

**GOVERNMENT OF INDIA
MINISTRY OF POWER**

**LOK SABHA
STARRED QUESTION NO.224
TO BE ANSWERED ON 01.12.2016**

SHARE OF HYDROPOWER IN ENERGY MIX

***224. SHRI RAHUL SHEWALE:
DR. PRITAM GOPINATH MUNDE:**

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

- (a) whether the share of hydropower in the country's energy mix is decreasing and if so, the details thereof and the reasons therefor;**
- (b) whether a number of hydropower projects have been delayed, hampering the Government's efforts to increase power generation and if so, the details and the reasons therefor, project-wise; and**
- (c) whether the Government proposes to supply adequate power at affordable prices and double electricity generation capacity by 2019, and if so, the steps being taken by the Union Government in this regard?**

A N S W E R

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL, NEW & RENEWABLE ENERGY AND MINES**

(SHRI PIYUSH GOYAL)

(a) to (c) : A Statement is laid on the Table of the House.

STATEMENT

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (c) OF STARRED QUESTION NO.224 TO BE ANSWERED IN THE LOK SABHA ON 01.12.2016 REGARDING SHARE OF HYDROPOWER IN ENERGY MIX.

(a) : The percentage of hydropower in the total installed capacity has declined from a maximum of about 51% (2,936 out of a total of 5,801 MW) in the year 1962-63 to about 14% (43,112 MW out of total 3,07,278 MW) as on 31.10.2016.

The reasons for decrease in share of Hydro Power include larger and accelerated capacity addition in thermal sector to meet growing energy demand, long gestation period of hydro power projects, geological surprises, rehabilitation & resettlement issues, funds constraint in private sector projects etc.

(b) : Presently, 44 HEPs with an aggregate capacity of 13182 MW are under construction out of which 42 HEPs with a capacity of 12966 MW have been delayed. The project wise details / reasons for the delay are given in Annex-I.

Apart from the above, 39 HEPs with an aggregate capacity of 22319 MW have been concurred by the Central Electricity Authority (CEA) which are yet to be taken up for construction due to various reasons including Environment and forest clearance and other related issues as given in Annex-II.

(c) : Electricity is a concurrent subject. Providing affordable electricity in a State / UT is within the purview of the respective State Government / State Power Utility. The Central Government supplements the efforts of the State Governments by establishing power plants and transmission systems in the Central Sector through Central Power Sector Undertakings (CPSUs).

The following steps have been taken to assist the States/UTs to provide adequate power to States/UTs:

- (i) During the 12th Plan period (2012-17), a capacity addition of about 88928.2 MW against the target of 88537 MW from conventional sources have been achieved till 31st October, 2016 and about 21,128 MW against the target of 30000 MW from renewable sources have been achieved till 30th September, 2016.**
- (ii) Due to large generation capacity addition, the electricity energy shortage in the country has reduced to 0.7% during the current year 2016-17 (upto October, 2016) from 8.7% during the year 2012-13.**

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- (iii) Adequate supply of the domestic coal to power plants has been ensured. The growth of domestic coal supply to power plants has been around 6.2% during 2015-16.**
- (iv) During the 12th Plan period (2012-17), 1,00,468 ckm against the target of 1,07,440 ckm of transmission lines and 2,88,458 MVA against the target of 2,82,750 MVA of transformation capacity have been completed till 31st October, 2016.**
- (v) Government of India has taken an initiative to prepare State specific Action Plans for providing 24X7 Power For All (PFA) in partnership with the States.**
- (vi) Two new schemes have been launched by the Government of India, namely, Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) for strengthening of sub-transmission and distribution networks and for segregation of agricultural feeders to give adequate and reliable supply and reduce line losses.**
- (vii) Central Government has notified Ujjwal Discom Assurance Yojana (UDAY) scheme on 20.11.2015 for Operational & Financial Turnaround of DISCOMs.**
- (viii) Government of India has launched a scheme by providing support from Power System Development Fund (PSDF) for operationalisation of stranded gas based generation.**

**ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO
STARRED QUESTION NO. 224 TO BE ANSWERED IN THE LOK SABHA ON
01.12.2016 REGARDING SHARE OF HYDROPOWER IN ENERGY MIX.**

DETAILS OF UNDER CONSTRUCTION HYDRO ELECTRIC PROJECTS (ABOVE 25 MW)

HAVING TIME/COST OVERRUN

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9
	CENTRAL SECTOR								
1	Tapovan Vishnughad (4x130 = 520 MW) NTPC	Uttarakhand	1 2 3 4	130 130 130 130	2012-13 2012-13 2012-13 2012-13 (Mar'13)	2015-16 2015-16 2015-16 2015-16 (Mar'16)	2019-20 2019-20 2019-20 2019-20 (June'19)	} 84	<ul style="list-style-type: none"> ➤ Heavy water ingress due to bad geology in HRT and rock fall on TBM. TBM struck up thrice. ➤ Flash flood in June, 2013 & Aug'12 damaging coffer dam. ➤ Termination of civil contracts for Barrage and HRT.
2	Lata Tapovan (3x57 = 171 MW) NTPC	Uttarakhand	1 2 3	57 57 57	2017-18 2017-18 2017-18 (Aug'17)		2021-22 2021-22 2021-22 (subject to re-start of works)	} 48	<ul style="list-style-type: none"> ➤ Flash flood during June, 2013 in Uttarakhand. ➤ Local issues / non-start of works in Barrage area ➤ Hon'ble Supreme court ban on construction works since May-14..
3	Pare (2x55 = 110 MW) NEEPCO	Arunachal Pradesh	1 2	55 55	2012-13 (Aug'12)		2017-18 2017-18	} 60	<ul style="list-style-type: none"> ➤ Law & Order problem. ➤ Poor geology. ➤ Poor approach roads. ➤ Flash flood during Jun-Sep -2015. Dam area inundated with water, Concreting of Dam effected for 04 months.
4	Tuirial (2x30 = 60 MW) NEEPCO	Mizoram	1 2	30 30	2006-07 2006-07 (July'06) (Jan'14) RCE-I	2013-14 2013-14 (Jan'14) RCE-I	2017-18 2017-18 (Oct'17)	} 132	<ul style="list-style-type: none"> ➤ Works suspended earlier due to local agitation for about 7 yrs. (June-2004 to Jan-2011). As a result Revised approval (RCE-I) accorded in Jan. 2011. ➤ Poor approach roads. ➤ Slope failure in Power House. ➤ Inadequate mobilization by contractor. ➤ Late mobilization of erection

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9
									contractor for E&M works.
5	Kameng (4x150 = 600 MW) NEEPCO	Arunachal Pradesh	1 2 3 4	150 150 150 150	2009-10 2009-10 2009-10 2009-10 (Dec'09)		2017-18 2017-18 2017-18 2017-18 (Critical) (Oct.'17)	96	<ul style="list-style-type: none"> Change in dam parameters. Slow progress in dam & HRT due to bad geology, heavy seepage, inadequate machinery. Flash flood in Oct. 2008 and Sept. 2012. Ingress of water in HRT. Poor approach roads. Contractual issues. Shortage of aggregate. Clearance for quarry from State Govt.
6	Tehri PSS (4x250 = 1000 MW) THDC	Uttarakhand	1 2 3 4	250 250 250 250	2010-11 2010-11 2010-11 2010-11 (July'10)	2015-16 2015-16 2015-16 2015-16 (Feb'16) RCE-I	2019-20 2019-20 2019-20 2019-20 (Sept'19)	108	<ul style="list-style-type: none"> Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Nov-2011. Litigation by bidders. Poor geology. Local agitation at Asena Quarry. Agitation at muck disposal area. Poor preparedness of contractor. Revision of Lay out of machine hall due to poor geology.
7	Parbati - II (4x200 = 800 MW) NHPC	Himachal Pradesh	1 2 3 4	200 200 200 200	2009-10 2009-10 2009-10 2009-10 (Sept'09)		2018-19 2018-19 2018-19 2018-19 (Dec'08)	108	<ul style="list-style-type: none"> Hon'ble High Court of Himachal Pradesh ban on stone crusher operation. Delay in revised forest clearance. TBM suffered extensive damage due to heavy ingress of water and slush in TBM face in Nov, 2006. Slide in Power House area in Apr-04, Jun-06 and Feb-07. Flash flood in 2004,2005,2010 and 2011. Jiwa Nallah works affected due to cavity treatment. Contractual issues.
8	Subansiri Lower (8x250 = 2000 MW) NHPC	Arunachal Pradesh/ Assam	1 2 3 4 5 6 7 8	250 250 250 250 250 250 250 250	2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11 2009-11		2020-21 (subject to re-start of works)	120	<ul style="list-style-type: none"> Delay in transfer of forest land. Disruption of works by locals in Ar. Pradesh side. Slope failure in Power House in Jan, 2008. Damage to bridge on Ranganadi river. Change in design of surge shafts to surge tunnels. Stoppage of works due to agitation

