16.22</b>
APDCL	26.02	16.22
<b>Bihar</b>	<b>43.30</b>	<b>25.01</b>
NBPDCL	35.73	21.25
SBPDCL	47.87	27.95
<b>Chhattisgarh</b>	<b>22.10</b>	<b>16.14</b>
CSPDCL	22.10	16.14
<b>Delhi</b>	<b>11.76</b>	<b>10.67</b>
NDMC	11.76	10.67
<b>Goa</b>	<b>19.77</b>	<b>11.85</b>
Goa PD	19.77	11.85
<b>Gujarat</b>	<b>16.23</b>	<b>10.65</b>
DGVCL	10.48	1.68
MGVCL	11.81	9.29
PGVCL	24.71	18.31
UGVCL	11.53	9.35
<b>Haryana</b>	<b>29.27</b>	<b>12.01</b>
DHBVNL	26.44	13.17
UHBVNL	32.84	10.32
<b>Himachal Pradesh</b>	<b>9.68</b>	<b>10.57</b>
HPSEBL	9.68	10.57
<b>Jammu &amp; Kashmir</b>	<b>58.75</b>	<b>-</b>
JKPDD	58.75	-
<b>Jharkhand</b>	<b>33.34</b>	<b>30.28</b>
JBVNL	33.34	30.28
<b>Karnataka</b>	<b>17.13</b>	<b>13.91</b>
BESCOM	13.88	12.16
CHESCOM	13.60	10.22
GESCOM	18.00	19.26
HESCOM	27.63	18.13
MESCOM	12.71	9.20

<b>Kerala</b>	<b>12.40</b>	<b>7.05</b>
KSEBL	12.40	7.05
TCED	7.46	7.08
<b>Ladakh</b>	<b>-</b>	<b>30.33</b>
Ladakh PD	-	30.33
<b>Madhya Pradesh</b>	<b>27.37</b>	<b>20.55</b>
MPMaKVVCL	31.09	22.89
MPPaKVVCL	25.06	12.60
MPPoKVVCL	26.10	27.39
<b>Maharashtra</b>	<b>21.74</b>	<b>18.58</b>
BEST	-	4.18
MSEDCL	21.74	19.04
<b>Manipur</b>	<b>31.72</b>	<b>13.82</b>
MSPDCL	31.72	13.82
<b>Meghalaya</b>	<b>45.98</b>	<b>23.97</b>
MePDCL	45.98	23.97
<b>Mizoram</b>	<b>35.18</b>	<b>26.27</b>
Mizoram PD	35.18	26.27
<b>Nagaland</b>	<b>33.44</b>	<b>45.81</b>
Nagaland PD	33.44	45.81
<b>Puducherry</b>	<b>22.43</b>	<b>17.49</b>
Puducherry PD	22.43	17.49
<b>Punjab</b>	<b>15.88</b>	<b>11.26</b>
PSPCL	15.88	11.26
<b>Rajasthan</b>	<b>31.59</b>	<b>15.90</b>
AVVNL	27.66	10.00
JdVVNL	29.67	20.99
JVVNL	35.87	15.83
<b>Sikkim</b>	<b>43.89</b>	<b>36.69</b>
Sikkim PD	43.89	36.69
<b>Tamil Nadu</b>	<b>16.83</b>	<b>10.31</b>
TANGEDCO	16.83	10.31
<b>Telangana</b>	<b>14.01</b>	<b>18.65</b>
TSNPDCL	17.41	22.19
TSSPDCL	12.64	17.20
<b>Tripura</b>	<b>32.68</b>	<b>28.15</b>
TSECL	32.68	28.15
<b>Uttar Pradesh</b>	<b>39.76</b>	<b>22.33</b>
DVVNL	43.13	24.04
KESCO	28.16	11.33
MVVNL	44.58	24.22
PaVVNL	27.12	17.02
PuVVNL	51.14	27.27
<b>Uttarakhand</b>	<b>18.01</b>	<b>15.32</b>
UPCL	18.01	15.32
<b>West Bengal</b>	<b>28.08</b>	<b>17.32</b>
WBSEDCL	28.08	17.32

