

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1639
ANSWERED ON 11.02.2021**

MANGDECHHU HYDROELECTRIC PROJECT

**1639. DR. SUBHASH RAMRAO BHAMRE:
SHRIMATI SUPRIYA SULE:
DR. AMOL RAMSING KOLHE:
SHRI SUNIL DATTATRAY TATKARE:
DR. DNV SENTHILKUMAR S.:
SHRI KULDEEP RAI SHARMA:**

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

- (a) whether bilateral Inter-Governmental Agreement for implementation of the 720 MW Mangdechhu Hydroelectric Project in Bhutan which was under construction has started power production and if so, the details thereof and if not, the reasons therefor;**
- (b) whether India and Bhutan signed the first Indo-Bhutan joint venture hydroelectric project and if so, the details of the project along with the main objectives thereof;**
- (c) the details of ratio of funds to be provided by India and Bhutan for the said project;**
- (d) whether surplus electricity generated through the project is likely to be supplied to India and if so, the details thereof; and**
- (e) the time by which the work on the said project will be started and completed?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Yes Sir, the 720 MW Mangdechhu Hydroelectric Project in Bhutan has been commissioned during the year 2019-20 and has started power production. The generation from the project is as under:-

**Unit-I (180 MW) – 1414.02 MU
Unit-2 (180 MW) – 1190.18 MU
Unit-3 (180 MW) – 693.06 MU
Unit-4 (180 MW) – 1327.56 MU**

Cumulative generation till 2nd February, 2021 is 4624.82 MU.

(b) : **An Inter-Governmental agreement was signed between the Royal Govt. of Bhutan (RGoB) and Govt. of India (GoI) on 22.04.2014 for development of following four Joint Venture (JV) Hydro Power Projects through the Public Sector Undertakings of the two Governments:**

JV Partners	Name of the project
SJVN Ltd (CPSU of GoI) and DGPC (a PSU of RGoB)	Kholongchhu & Wangchhu Hydroelectric Projects
NHPC Ltd (CPSU of GoI) and DGPC (a PSU of RGoB)	Chamkharchhu-I Hydroelectric Project
THDC (I) Ltd (CPSU of GoI) and DGPC (a PSU of RGoB)	Bunakha Reservoir Hydroelectric Project

Of the above, the Concessionaire Agreement for 600 MW Kholongchhu Hydro Electric Project in Bhutan, for implementation in Joint Venture (JV) mode, was signed on 29.06.2020 between the Royal Govt. of Bhutan (RGoB) and Kholongchu Hydro Electric Limited (a Joint Venture between SJVN Ltd., a CPSU under Ministry of Power and DGPC (Druk Green Power Corporation), a PSU of RGoB).

The 600 MW Kholongchhu Hydro Electric Project is a run-of-river project located on the Kholongchhu River in Trashiyangtse District in North-Eastern Bhutan. The project will generate 2568.52 Million Units (MU) in a 90% dependable year.

(c) : **SJVN and DGPC own equal shareholdings (50:50) in the Joint Venture Company (JVC). The project shall be financed under a debt-equity ratio of 70:30. Government of India shall provide DGPC's share of equity i.e. 15% in the Joint Venture Company as grant and balance 15% equity share shall be contributed by SJVN Ltd.**

(d) : **Yes Sir, the surplus electricity generated through the project shall be supplied to India by the Joint Venture Company. As per the Inter-Governmental agreement signed between the Royal Govt. of Bhutan (RGoB) and Govt. of India (GoI) on 22.04.2014 regarding development of Joint Venture Hydro Power Projects, 12% of the saleable energy from the project (generated energy net of power plant auxiliary consumption) is to be given to RGoB as Royalty Energy during the first 12 years of the Commercial Operation of the project and 18% of the power thereafter till the end of the concession period.**

Of the remaining energy, 70% of the saleable energy net of royalty energy is to be sold under long term Power Purchase Agreement route and the balance through market mechanism. However, the RGoB would have the first right of refusal on the saleable energy and the energy over and above required for use of Bhutan would be sold to the beneficiaries in India by the JV company.

(e) : **The Kholongchhu H.E. project is scheduled for commissioning in a period of 59 months from the award of works. The pre-construction activities of the project have been completed.**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1641
ANSWERED ON 11.02.2021**

ONGOING POWER PROJECTS

**1641. SHRI VINAYAK RAUT:
SHRI JANARDAN SINGH SIGRIWAL:
SHRIMATI REKHA VERMA:**

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

- (a) the details of the ongoing power projects alongwith the power produced by them within the country, State-wise including Maharashtra, Bihar and Uttar Pradesh;**
- (b) the funds sanctioned, allocated and utilised under these projects during the last three years and the current year across the country;**
- (c) whether some of the projects are facing huge cost/time overrun, if so, the details thereof and the reasons therefor; and**
- (d) the action taken by the Government for completion of these projects in time bound manner?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (d) : At present 37 nos. Hydro Electric Projects (above 25 MW) aggregating to 12,823.5 MW are under construction in the country including Maharashtra, Bihar and Uttar Pradesh.

The details of funds sanctioned, allocated & utilised under these projects during the last three years and the current year, along with details of cost/time overrun as well as reasons therefor in respect of the under-construction Hydro-electric projects are given at Annexure-I. These projects are under construction – so no generation is taking place in these power projects.

In respect of Thermal Power Projects, as per Section 7 of the Electricity Act, 2003, "any generating company may establish, operate and maintain a generating station without obtaining a license/permission under this Act, if it complies with the technical standards relating to connectivity with the grid. Accordingly, sanction of the Government is not required for setting up of thermal power projects."

The list of under-construction Thermal power projects is at Annexure-II. Out of these, 22 nos. of thermal power projects aggregating to capacity of 19,280 MW are partially commissioned and generated electricity (From April to December 2020) aggregating to 48,321.14 BU. The details of funds sanctioned, allocated & utilised under these projects during the last three years and the current year, along with details of cost/time overrun in respect of the under-construction Thermal power projects are given at Annexure-II. The main reasons for delay in completion of these projects are as under:

- **Work stopped due to COVID pandemic**
- **Contractual Issues**
- **Readiness of railway line / Railway sidings**
- **Delay in supply by equipment manufacturers**
- **Delay in land acquisitions**
- **Disruption of work due to Local issues**
- **Litigations**
- **Delay due to change in design**
- **Delay due to readiness of Balance of Plant**
- **Delay in getting coal mines, coal linkages.**

The following action/steps are taken by the Ministry of Power/CEA to ensure timely completion of Power Projects:

- (i) Ministry of Power/ Central Electricity Authority (CEA) monitor the progress of under-construction power projects through frequent site visits and interaction with the developers & other stakeholders. CEA holds review meetings periodically with the developers and other stakeholders to identify and resolve issues critical for commissioning of Projects.**
- (ii) Regular reviews are also undertaken in Ministry of Power (MoP) to identify the constraint areas to facilitate faster resolution of inter-Ministerial and other outstanding issues.**
- (iii) In case of Central Power Sector Undertakings (CPSUs) projects, the project implementation parameters/ milestones are incorporated in the annual MoU signed between respective CPSU's and Ministry of Power and the same are monitored during the quarterly performance review meetings of CPSU's and other meetings held in MoP/CEA.**
- (iv) Various matters related with project implementation are being taken up with State Government/District Administration for facilitating the support in resolving the issues to the project implementing agencies.**
- (v) Matters are taken up with State Government/District Administration for extending help to the project implementing agencies in resolving Right of Way (ROW) issues.**
- (vi) As and when required, issues are also reviewed in the PRAGATI portal of PMO for proactive governance and timely implementation.**

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 1641 ANSWERED IN THE LOK SABHA ON 11.02.2021

**DETAILS OF UNDER DEVELOPMENT HYDRO ELECTRIC PROJECTS (ABOVE 25 MW)
HAVING TIME/COST OVERRUN-State Wise**

Sl. No	Project Name/(I.C.)/ Executing Agency	Capacity Under Execution (MW)	Org. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Org. Cost (Rs. in Crores) (Price Level)	Latest/Ant. Cost (Rs. in Crores) (Price Level)	Cost over run (Rs. in Crores) (%)	Expenditure Incurred (In Rs Crore)			Reasons for time and cost over run
									2018-19	2019-20	2020-21	
1	2	3	4	5	6	7	8	9	10	11	12	13
Andhra Pradesh												
1*	Polavaram (12x80 = 960 MW) APGENCO / Irr. Deptt., A.P.	960	2017-18 (Mar'18)	2024-25 (Mar,25) (subject to re-start of works)	84	3013.68 (2010-11 PL) (Power Component)	5338.95 (2016-17 PL) (Power Component)	2325.27 (77.15)	149.97	6.84	-	➤ Funds constraints ➤ Works stalled since 19.07.2019 as APGENCO asked contractor (NECL) to stop all works and termination of contract issued on 14.08.2019. Now works are being taken up as legal hurdles got cleared on 14.12.2020 and works are yet to be started.
Arunachal Pradesh												
2	Kameng (4x150 = 600 MW) NEEPCO 3 units taken in operation	150	Comm. 2009-10 (Dec'09)	Feb,21	134	2496.90 (03/04)	6179.96 (03/15)	3683.06 (147.50)	696.06	825.15	179.67 (Oct-20)	➤ Change in Dam parameters. ➤ Slow progress in dam & HRT due to bad geology, heavy seepage, inadequate machinery. ➤ Flash flood in Oct. 08 and Sept. 2012. ➤ Delay in clearance for quarry from State Govt. ➤ Leakage from penstocks & rectification of defects. ➤ Cash flow issues with civil contractor
3	Subansiri Lower (8x250 = 2000 MW) NHPC	2000	2009-11 (Sep'10)	2023-24 (Aug'23)	156	6285.33 (12/02)	19992.43 (04/17)	13707.10 (218.08)	782.45	1407.67	324.96 (Aug-20)	➤ Delay in transfer of forest land. ➤ Disruption of works by locals in Ar. Pradesh side. ➤ Slope failure in Power House in Jan, 2008. ➤ All works except safety works were stalled from December, 2011 to October, 2019 due to agitation launched by Anti Dam activists in Assam against construction of Project. Work restarted w.e.f. 15.10.2019.
Himachal Pradesh												
4	Parbati - II (4x200 = 800 MW) NHPC	800	2009-10 (Sept'09)	2021-22 (Mar,22)	150	3919.59 (12/01)	9897.59 (04/18)	5978 (152.51)	607.48	599.16	753.79 (Oct,20)	➤ Delay in revised forest clearance. ➤ TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006. Due to poor geology. ➤ Flash flood in 2004,2005,2010 and 2011. ➤ Contractual issues. ➤ Cash flow issues with civil contractors.

5	Luhri-I (2x80+2x25= 210 MW) SJVN	210	2025-26 (Jan-26)	2025-26 (Jan-26)		1810.56	1810.56	-	-	-	-	-
6	Uhi-III (3x33.33 = 100 MW) BVPCL	100	2006-07 (Mar'07)	2022-23 (Dec,22)	189	431.56 (09/02)	1281.52 (12/12)	849.96 (196.95)	143.57	325.22	-	➤ Delay in transfer of forest land. ➤ Delay in acquisition of private land ➤ Delay in transfer of quarry sites. ➤ Contract for construction of HRT rescinded twice i.e. during April, 2008 & July, 2010 due to slow progress and non-performance by the contractor. ➤ Poor geology in HRT. ➤ Leakage in Penstock in July,2018 and Rupture in May,2020
7	Shongtom Karcham (3x150 = 450 MW) HPPCL	450	2016-17 (Mar'17)	2024-25 (Mar,25)	96	2807.83 (07/11)	2807.83 (07/11)	Nil	260.49	172.15	60.52 (Sep-20)	➤ Shifting of Army Ammunition Depot. ➤ Disruption of works by local people.
8	Bajoli Holi 3x60= 180 MW M/s GMR Bajoli Holi	180	2018-19 (May'18)	2021-22 (Dec,21)	43	1696.93 (12/11)	2689.00 (5/20)	992.07 (58.46)	448.00	-	-	➤ Slow progress due to poor approach to project components.
9	Sorang (2x50 = 100 MW), HSPPL	100	2011-12 (Nov'11)	2021-22 (Dec'21)	133	586.00 (04/2005)	586.00 (04/2005)	N.A.	-	-	-	➤ Poor geology. ➤ Penstock cracks / leakage during filling of Water conductor System in Nov '13 and Rupture in Nov-15 during trial run. ➤ Funds constraints with developer.
10*	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	44	2014-15 (Jun'14)	2024-25 (subject to re-start of works (4 years))	129	255.00 (01/07)	641.89 (2018)	386.89 (151.72)	-	-	-	➤ Works are stalled since January, 2015 due to fund constraints with developer.
11	Tidong-I 2x50 =100 MW NSL Tidong (w.e.f. 04.09.2018 Statkraft India Pvt. Ltd. Has acquired the 100% equity in the project)	100	2013-14 (Dec'13)	2022-23 (Jun 22)	106	543.15 (06/18)	1472.00	928.85 (171.01)	163.74	616.26	80.30 (Oct-20)	➤ Delay in NOC by Projects affected Panchayats. ➤ Suspension of works by Govt. for one year. ➤ Funds constraints with the developer
12	Kutehr 3x80=240 MW JSW Energy (Kutehr) Ltd	240	2024-25 (Nov'24)	2025-26 (Nov'25)	12	1798.13 (09/2011)	1798.13 (09/2011)	Nil	-	-	-	➤ Slow mobilization due to Covid-19 Lockdown.