Sl. No	Project Name/(I.C.)/ Executing Agency	State	Unit No.	Cap. (MW)	Org. Comm. Sched.	Rev. Comm. Sched.	Ant. Comm. Sched.	Time over run (months)	Reasons for time and cost over run
1	2	3	4	5	6		7	8	9
									launched by Anti Dam activists in Assam against construction of Project. Work stopped since 16.12.2011. ➤ Issue of D/s impact studies. ➤ Case in NGT.
9	Kishanganga (3x110 = 330 MW) NHPC	Jammu & Kashmir	1 2 3	110 110 110	2014-15 2014-15 2014-15 (July'14) (Jan'16) RCE-I	2015-16 2015-16 2015-16 (Jan'16) RCE-I	2017-18 2017-18 2017-18	36	➤ Approval of RCE as L-1 price bid was more than cost estimate. RCE approved in Jan.-2009. ➤ Heavy Rainfall in March, 2011. ➤ Cavity in HRT – TBM portion. ➤ Poor geology in Access tunnel. ➤ Dam works affected due to arbitration proceedings at International Court of Arbitration. ➤ Local people demanding Employment in NHPC. ➤ R&R Issues. ➤ Completion of power evacuation arrangement (PGCIL)
10	Vishnugad Pipalkoti (4x111 = 444 MW) THDC	Uttara khand	1 2 3 4	111 111 111 111	2013-14 2013-14 2013-14 2013-14 (Jun'13)		2019-20 2019-20 2019-20 2019-20 (Dec'19)	72	➤ 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.
STATE SECTOR									
11	Kashang-II & III (1x65 + 1x65 MW) =130 MW HPPCL	Himachal Pradesh	1* 2	65 65	2013-14 2013-14		Comm. 2019-20 (subject to re-start of works)	72	➤ Local issues. Works could not be started due to two separate cases which are pending in NGT; out of which one of the cases has been decided in favour of HPPCL whereas in the 2 nd case the application for challenging the NGT decision has been filled in the Hon'ble Supreme Court. ➤ Flash flood in June, 2013. ➤ Works stopped by contractor. ➤ Works stuck by NGT.