<b>Private Sector</b>	<b>24.58</b>	<b>10.94</b>
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu</b>	<b>7.95</b>	<b>3.58</b>
DNHDDPDCL	7.95	3.58
<b>Delhi</b>	<b>12.44</b>	<b>7.12</b>
BRPL	12.60	7.16
BYPL	16.76	7.25
TPDDL	8.83	6.98
<b>Gujarat</b>	-	<b>3.93</b>
Torrent Power Ahmedabad	-	4.04
Torrent Power Surat	-	3.69
<b>Maharashtra</b>	-	<b>6.48</b>
AEML	-	6.48
<b>Odisha</b>	<b>38.60</b>	<b>21.85</b>
TPNODL	36.32	17.26
TPSODL	44.57	31.32
TPWODL	40.07	20.47
TPCODL	36.51	22.65
<b>Uttar Pradesh</b>	-	<b>8.36</b>
NPCL	-	8.36
<b>West Bengal</b>	-	<b>8.15</b>
CESC	11.6	8.28
IPCL	-	6.56
<b>Grand Total</b>	<b>23.70</b>	<b>15.37</b>

**ACS-ARR GAP (in Rs per kWh)**

<b>States/ DISCOMs</b>	<b>2015-16</b>	<b>2022-23</b>
<b>State Sector</b>	<b>0.57</b>	<b>0.52</b>
<b>Andaman &amp; Nicobar Islands</b>	<b>0</b>	<b>2.20</b>
Andaman & Nicobar PD	0	2.20
<b>Andhra Pradesh</b>	<b>0.80</b>	<b>(0.15)</b>
APCPDCL	-	(0.09)
APEPDCL	0.32	(0.30)
APSPDCL	1.03	(0.06)
<b>Arunachal Pradesh</b>	<b>0.49</b>	<b>0.00</b>
Arunachal PD	0.49	0.00
<b>Assam</b>	<b>0.23</b>	<b>0.62</b>
APDCL	0.23	0.62
<b>Bihar</b>	<b>0.46</b>	<b>0.00</b>
NBPDCCL	0.35	0.19
SBPDCL	0.54	(0.15)
<b>Chhattisgarh</b>	<b>(0.01)</b>	<b>0.26</b>
CSPDCL	(0.01)	0.26
<b>Delhi</b>	<b>(0.37)</b>	<b>0.95</b>
NDMC	(0.37)	0.95
<b>Goa</b>	<b>0.71</b>	<b>(0.14)</b>
Goa PD	0.71	(0.14)
<b>Gujarat</b>	<b>(0.02)</b>	<b>(0.02)</b>
DGVCL	(0.04)	(0.02)
MGVCL	0.01	(0.05)
PGVCL	(0.01)	(0.01)
UGVCL	(0.04)	(0.02)
<b>Haryana</b>	<b>0.16</b>	<b>(0.15)</b>
DHBVNL	0.17	(0.19)
UHBVNL	0.15	(0.10)
<b>Himachal Pradesh</b>	<b>(0.31)</b>	<b>0.86</b>
HPSEBL	(0.31)	0.86
<b>Jammu &amp; Kashmir</b>	<b>3.00</b>	<b>-</b>
JKPDD	3.00	-
<b>Jharkhand</b>	<b>0.93</b>	<b>2.45</b>
JBVNL	0.93	2.45
<b>Karnataka</b>	<b>0.33</b>	<b>0.32</b>
BESCOM	0.17	0.30
CHESCOM	(0.10)	(0.12)
GESCOM	0.35	0.53
HESCOM	0.88	0.83
MESCOM	0.39	(0.56)
<b>Kerala</b>	<b>0.30</b>	<b>0.33</b>
KSEBL	0.30	0.34
TCED	0	(0.08)
<b>Ladakh</b>	<b>-</b>	<b>2.18</b>
Ladakh PD	-	2.18