Govt. of UT of J&K												
13	Pakal Dul (4x250= 1000 MW) CVPPL	1000	2020-21 (Apr'20)	2025-26 (July'25)	63	8112.12 (03/13)	8112.12 (03/13)	Nil	92.39	251.04	261.60 (Nov,20)	➤ Delay in award of works due to higher bids.
14	Parnai 3x12.5= 37.5 MW JKSPDC	38	2017-18 (Jan'18)	2022-23 (Mar,23)	62	640.86 (Completion cost)	640.86 (Completion cost)	Nil	53.12	-	-	➤ Delay in Land acquisition.
15*	Lower Kalnai 2x24= 48 MW JKSPDC	48	2017-18 (Sep'17)	2025-26 (subject to re-start of works (4 years))	102	576.87 (12/12) (Completion cost)	576.87 (12/12) (Completion cost)	Nil	-	-	-	➤ 'Works on all fronts at Dam and Power House site are stalled since 24.01.2018 due to payment dispute with subcontractors and due to non-settlement of extension of time of the contract by the JKSPDC.
16	Kiru (4x156=624 MW) CVPPL	624	2023-24 (Aug,23)	2024-25 (Aug,24)	12	4287.59 (09/14)	4287.59 (09/14)	Nil	-	177.25	67.67 (Nov-20)	➤ Slow mobilization due to Covid-19 lockdown
17*	Ratle (4x205+1x30) = 850 MW RHPPL / NHPC	850	2017-18 (Jan,18)	2025-26 (subject to re-start of works(5 years))	96	5281.94 (11/18)	5281.94 (11/18)	NIL	-	-	-	➤ Project is stalled since 11.07.2014 due to various issues viz. R&R issues, Local issues, Law & order problem etc. Earlier, it was under execution by private sector developer and some works already have been done. There is no progress since 11 th July, 2014. JV of Govt. of UT of J&K and NHPC has been formed. CCEA clearance received. Award of works is to be done.
	Kerala											
18	Pallivasal 2x30 = 60 MW KSEB	60	2010-11 (Mar'11)	2022-23 (Dec,22)	141	222.00 (1999)	550.00 (2018)	328.00 (147.74)	43.01	53.31	12.43 (Oct-20)	➤ Delay in land acquisition. ➤ Poor geology strata in HRT. ➤ Works stopped by contractor since 28.1.15 to 11.04.2017 due to contractual issues. Contract terminated on 13.09.2018 and re-awarded in August, 2019.
19	Thottiyar (1x30+1x10)= 40MW KSEB	40	2012-13 (Apr'12)	2021-22 (Apr,21)	108	136.79 (2007)	280 (2018)	143.21 (104.69)	2.53	13.59	5.41 (Oct-20)	➤ Land acquisition issue. ➤ The works of weir and approach channel stopped from 2010 to 2012 by local people. ➤ The work stopped by Court from 12.12.2012 to April-2013. ➤ Financial crunch with contractor leading to foreclosure of contract in April,2017 and balance works re-awarded in January, 2018.

	Madhya Pradesh											
20*	Maheshwar (10x40 = 400 MW) SMHPCL	400	2001-02 (Mar'02)	2023-24 (subject to re-start of works(Two years))	264	1569.27 (96-97)	8121.00 (2016-17)	6551.73 (417.50)	-	-	-	➤ Works suspended since Nov-11 due to cash flow problem with developer. M.P. Power Management Company Ltd. Has terminated the Power Purchase Agreement with SMHPCL on 18.04.2020. ➤ PFC as lead lender have acquired majority equity i.e. 51% in the SMHPCL w.e.f. 1st June, 2016. Matter Sub-judice. Details are given in Appendix III. ➤ M.P. Power Management Company Ltd. Has terminated the Power Purchase Agreement, R&R Agreement & Escrow Agreement with SMHPCL on 18.04.20 & 20.04.20 respectively.
	Maharashtra											
21*	Koyna Left Bank PSS 2x40 = 80 MW WRD, Maha	80	2014-15 (Oct'14)	2025-26 (subject to re-start of works (4 years))	137	245.02 (1999)	1403.77 (2014)	1158.75 (472.92)	-	-	-	➤ Project stalled since July, 2015. The current expenditure on the project has already reached to almost original administrative approved cost level. Proposal for revival of the project is submitted to the Govt. of Maharashtra.
	Punjab											
22	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. & PSPCL	206	2015-16	2023-24 (Dec, 23)	93	1835.50 (04/08) (Power Component)	1938.74 (02/18) (Power Component)	103.24 (5.62)	79.96	332.85	2.64	➤ Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&K & Punjab on sharing of waters of river Ravi and Tariff.
	Sikkim											
23	Teesta Stage VI (4x125 = 500 MW) Lanco Teesta Hydro Power Ltd. (LTHPL) (Project taken over by NHPC w.e.f. 08.03.2019)	500	2012-13 (Jul'12)	2023-24 (Mar,24)	72	5748.04 (07/2018)	5748.04 (07/2018)	NIL	897.50	-	-	➤ Poor geology. ➤ Land acquisition. ➤ Contractual issues ➤ Funds constraints with developer (Private) and stalled from April, 2014 to October, 2019 ➤ M/s. LTHPL came under Corporate Insolvency Resolution Process. NHPC Ltd. Emerged as H1 bidder. CCEA approval was accorded to NHPC on 08.03.2019. NCLT on 26.07.2019 approved resolution plan of NHPC for acquisition of LTHPL. ➤ Taking over along with all assets and documents as 'Going concern' completed on 09.10.2019.
24*	Bhasmey (2x25.5 =51 MW) Gati Infrastructure	51	2012-13 (Jun'12)	2024-25 (subject to re-start of works(3 years))	153	408.50 (2012-13)	746.01 (03/18)	337.51 (82.62)	-	-	-	➤ Works are stalled since Sept., 2016 due to funds constraints with developer ➤ .

25*	Rangit-IV HE Project (3X40 = 120 MW) JPCL	120	2011-12 (Jan'12)	2025-26 (subject to re-start of works(3-½ year)	170	726.17 (2011-12)	1692.60 (06/16)	966.43 (133.08)	-	-	-	➤ Project is stalled since October, 2013 due to funds constraints with the developer. The project is under NCLT process since 9 th April, 2019. NHPC submitted EOI on 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on dated 23.08.2019. The Resolution Plan submitted by NHPC on 04.12.2019. The Resolution Plan Approval Application was listed for hearing on 17.02.2020 before NCLT, Hyderabad ("Tribunal"). Final hearing was held on 31.07.2020. The project has been awarded to NHPC.
26*	Rangit-II 2x33= 66 MW Sikkim Hydro Power Ltd.	66	2015-16 (Apr'15)	2024-25 (subject to re-start of works(2-½ years))	119	496.44 (2011-12)	496.44 (2011-12)	Nil	1.07 (June-18)	-	-	➤ Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020.
27	Rongnichu (2x48 =96 MW) Madhya Bharat Pvt. Ltd.	96	2014-15 (Jul'14)	2020-21 (Mar,21)	80	491.32 (2005)	1453.34 (2018)	962.02 (195.80)	958.47	-	-	➤ Land Acquisition ➤ Poor geology.
28*	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	300	2018-19	2025-26 (subject to re-start of works(4-½ years)	84	1833.05 (2009)	2671.00 (2018)	837.95 (45.71)	36.73	-	-	➤ Issue of construction of bridge on Mantham Lake for accessibility of site is under discussion with the State Govt of Sikkim..
	Tamil Nadu											
29	Kundah PSP (Phase-I, Phase-II & Phase-III) (4x125=500 MW) TANGEDCO	500	2021-22 (Aug,21)	2023-24 (April,23)	20	1216.59 (2007-08)	1831.29 (2014)	614..7 (50.52)	84.78	79.39	68.90 (Dec-20)	➤ Civil & HM works have been taken up from 05/2018 only
	Uttarakhand											
30*	Lata Tapovan (3x57 = 171 MW) NTPC	171	2017-18 (Aug'17)	2025-26 (subject to re-start of works(4 years))	103	1527.00 (07/12)	would be calculated when works re-start.	NA	1.16	-	-	Subsequent to the Uttarakhand disaster in June, 2013, Hon'ble Supreme Court gave the judgment on 13.08.2013 that "MoEF as well as State of Uttarakhand not to grant any further environmental clearance or forest clearance for any hydroelectric power project in the State of Uttarakhand, until further orders". Therefore, the construction work stopped .The matter is sub-judice.

31	Tapovan Vishnughad (4x130 = 520 MW) NTPC	520	2012-13 (Mar'13)	2022-23 (Dec'22)	117	2978.48 (03/04)	5867.38 (04/19)	2888.90 (96.99)	417.20	527.07	206.51 (Oct,20)	➤ Heavy water ingress due to bad geology in HRT and rock fall on TBM. TBM stuck up thrice. ➤ Flash flood in Aug'12 & June, 2013 damaging coffer dam. ➤ Termination of civil contracts for Barrage and HRT. ➤ Cash flow issues with civil contractors..
32	Tehri PSS (4x250 = 1000 MW) THDC	1000	2010-11 (July'10)	2022-23 (Dec'22)	149	1657.60 (12/05)	5024.35 (02/19)	3366.75 (203.10)	252.22	582.46	313.05 (Oct,20)	➤ Poor geology. ➤ Local agitation at Asena Quarry / muck disposal area. ➤ Revision of Lay out of machine hall due to poor geology. ➤ Funds constraints with contractor.
33	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	444	2013-14 (Jun'13)	2023-24 (Dec'23)	126	2491.58 (03/08)	4397.80 (02/19)	1906.22 (76.50)	210.72	332.63	138.11 (Oct,20)	➤ CCEA approval in Aug-2008 but works could not be awarded due to Forest clearance/diversion of forest land. Forest land was acquired in January-14 and subsequently works awarded in January-2014. ➤ Disruption of works by local people. ➤ Cash flow problem with contractor.
34	Naitwar Mori (2x30 =60 MW) SJVN	60	2021-22 (Dec-21)	2021-22 (Dec-21)	-	648.33	648.33	-	-	-	-	-
35	Vyasi 2x60=120 MW, UJVNL	120	2014-15 (Dec'14)	2022-23 (Apr,22)	88	936.23 (02/10)	1581.01 (2019)	644.78 (68.86)	395.06	387.41	146.41 (Sep-20)	➤ Delay in award of works. ➤ Agitation by Local people.
36*	Phata Byung (2x38 = 76 MW), LANCO	76	2012-13 (Jun'12)	2024-25 (subject to re-start of works(3 years))	153	520.00 (2013-14)	1132 (09/16)	612 (117.69)	-	-	-	➤ Works stalled since July, 2017 due to Financial crunch with the contractor / developer. The company is undergoing a corporate insolvency resolution process initiated under IBC for resolution and revival of the project since June 2020. Under this process, the resolution professional appointed by the NCLT has initiated the process for inviting prospective investors for the project.
	West Bengal											
37	Rammam-III (3x40= 120 MW)	120	2019-20 (Sep'19)	2022-23 (Nov,22)	38	1381.84 (09/14)	1381.84 (09/14)	Nil	125.75	70.11	88.55 (Oct,20)	➤ Delay in getting permission for tree felling from Govt. of West Bengal for Access road from Adit-1 to Adit-2. ➤ Cash flow issues with civil contractors. ➤ Strike / bandh during Gorkhaland agitation in 2017.

Note:- It is to mention that cost overrun has been calculated as the difference between the Latest Cost (provided by the developer to CEA along with the Price Level) and the Original Cost approved by the Central Government / State Government. In most of the cases the Latest cost at the current Price Level has not been provided by the developers.

* Construction is held-up.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (d) OF UNSTARRED QUESTION NO. 1641 ANSWERED IN THE LOK SABHA ON 11.02.2021

Details of Under Construction Thermal Power Projects in the country along with Expenditure during last three years and time & cost overrun