12	Uhl-III (3x33.33 = 100 MW) BVPCL (HPSEB)	Himachal Pradesh	1 2 3	33.3 3 33.3 3 33.3 3	2006-07 2006-07 2006-07		2017-18 2017-18 2017-18	132	<ul style="list-style-type: none"> ➤ Delay in transfer of forest land. ➤ Delay in acquisition of private land ➤ Delay in transfer of quarry sites. ➤ Delay in award of works. ➤ 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.
13	Sawra Kuddu (3x37 =111MW) HPPCL,	Himachal Pradesh	1 2 3	37 37 37	2010-11 2010-11 2010-11		2018-19 2018-19 2018-19	96	<ul style="list-style-type: none"> ➤ Delay in MOEF clearance. ➤ Delay in award of Civil & E&M works. ➤ Poor geology in HRT. ➤ Slow progress of HRT Lining. ➤ Contractual issues ➤ Contract for HRT package terminated on 9.1.14. Re-awarded in Nov,2014 to M/s. HCC.
14	Sainj (2x50 = 100 MW) HPPCL	Himachal Pradesh	1 2	50 50	2014-15 2014-15		2016-17 2016-17	24	<ul style="list-style-type: none"> ➤ Slow progress of HRT and Barrage works ➤ Local issues
15	Shongtom Karcham (3x150 = 450 MW) HPPCL 16.08.2012	Himachal Pradesh	1 2 3	150 150 150	2017-18 2017-18 2017-18		2019-20 2019-20 2019-20	24	<ul style="list-style-type: none"> ➤ Shifting of Army Ammunition Depot. ➤ Local Issues.
16	Pulichintala (4x30 = 120 MW) TGENCO	Telangana	1# 2 3 4	30 30 30 30	2009-11 2009-11 2009-11 2009-11		2016-17 2016-17 2017-18 2017-18	Comm . 72 84	<ul style="list-style-type: none"> ➤ Delay in award of E&M works. ➤ Unprecedented floods in Oct.2009 & Sept.2011. ➤ Contractual issues. ➤ Slow progress of Power House works.
17	Nagarjuna Sagar Tail Pool Dam (2x25 = 50 MW) APGENCO	Andhra Pradesh	1 2	25 25	2008-09 2008-09		2016-17 2016-17	96	<ul style="list-style-type: none"> ➤ Slow progress of dam due to frequent flooding during 2009, 2011& 2013. ➤ Delay in award of HM works. ➤ Contractual issues in Dam works. ➤ Non-availability of water.
18	Pallivasal 2x30 = 60 MW KSEB	Kerala	1 2	30 30	2010-11 2010-11		2019-20 2019-20 (subject to re-start of works)	108	<ul style="list-style-type: none"> ➤ Slow progress of civil works. ➤ Delay in land acquisition. ➤ Change in alignment of Adit to HRT. ➤ Poor geology strata in HRT. ➤ Heavy Monsoon ➤ Works stopped by contractor since 28.1.15 due to contractual issues.
19	Thottiyar (1x30+1x10)= 40MW KSEB	Kerala	1 2	30 10	2012-13 2012-13		2019-20 2019-20 (subject to re-start of works)	84	<ul style="list-style-type: none"> ➤ 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. > Contractual issues. > Financial crunch with contractor.
20	New Umtru (2x20 =40 MW) MePGCL	Meghalaya	1 2	20 20	2011-12 2011-12		2016-18 2016-18	72	> Delay in Start of works. > Fund Constraints. > Slow progress of civil works.
21	Shahpurkandi 3x33+3x33+1x8 =206 MW, Irrigation Deptt. & PSPCL	Punjab	1 2 3 4 5 6 7	33 33 33 33 33 33 8	2017-18		2019-20 (subject to re-start of works)	24	> 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.
22	Koyna Left Bank PSS 2x40 = 80 MW WRD, Maha	Maharashtra	1 2	40 40	2017-18 2017-18		2019-20 2019-20 (subject to active start of works)	24	> Slow progress of works. > Fund constraints due to increase in project cost. RCE under approval.
23	Teesta Stage III (6x200 = 1200 MW) Teesta Urja Limited	Sikkim	1 2 3 4 5 6	200 200 200 200 200 200	2011-12 2011-12 2011-12 2011-12 2011-12 2011-12		2016-17 2016-17 2016-17 2016-17 2016-17 2016-17	60	> Delay in forest clearance. > Works suffered due to earthquake in Sept.2011. > Financial constraints with developer > Delay in Pressure shaft works. > Delay in Power Evacuation arrangement. > Works stuck up for 13-months due to cash flow problem with developer.
24	Vyasi 2x60=120 MW, UJVNL	Uttarakhand	1 2	60 60	2014-15 2014-15		2018-19 2018-19	48	> Delay in award of works
25	Polavaram (12x80 = 960 MW) PPA	Andhra Pradesh	1 to 8	80 each	2017-18		2021-22	48	> Slow progress of works > Funds constraints > E&M works yet to be awarded
PRIVATE SECTOR									
26	Tidong-I 2x50 =100 MW NSL Tidong	Himachal Pradesh	1 2	50 50	2013-14 2013-14		2017-18 2017-18	48	> Delay in NOC by Projects affected Panchayats, suspension of works by Govt. for one year.
27	Tangnu Romai-I (2x22 = 44 MW) TRPGPL	Himachal Pradesh	1 2	22 22	2014-15 2014-15		2018-19 2018-19 (subject to re-start of works)	48	> Slow progress of civil works. > Poor geology. > Difficult area. > Weather conditions & accessibility. > Financial constraints with the developer.
28	Sorang (2x50 = 100 MW), HSPPL	Himachal Pradesh	1 2	50 50	2012-13 2012-13		2017-18 2017-18	60	> Poor geology. > Difficult area. > Weather conditions & accessibility. > Penstock cracks / leakage during filling of Water conductor System. > Rupture in surface penstock in Nov-15 during trial run.