<b>Madhya Pradesh</b>	<b>0.87</b>	<b>(0.20)</b>
MPMaKVVCL	1.20	(0.40)
MPPaKVVCL	0.50	(0.18)
MPPoKVVCL	0.95	(0.02)
<b>Maharashtra</b>	<b>0.43</b>	<b>1.24</b>
MSEDCL	0.43	1.21
BEST	-	2.25
<b>Manipur</b>	<b>0.02</b>	<b>1.30</b>
MSPDCL	0.02	1.30
<b>Meghalaya</b>	<b>0.82</b>	<b>0.67</b>
MePDCL	0.82	0.67
<b>Mizoram</b>	<b>2.06</b>	<b>1.71</b>
Mizoram PD	2.06	1.71
<b>Nagaland</b>	<b>0.20</b>	<b>(0.32)</b>
Nagaland PD	0.20	(0.32)
<b>Puducherry</b>	<b>(0.02)</b>	<b>0.39</b>
Puducherry PD	(0.02)	0.39
<b>Punjab</b>	<b>0.53</b>	<b>0.20</b>
PSPCL	0.53	0.20
<b>Rajasthan</b>	<b>1.83</b>	<b>0.20</b>
AVVNL	1.96	0.22
JdVVNL	1.80	0.29
JVVNL	1.77	0.09
<b>Sikkim</b>	<b>2.09</b>	<b>(0.68)</b>
Sikkim PD	2.09	(0.68)
<b>Tamil Nadu</b>	<b>0.67</b>	<b>0.89</b>
TANGEDCO	0.67	0.89
<b>Telangana</b>	<b>0.74</b>	<b>1.40</b>
TSNPDCL	0.88	1.29
TSSPDCL	0.68	1.45
<b>Tripura</b>	<b>0.42</b>	<b>0.60</b>
TSECL	0.42	0.60
<b>Uttar Pradesh</b>	<b>0.29</b>	<b>1.19</b>
DVVNL	0.73	1.79
KESCO	(0.07)	(0.00)
MVVNL	0.19	1.76
PaVVNL	0.21	(0.25)
PuVVNL	0.08	2.12
<b>Uttarakhand</b>	<b>0.10</b>	<b>0.72</b>
UPCL	0.10	0.72
<b>West Bengal</b>	<b>0.52</b>	<b>0.32</b>
WBSEDCL	0.52	0.32
<b>Private Sector</b>	<b>(0.05)</b>	<b>(0.19)</b>
<b>Dadra &amp; Nagar Haveli and Daman &amp; Diu</b>	<b>0</b>	<b>(0.14)</b>
DNHDDPDCL	0	(0.14)
<b>Delhi</b>	<b>(0.37)</b>	<b>(0.03)</b>
BRPL	(0.37)	0.03
BYPL	0.23	0.15
TPDDL	(0.81)	(0.23)



<b>Gujarat</b>	-	<b>(0.50)</b>
Torrent Power Ahmedabad	-	(0.58)
Torrent Power Surat	-	(0.30)
<b>Maharashtra</b>	-	<b>(0.04)</b>
AEML	-	(0.04)
<b>Odisha</b>	<b>0.39</b>	<b>(0.25)</b>
TPNODL	0.34	(0.27)
TPSODL	0.31	0.38
TPWODL	0.22	(0.59)
TPCODL	0.61	(0.06)
<b>Uttar Pradesh</b>	-	<b>(0.79)</b>
NPCL	-	(0.79)
<b>West Bengal</b>	-	<b>(0.18)</b>
CESC	0.59	(0.24)
IPCL	-	0.53
<b>Grand Total</b>	<b>0.54</b>	<b>0.45</b>

**Accumulated Losses: Surplus/ Deficit (in Rs Crores)**

<b>States/ DISCOMs</b>	<b>2015-16</b>	<b>2022-23</b>
<b>State Sector</b>	<b>(3,74,099)</b>	<b>(6,76,681)</b>
<b>Andhra Pradesh</b>	<b>(14,484)</b>	<b>(29,218)</b>
APCPDCL		(9,726)
APEPDCL	(2,889)	(6,911)
APSPDCL	(11,595)	(12,581)
<b>Assam</b>	<b>(3,089)</b>	<b>(1,699)</b>
APDCL	(3,089)	(1,699)
<b>Bihar</b>	<b>(4,256)</b>	<b>(19,322)</b>
NBPDCCL	(1,351)	(7,089)
SBPDCL	(2,906)	(12,234)
<b>Chhattisgarh</b>	<b>(5,575)</b>	<b>(10,057)</b>
CSPDCL	(5,575)	(10,057)
<b>Gujarat</b>	<b>497</b>	<b>935</b>
DGVCL	394	546
MGVCL	244	418
PGVCL	(297)	(300)
UGVCL	156	272
<b>Haryana</b>	<b>(29,064)</b>	<b>(28,165)</b>
DHBVNL	(13,191)	(13,194)
UHBVNL	(15,873)	(14,971)
<b>Himachal Pradesh</b>	<b>(2,000)</b>	<b>(3,246)</b>
HPSEBL	(2,000)	(3,246)
<b>Jharkhand</b>	<b>(1,897)</b>	<b>(15,175)</b>
JBVNL	(1,897)	(15,175)
<b>Karnataka</b>	<b>(3,027)</b>	<b>(17,559)</b>
BESCOM	(375)	(4,480)
CHESCOM	(634)	(2,686)
GESCOM	(552)	(3,398)
HESCOM	(1,562)	(7,258)
MESCOM	97	263
<b>Kerala</b>	<b>(2,185)</b>	<b>(29,335)</b>
KSEBL	(2,185)	(29,335)
<b>Madhya Pradesh</b>	<b>(35,664)</b>	<b>(64,843)</b>
MPMaKVVCL	(13,986)	(26,663)
MPPaKVVCL	(9,898)	(13,107)
MPPoKVVCL	(11,780)	(25,073)
<b>Maharashtra</b>	<b>(26,246)</b>	<b>(31,275)</b>
MSEDCL	(26,246)	(31,275)
<b>Manipur</b>	<b>(62)</b>	<b>(286)</b>
MSPDCL	(62)	(286)
<b>Meghalaya</b>	<b>(1,153)</b>	<b>(4,104)</b>
MePDCL	(1,153)	(4,104)
<b>Punjab</b>	<b>(3,220)</b>	<b>(10,420)</b>
PSPCL	(3,220)	(10,420)