Sl. No	State	Project Name	Unit No	Cap. (MW)	Org. Comm. Sched.	Ant. Comm. Sched.	Ant. TR. Sched./ COD	Original Cost (cr)	Latest Cost (cr)	EXPENDITURE DURING 2017-18	EXPENDI-TURE DURING 2018-19	EXPENDI-TURE DURING 2019-20	EXPEND-ITURE DURING 2020-21	Cost Overrun (cr)	Time overrun (months)
CENTRAL SECTOR															
1	Bihar	Barh STPP-I	U-1	660	Aug-09	Jan-21	Feb-21	8693	21312.1	1395	1366.84	1438.05	760.77	12619.1	137
			U-2	660	Jun-10	Aug-21	Sep-21								134
			U-3	660	Apr-11	Mar-22	Apr-22								131
2	Bihar	Nabi Nagar TPP	U-4	250	Nov-13	Jan-21	Feb-21	5352.51	9996.59	705.71	620.79	387.61	330.06	4644.08	86
3	Bihar	New Nabi Nagar TPP	U-2	660	Jul-17	Jan-21	Feb-21	13624.02	17304.3	2265	1786	1373.21	817.09	3680.28	42
			U-3	660	Jan-18	May-21	Jun-21								40
4	Jharkhand	North Karanpura STPP	U-1	660	Feb-18	Sep-21	Oct-21	14367	15164.05	2042	1699.13	1712.99	840.81	797.05	43
			U-2	660	Aug-18	Mar-22	Apr-22								43
			U-3	660	Feb-19	Sep-22	Oct-22								43
5	MP	Gadarwara STPP	U-2	800	Sep-17	Jan-21	Feb-21	11638.55	15105.22	1914.61	1475.31	162.08	476.73	3466.67	40
6	Odisha	Darlipalli STPP	U-2	800	Jun-18	Mar-21	Mar-21	12532.44	13740.53	2100	1531.66	1620.08	515.40	1208.09	33
7	TN	Neyveli New TPP	U-2	500	Mar-18	Nov-20	Feb-21	5907.11	7980.79	1099.36	739.95	728.43	159.57	2073.68	32
8	Telangana	Telangana STPP St- I	U-1	800	Jan-20	Oct-21	Jan-22	10599	11811	1035	2522.06	2537.67	996.42	1212	21
			U-2	800	Jul-20	Mar-22	Mar-22								20
9	UP	Tanda TPP St II	U-6	660	Mar-19	Feb-21	Mar-21	9188.98	10016.1	1671.12	1553.25	1419.53	496.25	827.12	23
10	UP	Ghatampur TPP	U-1	660	Apr-20	Apr-21	Oct-21	17237.8	17237.8	909.5	3519.04	3525.2	1525.73	0	12
			U-2	660	Oct-20	Jul-21	Feb-22								9
			U-3	660	Oct-20	Oct-21	Jun-22								12
11	Rajasthan	Barsingar TPP ext	U-1	250	May-20	Hold	Hold	2112.59	2112.59	154.7	3.67	-	-	0.00	-
12	Rajasthan	Bithnok TPP	U-1	250	May-20	Hold	Hold	2196.3	2196.3	169.79	3.67	-	-	0	-
13	Jharkhand	Patratu STPP	U-1	800	Jan-22	Jan-23	Mar-23	17112	17112	992.11	742	1112.1	652.40	0	12.00
			U-2	800	Sep-22	Jul-23	Sep-23								10.00
			U-3	800	Dec-22	Jan-24	Mar-24								13.00
14	Odisha	Rourkela PP-II Expansion	U-1	250	Dec-18	Feb-21	Mar-21	1885.13	1885.13	515.81	448.96	354.67	163.76	0	26.00
15	Uttar Pradesh	Khurja SCTPP	U-1	660	Mar-23	Aug-23	Feb-24	11089.42	11089.42			938.4	359.46	0.00	5.00
			U-2	660	Sep-23	Feb-24	Aug-24								5.00
16	Bihar	Buxar TPP	U-1	660	Jul-23	Jul-23	Jul-23	10439.09	10439.09			850	-	0.00	0.00
			U-2	660	Jan-24	Jan-24	Jan-24								0.00
STATE SECTOR															
1	A.P	Dr.Narla Tata Rao TPS St-V	U-1	800	Jun-19	Mar-21	Apr-21	5286.54	5707	1235.62	1756.04	826.65	327	420.46	21.00
2	A.P	Sri Damodaran Sanjeevaiah TPP St-II	U-1	800	Mar-19	Jan-21	May-21	4276.04	6841.7	1288.53	2685.33	462.53	Not available	2565.66	22.00
3	Rajasthan	Suratgarh SCTPP	U-8	660	Dec-16	Feb-21	Mar-21	7920	10548.735	392.64	554.2	1055.68	637.67	2628.735	50.00

4	Telangana	Bhadradri TPP	U-3	270	Jul-17	Dec-20	Feb-21	5044	8536.98	2003	1971	1706.97	Not availabl e		0.00
			U-4	270	Sep-17	Mar-21	Mar-21								41.00
															42.00
5	TN	Ennore exp. SCTPP	U-1	660	Jan-18	Uncertain	Uncertain	4956	5421.38	462.25	-	-	-	465.38	-
6	TN	Ennore SCTPP	U-1	660	Jan-18	Mar-22	May-22	9800	9800	1261.67	2606.93	908.61	-	0	50.00
			U-2	660	Mar-18	May-22	Aug-22								50.00
7	TN	North Chennai TPP St-III	U-1	800	Mar-19	Jun-21	Jun-21	6376	6376	929.75	2243.52	2090.62	606.39	0	27.00
8	TN	Uppur Super Critical TPP	U-1	800	Mar-19	Feb-23	Sep-23	12778	12778	226.62	1594.15	924.32	272.81	0	47.00
			U-2	800	Oct-19	Aug-23	Apr-24								46.00
9	UP	Harduaganj TPS Exp-II	U-1	660	Jun-19	Dec-20	Jun-21	4826.49	5500.98	458.1	1223.83	1337.16	526.42	674.49	18.00
10	Karnataka	Yelahanka CCPP	GT+ST	370	Mar-18	Sep-21	Sep-21	1571.18	1659.0377	932.17	348.83	311.35	-	87.8577	42.00
11	UP	Jawaharpur STPP	U-1	660	Sep-20	Apr-22	Oct-22	10566.27	10566.27	805	991	2286	935	0	19.00
			U-2	660	Jan-21	Oct-22	Apr-23								21.00
12	UP	Obra-C STPP	U-1	660	Sep-20	Apr-21	Jan-23	10416	10416	285.4	901.83	1960	830.64	0	7.00
			U-2	660	Dec-20	Jul-21	May-23								7.00
13	Telangana	Yadadri TPS	U-1	800	Sep-20	May-21	May-21	29965	29965	975.63	3276.9	2282.97	-	0	8.00
			U-2	800	Sep-20	May-21	May-21								8.00
			U-3	800	Mar-21	Jun-22	Jun-22								15.00
			U-4	800	Mar-21	Jun-22	Jun-22								15.00
			U-5	800	Sep-21	Jun-22	Jun-22								9.00
14	UP	Panki TPS Extn.	U-1	660	Jan-22	Jan-22	Jan-22	Not availabl e	Not Avl.		543.29	837.26	709.81	Not Avl.	0.00
15	TN	Udangudi STPP Stage I	U-1	660	Feb-21	May-22	May-22	13076.705	13076.71	118	336.43	654.76	1168.72	0	15.00
			U-2	660	Feb-21	Jul-22	Jul-22								17.00
16	Maharashtra	Bhusawal TPS	U-6	660	Nov-21	Mar-22	Jun-22	4550.98	4550.98	15.33	34.23	696.32	650.46	0	4.00
17	West Bengal	Sagardighi Thermal Power Plant Ph-III	U-1	660			Jan-24	Not availabl e	Not available	-	-	-	-	Not available	
PRIVATE SECTOR															
1	AP	Bhavanapadu TPP Ph-I	U-1	660	Oct-13	Uncertain	Uncertain	6571.94	9343.15	-	-	-	-	2771.21	-
			U-2	660	Mar-14	Uncertain	Uncertain								-
2	AP	Thamminapatnam TPP stage -II	U-3	350	May-12	Uncertain	Uncertain	5005	5414.4	747.15	334.5	-	-	409.4	-
			U-4	350	Aug-12	Uncertain	Uncertain								-
3	Chhattisgarh	Akaltara TPP	U-4	600	Apr-13	Uncertain	Uncertain	16190	27080	-	-	-	-	10890	-
			U-5	600	Aug-13	Uncertain	Uncertain								-
			U-6	600	Dec-13	Uncertain	Uncertain								-
4	Bihar	Siriya TPP	U-1	660	Aug-14	Uncertain	Uncertain	11120	11120	-	-	-	-	0	-
			U-2	660	Dec-14	Uncertain	Uncertain								-
			U-3	660	Apr-15	Uncertain	Uncertain								-
			U-4	660	Aug-15	Uncertain	Uncertain								-
5	Chhattisgarh	Binjkote TPP	U-3	300	Mar-14	Uncertain	Uncertain	5058	7940	-	-	-	-	2882	-
			U-4	300	Jun-14	Uncertain	Uncertain								-
6	Chhattisgarh	Lanco Amarkantak TPP-II	U-3	660	Jan-12	Uncertain	Uncertain	6886	10815.24	-	-	-	-	3929.24	-
			U-4	660	Mar-12	Uncertain	Uncertain								-

7	Chhattisgarh	Singhitarai TPP	U-1	600	Nov-14	Uncertain	Uncertain	6200	8443.79	111.81	-	-	-	2243.79	-
			U-2	600	Feb-15	Uncertain	Uncertain								-
8	Chhattisgarh	Salora TPP	U-2	135	Sep-11	Uncertain	Uncertain	1458.44	2386.89	-	-	-	-	928.45	-
9	Chhattisgarh	Deveri (Visa) TPP	U-1	600	Aug-13	Uncertain	Uncertain	2618.7	3930	-	-	-	-	1311.3	-
10	Jharkhand	Matrishri Usha TPP Ph-I	U-1	270	Apr-12	Uncertain	Uncertain	2900	3120	-	-	-	-	220	-
			U-2	270	May-12	Uncertain	Uncertain								-
11	Jharkhand	Matrishri Usha TPP Ph-II	U-3	270	Oct-12	Uncertain	Uncertain	3182	3182	-	-	-	-	0	-
			U-4	270	Jan-13	Uncertain	Uncertain								-
12	Jharkhand	Tori TPP Ph-I	U-1	600	Jul-12	Uncertain	Uncertain	5700	5700	-	-	-	-	0	-
			U-2	600	Sep-12	Uncertain	Uncertain								-
13	Jharkhand	Tori TPP Ph-II	U-3	600	Dec-15	Uncertain	Uncertain	2500	2500	-	-	-	-	0	-
14	Maharashtra	Amravati TPP Ph-II	U-1	270	Jul-14	Uncertain	Uncertain	6646	6646	-	-	-	-	0	-
			U-2	270	Sep-14	Uncertain	Uncertain								-
			U-3	270	Nov-14	Uncertain	Uncertain								-
			U-4	270	Jan-15	Uncertain	Uncertain								-
			U-5	270	Mar-15	Uncertain	Uncertain								-
15	Maharashtra	Lanco Vidarbha TPP	U-1	660	Jul-14	Uncertain	Uncertain	6936	10433	-	-	-	-	3497	-
			U-2	660	Nov-14	Uncertain	Uncertain								-
16	Maharashtra	Nasik TPP Ph-II / Ratan India Nasik Power Pvt. Ltd. BTG-BHEL	U-1	270	Apr-13	Uncertain	Uncertain	6789	6789	-	-	-	-	0	-
			U-2	270	Jun-13	Uncertain	Uncertain								-
			U-3	270	Aug-13	Uncertain	Uncertain								-
			U-4	270	Oct-13	Uncertain	Uncertain								-
			U-5	270	Dec-13	Uncertain	Uncertain								-
17	Maharashtra	Bijora Ghanmukh TPP	U-1	300	Dec-16	Uncertain	Uncertain	3189	3450	-	-	-	-	261	-
			U-2	300	Mar-17	Uncertain	Uncertain								-
18	Maharashtra	Shirpur TPP ,Shirpur Power Pvt. Ltd.-BHEL	U-2	150	Apr-15	Uncertain	Uncertain	2413	2413	106.22	-	-	-	0	-
19	MP	Gorgi TPP	U-1	660	Jun-13	Uncertain	Uncertain	3941	3941	-	-	-	-	0	-
20	Odisha	Ind Barath TPP (Odisha)	U-2	350	Dec-11	Uncertain	Uncertain	3150	4254	1	-	-	-	1104	-
21	Odisha	KVK Nilanchal TPP	U-1	350	Dec-11	Uncertain	Uncertain	4990	6000	-	-	-	-	1010	-
			U-2	350	Feb-12	Uncertain	Uncertain								-
			U-3	350	Feb-12	Uncertain	Uncertain								-
22	Odisha	Lanco Babandh TPP	U-1	660	Apr-13	Uncertain	Uncertain	6930	10430	-	-	-	-	3500	-
			U-2	660	Aug-13	Uncertain	Uncertain								-
23	Odisha	Malibrahmani TPP	U-1	525	Dec-12	Uncertain	Uncertain	5093	6330	-	-	-	-	1237	-
			U-2	525	Feb-13	Uncertain	Uncertain								-
24	TN	Tuticorin TPP	U-1	660	May-12	Uncertain	Uncertain	3595	3595	-	-	-	-	0	-
25	TN	Tuticorin TPP St-IV	U-1	525	Sep-18	Feb-21	Mar-21	3514	3514	822.94	508.91	852.6	1437.94	0	-
26	WB	Hiranmaye Energy Ltd	U-3	150	May-16	Uncertain	Uncertain	2656	3307	48.09	-	-	-	651	-

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1648
ANSWERED ON 11.02.2021**

LAND ACQUIRED FOR POWER PROJECTS

1648. MS. MIMI CHAKRABORTY:

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

- (a) the details of the policy laid down by the Government to grant compensation to the affected people for the land acquired for various power projects including the Government and private power projects;**
- (b) whether any compensation has been paid to the affected people for the land acquired for various power projects in various States during each of the last three years and the current year; and**
- (c) if so, the details thereof, year and State-wise?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Land acquisition is undertaken by the Central and State Governments under various Central and State Acts including the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act 2013). The provisions of the RFCTLARR Act, 2013 including compensation as detailed in Schedule I of the Act; are implemented by 'appropriate Government' as defined under Section 3(e) of the said Act. As regards private power projects, the compensation is paid by the private company as per the policy of the respective States.

(b) & (c) : Yes Sir, compensation has been paid to the affected people for the land acquired for various power projects in various States. The details are given at Annexure.