29	Singoli Bhatwari (3x33 = 99 MW) L&T	Uttarakhan d	1 2 3	33 33 33	2012-13 2012-13 2012-13		2020-21 2020-21 2020-21 (subject to active start of works)	96	<ul style="list-style-type: none"> Poor geology in HRT. Agitation by local people. Flash flood in June,2013.
30	Phata Byung (2x38 = 76 MW), LANCO	Uttarakhan d	1 2	38 38	2013-14 2013-14		2018-19 2018-19 (subject to active start of works)	60	<ul style="list-style-type: none"> Flash flood in June,2013. Poor geology in HRT.
31	Maheshwar (10x40 = 400 MW) SMHPCL	Madhya Pradesh	1 2 3 4 5 6 7 8 9 10	40 40 40 40 40 40 40 40 40 40	2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02 2001-02		2017-19 (subject to re-start of works)	204	<ul style="list-style-type: none"> R&R issues Cash flow problem with developer
32	Teesta Stage VI (4x125 = 500 MW) Lanco Energy Pvt. Ltd.	Sikkim	1 2 3 4	125 125 125 125	2012-13 2012-13 2012-13 2012-13		2021-22 2021-22 2021-22 2021-22 (subject to re-start of works)	408	<ul style="list-style-type: none"> Poor geology. Land acquisition. Contractual issues Funds constraints with developer
33	Rangit-IV HE Project (3X40 = 120 MW) JPCL	Sikkim	1 2 3	40 40 40	2011-12 2011-12 2011-12		2018-19 2018-19 2018-19 (subject to re-start of works)	72	<ul style="list-style-type: none"> Slow progress of HRT & Surge Shaft works due to poor geology. Works hampered due to earthquake in September, 2011. Financial constraints with developer
34	Bhasmey (2x25.5 =51 MW) Gati Infrastructure	Sikkim	1 2	25.5 25.5	2012-13 2012-13		2019-20 2019-20	84	<ul style="list-style-type: none"> Forest clearance Financial constraints with developer
35	Rongnichu (2x48 =96 MW) Madhya Bharat Pvt. Ltd.	Sikkim	1 2	48 48	2015-16 2015-16		2019-20 2019-20	48	<ul style="list-style-type: none"> Land Acquisition Poor geology.
36	Ratle (4x205+1x30) = 850 MW Ratle HEP Pvt .Ltd.	J&K	1 2 3 4 5	205 205 205 205 30	2017-18 2017-18 2017-18 2017-18 2017-18		2021-22 2021-22 2021-22 2021-22 2021-22 (subject to re-start of works)	48	<ul style="list-style-type: none"> Slow progress of works. Works suspended since 11.7.14 due to frequent local disturbace.
37	Gongri 2x72= 144 MW Dirang Energy (P)Ltd	Ar. Pradesh	1 2	72 72	2017-18 2017-18		2019-20 2019-20 (subject to re-start of works)	24	<ul style="list-style-type: none"> Works awarded on 22.11.2011. However, consent to establish from State Pollution Control Board was issued on 19-5-14. Financial constraints with the developer.
38	Bajoli Holi 3x60= 180 MW M/s GMR Bajoli Holi	H.P.	1 2 3	60 60 60	2017-18		2019-20	24	<ul style="list-style-type: none"> Slow progress of works.
39	Rangit-II 2x33= 66 MW Sikkim HydroPower Ltd.	Sikkim	1 2	33 33	2017-18		2019-20 (subject to re-start of works)	24	<ul style="list-style-type: none"> Slow progress of works. Financial constraints with the developer.
40	Panan 4x75= 300 MW Himagiri Hydro Energy Pvt. Ltd.	Sikkim	1 2 3 4	75 75 75 75	2018-19		2020-21 (subject to active start of works)	24	<ul style="list-style-type: none"> Clearance from NWLB received in December, 2015. Clearance from NGT.