<b>Rajasthan</b>	<b>(92,652)</b>	<b>(92,070)</b>
AVVNL	(30,348)	(28,263)
JdVVNL	(30,010)	(34,488)
JVVNL	(32,294)	(29,318)
<b>Tamil Nadu</b>	<b>(63,162)</b>	<b>(1,62,507)</b>
TANGEDCO	(63,162)	(1,62,507)
<b>Telangana</b>	<b>(16,520)</b>	<b>(60,922)</b>
TSNPDCL	(5,895)	(18,593)
TSSPDCL	(10,625)	(42,330)
<b>Tripura</b>	<b>(388)</b>	<b>(804)</b>
TSECL	(388)	(804)
<b>Uttar Pradesh</b>	<b>(67,776)</b>	<b>(91,632)</b>
DVVNL	(21,824)	(30,050)
KESCO	(3,501)	(4,187)
MVVNL	(12,820)	(20,345)
PaVVNL	(12,951)	(17,970)
PuVVNL	(16,679)	(19,081)
<b>Uttarakhand</b>	<b>(2,051)</b>	<b>(5,096)</b>
UPCL	(2,051)	(5,096)
<b>West Bengal</b>	<b>(126)</b>	<b>119</b>
WBSEDCL	(126)	119
<b>Private Sector</b>	<b>(2,048)</b>	<b>28,769</b>
<b>Delhi</b>	<b>2,263</b>	<b>11,591</b>
BRPL	184	5,244
BYPL	137	3,094
TPDDL	1,942	3,253
<b>Gujarat</b>	<b>-</b>	<b>4,018</b>
Torrent Power Ahmedabad	-	3,426
Torrent Power Surat	-	592
<b>Maharashtra</b>	<b>-</b>	<b>1,580</b>
AEML	-	1,580
<b>Odisha</b>	<b>(4,311)</b>	<b>517</b>
TPNODL	(1,262)	190
TPSODL	(138)	124
TPWODL	(192)	154
TPCODL	(2,719)	49
<b>Uttar Pradesh</b>	<b>-</b>	<b>1,293</b>
NPCL	-	1,293
<b>West Bengal</b>	<b>-</b>	<b>9,770</b>
CESC	-	9,491
IPCL	-	279
<b>Grand Total</b>	<b>(3,76,147)</b>	<b>(6,47,913)</b>