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (b) & (c) OF UNSTARRED QUESTION NO. 1648 ANSWERED IN THE LOK SABHA ON 11.02.2021**

Details of the compensation paid to the affected people, year-wise & State-wise

Sr. No.	Utility	Name of State/UT	Amount of compensation paid to the affected people (in Rs. Crore)				
			2017-18	2018-19	2019-20	2020-21	Total
1.	NHPC Ltd.	Arunachal Pradesh	NIL	24.6658	NIL	NIL	24.6658
2.	NHPC Ltd.	Jammu & Kashmir	0.6679	0.2575	NIL	NIL	0.9254
3.	NHPC Ltd.	West Bengal	1.249	0.1937	NIL	NIL	1.4427
4.	NHPC Ltd.	Sikkim	NIL	6.7978	NIL	NIL	6.7978
5.	NHPC Ltd.	Himachal Pradesh	1.1198	0.2847	3.7602	0.08	5.2447
6.	NTPC Ltd.	Bihar	0.54	21.04	0.44	NIL	22.02
7.	NTPC Ltd.	Chhattisgarh	0.46	1.77	14.30	1.28	17.81
8.	NTPC Ltd.	Maharashtra	66.76	NIL	NIL	NIL	66.76
9.	NTPC Ltd.	Madhya Pradesh	NIL	5.13	NIL	NIL	5.13
10.	NTPC Ltd.	Odisha	NIL	60.81	NIL	1.82	62.63
11.	SJVN Ltd.	Bihar	0.19	27.53	46.62	NIL	74.34
12.	SJVN Ltd.	Himachal Pradesh	NIL	NIL	3.30	NIL	3.30
13.	DVC	Jharkhand	20.36	1.74	39.99	NIL	62.09
14.	DVC	West Bengal	0.14	NIL	NIL	NIL	0.14
15.	PGCIL	Andhra Pradesh	NIL	1.8255	NIL	NIL	1.8255
16.	THDCIL	Uttarakhand	0.12	NIL	NIL	NIL	0.12
17.	THDCIL	Uttar Pradesh	NIL	19.12	NIL	NIL	19.12
18.	BBMB	Himachal Pradesh	0.0232	0.0499	0.1388	0.01	0.2220
19.	BBMB	Punjab	NIL	NIL	0.6983	0.2345	0.9328

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1655
ANSWERED ON 11.02.2021**

CAPACITY UTILISATION OF POWER GRIDS

1655. SHRI G.M. SIDDESHWAR:

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

- (a) whether the Government proposes to introduce new policies to boost the generation of hydro power and electricity from bio-mass and bio-fuel;**
- (b) if so, the details thereof;**
- (c) the steps being taken by the Government to check the transmission bottlenecks and losses incurred thereby; and**
- (d) the reforms being brought in distribution and transmission of energy to achieve capacity utilisation of power grids?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Policy framework is already in place to promote generation of hydropower and electricity from bio-mass and bio-fuel. They are:

- (I) For boosting the generation of Hydro Power, the Government of India on 8th March, 2019, approved a number of measures for promoting hydropower sector in the country which are as under:**
 - i. Declaring Large Hydro Power (LHPs) (> 25 MW projects) as Renewable Energy source.**
 - ii. Hydro Purchase Obligation (HPO) as a separate entity within Non-Solar Renewable Purchase Obligation (RPO).**
 - iii. Tariff rationalization measures for bringing down hydro power tariff.**
 - iv. Budgetary Support for Flood Moderation/Storage Hydro Electric Projects (HEPs).**
 - v. Budgetary Support to Cost of Enabling Infrastructure, i.e. roads/bridges.**
 - a) Rs. 1.5 crore per MW for projects upto 200 MW.**
 - b) Rs. 1.0 crore per MW for projects above 200 MW.**

(II) For promotion of Biomass based generation, the Ministry of New and Renewable Energy is implementing the following schemes:

(a) Biomass based cogeneration in sugar mills and other industries (up to March 2021). Under the scheme central financial assistance is provided to eligible projects producing power from all types of biomass like bagasse, rice husk, rice stubble etc.

(b) "Programme on Energy from Urban, Industrial, Agricultural Wastes/Residues and Municipal Solid Wastes" (upto March, 2021) for promotion of setting up of projects of Biogas/Bio-CNG/Power/Producer gas from Urban, agricultural and Industrial Wastes and Power generation project from Municipal Solid Waste. Under the scheme financial assistance is provided for setting up Waste to Energy plants

(c) Biogas based Power Generation (Off-Grid) & Thermal energy application Programme (BPGTP) under decentralized Off-Grid Renewable Power Programme with the objective of providing clean energy solutions through biogas production to reduce consumption of diesel and kerosene by installation of medium size biogas plants of size ranging from 30 M³ to 2500 M³ per day with power generation installed capacity range of 3 KW to 250 KW.

The schemes have recently been evaluated. Based on the recommendations of the evaluation, proposal for continuation of the above schemes beyond March 2021 has been initiated in the Ministry.

In addition to this, Ministry of Power, Government of India has also brought out the policy for biomass utilization for power generation through co-firing in pulverized coal fired boilers. As per the policy, all fluidized bed and pulverized coal units (coal based thermal power plants) except those having ball and tube mill, of power generating utilities, public or private, located in India shall endeavour to use 5-10% blend of biomass pellets, made primarily, of agro residue along with coal after assessing the technical feasibility, viz. safety aspects, etc.

(c) : Sufficient transmission capacity has been planned in the country for evacuation of power from generating stations to the load centres. Planning of transmission system (transmission lines and associated substations) for the period 2017-22, to meet the projected peak electricity demand of 225.7 GW (as per 19th Electric Power Survey Report) during 2021-22 has already been done.

Transmission systems under operation are monitored by State/Regional/ National Load Dispatch Centers and the bottlenecks arising if any, are addressed as part of coordinated transmission planning process on a case to case basis.

(d) : Electricity is a concurrent subject. Most Distribution Companies are owned by the respective State Government. It is the responsibility of distribution licensees to plan their distribution system so as to provide 24x7 reliable power to all the consumers and to achieve capacity utilization of their power Distribution Grids.

Planning of transmission system is carried out for different load generation scenarios keeping in view the reliability aspects and the future load growth, while ensuring the optimum utilization of existing transmission assets.

Further, Government of India through its various ongoing schemes in the rural and urban areas of Distribution Sector like Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) and Integrated Power Development Scheme (IPDS) has facilitated strengthening and augmentation of sub-transmission & distribution infrastructure, including IT enablement of Urban distribution sector, construction of HT and LT lines, metering at distribution transformers, feeders and consumers and feeder segregation, etc.

These schemes, at present, are at advanced stage of completion and are targeted for completion by 2022.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1661
ANSWERED ON 11.02.2021**

THEFT OF ELECTRICITY

**†1661. SHRI HARISH DWIVEDI:
SHRI JANARDAN SINGH SIGRIWAL:**

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

- (a) whether the Government has any information about theft of electricity in rural and industrial areas of the country which has an adverse effect on the development of power sector;**
- (b) if so, the details thereof and the reaction of the Government thereto; and**
- (c) the details of steps taken/being taken by the Government to stop electricity theft in the country alongwith the proposed punitive actions to be taken against the guilty?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : The information about theft of electricity gets reflected in the high Aggregate Technical and Commercial (AT&C) losses of the power distribution utilities. As per the information submitted by them, the Aggregate Technical and Commercial (AT&C) losses of state power distribution utilities in the country in FY 2018-19 was 22.03%.

(c) : There are specific provisions in the Electricity Act 2003 (Section 126 and sections 135 to 140) relating to theft and unauthorized use of electricity including stiff penal provisions and speedy trial for such offences by Special Courts (Part XV of the Electricity Act 2003). Government of India has provided assistance to the States under the schemes such as Deen Dayal Upadhyaya Gram Jyoti Yojana and Integrated Power Development Scheme for use of aerial bunched cables and underground cables with the aim of reducing theft and AT&C losses. Energy audit has been made mandatory for all Discoms. This will also help in checking theft of electricity.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1666
ANSWERED ON 11.02.2021**

HYDROPOWER POTENTIAL IN NE REGION

1666. SHRI SISIR KUMAR ADHIKARI:

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

- (a) whether the North East region of the country has a potential of 60 thousand megawatt of hydro electric power production and if so, the details thereof;**
- (b) whether 2.4% of the generation target has been achieved so far and if so, the details thereof;**
- (c) the action plan of the Government to achieve full potentiality thereof; and**
- (d) the status and new proposal of hydro and other power projects for North East region?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Yes, Sir. The assessed Hydro-electric power potential from major/medium schemes (i.e. schemes having capacity above 25 MW) in North-Eastern region including Sikkim is 62604 MW. No generation target in terms of Installed Capacity has been fixed by the Government of India, however, as on date 6.46% (4046 MW) of the existing potential in North East Region including Sikkim, has been harnessed. The State-wise details of potential and its status of development in North-Eastern region including Sikkim is enclosed at Annexure-I.

(c) : Government have taken several policy initiatives in the past to give a boost the hydropower development in the country viz., National Electricity Policy 2005, Hydro Power Policy 2008, Tariff Policy 2016, National Rehabilitation & Resettlement Policy (2007) and Rehabilitation and Resettlement Act 2013. Further, Government of India in March, 2019 has approved the following measures for promoting hydropower in the country and improving viability of the sector:

- i. Declaring Large Hydro Power (LHPs) (> 25 MW projects) as Renewable Energy source.**
- ii. Hydro Purchase Obligation (HPO) as a separate entity within Non-Solar Renewable Purchase Obligation (RPO).**

- iii. **Tariff rationalization measures for bringing down hydro power tariff in the initial years.**
- iv. **Budgetary Support for Flood Moderation/Storage Hydro Electric Projects (HEPs).**
- v. **Budgetary Support towards Cost of Enabling Infrastructure, i.e. roads/bridges.**
 - a) **Rs. 1.5 crore per MW for projects upto 200 MW.**
 - b) **Rs. 1.0 crore per MW for projects above 200 MW.**

These measures would be particularly beneficial for development of hydro projects in North Eastern Region which are located in remote and far-flung areas and require development of extensive associated infrastructure such as roads, bridges etc. for transportation of heavy, large sized equipment & machinery to the project site. The HPO trajectory, in this regard, has already been notified by the Government on 29.01.2021.

(d) : Hydro Power Projects:-

At present, 8 nos. of Hydro Electric Projects (HEPs) (above 25 MW) totaling to 3733 MW are under construction in the North Eastern Region (including Sikkim). Out of these 8 nos. of HEPs, in 4 nos. of projects totaling 3196 MW works are ongoing and in 4 nos. of HEPs totaling 537 MW the works are held up due to various reasons. The status of the aforementioned 8 projects is at Annexure-II.

Thermal Power Projects:-

The status of ongoing/proposed Thermal Power Projects in the North Eastern States is as per Annexure-III.

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1666 ANSWERED IN THE LOK SABHA ON 11.02.2021

STATUS OF HYDRO ELECTRIC POTENTIAL DEVELOPMENT (In terms of Installed capacity - Above 25 MW)						
As on 31/01/2021						
Region/ State	Identified Capacity as per reassessment study		Capacity In Operation		Capacity Under Construction	
	Total	Above 25 MW				
	(MW)	(MW)	(MW)	%	(MW)	(%)
EASTERN						
Sikkim	4286	4248	2169	51.06	1133	26.67
Sub Total (Sikkim)	4286	4248	2169	51.06	1133	26.67
NORTH EASTERN						
Meghalaya	2394	2298	322	14.01	0	0.00
Tripura	15	0	0	0.00	0	0.00
Manipur	1784	1761	105	5.96	0	0.00
Assam	680	650	350	53.85	0	0.00
Nagaland	1574	1452	75	5.17	0	0.00
Arunachal Pradesh	50328	50064	965	1.93	2150	4.29
Mizoram	2196	2131	60	2.82	0	0.00
Sub Total (NER)	58971	58356	1877	3.22	2150	3.68
TOTAL (NER + SIKKIM)	63257	62604	4046	6.46	3283	5.24
Note:- 1. Does not include pumped storage Projects 2. In some states the total of the capacity developed and balance capacity is different from the potential assessed . This is due to change in capacity of the Projects, addition/ deletion of the Projects and merger of two Projects into one etc.						

ANNEXURE-II
ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1666 ANSWERED IN THE LOK SABHA ON 11.02.2021

List of Hydro projects (above 25 MW) under active construction (As on 31.01.2021)						
Sl. No.	Name of Project / Installed Capacity	Unit No.	State/District Implementing Agency	River/Basin	Capacity (MW)	Likely Commissioning
Central Sector						
1	Subansiri Lower 8x250= 2000 MW	U-1 to U-8	Arunachal Pradesh/L. Subansiri /NHPC	Subansiri/ Brahmaputra	2000	2023-24 (Aug'23)
2	Teesta- VI 4x125= 500 MW	U-1 to U-4	Sikkim/South Sikkim/NHPC	Teesta/ Brahmaputra	500	2023-24 (Mar'24)
3	Kameng 4x150= 600 MW (3 units taken in operation)	U-4	Arunachal Pradesh/West Kameng/NEEPCO	Bichom & Tenga/ Kameng/ Brahmaputra	600	2020-21 (Mar'21)
			Sub- total (Central):		3100	
Private Sector						
4	Rongnichu 2x48= 96 MW	U-1 to U-2	Sikkim/East Sikkim/Madhya Bharat Power Corporation Ltd.	Rongnichu/ Teesta/ Brahmaputra	96	2020-21 (Mar'21)
			Sub- total (Private):		96	
	Total (C.S.+ P.S.)				3196	

CIRS:-Central India River System ; EFR:-Eastern Flowing Rivers ; WFR:-Western Flowing Rivers.

List of Hydro projects (above 25 MW) for which construction is held up						
Sl. No.	Name of Project / Installed Capacity	Unit No.	State/District Implementing Agency	Capacity (MW)	Likely Commissioning*	Reason /Present status
Central Sector						
1	Rangit-IV 3x40= 120 MW	U-1 to U-3	Sikkim/West Sikkim/NHPC	120	2025-26	Project is stalled since October, 2013 due to funds constraints with the developer. The project is under NCLT process since 9th April, 2019. NHPC submitted EOI on 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on dated 23.08.2019. The Resolution Plan submitted by NHPC on 04.12.2019. The Resolution Plan Approval Application was listed for hearing on 17.02.2020 before NCLT, Hyderabad ("Tribunal"). Final hearing was held on 31.07.2020. The project has been awarded to NHPC.
	Sub-Total(Central)			120		
Private Sector						
2	Panan 4x75= 300 MW	U-1 to U-4	Sikkim/North Sikkim/Himgiri Hydro Energy Pvt. Ltd.	300	2025-26	Issue of construction of bridge on Mantham Lake for accesibility of site is under discussion with the State Govt of Sikkim.