41	Tashiding 2x48.5=97 MW Shiga Energy Pvt Ltd.	Sikkim	1 2	48.5 48.5	2015-16		2016-17	12	➤ Poor geology ➤ Local issues
42	Chanju-I 3x12=36 IA Energy	HP	1 2 3	12 12 12	2014-15		2016-17	24	➤ Slow progress of works ➤ Poor geology
		Total		1306 1					

* One unit out of total two units of (2X65 MW) Kashang HEP in the State of Himachal Pradesh has already been commissioned.

One unit out of total four units of (4X30 MW) Pulichintala HEP in the State of Telangana has already been commissioned.

**ANNEX REFERRED TO IN PART (b) OF THE STATEMENT LAID IN REPLY TO
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Hydro Electric Schemes Concurred by CEA and yet to be taken up for construction

CATEGORY-I: Pending due to Environment and Forest Clearance issues

(a) Environment Clearance received and Forest Clearance is awaited

As on 31.10.2016

Sl No	Scheme/ Sector/ State	Agency	Nos. x MW	IC (MW)	Est Cost (Rs Crs.) PL	CEA Concurrence	Const period /zero date	Remarks
1	Miyar/ Private/ HP	MHPCL	3x40	120	1125.16 (Compl.)	07.02.2013	110 months 05/13	EC accorded on 30.07.2013. FC-I accorded on 27.07.2013. Funding tie-up in process. FC-II awaited. Financial closure is in process.
2	New Ganderwal / State / J&K	JKSPD C	3x31	93	965.86 (01/14)	10.6.14	48 months 7/14	EC accorded on 27.9.13. FC awaited
3	Rupsiyabaga r Khasiyabara / Central / Uttrakhand	NTPC	3x87	261	1715.15 (05/08)	16.10.08	64 months 12/09	EC accorded on 26.03.09. FC awaited.
4	Teesta St-IV / Central / Sikkim	NHPC	4x130	520	3594.74 (07/09)	13.05.10	74 months From date of CCEA clearance	EC accorded on 09.01.14. FC-I accorded on 26.02.13. FC-II awaited.
5	Dibbin / Private / Ar. Pradesh	KSKDH PL	2x60	120	728.54*	04.12.09	48 months 10/10	EC accorded on 23.7.2012. FC-I accorded on 7.2.2012 & FC-II awaited.
6	Nyamjang Chhu / Private / Ar. pradesh	BEL	6x130	780	6115.6*	24.03.11	62 months 01/12	EC accorded on 19.4.12. FC-I accorded on 9.4.2012 & FC-II awaited.
7	Tawang St-I / Central / Ar. Pradesh	NHPC	3x200	600	4824.01 (5/10)	10.10.11	78 months From date of CCEA clearance	EC accorded on 10.6.11. FC proposal forwarded by State Govt. to MOEF on 21.08.11. FC-I & II awaited.
8	Tato-II / Private / Ar. Pradesh	THPPL	4x175	700	5616.20 *	22.5.12	72 months 01/12	EC accorded on 27.6.11. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.