**Accumulated Debt (in Rs Crores)**

<b>States/ DISCOMs</b>	<b>2015-16</b>	<b>2022-23</b>
<b>State Sector</b>	<b>4,08,941</b>	<b>6,61,263</b>
<b>Andhra Pradesh</b>	<b>15,690</b>	<b>51,852</b>
APCPDCL	0	11,384
APEPDCL	4,690	12,144
APSPDCL	11,000	28,325
<b>Assam</b>	<b>2,603</b>	<b>1,072</b>
APDCL	2,603	1,072
<b>Bihar</b>	<b>3,773</b>	<b>13,897</b>
NBPDCL	1,865	6,396
SBPDCL	1,908	7,501
<b>Chhattisgarh</b>	<b>1,559</b>	<b>6,168</b>
CSPDCL	1,559	6,168
<b>Gujarat</b>	<b>1,554</b>	<b>359</b>
DGVCL	174	26
MGVCL	266	33
PGVCL	843	256
UGVCL	271	44
<b>Haryana</b>	<b>30,017</b>	<b>11,886</b>
DHBVNL	12,480	6,624
UHBVNL	17,537	5,262
<b>Himachal Pradesh</b>	<b>4,882</b>	<b>6,683</b>
HPSEBL	4,882	6,683
<b>Jharkhand</b>	<b>6,986</b>	<b>20,357</b>
JBVNL	6,986	20,357
<b>Karnataka</b>	<b>12,179</b>	<b>32,211</b>
BESCOM	7,036	15,382
CHESCOM	1,193	3,708
GESCOM	848	3,706
HESCOM	2,329	8,014
MESCOM	772	1,401
<b>Kerala</b>	<b>5,880</b>	<b>16,806</b>
KSEBL	5,880	16,806
<b>Madhya Pradesh</b>	<b>37,804</b>	<b>49,145</b>
MPMaKVVCL	13,492	18,437
MPPaKVVCL	10,923	13,950
MPPoKVVCL	13,389	16,758
<b>Maharashtra</b>	<b>21,111</b>	<b>58,325</b>
MSEDCL	21,111	58,325
<b>Manipur</b>	<b>139</b>	<b>619</b>
MSPDCL	139	619
<b>Meghalaya</b>	<b>350</b>	<b>1,733</b>
MePDCL	350	1,733
<b>Punjab</b>	<b>25,467</b>	<b>17,813</b>
PSPCL	25,467	17,813

<b>Rajasthan</b>	<b>80,746</b>	<b>79,611</b>
AVVNL	26,658	22,347
JdVVNL	26,111	27,817
JVVNL	27,977	29,447
<b>Tamil Nadu</b>	<b>88,782</b>	<b>1,59,431</b>
TANGEDCO	88,782	1,59,431
<b>Telangana</b>	<b>13,944</b>	<b>35,883</b>
TSNPDCL	5,617	13,110
TSSPDCL	8,326	22,773
<b>Tripura</b>	<b>160</b>	<b>791</b>
TSECL	160	791
<b>Uttar Pradesh</b>	<b>39,535</b>	<b>78,306</b>
DVVNL	14,672	19,860
KESCO	2,033	2,948
MVVNL	7,498	17,816
PaVVNL	6,528	10,440
PuVVNL	8,804	27,243
<b>Uttarakhand</b>	<b>1,380</b>	<b>1,562</b>
UPCL	1,380	1,562
<b>West Bengal</b>	<b>14,402</b>	<b>16,751</b>
WBSEDCL	14,402	16,751
<b>Private Sector</b>	<b>12,146</b>	<b>23,116</b>
<b>Delhi</b>	<b>8,135</b>	<b>5,047</b>
BRPL	2,107	1,443
BYPL	2,120	1,162
TPDDL	3,907	2,442
<b>Gujarat</b>	-	<b>4,254</b>
Torrent Power Ahmedabad	-	3,590
Torrent Power Surat	-	664
<b>Maharashtra</b>	-	<b>3,071</b>
AEML	-	3,071
<b>Odisha</b>	<b>4,011</b>	<b>2,165</b>
TPNODL	944.35	425
TPSODL	169.60	859
TPWODL	434.19	224
TPCODL	2463.34	657
<b>West Bengal</b>	-	<b>8,579</b>
CESC	-	8,300
IPCL	-	280
<b>Grand Total</b>	<b>4,21,087</b>	<b>6,84,379</b>

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

RAJYA SABHA  
UNSTARRED QUESTION NO.150  
ANSWERED ON 25.11.2024

SMART GRID PROJECTS UNDER NSGM

150. SHRI DHAIRYASHIL MOHAN PATIL:

Will the Minister of **Power** be pleased to state:

- (a) whether Government has reviewed the progress and challenges of smart grid projects under National Smart Grid Mission (NSGM) launched in 2015 in the State of Maharashtra;
- (b) if so, the details of key achievements, including reduction in Aggregate Technical and Commercial (AT&C) losses and integration of Advanced Metering Infrastructure (AMI) with legacy systems;
- (c) whether Government is implementing measures to address data standardisation, RF interoperability, and consumer awareness for smoother adoption of smart grid technologies; and
- (d) if so, the timeline and steps planned for scaling up smart grid infrastructure and capacity building across DISCOMS to meet national energy needs?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

**(a) & (b) :** Two Smart Grid projects in Maharashtra for Amravati and Congress Nagar (Nagpur) were sanctioned in April/June 2016 for Rs.229.20 Cr. under National Smart Grid Mission (NSGM). However, Maharashtra State Electricity Distribution Company Limited (MSEDCL) surrendered the projects sanctioned in December 2018 citing no competitive bids and higher bid prices. No projects were sanctioned further for Maharashtra under NSGM and the scheme stands closed as on 31.03.2024.

