## Hydro Power Development in Haryana

Identified Hydro Power Potential and its status of Develop			-
	Nos.	Capacity (MW)	Percentage (%)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)#	1	64	100

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#Western Yamuna Canal project (64 MW) has been developed in 4 stages each having Installed Capacity below 25 MW.

ldentif	ied Hydro P	ower Potential and its status of Development:		
			Nos.	Capacity (MW)
Hydroel	ectric Project	ower Potential as per Reassessment Study from Large s city above 25 MW)	67	18470
I	Projects in o	operation	26	9809.02
II	Projects und	der construction	9	2125
III	Projects allo	otted by States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	2	330
	(ii)	Projects under Examination in CEA	2	573
	(iii)	Projects returned to project authorities	3	867
	(iv)	Projects under S&I	6	2264
	(v)	Projects allotted for development on which S&I is held up/ yet to be taken up	6	1690
IV	Projects dro	opped due to Basin studies/ Other reasons	7	689
V	Projects stu	ck due to Inter-State/ Other Issues	1	126
VI	Projects yet	to be allotted by the State for development*	20	1652

## Hydro Power Development in Himachal Pradesh

Note - One project Seawa (70 MW) was identified in HP but presently this project is in operation in J&K.

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the Projects, addition/deletion of the projects and merger of two projects into one etc.

S. NO.	UTILITY/STATIONS	NO. OF STNS.	NO. OF UNITS	NO. OF UNITS X CAPACITY (MW)	RIVER/ /BASIN*	DISTRICT	CAPACITY (MW)	YEAR OF COMMISSIONING
	CENTRAL SECTOR							
	BBMB							
1	BHAKRA LEFT (BHAKRA NANGAL)	1	5	(2X108+ 3x126)	SUTLEJ	BILASPUR	594	1960-1961
2	BHAKRA RIGHT (BHAKRA NANGAL)	1	5	(5X157)	SUTLEJ	BILASPUR	785	1966-1968
3	DEHAR (PANDOH DIVERSION)	1	6	(6X165)	BEAS	MANDI	990	1977-1983
4	PONG (PONG DAM)	1	6	(6X66)	BEAS	KANGRA	396	1978-1983
	SUB-TOTAL BBMB	4	22				2765	
	NHPC							
5	BAIRA SIUL	1	3	(3X60)	RAVI	CHAMBA	180	1980-1981
6	CHAMERA- I (CHAMERA SHERPUR)	1	3	(3X180)	RAVI	DALHOUSIE	540	1994
7	CHAMERA- II (GWAR)	1	3	(3X100)	RAVI	CHAMBA	300	2003-2004
8	CHAMERA- III (HIBRA)	1	3	(3X77)	RAVI	CHAMBA	231	2012
9	PARBATI-III [SAINJ (PARBATI - III)]	1	4	(4X130)	SAINJ	KULLU	520	2014
	SUB-TOTAL NHPC	5	16				1771	
	SJVNL							
10	NATHPA JHAKRI	1	6	(6X250)	SATLUJ	SHIMLA	1500	2003-2004
11	RAMPUR (RAMPUR NANJAH)	1	6	(6X68.67)	SATLUJ	SHIMLA	412.02	2014-15
	SUB-TOTAL SJVNL	2	12				1912.02	
	NTPC LTD.							
12	KOLDAM	1	4	(4X200)	SATLUJ	BILASPUR	800	2015
	SUB-TOTAL NTPC LTD.	1	4				800	
	TOTAL CENTRAL SECTOR	12	54				7248.02	
	STATE SECTOR							
	HPSEBL							
13	BASSI	1	4	(4X16.5)	BEAS	MANDI	66	1970-1981
14	GIRI BATA *	1	2	(2X30)	YAMUNA	SIRMAUR	60	1978
15	LARJI	1	3	(3X42)	Beas River & its tributaries Sainj & Tirthan	KULLU	126	2006
16	SANJAY [BHABA (SANJAY)]	1	3	(3X40)	SATLUJ	KINNAUR	120	1989
	TOTAL HPSEBL	4	12				372	
	HPPCL							
17	INTEGRATED KASHANG	1	3	(3X65)	SATLUJ	KINNAUR	195	2016-17
18	SAINJ (SAINJ-I)	1	2	(2X50)	SAINJ	KULLU	100	2017
	TOTAL HPPCL	2	5				295	