3	Rangit-II 2x33= 66 MW	U-1 to U-2	Sikkim/West Sikkim/Sikkim Hydro Power Ltd.	66	2024-25	Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020.
4	Bhasmey 2x25.5= 51 MW	U-1 to U-2	Sikkim/East Sikkim/Gati Infrastructure	51	2024-25	Works are stalled since Sept., 2016 due to funds constraints with developer
	Sub-Total (Private)			417		
	Total			537		
* Subject to re-start of works						

ANNEXURE-III**ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1666 ANSWERED IN THE LOK SABHA ON 11.02.2021**

Status of ongoing/proposed Thermal Power Projects in North Eastern States

Sl. No.	Name of Project	Name of Organization	Capacity	Status
1	2x800 MW Margherita Thermal Power Project, District: Tinsukia, Assam	Assam Power Generation Corporation Limited.	1600 MW	DPR is prepared and 661acr land is acquired by APGCL while 100acr is yet to be acquired. Coal linkage is yet to be granted.
2	500 MW Garo Hills Thermal Power Project, District: Garo Hills, Meghalaya	North Eastern Electric Power Corporation Ltd.	500 MW	Long term coal linkage could not be established for which no headway could be made in respect of the project.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1683
ANSWERED ON 11.02.2021**

ELECTRIFICATION TARGET OF EVERY HOUSEHOLD

**†1683. SHRI DEVENDRA SINGH BHOLE:
SHRI B.B. PATIL:**

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

- (a) whether the Government has fixed any target for electrification of every household in the country and if so, the details thereof;**
- (b) the details of the schemes being implemented in this regard and the status of implementation of the same;**
- (c) the amount of funds spent for the said purpose during the last three years;**
- (d) the total number of households electrified so far along with the number of those yet to be electrified in the country, State-wise; and**
- (e) the steps being taken by the Government to complete the said work in a time-bound manner?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (e) : Government of India had launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana – “Saubhagya” in October, 2017 with an outlay of Rs.16,320 crore including Gross Budgetary Support (GBS) of Rs.12,320.00 crore from Government of India with the aim to achieve universal household electrification by providing last mile connectivity and electricity connections to all households in rural areas and all poor households in urban areas across the country.

All the States had declared on Saubhagya portal that all the willing unelectrified households had been electrified as on 31.03.2019, except 18,734 households in LWE affected areas of Chhattisgarh. Subsequently, seven States namely Assam, Chhattisgarh, Jharkhand, Karnataka, Manipur, Rajasthan and Uttar Pradesh reported that 19.09 lakh un-electrified households identified before 31.03.2019, which were unwilling earlier had expressed willingness to get electricity connections. The States were asked to electrify these households also under Saubhagya. Out of these, 18.57 lakh households have been electrified up to 31.12.2020. Time extension has been granted to allow the remaining households in LWE areas of Chhattisgarh and Jharkhand to be electrified by 31st March, 2021. Since the launch of Saubhagya scheme, 2.81 crore households were electrified across the country up to 31.03.2020. State-wise list of such households electrified is at Annexure-I.

There is no upfront allocation of funds for any State/District under Saubhagya scheme. Funds are released for sanctioned projects in instalments based on the reported utilization of amount released in the previous instalment(s) and fulfilment of stipulated conditionalities. Accordingly, Rs. 4,946 crore, has been disbursed as grant, under Saubhagya during the last three years. The State/UT-wise grant disbursed under Saubhagya, is presented at Annexure-II.

All the works under Saubhagya have been completed in a time bound manner within the stipulated timelines.

ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO. 1683 ANSWERED IN THE LOK SABHA ON 11.02.2021.

SAUBHAGYA - Statewise Physical Progress

Sl. No.	Name of the State/UT	Electrification of Households (Nos.)			
		No. of Households electrified from 11.10.2017 to 31.03.2019	Progress from 01.04.2019 to 31.12.2020	No. of Households electrified from 11.10.2017 to 31.12.2020	Balance Un-electrified HHs. as on 31.12.2020
1	Andhra Pradesh	1,81,930		1,81,930	
2	Arunachal Pradesh	47,089		47,089	
3	Assam	17,45,149	2,00,000	19,45,149	
4	Bihar	32,59,041		32,59,041	
5	Chhattisgarh	7,49,397	38,005	7,87,402	2,389
6	Gujarat	41,317		41,317	
7	Haryana	54,681		54,681	
8	Himachal Pradesh	12,891		12,891	
9	Jammu & Kashmir	3,87,501		3,87,501	
10	Jharkhand	15,30,708	1,74,571	17,05,279	25,429
11	Karnataka	3,56,974	26,824	3,83,798	
12	Kerala	3.19 Lakh HHs re-electrified (which were de-electrified in flood)			
13	Ladakh				
14	Madhya Pradesh	19,84,264		19,84,264	
15	Maharashtra	15,17,922		15,17,922	
16	Manipur	1,02,748	5,367	1,08,115	
17	Meghalaya	1,99,839		1,99,839	
18	Mizoram	27,970		27,970	
19	Nagaland	1,32,507		1,32,507	
20	Odisha	24,52,444		24,52,444	
21	Puducherry	912		912	
22	Punjab	3,477		3,477	
23	Rajasthan	18,62,736	2,12,786	20,75,522	
24	Sikkim	14,900		14,900	
25	Tamil Nadu	2,170		2,170	
26	Telangana	5,15,084		5,15,084	
27	Tripura	1,39,090		1,39,090	
28	Uttar Pradesh	79,80,568	12,00,003	91,80,571	
29	Uttarakhand	2,48,751		2,48,751	
30	West Bengal	7,32,290		7,32,290	
	Total	2,62,84,350	18,57,556	2,81,41,906	27,818

ANNEXURE-II**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO. 1683 ANSWERED IN THE LOK SABHA ON 11.02.2021.**

State-wise & Year-wise Grant disbursed under Saubhagya Scheme during last three years i.e. 2017-18 to 2019-20.**Rs. in crore**

Sl. No.	Name of the States	2017-18	2018-19	2019-20	Total
1	Arunachal Pradesh	-	139	14	153
2	Assam	42	403	121	566
3	Bihar	115	199	136	450
4	Chhattisgarh	43	219	32	294
5	Haryana	-	-	3	3
6	Himachal Pradesh	-	1	3	4
7	J&K	2	51	-	53
8	Jharkhand	70	83	4	157
9	Karnataka	-	-	39	39
10	Kerala	15	-	26	41
11	Madhya Pradesh	260	147	-	407
12	Maharashtra	15	140	43	198
13	Manipur	6	35	33	74
14	Meghalaya	-	98	88	186
15	Mizoram	-	35	-	35
16	Nagaland	5	34	-	39
17	Odisha	76	168	-	245
18	Rajasthan	-	103	76	179
19	Sikkim	-	-	1	1
20	Telangana	-	-	15	15
21	Tripura	-	237	8	245
22	Uttar Pradesh	864	523	26	1,412
23	Uttarakhand	13	22	7	43
24	West Bengal	14	73	20	107
	Total	1,541	2,709	696	4,946

Note: Saubhagya scheme was launched in October, 2017.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1693
ANSWERED ON 11.02.2021**

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

**1693. SHRI BALASHOWRY VALLABHANENI:
SHRI LAVU SRI KRISHNA DEVARAYALU:**

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

- (a) whether the Government proposes to create and increase the electric vehicle charging infrastructure to promote electric vehicles across the country and if so, the details thereof along with the guidelines issued in this regard;**
- (b) the details of incentives/subsidy/financial assistance given by the Government for setting up of charging stations;**
- (c) the details of charging stations set up in Andhra Pradesh;**
- (d) whether any licence is required for setting up of charging station and if so, the details thereof; and**
- (e) the details of electric vehicle charging points to be set up in Andhra Pradesh and the timeline fixed/set for the same?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Yes, Sir. Government of India has taken the following actions to create and increase the electric vehicle charging infrastructure to promote electric vehicles across the country:

- i. There is no requirement of license for setting up charging stations for Electric Vehicles: Ministry of Power on 13.04.2018, has issued clarification that no license is required for setting up Charging Infrastructure for Electric Vehicles (EVs) with reference to the provisions of the Electricity Act, 2003.**
- ii. Charging Infrastructure for Electric Vehicles – Revised Guidelines and Standards: Ministry of Power, after extensive consultations with State Governments, different departments/agencies of Central Government and the stakeholders, issued “Charging Infrastructure for Electric Vehicles – Guidelines and Standards” dated 14.12.2018, which was revised on 01.10.2019 and further, an amendment to it was issued on 08.06.2020.**

- iii. **Grid Connectivity and Safety regulations for charging stations for electric vehicles: Central Electricity Authority (CEA) has issued amendments to following regulations of CEA with reference to facilitation for charging stations:**
- a. **Central Electricity Authority (Technical Standards for Connectivity to the Distributed Generation Resources) Amendment Regulations, 2019.**
 - b. **Central Electricity Authority (Measures relating to Safety and Electric Supply) Amendment Regulations, 2019.**
- iv. **Ministry of Housing and Urban Affairs (MoHUA) has issued following amendments to building by-laws and Urban and Regional Development Plan Formulation for facilitation of Charging Infrastructure for Electric Vehicles:**
- a. **Amendments in Model Building Bye-Laws (MBBL – 2016) for Electric Vehicle Charging Infrastructure.**
 - b. **Amendments in Urban and Regional Development Plans Formulation and Implementation Guidelines (URDPFI – 2014) for Electric Vehicle Charging Infrastructure.**
- v. **Energy Efficiency Services Limited (EESL), Power Grid Corporation Ltd. (PGCIL) and NTPC Ltd. under Ministry of Power have been engaged in installation of Public Charging Stations (PCS) in the country. NTPC has installed 100 Public Charging Stations, EESL has installed 130 Public Charging Stations and PGCIL has installed 14 Charging Stations across India, so far. In addition, various Central Public Sector - Oil Marketing Companies (OMCs) have installed 144 Charging Stations across the country. Further, Department of Heavy Industry (DHI), Government of India has also sanctioned 2877 Electric Vehicles (EVs) Charging Stations to 68 cities across 25 States/UTs on pan India basis under FAME India [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India] scheme Phase II. As per available data, 935 Public Charging Stations have been installed by various entities across India.**

(b) : **Department of Heavy Industry (DHI) is administering Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme for promoting adoption of electric/hybrid vehicles (xEVs) in India since 01st April, 2015. Under Phase-I of FAME-India Scheme, Department of Heavy Industry (DHI) sanctioned 520 Charging Stations/Infrastructure amounting to Rs. 43 Crore (approx.) across various cities and highways. An amount of Rs. 1000 Crore is allocated for establishment of Charging Infrastructure under the Phase II of the FAME India Scheme for a period of three years with effect from 1st April, 2019. A total of 2877 Public Charging Stations amounting to about Rs.500 crore have been sanctioned under the FAME II so far.**

(c) : **As per the information received from Government of Andhra Pradesh, a total of 102 Charging Stations have been installed in Andhra Pradesh at various locations so far.**

(d) : **Ministry of Power on 13.04.2018, has issued clarification that no license is required for setting up Charging Stations.**

(e) : **A total of 266 EV charging stations have been allocated in State of Andhra Pradesh, in cities viz. Vijayawada - 92, Vishakapatnam - 71, Tirupati - 68, Kakinada - 35, under the FAME II Scheme guidelines during the operation of the scheme.**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1697
ANSWERED ON 11.02.2021**

CENTRAL ELECTRICITY REGULATORY COMMISSION

**1697. SHRI PRATHAP SIMHA:
SHRI SUMEDHANAND SARASWATI:
SHRI SUDHAKAR TUKARAM SHRANGARE:
SHRI SHIVAKUMAR C. UDASI:
SHRI BHAGWANTH KHUBA:**

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

- (a) whether the Central Electricity Regulatory Commission (CERC) has been non-functional for the last several months;**
- (b) if so, the details thereof and the reasons therefor; and**
- (c) the remedial steps taken by the Government for early disposal of thousands of pending petitions with the commission?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) to (c) : In compliance with the Hon'ble Supreme Court's Order dated 28.8.2020 in the Contempt Petition No. 429 of 2020 (K. K. Agarwal V/s Sanjiv Nandan Sahai & Anr), two Members of Central Electricity Regulatory Commission (CERC) proceeded on leave. No adjudication matters were heard and no regulations were framed/amended during the period of their leave.

Member (Law) has been appointed by the Central Government on 16.12.2020. In view of the completion of the appointment process of the Member (Law) in CERC, the Hon'ble Supreme Court vide Order dated 20.1.2021 has allowed the other Members of CERC to join and carry on their administrative functions but the judicial functioning will be restored on the joining of the Member (Law). Vide this order the contempt has been discharged. The Central Commission has complied with the said Order dated 20.1.2021 and thus administrative functioning has been resumed w.e.f 21.1.2021.