9	Tawang St-II / Central / Ar. Pradesh	NHPC	4x200	800	6112.3 (05/10)	22.09.11	83 months from date of CCEA clearance	EC accorded on 10.06.11. FC-I accorded on 8.01.14. FC-II awaited.
10	Siyom/ Private / Ar. pradesh	SHPPL	6x166.67	1000	12100	17.12.13	78 months 01/15	EC accorded 31.01.08. FC awaited. Forest clearance is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
11	Kalai-II/ Private / Ar. Pradesh	Kalai PPL	5x190+1x190+1x60	1200	14199.64*	27.3.15	87 months, 01/15	EC accorded 20.5.15. FC awaited
12	Heo / Private / Ar. Pradesh	HHPPL	3x80	240	1614.35	28.07.15	50 months from 09/16.	EC accorded on 31.03.15. Letter is yet to be issued. FC-I accorded 27.10.15. FC-II awaited
13	Tato-I / Private / Ar. Pradesh	SHPPL	3x62	186	1493.55	28.10.15	50 months From 01.11.16 .	EC accorded on 10.11.15. FC-I accorded 27.10.15. FC-II awaited
	Sub Total			6620				

(b) Both Environment and Forest Clearance awaited.

14	Dikhu / Private / Nagaland	NMPPL	3x62	186	1994.74 (comp.)	31.03.14	52 months 01/16	FC not applicable as forest land is not involved. EC awaited.
15	Chango Yangthang Private / H. P.	MPCL	3x60	180	2077.294 (compl.)	31.03.14	58 months 04/15	EC & FC awaited.
16	Chhatru / Private / H.P.	DSC	3x42	126	1386.08 (Comp)	15.1.2015	75 months 06/17	EC recommended by MoEF on 24.02.15, letter to be issued after submission of Stage-I forest clearance. FC awaited.
17	Devsari / Central / Uttrakhand	SJVNL	3x84	252	1558.84 (06/10)	07.08.12	60 month, 01/13	EAC meeting held on 27.12.2011 recommended for EC. Letter will be issued after FC.
18	Matnar / State / Chhatisgarh	CSPCL	3x20	60	313.35 (03/04)	19.08.04		EC & FC awaited
19	Lower Siang / Private / Ar. pradesh	JAVL	9x300	2700	19990.74*	16.02.10	114 months 01/11	EC& FC awaited

20	Hirong / Private / Ar. Pradesh	JAPL	4x125	500	5532.63*	10.04.13	78 months 01/14	EC & FC awaited. Forest clearance is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
21	Etalin / Private / Ar. pradesh	EHEPC L	10x307+1x19.6+1x7.4	3097	25296.95*	12.07.13	84 months 10/14	EC & FC awaited.
22	Talong Londa / Private / Ar. pradesh	GMR	3x75	225	2172.88*	16.08.13	60 months 11/14	EC & FC awaited. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF.
23	Naying / Private / Ar. pradesh	NDSCP L	4x250	1000	9301.11	11.09.13	72 months 01/15	EC & FC awaited. FC is linked to Cumulative Impact Assessment Study of Siang Basin.
24	Kynshi – I/ Private Meghalaya	AKPPL	2x135	270	3154.37 09/2015	31.3.2015	60 months 09/16.	EC & FC awaited
25	Lower Kopili/State/ Assam	APGCL	2x55+1x5+2x2.5	120	1115.9 1 1/2015	24.05.16	48 months 02/16	EC & FC awaited
26	Kiru/Central/ J&K	CVPPL	4x156	624	4640.8 8 9/2014	13.06.16	54 months 8/16	EC & FC awaited
27	Turga PSS/State/W B	WBSPCL	4X250	1000	4234.9 0 12/2014	04.08.16 Meeting date	63 months 10/17	EC & FC awaited
28	Seli/ Private/HP	SHPCL	4x100	400	4118.5 9	27.10.16* *	88months/ 06/17	EC & FC awaited
29	Sach Khas/ Private/HP	L&T HHPL	3x86.67+1 x7	267	3390.7 4	27.10.16* *	102month s/ 05/18	EC & FC awaited
30	Tagurshit/ Private/ Ar.P.	L&T	3x24.67	74	717.04	21.10.16* *	52months/ 01/17	EC & FC awaited