**(c):** It is to mention that smart metering is an important element of smart grid and the data exchange protocol chosen for Smart Meter as per IS 16444 shall be as per IS 15959 (Part 2) including specific requirements for Smart Meters for the application layer, which is primarily Device Language Message Specification (DLMS)/ Companion Specification for Energy Metering (COSEM). Further as per Model Standard Bidding Document (SBD) for Smart Prepaid Metering, Meter Data Management (MDM) System shall interface with other important Information Technology (IT)/Operational Technology (OT) systems (viz. Billing, CIS, IVRS, CRM systems, SCADA/OMS etc.) on standard interfaces. The data exchange models and interfaces shall comply with CIM-XML-IEC 61968-9/IEC 61968-100/Web Services/MultiSpeak v3.0 and MDM solution shall be ESB-SOA enabled.

.....2.

Further, the Ministry has also taken steps for interoperability of Advance Metering Infrastructure (AMI).

As regards consumer awareness, Ministry of Power (MoP) has already released Standard Operating Procedure (SoP) for consumer awareness/engagement for facilitating smart metering implementation and it has also been mandated under the existing smart meter contracts.

**(d) :** Under Revamped Distribution Sector Scheme (RDSS), around 20 Cr. smart meters have been sanctioned which includes consumer meter, Distribution Transformer (DT) meter and feeder meters. Contracts for around 11.5 Cr. smart meters have been awarded so far and are under various stages of implementation. Installation of sanctioned smart meters is envisaged to be completed within the scheme period. Till date, capacity building, related to AMI and Supervisory Control and Data Acquisition (SCADA), has been undertaken for around 8,000 Power Distribution Utility employees under RDSS.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

RAJYA SABHA  
UNSTARRED QUESTION NO.151  
ANSWERED ON 25.11.2024

**STREET LIGHTING NATIONAL PROGRAMME**

151# **SHRI RAJENDRA GEHLOT:**

Will the Minister of **Power** be pleased to state:

- (a) the details of Street Lighting National Programme (SLNP) and its main features;
- (b) whether Government has any proposal to replace traditional street lights with LED lights under SLNP in the State of Rajasthan, if so, the details thereof; and
- (c) the work done so far in this direction, the amount of funds allocated to the State of Rajasthan under SLNP in the last three years, the current year and the amount utilized therefrom?

**A N S W E R**

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

**(a) :** Street Lighting National Programme (SLNP) launched in 2015, aims to reduce energy consumption and costs in public lighting through widespread adoption of LED lamps for street lighting across India.

Energy Efficiency Services Limited (EESL), a joint venture of CPSEs under the Ministry of Power is the implementing agency for SLNP. Under this programme, EESL adopted the business model that relieves municipalities from upfront investment burdens. EESL makes the upfront investment and recoups it through monthly / quarterly annuities paid by the municipalities during the project duration. Under SLNP, EESL also handles the maintenance of LED streetlights, ensuring over 95% uptime, which enhances public safety and reliable municipal services without burdening municipal budgets.

More than 13.1 million LED streetlights have been installed across different urban and rural areas under SLNP. This has resulted in an annual electricity saving of approximately 8.8 billion kWh and annual monetary savings of around ₹6,178 crore for municipalities and gram panchayats. The State-wise details of LED streetlights installed is at **Annexure**.

**(b) & (c) :** SLNP programme has already been implemented in Rajasthan. As on 7<sup>th</sup> November 2024, 10,73,238 streetlights have been replaced with LED streetlights under SLNP in Rajasthan. Government of India has not allocated any budget for SLNP, as the programme is implemented by EESL in self-financing mode.