S. NO.	UTILITY/STATIONS	NO. OF STNS.	NO. OF UNITS	NO. OF UNITS X CAPACITY (MW)	RIVER/ /BASIN*	DISTRICT	CAPACITY (MW)	YEAR OF COMMISSIONING
	PSPCL							
19	SHANAN	1	5	(1X50)+ (4X15)	UHL & Lamba Dug River	MANDI	110	1932-1982
	TOTAL PSPCL	1	5				110	
	TOTAL STATE SECTOR	7	22				777	
	PRIVATE SECTOR							
	MPCL							
20	MALANA	1	2	(2X43)	MALANA	KULLU	86	2001
	TOTAL MPCL	1	2				86	
	GBHPPL							
21	BUDHIL	1	2	(2X35)	RAVI	CHAMBA	70	2012
	TOTAL GBHPPL	1	2				70	
	EPPL							
22	MALANA-II	1	2	(2X50)	MALANA	KULLU	100	2011-12
	TOTAL EPPL	1	2				100	
	IA ENERGY							
23	CHANJU-I	1	3	(3X12)	RAVI	CHAMBA	36	2017
	TOTAL IA ENERGY	1	3				36	
24	ALLAIN DUHANGAN (ALLAIN NALLAH & DUHANGAN)	1	2	(2X96)	ALLAIN NALLAH		192	2010-11
	TOTAL ADHPL	1	2				192	
	JSWHEL							
25	BASPA (BASPA-II)	1	3	(3X100)	BASPA	KINNAUR	300	2003
26	KARCHAM WANGTOO	1	4	(4X250)	SATLAJ	KINNAUR	1000	2011-12
	TOTAL JSWHEL	2	7				1300	
	TOTAL PVT	7	18				1784	
26	TOTAL HP	26	94				9809.02	

\* ALL PROJECTS EXCEPT GIRI BATA (GANGA BASIN) ARE IN INDUS BASIN

## 2. H.E. Projects Under Construction:

Sl. No.	Name of Project	Agency	District	River	Basin	I.C. (MW)	Likely Commissioning
1	Parbati StII (Parbati -II)	NHPC	Kullu	Parbati/Beas	Indus	800	2021-22 (Mar'22)
2	Uhl- III	Beas Valley Power Corp. Ltd. (BVPC)	Mandi	Uhl/Beas	Indus	100	2022-23 (Dec'22)
3	Sorang	Himachal Sorang Power	Kinnaur	Sorang/Satluj	Indus	100	2021-22 (Dec.'21)
4	Tidong-I	M/s NSL Tidong	Kinnaur	Tidong/Satluj	Indus	100	2022-23 (June'22)
5	Shontong Karcham	HPPCL	Kinnaur	Satluj	Indus	450	2024-25 (Mar.'25)
6	Sawara Kuddu (Pangula Sanail)	HPPCL	Shimla	Pabbar/Tons/ Yamuna	Ganga	111	2020-21 (Mar.'21)
7	Tangu Romai-I	Tangu Romai Power Generation	Shimla	Pabbar/Tons/ Yamuna	Ganga	44	2024-25*
8	Bajoli Holi	GMR Bajoli Holi Hydro Power Pvt. Ltd.	Chamba	Ravi	Indus	180	2021-22 (Dec.'21)
9	Kutehr	JSW Energy (Kutehr) Power Ltd. (JSWEPL)	Chamba	Ravi	Indus	240	2025-26 (Nov'25)
9	9 Total						