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31	Kotlibhel St-IA / Central / NHPC	NHPC	3x65	195	1095.77 (12/05)	03.10.06	54 months From date of CCEA clearance	EC accorded on 9.5.07. FC-I accorded on 13.10.11 & FC-II awaited. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.
32	Kotlibhel St-IB / Central / NHPC	NHPC	4x80	320	1806.43 (12/05)	31.10.06	54 months From date of CCEA clearance	EC accorded earlier on 14.08.07 is withdrawn on 22.11.10. MOEF declined FC-I on 7.07.11. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.

33	Kotlibhel St-II / Central / NHPC	NHPC	8x66.25	530	2535.86 (03/06)	30.11.06	60 months From date of CCEA clearance	EC accorded on 23.08.07. FC-I declined 5.07.11. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.
34	Alaknanda / Private / NHPC	GMRL	3x100	300	1415.96*	08.08.08	69 months 03/09	EC accorded on 12.3.08, FC-I accorded on 8.11.11. FC-II accorded on 09.11.2012. The project is included in the list of 24 projects under review by Hon'ble Supreme Court.
	Sub total			1345				
	Total (pending for E&F clearance)			19046				

Category-II: Environment and Forest Clearance accorded and pending due to other reasons

35	Pakal Dul / Central / J&K	CVPP	4x250	1000	5088.88 (07/05)	03.10.06	72 months From date of CCEA clearance	EC accorded on 29.2.08 and FC-I accorded on 16.5.05 & FC-II on 15.12.15. Decision on finalization of bidding is under approval of Board of Directors.
36	Kutehr / Private / H.P.	JSWEP L	3x80	240	1798.13*	31.8.10	60 months 10/11	EC accorded on 05.07.2011. FC-I accorded 22.06.2011 and FC-II accorded on 19.02.2013. Validity of earlier bids has expired due to delay in obtaining FC-II and acquisition of Pvt. Land. Fresh bidding are being invited.
37	Nafra / Private / Ar. Pradesh	SNEL	2x60	120	848.22*	11.02.11	36 months 07/11	EC accorded on 19.08.13. FC-I accorded on 12.7.11 and FC-II accorded in 26.06.12. Financial closure cancelled. Project held up for want of final orders on diversion of forest land.
38	Demwe Lower / Private / Ar. Pradesh	ADPL	(5x342 +1x40 MW)	1750	13144.91*	20.11.09	61 months 04/11	EC accorded on 12.02.10. FC accorded on 26.07.13. Financial closure yet to be obtained. Petition filed in NGT against the project.
39	Athirappilly / State / Kerala	KSEB	2x80+ 2x1.5	163	385.63 (2004-05)	31.03.05	42 months 03/05	FC accorded. EC restored on 9.10.15. Fresh tenders are being invited to award the work.
	Subtotal (Pending for other reasons)		3273					
	Total			22319				

Note: Six projects namely, Dibang (3000 MW) in Arunachal Pradesh, Loktak D/S (66 MW) in Manipur, Tipaimukh (1500 MW) in Manipur, Pana Maneri (480 MW) in Uttarakhand, Kolodyne St-II (460 MW) in Mizoram and Gundia (200 MW) in Karnataka are excluded from above list due to either Revised DPR of the scheme is to be submitted or the scheme is likely to be dropped. Jalaput Dam Toe (18 MW) of OPCL in Orissa is also excluded from the list as being small scheme. Total capacity of above schemes is 5724 MW.

(*) CC: Completion Cost EC: Environment Clearance FC: Forest Clearance JVC: Joint Venture Company

(**) Concurrence meeting date.