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## ANNEXURE

## ANNEXURE REFERRED IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 151 ANSWERED IN THE RAJYA SABHA ON 25.11.2024

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Sr. No.	State	LED Street Light
1	ANDHRA PRADESH	29,47,706
2	ASSAM	28,875
3	BIHAR	5,75,922
4	CHANDIGARH	46,496
5	CHHATTISGARH	3,81,199
6	DELHI	3,96,689
7	GOA	2,07,183
8	GUJARAT	9,03,519
9	HARYANA	85,139
10	HIMACHAL PRADESH	63,332
11	JAMMU & KASHMIR	1,88,860
12	JHARKHAND	5,54,091
13	KARNATAKA	13,226
14	KERALA	4,33,979
15	LAKSHADWEEP	1000
16	MADHYA PRADESH	2,95,417
17	MAHARASHTRA	11,14,328
18	ODISHA	3,53,808
19	Pondicherry	1,520
20	PORTBLAIR	14,995
21	PUNJAB	1,27,267
22	RAJASTHAN	10,73,238
23	SIKKIM	1,073
24	TAMILNADU	7,876
25	TELANGANA	17,28,459
26	TRIPURA	76,426
27	UTTAR PRADESH	12,90,949
28	UTTARAKHAND	1,33,511
29	WEST BENGAL	94,198
	<b>GRAND TOTAL</b>	<b>1,31,40,281</b>

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

**RAJYA SABHA**  
**UNSTARRED QUESTION NO.152**  
**ANSWERED ON 25.11.2024**

**CARBON CAPTURE, UTILISATION AND STORAGE (CCUS) TECHNOLOGY**

**152. SMT. PRIYANKA CHATURVEDI:**

Will the Minister of **Power** be pleased to state:

- (a) whether Carbon Capture, Utilisation and Storage (CCUS) technology has been implemented by Government in the country, if so, the details thereof;
- (b) whether CCUS has been effective in addressing the local pollution and emission issues in regions where it has been used; and
- (c) whether Government plans to extend CCUS technologies in the country and if so, the details thereof?

**A N S W E R**

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

**(a) to (c) :** NTPC has taken up the following small-scale pilot/R&D projects for flue gas CO<sub>2</sub> capture and utilization:

- (i) A 10 tons per day flue gas CO<sub>2</sub>-to-Methanol project at NTPC Vindhyachal, Madhya Pradesh.
- (ii) A 10 tons per day flue gas CO<sub>2</sub>-to-Gen-4 Ethanol project at NTPC Lara, Chhattisgarh.

The projects are in demonstration stage. No dedicated study has been conducted to evaluate the impact of CCUS technology on local pollution and emission challenges.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

RAJYA SABHA  
UNSTARRED QUESTION NO.153  
ANSWERED ON 25.11.2024

NEW POWER PROJECTS

153. SHRI DHANANJAY BHIMRAO MAHADIK:

Will the Minister of **Power** be pleased to state:

- (a) the details on new power projects that have been planned or are currently under construction to meet the rising electricity demand across the country;
- (b) the timeline for completion of new power projects currently under development in the State of Maharashtra, and the estimated additional capacity they will contribute; and
- (c) whether Government has taken measures to ensure that new power projects are sufficient to meet the projected future electricity demand, particularly in urban and industrial areas?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

(a) : The details of new power projects that have been planned or are currently under construction are as follows:

**Hydro**

Currently, 28 Hydroelectric Projects (HEPs) aggregating to 13,997.5 MW and 05 Pumped Storage Projects (PSPs) aggregating to 6,050 MW are under construction in the country.

Detailed project reports (DPRs) of 28 HEPs aggregating to 19,460 MW and 04 PSPs aggregating to 4,100 MW have been concurred by CEA.

11 HEPs aggregating to 8,036 MW and 44 PSPs aggregating to 60,050 MW are under Survey & Investigation (S&I).

**Thermal**

Currently, 29,200 MW coal-based capacity is under construction, 18,400 MW of capacity has been awarded and 47,240 MW of candidate capacity is under consideration.

**Nuclear**

Currently, 7,300 MW nuclear capacity is under construction and 7,000 MW capacity has been accorded administrative approval.

### **Renewable Energy (RE)**

As on 31.10.2024, a total of 1,27,050 MW of RE capacity is under implementation and 89,690 MW is under bidding.

**(b):** 02 PSPs, Bhivpuri (1,000 MW) and Bhavali (1,500 MW), in Maharashtra have been concurred by CEA. Further, 09 PSPs are currently under Survey & Investigation (S&I) for preparation of DPRs in Maharashtra. As on 31.10.2024, 01 under-construction thermal power project namely, Bhusawal TPS, Unit-6 (660 MW) is likely to be commissioned by January 2025. Further, 02 coal-based power plants namely Koradi (2x660 MW) and Chandrapur (800 MW) are under consideration.