\* Subject to re-start of works

Sl. No.	Name of Project	Agency	River	District	I.C. (MW)	Date of CEA Concurrence	Status
1	Miyar (Udaipur)	Miyar Hydro Power Company Ltd. (MHPCL)	Chenab /Miyar Nallah	Lahul & Spiti	120	07.02.2013	EC accorded on 30.07.2012. FC-I accorded on 27.07.2012. For FC-II, Compliance Report is awaited from State Govt. Financial closure is in process.
2	Luhri Stage-I (Luhri )	Satluj Jal Vidyut Nigam Ltd. (SJVNL)	Satluj	Shimla & Kullu	210	01.05.18	EC accorded on 17.03.2020. .FC-I accorded on 19.09.18 and FC II accorded on 28.03.2019. Investment approval for project is recomended by PIB. Tender for EPC Contract Package (Civil & HM works) opened on 12.06.2020. Evaluation of Technical bids completed.
2		Total			330		

Note: All projects are in Indus basin

Sl. No.	Name of Project	Sector	I.C. (MW)	Agency	Month of receipt
1	Thana Plaun	State	191	HPPCL	18-Feb
2	Sunni Dam	Central	382	SJVNL	1-Sep
2	Total		573		

## 4. H.E. Projectss Under Examination/Scrutiny in CEA:

## **5. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:**

Sl. No.	Name of Project	Agency	I.C. (MW)	Reason of Return
	Ravi Basin			
1	Bara Banghal (Chulan)	MPCL	200	DPR returned due to inadequate geological investigations, environmental & wild life issues, review of I.C. & Cost.
2	Seli	SHPCL	400	
3	Sach Khas L&T HHPL		267	
3	Total		867	

#### 6. H.E. Projects Under Survey & Investigation:

Sl. No.	Name of Project	Basin*/River	Agency for DPR	I.C. (MW)	Date of MoA	Target date of Preparation of DPR
1	Luhri StII (Luhri)	Satluj	SJVNL	172	Project allocated to SJVN on standalone basis. MoA yet to be finalized.	
2	Jangi Thopan Powari	Satluj	SJVNL	800		Mar-22
3	Reoli Dugli	Chenab	SJVNL	458	06.11.2019	
4	Dugar	Chenab	NHPC	449	25.09.2019	
4	Purthi	Chenab	SJVNL	210	25.09.2019	
5	Bardang	Chenab	SJVNL	175	25.09.2019	
6	Total			2264		

\* All projects are in Indus Basin

#### 7. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:

Sl. No.	Project	I.C. (MW)	Agency	Date of Allotment/ MoA	s	itatus
	Satluj Basin					
1	Khab (Khab-I & Khab-II)	636	HPPCL	22.09.2009	i.e. Yangthang Khab and Jhangi Thopan vide letter d revised PFR for Khab HE	the TWL of Upstream project FRL of Downstream project ated 15.06.2017. Accordingly a P is being prepared considering tage RoR and considering the MoEF&CC guidelines.
2	Sumte Kothang (Thibda)	130	Reliance Power Ltd.	31.12.2012		sition from locals and NGOs. ninated on 28.07.2017.
3	Lara Sumta	104	Reliance Power Ltd.	31.12.2012	S&I held up due to opposition from locals and NGOs. Project stands terminated on 28.07.2017.	
4	Tidong-II	60	Tidong Hydro Power Ltd.	20.01.2012		l public agitation & there is no es of the project for a long time.
	Sub Total	930				1
	Chenab Basin					
1	Gyspa Dam (Gyspa)	300	HPPCL	22.09.2009	S&I held up due to local ag	itation
	Sub Total	300				
	Beas Basin					
1	Nakhtan (Parbati-I)	460	HPPCL	22.09.2009	put on hold received on 31.	nitoring of Nakthan HEP to be 12.18 on account of CEIA study court case on regular basis.
	Sub-Total	460				
6	Total	1690				

#### 8. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Project	I.C. (MW)	River	Basin	Remarks		
1	Chango Yangthang	180	Spiti	Indus	Project has been surrendered by developer vide letter dated 11.07.2017 as the project became unviable due to increased e-flow, local protests etc.		
2	Chiroti Saichu	26	Chenab	Indus			
3	Saichu	58	Chenab	Indus			
4	Saichu Sach Khas	117	Chenab	Indus	Projects dropped after final report of basin studies		
5	Tinget	145	Chenab	Indus	on cumulative impact		
6	Stingiri	98	Chenab	Indus			
7	Patam	65	Chenab	Indus			
7	Total	689					