Further, Ministry of Power has also requested Government of Jharkhand to relieve concerned Member (Legal), Jharkhand Electricity Regulatory Commission to enable him to join as Member (Law) in CERC.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1709
ANSWERED ON 11.02.2021**

SHIFT OF FOCUS FROM FOSSIL FUELS TO NON-FOSSIL FUELS

1709. SHRI BIDYUT BARAN MAHATO:

SHRI SHRIRANG APPA BARNE:

SHRI CHANDRA SEKHAR SAHU:

SHRI SUDHEER GUPTA:

SHRI SANJAY SADASHIVRAO MANDLIK:

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

- (a) whether the Government proposes to shift the focus from fossil fuels to non-fossil fuels based and renewable energy sources;**
- (b) if so, the details thereof along with the details of share of fossil fuel and non-fossil fuels in the country at present;**
- (c) whether the Government has set any target to increase share of non-fossil fuel in the country by 2022 and if so, the details thereof;**
- (d) the steps taken/being taken by the Government to achieve the said target;**
- (e) whether the Bureau of Energy Efficiency (BEE) has been successful in achieving its objectives of improving energy efficiency in the country; and**
- (f) if so, the details thereof and the success achieved so far after setting up of BEE?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Yes, Sir. At present the share of the installed generation capacity from non-fossil fuels is around 38.3%. The details of installed generation capacity from all sources are given at Annexure.

(c) & (d) : Government of India have set a target of 1,75,000 MW installed capacity from renewable sources by the end of 2021-22 which includes 1,00,000 MW from Solar, 60,000 MW from Wind, 10,000 MW from Biomass and 5,000 MW from small Hydro. Furthermore, 10,164.50 MW of Hydro power generation and 4,800 MW of Nuclear power generation capacity are scheduled to be commissioned by 2024-25.

(e) & (f) : Yes, Sir. The Bureau of Energy Efficiency (BEE) has been successful in improving energy efficiency in the country.

The energy intensity of India has come down from 65.6 million tonnes of oil equivalent (MTOE) per Rupees crore in the financial year 2012-2013 to 54.5 MTOE per Rupees crore in the financial year 2018-2019. One of the major reasons for reduction in energy intensity is implementation of various energy efficiency policies in the country.

As per third-party assessment carried out in the year 2018-19, it is estimated that successful implementation of various energy efficiency schemes/programmes has led to the following achievements for the country:

(i) Total cost savings worth ₹ 89,122 crore approximately, comprising of Electrical energy savings of 136.37 Billion Units, worth ₹ 67,039 crore and Thermal energy savings of 12.00 MTOE worth ₹ 22,083 crore.

(ii) Total energy savings of 23.73 MTOE i.e. 2.69% of total primary energy supply of the country.

(iii) The equivalent reduction in CO₂ emission is around 151.74 Million Tonnes annually.

ANNEXURE**ANNEXURE REFERRED TO IN REPLY TO PARTS (a) & (b) OF UNSTARRED QUESTION NO. 1709 ANSWERED IN THE LOK SABHA ON 11.02.2021****Share of Installed Generation Capacity of Non-Fossil Fuel in
Total Installed generation Capacity
(As on 31.12.2020)**

Category	Installed Capacity (MW)	Share in Total Installed Capacity (%)
Coal	1,99,865	53.3
Lignite	6,260	1.7
Gas	24,957	6.6
Diesel	510	0.1
Total (Fossil Fuel)	2,31,591	61.7
Nuclear	6,780	1.8
Hydro	45,798	12.2
RES	91,154	24.3
Total (Non-Fossil Fuel)	1,43,732	38.3
Total Installed Capacity	3,75,323	100.0

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1718
ANSWERED ON 11.02.2021**

SHUTDOWN OF COAL BASED POWER PLANTS

1718. DR. SHASHI THAROOR:

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

- (a) the details and shutdown dates of old polluting coal based power plants identified for shutdown as per Finance Minister's Budget Speech on February 1, 2020;**
- (b) the details of location and developer-information of coal based power plants granted clearance by Ministry of Environment, Forest and Climate Change (MoEFCC) during last three years;**
- (c) the details of coal based power plants shutdown during the last three years due to environmental issues;**
- (d) the details of power plants penalized or shutdown for non-compliance with timeline for reducing pollution under MoEFCC notification dated December 7, 2015;**
- (e) the actions taken against power plants showing non-compliance to install Flue-Gas Desulphurization (FGD) as per the said notification;**
- (f) the details of power plants exempted from penal actions despite non-compliance and the reasons therefor; and**
- (g) the steps taken to identify non-compliance by power plants by setting interim milestones before final FGD-installation or lapse of deadline to avoid inaction at early stages?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : Setting up of a power plant is a de-licensed activity. Utilities take their own decision to retire/shut down their units based on techno commercial assessment, non-compliance to environment norms etc. 19 coal/lignite based units of 1640.00 MW capacities (Details at Annexure-I) have retired/shut down from 01.02.2020 (date of Finance Minister's Budget Speech) until 31.01.2021.

(b) : List of coal-based power plants, along with their location and developer information, which were given Environmental clearance by Ministry of Environment, Forest & Climate Change (MoEF&CC) during the last three years is at Annexure-II.

(c) : 51 coal/lignite units of 5454 MW capacities have been retired during last 3 years (Jan' 2018 to Jan' 2021). List is enclosed at Annexure-III.

(d) to (f) : Ministry of Environment, Forest & Climate Change (MoEF&CC) notified new emission norms for coal based Thermal Power Plants (TPP) on 7th December 2015 to be complied within 2 years. However, keeping in view the techno economic feasibility and in order to ensure uninterrupted power supply position in the country, a phased/yearly implementation plan (to be implemented by 2022) for installation/upgradation of additional pollution control equipment was submitted to MoEF&CC on 13.10.2017. Accordingly, Central Pollution Control Board (CPCB) has issued directions under section 5 of Environment (Protection) Act, 1986 to thermal power plants to comply with emission norms in a phased manner while compressing the timelines for 9 TPPs upto December 2019.

As per the schedule for implementation of the new emission norms, 35 units of 15 plants (details at Annexure-IV) failed to achieve compliance. CPCB issued directions under section 5 of Environment (Protection) Act, 1986 to these plants in 2020, imposing Environmental Compensation (EC) @ Rs. 18 lakh per month per non-compliant unit. All the plants have approached Hon'ble Supreme Court against CPCB's directions dated 08.05.2020 by filing IAs in W.P.(C) 13029/1985. Hon'ble Supreme Court has granted stay on recovery of EC in case of 14 plants, whereas, the case of one plant (Hinduja Thermal Power Station, Vizag) has been admitted/heard on 02.02.2021. Therefore, the matter is sub-judice in Hon'ble Supreme Court. Further, CPCB on 16.10.2020 has subsequently revised the timelines in case of 9 TPPs where the timelines were compressed, as per the plan submitted by MoP on 13.10.2017 to MoEF&CC.

(g) : Central Electricity Authority (CEA) and CPCB are periodically reviewing the status of milestone-wise progress made by TPPs for compliance of the new emission norms.

ANNEXURE-I**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1718
ANSWERED IN THE LOK SABHA ON 11.02.2021**

List of Coal/ Lignite based units Retired from 01.02.2020 to 31.01.2021

Sl. No.	Name of Station/Plant	State	Fuel	No of Units	Unit No.	Installed Capacity (MW)	Retired (MW)	Retired on
1	Kothagudem TPS	Telangana	Coal	1	2	60(1*60)	60.00	03.03.2020
2	Chandrapura(DVC) TPS	Jharkhand	Coal	1	3	130(1*130)	130.00	19.03.2020
3	Kothagudem TPS	Telangana	Coal	1	5	120(1*120)	120.00	30.03.2020
4	Kothagudem TPS	Telangana	Coal	3	1, 4, 7	240(2*60+1*120)	240.00	31.03.2020
5	Neyveli TPS-I	Tamil Nadu	Lignite	2	1, 9	150 (1*50+1*100)	150.00	31.03.2020
6	Panipat TPS	Haryana	Coal	1	5	210 (1*210)	210.00	31.03.2020
7	Neyveli TPS-I	Tamil Nadu	Lignite	3	2, 4, 8	200 (2*50+1*100)	200.00	08.07.2020
8	Neyveli TPS-I	Tamil Nadu	Lignite	1	3	50 (1*50)	50.00	30.07.2020
9	Neyveli TPS-I	Tamil Nadu	Lignite	1	5	50 (1*50)	50.00	28.09.2020
10	Neyveli TPS-I	Tamil Nadu	Lignite	1	6	50 (1*50)	50.00	30.09.2020
11	Korba-III	Chhattisgarh	Coal	2	1, 2	240 (2*120)	240.00	01.01.2021
12	Kutch Lig. TPS	Gujarat	Lignite	2	1, 2	140 (2*70)	140.00	22.01.2021
	Total			19			1640.00	

**ANNEXURE REFERRED TO IN REPLY TO PART (b) OF UNSTARRED QUESTION NO. 1718
ANSWERED IN THE LOK SABHA ON 11.02.2021**

Environment Clearance by MoEF&CC during the last 3 years

Sl. No.	Year	State/UT	District	Name of Project Proponent	Brief details of the project	Date of Issue of EC
1	2018	Odisha	Angul	NTPC Limited	Talcher Thermal Power Project Stage-III (2x660 MW)	12-Sep-18
2		Tamil Nadu	Cuddalore	NLC INDIA LIMITED	Thermal Power Station II (2nd Expansion) (2*660 MW)	29-Oct-18
3		Telangana	Nalgonda	M G POWER PROJECTS LIMITED	MG Power Projects Limited (200 MW)	24-Apr-18
4	2019	Odisha	Dhenkhal	ODISHA THERMAL POWER CORPORATION LIMITED	3x800 MW Supercritical thermal Power Project	10-Dec-19
5		Rajasthan	Kota	DCM SHRIRAM LIMITED	Modernization & Expansion in Power Plant from 125.3 MW to 141 MW at Existing Facility of Shriram Nagar Industrial Area, Kota, Rajasthan.	3-Jan-19
6		Tamil Nadu	Thiruvallur	TANGEDCO	1x600 MW Ennore TPS	11-Dec-19
7		Telangana	Khammam	THE SINGARENI COLLIERIES CO LTD	800 MW Supercritical Coal Based Singareni Thermal Power Plant Expansion.	18-Dec-19
8	2020	Gujarat	Tapi	Gujarat State Electricity Corporation Limited (GSECL)	1x800 MW Coal Based Supercritical Thermal Power Plant	13-Oct-20
9		Karnataka	Belagavi	ROQUETTE RIDDHI SIDDHI PRIVATE LIMITED	Expansion of cogeneration power plant from 6 MW to 18 MW	24-Feb-20
10		Uttar Pradesh	Sonbhadra	NTPC Limited	Singrauli Super Thermal Power Project, Stage-III (2x800 MW)	13-Jul-20
11		West Bengal	Murshidabad	THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED	1x660 MW Coal based Supercritical Sagardighi Thermal Power Phase-III Expansion	24-Mar-20
12	2021	Odisha	Jharsuguda	NLC INDIA LTD	NLC-Talabira Thermal Power Project (3x800 MW)	2-Feb-21

ANNEXURE-III

ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1718 ANSWERED IN THE LOK SABHA ON 11.02.2021

List of Coal/ Lignite based Units Retired during last 3 years (Jan' 2018 to Jan' 2021)

Sl. No	Name of Station/Plant	State	Fuel	No of Units	Unit No.	Installed Capacity (MW)	Retired (MW)	Retired on
1	PANKI TPS	Uttar Pradesh	Coal	2	3, 4	210 (2*105)	210.00	16.03.2018
2	OBRA TPS	Uttar Pradesh	Coal	1	8	94 (1*94)	94.00	03.04.2018
3	BANDEL TPS	West Bengal	Coal	2	3,4	120 (2*60)	120.00	20.04.2018
4	BHATINDA TPS	Punjab	Coal	4	1, 2, 3, 4	440(4*110)	440.00	31.08.2018
5	ROPAR TPS	Punjab	Coal	2	1,2	420(2*210)	420.00	31.08.2018
6	Badarpur TPS	Delhi	Coal	5	1, 2, 3, 4, 5	705 (3*95+2*210)	705.00	30.10.2018
7	Neyveli TPS-I	Tamil Nadu	Lignite	1	7	100 (1*100)	100.00	06.02.2019
8	Kothagudem TPS	Telangana	Coal	3	3, 6, 8	300(1*60+2*120)	300.00	19.03.2019
9	Korba-II	Chhattisgarh	Coal	4	1, 2, 3, 4	200(4*50)	200.00	13.08.2019
10	Trombay TPS	Maharashtra	Coal	1	6	500(1*500)	500.00	12.09.2019
11	Sabarmati (C Station)	Gujarat	Coal	2	15, 16	60(2*30)	60.00	13.09.2019
12	Rajghat TPS	Delhi	Coal	2	1, 2	135(2*67.5)	135.00	23.09.2019
13	Parli TPS	Maharashtra	Coal	2	4, 5	420(2*210)	420.00	23.01.2020
14	D.P.L. TPS	West Bengal	Coal	1	6	110(1*110)	110.00	28.01.2020
15	Kothagudem TPS	Telangana	Coal	1	2	60(1*60)	60.00	03.03.2020
16	Chandrapura (DVC) TPS	Jharkhand	Coal	1	3	130(1*130)	130.00	19.03.2020
17	Kothagudem TPS	Telangana	Coal	1	5	120(1*120)	120.00	30.03.2020
18	Kothagudem TPS	Telangana	Coal	3	1, 4, 7	240(2*60+1*120)	240.00	31.03.2020
19	Neyveli TPS-I	Tamil Nadu	Lignite	2	1, 9	150 (1*50+1*100)	150.00	31.03.2020
20	Panipat TPS	Haryana	Coal	1	5	210 (1*210)	210.00	31.03.2020
21	Neyveli TPS-I	Tamil Nadu	Lignite	3	2, 4, 8	200 (2*50+1*100)	200.00	08.07.2020
22	Neyveli TPS-I	Tamil Nadu	Lignite	1	3	50 (1*50)	50.00	30.07.2020
23	Neyveli TPS-I	Tamil Nadu	Lignite	1	5	50 (1*50)	50.00	28.09.2020
24	Neyveli TPS-I	Tamil Nadu	Lignite	1	6	50 (1*50)	50.00	30.09.2020
25	Korba-III	Chhattisgarh	Coal	2	1, 2	240 (2*120)	240.00	01.01.2021
26	Kutch Lig. TPS	Gujarat	Lignite	2	1, 2	140 (2*70)	140.00	22.01.2021
	Total			51			5454	