**(c):** The Government of India has taken several steps to meet the projected future electricity demand. These *inter-alia*, include;

- i. Notification of trajectory for RE power bids of 50 GW/year to be issued by Renewable Energy Implementation Agencies (Solar Energy Corporation of India Limited, NTPC Limited, NHPC Limited, SJVN Limited) from FY 2023-24 to FY 2027-28.
- ii. Inter State Transmission System (ISTS) charges have been waived for inter-state sale of solar and wind power for projects to be commissioned till 30th June 2025, for Green Hydrogen Projects till December 2030 and for offshore wind projects till December 2032.
- iii. To boost RE consumption, Renewable Consumption Obligation (RCO) trajectory has been notified till 2029-30, including separate RCO for Distributed Renewable Energy.
- iv. Scheme for setting up of Ultra Mega Renewable Energy Parks is being implemented to provide land and transmission to RE developers for installation of RE projects at large scale.
- v. Laying of new transmission lines and creating new sub-station capacity has been funded under the Green Energy Corridor Scheme for evacuation of renewable power.
- vi. Cabinet has approved the Viability Gap Funding (VGF) scheme for offshore wind energy projects for installation and commissioning of 1 GW of offshore wind energy projects (500 MW each off the coast of Gujarat and Tamil Nadu)
- vii. "Strategy for Establishments of Offshore Wind Energy Projects" has been issued indicating a bidding trajectory of 37 GW by 2030 and various business models for project development.
- viii. The Offshore Wind Energy Lease Rules, 2023 have been notified vide Ministry of External Affairs notification dated 19th December 2023, to regulate the grant of lease of offshore areas for development of offshore wind energy projects.
- ix. In 2019, Government announced measures to promote Hydro Power Sector such as declaring Large Hydro Projects (>25 MW) as Renewable Energy source, Tariff rationalization measures for bringing down hydropower tariff, Budgetary Support for Flood Moderation/ Storage Hydro Electric Projects (HEPs), Budgetary Support to Cost of Enabling Infrastructure i.e., roads/bridges, etc.

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GOVERNMENT OF INDIA  
MINISTRY OF POWER

RAJYA SABHA  
UNSTARRED QUESTION NO.154  
ANSWERED ON 25.11.2024

NATIONAL ELECTRICITY PLAN

154. SHRI ASHOKRAO SHANKARRAO CHAVAN:

Will the Minister of *Power* be pleased to state:

- (a) whether Government has launched a National Electricity Plan (transmission) recently in the country;
- (b) if so, the details thereof and the salient features of the said plan;
- (c) the aims and objectives of the said plan;
- (d) the details of target set for laying new transmission lines under the said plan;
- (e) the details of total expenditure likely to be incurred on the laying of said transmission line; and
- (f) whether Government proposes to connect neighbouring countries with this line and if so, the details thereof?

A N S W E R

THE MINISTER OF STATE IN THE MINISTRY OF POWER

(SHRI SHRIPAD NAIK)

**(a) :** Yes, the National Electricity Plan (Transmission) has been launched in October, 2024.

**(b) & (d) :** The National Electricity Plan (Transmission) covers the transmission plan till the year 2031-32. As per the Plan, 1,91,474 circuit kilometers (ckm) of transmission lines and 1274 Giga Volt Ampere (GVA) of transformation capacity would be added (at 220 kV and above voltage level) during the ten- year period from 2022-23 to 2031-32. In addition, 33.25 Giga Watts (GW) of High Voltage Direct Current (HVDC) bi-pole links are also planned. The inter-regional transmission capacity is planned to increase to 143 GW by the year 2026-27 and further to 168 GW by the year 2031-32, from the present level of 119 GW.

The Plan also highlights new technology options in transmission, cross-border interconnections and private sector participation in transmission.

**(c) :** As per Section 3 of the Electricity Act 2003, Central Electricity Authority (CEA) has been entrusted with the responsibility of preparing the National Electricity Plan (NEP) in accordance with the National Electricity Policy and to notify such plan once in five years.

The National Electricity Plan (Transmission) covers the progress during the period 2017-18 to 2021-22, detailed transmission plan for the period 2022-23 to 2026-27, and perspective plan for the period 2027-28 to 2031-32.

The Transmission Plan provides visibility to the Electricity Generators, Equipment Manufacturers, Transmission Service Providers (TSP) and investors for the growth opportunities in Transmission Sector.

**(e) :** Total expenditure likely to be incurred on this plan is about Rs 9,16,142 Crores.

**(f) :** The National Electricity Plan (Transmission), inter-alia covers the existing, under implementation, and planned interconnections with neighbouring countries like Nepal, Bhutan, Myanmar, Bangladesh and Sri Lanka.

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