#### 9. Projects stuck due to Inter-State/ Other Issues

1	Chhatru	126	Chenab	Indus	Chhatru HEP which was allotted on 28.7.2007 to M/S DCM Shriram Infrastructure limited, and terminated the Pre-ImplementationAgreement (PIA) signed on 15.2.2008 and further forfeited the upfront moneyof Rs.2.1.87 Cr paid by DCM Shriram Infrastructure limited in year 2007. DCM Shriram Infrastructure limited filed a Petition before the High Court of Himachal Pradesh in Shimla.The case is listed for hearing on 11 th August, 2020.
1	Chhatru	126	Chenab	Indus	

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Ropa	Ropa	S	31
2	Taiti-I	Taiti	S	50
3	Homte	Bhaba	R	60
4	Gandharni	Beas	R	49
5	Gharopa	Beas	R	85
6	Tirthan-I	Tirthan	R	32
7	Tirthan-III	Tirthan	R	26
8	Rana Khad	Rana Khad	R	29
9	Tundah	Tundah	R	34
10	Baroti	Siul	S	40
11	Chhota Dara	Chandra	R	50
12	Khoksar	Chandra	R	80
13	Telling (Railing)	Chandra	S	155
14	Gondhala	Chandra	R	90
15	Jhalma	Chenab	R	275
16	Baspa-I	Baspa	S	335
17	Manali	Manalasu	R	37
18	Kulu	Beas	R	90
19	Uhl	Uhl	R	70
20	Gaj	Gaj Khad	R	34
20	Total	21 Nos. of Pr	1652	

# **10.** H. E. Projects yet to be allotted by the State for development

Note: R – Run of the River & S- Storage

## Hydro Power Development in Jammu and Kashmir

			Nos.	Capacity (MW)
Study	from La	o Power Potential as per Reassessment rge Hydroelectric Projects (Projects above 25 MW)#	32	11567
I	Project	ts in operation	10	3360
II	Project	ts under construction	5	2559.5
III	Project	ts allotted by States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	4	3419
	(ii)	Multi purpose Projects approved by MoWR	2	996
	(iii)	Projects under Examination in CEA	1	390
	(iv)	Projects allotted for development on which S&I is held up/ yet to be taken up	1	370
IV	ů v	ts dropped as per Reconciliation Study A in 2014	4	1030
V	ů v	ts yet to be allotted by the State for pment*	10	1472

#### Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

# Dunadi (60 MW) has been developed below 25 MW as Ranjala Dunadi (15 MW) as per Reconciliation Study by CEA in 2014.

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Shuas	Chenab	R	505
2	Berinaum	Chenab	R	435
3	Sho	Chenab	R	215
4	Naunut	Chenab	R	1120
5	Kiru	Chenab	R	295
6	Kwar	Chenab	R	440
7	Pakaldul	Marsudar	R	765
8	Bursar	Marsudar	S	195
9	Dulhasti	Chenab	R	1120
10	Naga	Kal Nai	R	29
11	Kiwa	Kal Nai	R	37
12	Tipri	Kal Nai	R	36
13	Dunadi	Kagune Garh	R	60
14	Ratle	Chenab	R	515
15	Shamnot	Chenab	R	200
16	Baglihar	Chenab	R	750
17	Bichlari	Bichlari	R	75
18	Sawalkot	Chenab	R	1350
19	Salal	Chenab	R	780
20	Sonmarg	Sind	S	155
21	Upper Sindh-I	Sind	R	65
22	Upper Sindh-II	Sind	R	140
23	Gangbal	Kankanag	S	55
24	Ganderbal	Sind	R	75
25	Karalpur	Kishan Ganga	S	280
26	Wangam	Bonar	R	60
27	Lower Jhelum	Jhelam	R	170
28	Uri	Jhelam	R	600
29	Chakothi	Jhelam	R	285
30	Chinari	Jhelam	R	475
31	Hatian	Jhelam	R	215
32	SEWA-II [Seawa]	Seawa	R	70
32	Total	32 Nos. of Pro	11567	