ANNEXURE REFERRED TO IN REPLY TO PARTS (d) TO (f) OF UNSTARRED QUESTION NO. 1718 ANSWERED IN THE LOK SABHA ON 11.02.2021

List of TPPs penalized by CPCB for not complying with the new emission norms

Sl. No.	Thermal Power Plant	Sector	State	Unit No.	Unit No. (Capacity in MW)
1.	Vizag Hinduja TPP, HNPCL, Visakhapatnam	Private	Andhra Pradesh	2	2 (520)
2.	Sri Damodaram Sanjeevaiah TPP, APPDCL, SPSR Nellore	State	Andhra Pradesh	2	2 (800)
3.	Singareni Thermal Power Project, SCCL, Adilabad	State	Telangana	1,2	1 (600) 2 (600)
4.	Kothagudem (New) Thermal Power Station, TSGENCO, Khammam	State	Telangana	1	1 (500)
5.	North Chennai Thermal Power Station-II, TANGEDCO, Chennai,	State	Tamil Nadu	1	1 (600)
6.	Panipat Thermal Power Station - Haryana Power Generation Corporation	State	Haryana	6, 7, 8	6 (210) 7 (250) 8 (250)
7.	Rajiv Gandhi Thermal Power Station – Haryana Power Generation Corporation	State	Haryana	1, 2	1 (600) 2 (600)
8.	Yamuna Nagar Thermal Power Station – Haryana Power Generation Corporation	State	Haryana	1, 2	1 (300) 2 (300)
9.	Indira Gandhi STPP, Haryana – NTPC	Central	Haryana	1, 2, 3	1 (500) 2 (500) 3 (500)
10.	Nabha TPP, Rajpura – L&T Power Development Ltd	Private	Punjab	1, 2	1 (700) 2 (700)
11.	Guru Hargobind, Lehra Mohabbat – Punjab State Power Corporation Ltd	State	Punjab	1, 2, 3, 4	1 (210) 2 (210) 3 (250) 4 (250)
12.	Talwandi Saboo Power Limited, Punjab	Private	Punjab	1, 2, 3	1 (660) 2 (660) 3 (660)
13.	Dadri Thermal Power Plant – NTPC	Central	Uttar Pradesh	3, 4, 5, 6	1 (210) 2 (210) 3 (490) 4 (490)
14.	Harduaganj Thermal Power Station, Uttar Pradesh Rajya Vidyut Utpadan Nigam	State	Uttar Pradesh	8, 9	8 (250) 9 (250)
15.	Ropar Thermal Power Station – Punjab State Power Corporation Ltd	State	Punjab	3, 4, 5, 6	3 (210) 4 (210) 5 (210) 6 (210)
					14670

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1719
ANSWERED ON 11.02.2021**

IMPLEMENTATION OF ELECTRICITY (AMENDMENT) BILL, 2020

**1719. SHRI ANTO ANTONY:
SHRI PRADYUT BORDOLOI:
SHRI UTTAM KUMAR REDDY NALAMADA:
SHRI MOHAMMED FAIZAL P.P.:**

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

- (a) whether the Government proposes to offer any assistance to farmers to meet the added financial burden that will result from implementation of the Electricity (Amendment) Bill, 2020;**
- (b) if so, the details thereof and if not, the reasons therefor;**
- (c) whether the Government has calculated the financial implications of the Bill on the agricultural sector in terms of electricity costs and irrigation costs; and**
- (d) if so, the details thereof and if not, the reasons therefor?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : No Electricity Amendment Bill has been introduced in the Parliament.

(b) to (d) : Does not arise.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1725
ANSWERED ON 11.02.2021**

ONGOING INTEGRATION OF GRIDS

**1725. SHRI P.P. CHAUDHARY:
SHRI KAUSHAL KISHORE:**

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

- (a) the details of One Nation-One Grid-One Frequency policy;**
- (b) whether the One Nation-One Grid-One Frequency helps power sector and consumers and if so, the details thereof;**
- (c) the details of inter-regional transmission capacity as of now; and**
- (d) the details of update on the ongoing integration of grids?**

A N S W E R

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW &
RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT
& ENTREPRENEURSHIP**

(SHRI R.K. SINGH)

(a) : The National Electricity Policy 2005 recognized that Transmission System requires coordinated action to develop a robust and integrated power system for the country. Keeping in view the massive increase planned in generation and also for development of power market, the policy emphasized that the Central Government would facilitate the continued development of the National Grid for providing adequate infrastructure for inter-State transmission of power and to ensure that underutilized generation capacity is facilitated to generate electricity for its transmission from surplus regions to deficit regions.

Towards this, development of National Grid was undertaken on continuous basis for optimal utilisation of unevenly distributed resources as well as to facilitate power transfer from surplus to deficit regions across the country. In the process, five regional grids namely Eastern Region (ER), North Eastern Region (NER), Western Region (WR), Northern Region (NR) and Southern Region (SR) were integrated in a progressive manner through high capacity High Voltage Direct Current (HVDC), 765 kV/400 kV inter-regional links. Integration of regional grids resulted in formation of One Nation – One Grid – One Frequency.

(b) : Yes Sir. One Nation – One Grid – One Frequency helps power sector and consumers to a great extent. It has facilitated power transfer from the resource rich areas to major load centers with reliability, security and economy. In addition, it has enabled access to low cost power as well as development of vibrant electricity market with significant reduction in price of electricity to the consumer. Besides above, it is also facilitating integration of large scale variable renewable generation capacity in the grid.

(c) : The present cumulative Inter-Regional transmission capacity is about 1,03,550 MW.

(d) : Strengthening/Augmentation of the National grid is a continuous process to meet the growing demand with reliability and security. In this direction, the Inter-Regional transmission capacity is also being enhanced. The cumulative inter-regional transmission capacity shall be enhanced to about 1,18,740 MW in next 2-3 years. Details of Inter-Regional links of about 15000 MW under implementation are as follows:

(i) Raigarh - Pugalur $\pm$ 800 kV, 6000 MW HVDC Bipole

(ii) Vindhyachal - Varanasi 765 kV D/c line

(iii) Warora Pool - Warangal (New) 765 kV D/c line

(iv) Loop In Loop Out (LILO) of Narendra - Narendra (New) 400kV (Quad) line at Xeldam (Goa)

(v) Reconductoring of Siliguri - Bongaigaon 400kV D/c and Alipurduar - Salakati 220 kV D/c lines with high capacity conductor.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1756
ANSWERED ON 11.02.2021**

UPGRADATION OF COAL-OPERATED POWER PLANTS

†1756. SHRI KRUPAL BALAJI TUMANE:

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

- (a) whether the Government has given additional time for the upgradation of coal-operated power plants;**
- (b) if so, the details thereof;**
- (c) whether old and polluting plants are to be converted as super critical plants with high efficiency; and**
- (d) if so, the details thereof?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : Setting up of power plant and generation of electricity is a de-licensed activity under the Electricity Act, 2003. Therefore, the decision to upgrade its units / plants for performance improvement or compliance of current environment norms lies with the power producers/concerned generating companies based on techno-commercial considerations as per the extant guidelines/norms and timelines set by the Statutory authorities.

(c) & (d) : Central Electricity Authority (CEA) has informed that conversion of old and polluting plants into super critical plants with high efficiency is not feasible due to technical difficulty and techno-economic viability.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1775
ANSWERED ON 11.02.2021**

GROSS POWER GENERATION BY NTPC GROUP

†1775. SHRI RAJAN VICHARE:

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

- (a) whether NTPC Group has recorded increase in gross power generation;
and**
- (b) if so, the details thereof?**

A N S W E R

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW &
RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT
& ENTREPRENEURSHIP**

(SHRI R.K. SINGH)

(a) : Yes, Sir.

**(b) : NTPC group has recorded an increase of 5.3% growth in gross
power generation (252.28 Billion Units) up to January, 2021 (FY 2020-21) when
compared to power generation for the same period (239.69 Billion Units) in the
last Financial Year (FY 2019-20).**

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1789
ANSWERED ON 11.02.2021**

ACCIDENTS REPORTED IN POWER PLANTS

1789. SHRI BHARTRUHARI MAHTAB:

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

- (a) the number of persons died/injured in major and minor accidents reported in power plants operational in the country during each of the last three years and the current year, Plant and State/UT-wise including NTPC along with the estimated losses to the exchequer in such accidents;**
- (b) whether the Government has conducted any enquiry to punish the culprit of the said accidents;**
- (c) if so, the details and outcome thereof and if not, the reasons therefor;**
- (d) whether the Government has conducted safety audit of such plants during the said period and if so, the details and outcome thereof, Plant and State/UT-wise and if not, the reasons therefor; and**
- (e) the other corrective steps taken/being taken by the Government to prevent such accidents in future?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) : The details of persons died/injured in major and minor accidents reported in different power plants during each of the last three years and the current year, Plant and State/UT-wise, including in NTPC's plants are given at Annexure-I. During the project development stage, the concerned project developers cover the risk from accidents through insurance policies taken by the contracting agency. Further, during operations and maintenance period of the power plants, the concerned organization covers the losses/risk from major/minor accidents through appropriate fire and accident related insurance policies. No budgetary support is provided to the concerned CPSUs in this regard.

(b) & (c) : Enquires/investigations are conducted in case of accidents in order to find out the reasons for the accident and also to suggest remedial measures. Necessary action is taken in compliance of the findings of the enquiry reports.

.....2.

(d) : All CPSUs being ISO certified organizations, all the plants fall within ambit of ISO certification. Accordingly, all proactive measures in regard to the safety of the plants, are adhered to in due compliance with the relevant safety norms and preventive measures. As regards NTPC, the details of internal and external audit conducted State-wise and plant-wise are given at Annexure-II.

(e) : Several corrective steps have been taken/being taken for prevention of such accidents in future:

- i. Mandatory usage of safety devices like helmet, safety gloves, goggles, safety/gum boots etc. are being adhered to by the power stations.**
- ii. Safety Officers have been nominated at all project / Power stations.**
- iii. Refresher training programme / awareness programmes are conducted for the employees to strictly observe all safety / precautionary measures at all the work places. In order to check accidents and their re-occurrence, safety equipment are made available at power plants such as Fire tender, portable fire extinguishers, Personal Protective Equipment (PPE's) to the working staff, insulating mats etc. at all locations. Periodical checks are conducted on these equipment. Also the remedial measures suggested by the enquiry committee after investigation of incident / accident are circulated by Safety division, corporate office at all locations of the concerned organisation for implementation to avoid re-occurrence of similar accident.**
- iv. Regular mock drills for fire and safety are carried out at all locations.**
- v. All necessary guidelines & Special Operating Procedures (SOPs) are provided in Safety Manuals for easy reference at work sites. Crisis & Disaster Management Manuals are also in place.**
- vi. Preventive Maintenance of all equipment, tools & tackles is undertaken as per preventive maintenance schedule.**
- vii. In order to address safety issues / observations, different meeting forums are in place like Safety Committee meeting & Participative Management Meetings.**
- viii. Prior to any maintenance activity, work permits are taken to ensure safety during maintenance.**
- ix. In order to create awareness among the employees, different safety celebrations are also done every year, like National Safety Week and Fire Safety Week etc.**
- x. Required medical facilities and first aid boxes are provided at project sites.**

ANNEXURE-I

ANNEXURE REFERRED TO IN REPLY TO PART (a) OF UNSTARRED QUESTION NO. 1789 ANSWERED IN LOK SABHA ON 11.02.2021

Details of persons died/injured in major/minor accidents reported in different power plants during each of the last three years and the current year, State/UT-wise and Plant-wise are given below:-

Plants under NTPC Limited:-

Stations	State/UT	CY-2018		CY-2019		CY-2020		CY-2021 (till Jan.'21)	
		Injured	Died	Injured	Died	Injured	Died	Injured	Died
Badarpur	Delhi	1	0	0	0	0	0	0	0
Barauni	Bihar	0	0	0	0	1	1	0	0
Barh	Bihar	3	0	1	0	1	1	0	0
Bongaigaon	Assam	2	0	1	0	0	0	0	0
Dadri	Uttar Pradesh	4	1	9	1	4	0	0	0
Farakka	West Bengal	7	0	3	1	1	1	0	0
Faridabad	Haryana	0	0	1		0	0	0	0
Gadarwara	Madhya Pradesh	0	0	0	1	3	0	0	0
Jhanor Gandhar	Gujarat	2	0	0	0	0	0	0	0
Kahalgaoon	Bihar	1	0	6	0	3	0	0	0
Korba	Chhattisgarh	0	0	2	0	0	1	0	0
Kudgi	Karnataka	1	0	2	1	3	0	1	1
Mouda	Maharashtra	2	0	0	1	2	1	0	0
Ramagundam	Telangana/ Andhra Pradesh	4	0	1	1	1	1	0	0
Rihand	Uttar Pradesh	2	0	0	0	1	4	1	0
Simhadri	Andhra Pradesh	0	0	3	0	1	0	0	0
Singrauli	Uttar Pradesh	2	0	2	0	1	1	0	0
Sipat	Chhattisgarh	0	0	0	0	1	0	0	0
Solapur	Maharashtra	1	0	1	0	1	0	0	0
Talcher Kaniha	Odisha	0	2	1	1	1	0	0	0
Talcher TPS	Odisha	0	0	0	0	1	0	0	0
Unchahar	Uttar Pradesh	1	0	1	0	2	0	0	0
Tanda	Uttar Pradesh	0	0	1	0	1	1	0	0
Vindhyachal	Madhya Pradesh	6	0	2	0	6	1	0	1
	Total	39	3	37	7	35	13	2	2

Other Power Plants under NHPC, SJVNL and NEEPCO:-

Plants under NHPC Ltd.

State	Name of the Power Station	2017-18		2018-19		2019-20		2020-21	
		Died	Injured	Died	Injured	Died	Injured	Died	Injured
UT of Jammu & Kashmir	Salal P.S.	0	1	0	0	0	0	0	0
	Dulhasti P.S.	0	0	0	0	0	0	0	1
	Uri-II P.S.	1	0	0	0	0	0	0	0
	Kishenganga P.S.	3	2	0	0	0	0	0	0
Himachal Pradesh	Bairasiul P.S.	0	0	0	0	0	0	1	0
	Chamera-I P.S.	0	0	0	0	0	0	1	0
	Chamera-II P.S.	0	0	0	0	0	1	0	0
	Chamera-III P.S.	0	0	2	0	0	0	0	0
Manipur	Loktak P.S.	1	0	0	0	0	0	0	0

Plants under SJVNL Limited

State	Name of the Power Station	2017-18		2018-19		2019-20		2020-21	
		Died	Injured	Died	Injured	Died	Injured	Died	Injured
Himachal Pradesh	Nathpa Jhakri HPS	0	0	0	3	0	1	0	0
	Rampur HPS	0	0	0	0	0	1	0	1

Plants under NEEPCO Limited

Arunachal Pradesh	Kameng HPE	0	1	0	0	0	0	0	0
Nagaland	Doyang HEP	1	0	0	0	0	0	0	0
Assam/ Meghalaya	Kopili	0	0	0	0	4	0	0	0
TOTAL		6	4	2	3	4	3	2	2

**ANNEXURE REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 1789
ANSWERED IN LOK SABHA ON 11.02.2021**

Details of internal and external audit conducted State-wise and plant-wise of NTPC Ltd. are given below:

Sl. No	State	Station/Project	FY – 2018-19		FY – 2019-20		FY – 2020-21 (till Jan.'21)	
			Internal Audit	External Audit	Internal Audit	External Audit	Internal Audit	External Audit
1	Uttar Pradesh	Dadri	Done	Done	Done	Done	Done	Done
2	Haryana	Faridabad	Done	Done	Done	Done	Done	Done
3	Haryana	Jhajjar	Done	Done	Done	Done	Done	Done
4	Uttar Pradesh	Unchahar	Done	Done	Done	Done	Done	Planned
5	Uttar Pradesh	Auraiya	Done	Done	Done	-----	Done	Done
6	Madhya Pradesh	Vindhyachal	Done	Done	Done	Done	Done	Done
7	Uttar Pradesh	Rihand	Done	Done	Done	Done	Done	Done
8	Uttar Pradesh	Singrauli	Done	Done	Done	Done	Done	Planned
9	Uttar Pradesh	Tanda	Done	Done	Done	Done	Done	Planned
10	Uttar Pradesh	Meja	Done	Done	Done	Done	Planned	Planned
11	Bihar	Kahalgaon	Done	Done	Done	Done	Done	Planned
12	Bihar	Barh	Done	Done	Done	Done	Done	Planned
13	Bihar	Barauni	-----	-----	Done	Done	Planned	Planned
14	West Bengal	Farakka	Done	Done	Done	Done	Done	Done
15	Jharkhand	North Karanpura	Done	Done	Done	-----	Done	Done
16	Bihar	BRBCL Nabinagar	Done	-----	Done	Done	Done	Planned
17	Bihar	NPGCL Nabinagar	Done	Done	Done	Done	Done	Planned
18	Jharkhand	Patratu	Done	-----	Done	-----	Planned	Planned
19	Bihar	Kanti	Done	Done	Done	-----	Planned	Done
20	Odisha	Darlipalli	Done	Done	Done	-----	Planned	Planned
21	Assam	Bongaigaon	Done	-----	Done	Done	Planned	Done
22	Odisha	Talcher Kaniha	Done	-----	Done	Done	Done	Done
23	Odisha	Talcher Thermal	Done	-----	Done	Done	Done	Done
24	Odisha	NSPCL Rourkela	Done	Done	Done	Done	Done	Planned
25	West Bengal	NSPCL Durgapur	Done	Done	Done	Done	Planned	Done
26	Rajasthan	Anta	Done	Done	Done	Done	Done	Done
27	Maharashtra	Solapur	Done	Done	Done	Done	Planned	Planned
28	Gujrat	Jhanor Gandhar	Done	-----	Done	Done	Done	
29	Maharashtra	Mouda	Done	-----	Done	Done	Planned	Done
30	Gujrat	Kawas	Done	Done	Done	Done	Done	Planned
31	Maharashtra	Ratnagiri	-----	-----	Done	-----	Done	-----
32	Chhattisgarh	Lara	Done	Done	Done	Done	Done	Planned
33	Chhattisgarh	Korba	Done	Done	Done	-----	Done	Done
34	Chhattisgarh	Sipat	Done	-----	Done	Done	Done	Planned
35	Madhya Pradesh	Gadarwara	Done	Done	Done	-----	Done	Done
36	Madhya Pradesh	Khargone	Done	Done	Done	-----	Done	Done
37	Chhattisgarh	NSPCL Bhilai	Done	Done	Done	Done	Done	Done
38	Karnataka	Kudgi	Done	Done	Done	-----	Done	Done
39	Telangana	Ramagundam	Done	-----	Done	Done	Done	planned
40	Telangana	Telangana	Done	Done	Done	-----	Done	Done
41	Andhra Pradesh	Simhadri	Done	-----	Done	Done	Done	Planned
42	Kerala	Kayamkulam	Done	Done	Done	Done	Done	Planned
43	Tamil Nadu	Vallure	Done	Done	Done	Done	Planned	Done
44	Uttarakhand	Tapovan	Done	Done	Done	Done	Planned	Done
45	West Bengal	Rammam	Done	Done	Done	Done	Planned	Planned
46	Himachal Pradesh	Kodam	Done	Done	Done	Done	Planned	Planned
47	Delhi	Badarpur	Done	Done	-----	-----	-----	-----

Note : Internal Audit conducted once in every year and External Audit conducted once in two years.

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
UNSTARRED QUESTION NO.1834
ANSWERED ON 11.02.2021**

NEW HYDRO POWER POLICY

1834. SHRI VELUSAMY P.:

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

- (a) whether the Government has any proposal for new hydro power policy to revive the stalled projects and if so, the details thereof;**
- (b) the steps taken to boost the hydro power projects in the wake of climate change scenario;**
- (c) the status of stalled projects and the steps taken for revival of these pending projects with details of power generation capacity in MWs, State-wise;**
- (d) whether priority will be given to the villages which are not electrified so far in and around the hydropower project sites; and**
- (e) if so, the details thereof and if not, the reasons therefor?**

A N S W E R

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER, NEW & RENEWABLE ENERGY AND THE MINISTER OF STATE FOR SKILL DEVELOPMENT & ENTREPRENEURSHIP

(SHRI R.K. SINGH)

(a) & (b) : In March, 2019, the Government of India approved the following measures for promoting hydropower sector in the country which would be especially helpful for the projects under construction as well as the new hydro projects:

- i. Declaring Large Hydro Power (LHPs) (> 25 MW projects) as Renewable Energy source.**
- ii. Hydro Purchase Obligation (HPO) as a separate entity within Non-Solar Renewable Purchase Obligation (RPO).**
- iii. Tariff rationalization measures for bringing down hydro power tariff.**
- iv. Budgetary Support for Flood Moderation/Storage Hydro Electric Projects (HEPs).**
- v. Budgetary Support to Cost of Enabling Infrastructure, i.e. roads/bridges.**
 - a) Rs. 1.5 crore per MW for projects upto 200 MW.**
 - b) Rs. 1.0 crore per MW for projects above 200 MW.**

(c) : A statement indicating status of stalled projects and steps taken for revival of these projects with details of power capacity in MWs, State-wise is annexed.

(d) & (e) : As reported by States, all the inhabited un-electrified census villages across the country stood electrified on 28.04.2018. Subsequently, under Saubhagya scheme of Government of India, all willing households have been electrified in the country up to December 2020.

Further, as per the Hydro Power Policy, 2008, 100 units of electricity per month would be provided by the developer to each Project Affected Family (PAF) for a period of 10 (ten) years from the date of commissioning of the project through the concerned distribution company with the cost of balance unused electricity, if any, to be made available to PAF in cash or kind or a combination of both, at rates to be determined by the State Electricity Regulatory Commission.

**ANNEXURE REFERRED TO IN REPLY TO PART (c) OF UNSTARRED QUESTION NO. 1834
ANSWERED IN THE LOK SABHA ON 11.02.2021**

Status of Hydro projects (above 25 MW) for which construction is held up and steps taken for revival.						
Sl. No	Name of Project /Installed Capacity	Unit No.	State/District Implementing Agency	Capacity (MW)	Likely Commissioning	Reason /Present status/ steps for revival
Central Sector						
1	Lata Tapovan 3x57= 171 MW	U-1 to U-3	Uttarakhand/ Chamoli/ NTPC	171	2025-26	Subsequent to the Uttarakhand disaster in June, 2013, Hon'ble Supreme Court gave the judgment on 13.08.2013 that "MoEF as well as State of Uttarakhand not to grant any further environmental clearance or forest clearance for any hydroelectric power project in the State of Uttarakhand, until further orders". Therefore, the construction work stopped. The matter is sub-judice.
2	Rangit-IV 3x40= 120 MW	U-1 to U-3	Sikkim/West Sikkim/NHPC	120	2025-26	Project is stalled since October, 2013 due to funds constraints with the developer. The project was under NCLT process since 9th April, 2019. NHPC submitted EOI on 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on 23.08.2019. The Resolution Plan was submitted by NHPC on 04.12.2019. Final hearing was held on 31.07.2020 and the project has been awarded to NHPC. Investment approval for the project, is under process.
3	Ratle 4x205+1x30= 850 MW	U-1 to U-5	Jammu & Kashmir/ Kishtwar/ JV of Govt. of UT of J&K and NHPC	850	2025-26	Project is stalled since 11.07.2014 due to various issues viz. R&R issues, Local issues, Law & order problem etc. Earlier, it was under execution by private sector developer and some works already have been done. There is no progress since 11th July, 2014. JV of Govt. of UT of J&K and NHPC has been formed. Investment approval has been accorded by Cabinet on 20.01.2021. Award of works is to be done.
Sub-Total(Central)				1141		
State Sector						
4	Koyna Left Bank PSS 2x40= 80 MW	U-1 to U-2	Maharashtra/ Satara/WRD, Gov. of Mah.	80	2025-26	Project stalled since July, 2015. The current expenditure on the project has already reached to almost original administrative approved cost level. Proposal for revival of the project is submitted to the Govt. of Maharashtra.

5	Lower Kalnai 2x24= 48 MW	U-1 to U-2	J&K/Kishtwar/JKSP DC	48	2025-26	Works on all fronts at Dam and Power House site are stalled since 24.01.2018 due to payment dispute with subcontractors and due to non-settlement of extension of time of the contract by the JKSPDC.
6	Polavaram 12x80= 960 MW	U-1 to U-12	Andhra Pradesh/East & West Godavari/ APGENCO/ Irr. Deptt., A.P.	960	2023-25	Works stalled since 19.07.2019 as APGENCO asked contractor (NECL) to stop all works and termination of contract issued on 14.08.2019. Now works are being taken up as legal hurdles got cleared on 14.12.2020.
	Sub-Total (State)			1088		
Private Sector						
7	Maheshwar 10x40= 400 MW	U-1 to U-10	Madhya Pradesh/Khargone & Khandwa/SMHPCL	400	2023-24	Works suspended since Nov-11 due to cash flow problem with developer. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement with SMHPCL on 18.04.2020.
8	Panan 4x75= 300 MW	U-1 to U-4	Sikkim/North Sikkim/Himgiri Hydro Energy Pvt. Ltd.	300	2025-26	Issue of construction of bridge on Mantham Lake for accesability of site is under discussion with the State Govt of Sikkim.
9	Tangnu Romai- I 2x22= 44 MW	U-1 to U-2	Himachal Pradesh/Shimla/Tangnu Romai Power Generation	44	2024-25	Works are stalled since January, 2015 due to fund constraints with developer.
10	Rangit-II 2x33= 66 MW	U-1 to U-2	Sikkim/West Sikkim/Sikkim Hydro Power Ltd.	66	2024-25	Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020.
11	Bhasmey 2x25.5= 51 MW	U-1 to U-2	Sikkim/East Sikkim/Gati Infrastructure	51	2024-25	Works are stalled since Sept., 2016 due to funds constraints with developer
12	Phata Byung 2x38= 76 MW	U-1 to U-2	Uttarakhand/ Rudraprayag M/s Lanco	76	2025-26	Works stalled since July, 2017 due to Financial crunch with the contractor / developer. The company is undergoing a corporate insolvency resolution process initiated under IBC for resolution and revival of the project since June 2020. Under this process, the resolution professional appointed by the NCLT has initiated the process for inviting prospective investors for the project.
	Sub-Total (Private)			937		
	Total			3166		