1. Identified Projects during Reassessment study:

Note: R – Run of the River & S- Storage

Sl.No.	UTILITY/STATIONS	NO. OF STATIONS	NO. OF UNITS X CAPACITY (MW)	RIVER/BASIN*	DISTRICT	CAPACITY (MW)	YEAR OF COMMISSIONING
	JKSPDC						
1	BAGLIHAR	1	(3X150)	CHENAB	RAMBAN	450	2008
2	BAGLIHAR II [BAGLIHAR]	1	(3X150)	CHENAB	RAMBAN	450	2015
3	LOWER JHELUM	1	(3X35)	JHELUM	BARAMULLAH	105	1978-1979
4	UPPER SINDH-II	1	(3X35)	SINDH	GANDERBAL	105	2001-2002
	TOTAL JKSPDC	4				1110	
-	NHPC						
1	DULHASTI	1	(3X130)	CHENAB	KISTWAR	390	2007
2	SALAL - I&II (SALAL)	1	(6X115)	CHENAB	REASI & UDAMPUR	690	1987-95
3	URI-I (URI)	1	(4X120)	JHELUM	BARAMULA	480	1996-1997
4	URI-II (URI)	1	(4X60)	JHELUM	BARAMULA	240	2013-14
5	SEWA-II [Seawa]	1	(3X40)	SEWA II	MAHSKA	120	2010-11
6	KISHENGANGA (KARAL PUR)	1	(3X110)	KISHENGANGA		330	2018
	SUB-TOTAL NHPC	6				2250	
	TOTAL J&K	10				3360	

\* ALL PROJECTS ARE IN INDUS BASIN.

#### 3. H.E. Projects Under Construction:

Sl.No.	Name of Project	Agency	District	I.C. (MW)	River	Basin	Likely Commissioning
1	Pakal Dul	CVPPL	Kishtwar	1000	Marusadar/ Chenab	Indus	2025-26 (July'25)
2	Parnai	JKSPDC	Poonch	37.5	Jhelum	Indus	2022-23 (Mar.'23)
3	Lower Kalnai	JKSPDC	Kishtwar	48	Chenab	Indus	2025-26**
4	Ratle	RHEPPL	Kishtwar	850	Chenab	Indus	2025-26 **
5	Kiru	CVPPL	Kishtwar	624	Chenab	Indus	2024-25 (Aug.'24)
5	Total			2559.5			

\*\* Subject to restart of works

Sl No.	Name of Project	Agency	River	District	I.C. (MW)	Date of CEA Concurrence	Status
1	New Ganderwal	JKSPC	Jhelum/Sindh	Ganderwal	93	10.06.14	EC accorded on 27.9.13 & FC accorded on 02.04.2012. PPA signed with State Government. Tenders for procurement of EPC Contractor for Civil & Hydromechanical Components (Package-I) of the Project were issued in Feb-2020 & despite extending timeline three times at the request of prospective bidders, for a total of around four months,no bid was received. The NIT was standscancelled on 28-08-2020. Developer vide letter dated 05.10.2020 applied for Revalidation of Techno-econmic Concurence (RoC) upto 09.06.2022. The Proposal of RoC is under examination in CEA.
2	Kwar	CVPP	Chenab	Kishtwar	540	23.02.17	EC accorded on 10.04.17. FC accorded on 08.08.14. Investment Proposal is pending with MoP, GoI for want of sanction of concessions by GoJK to make the project commercially viable. Board of CVPPPL decided that the tender process of the project be cancelled and tenders be re-invited through e-tender mode, due to the delay in PIB/CCEA approval of the project. Subsequently the tendering process of all the work packages was scrapped and retendering in process.
3	Kirthai-II (Naunut)	JKPDC	Chandrabhaga /Chenab	Kishtwar	930	14.06.2019	EC & FC yet to be obtained by developer. Survey under process. Tenders issued by Corporate Office JKPDC for engagement of Consultant for assisting JKPDC in the complete EPC bidding process was cancelled in view of poor response. The assignment was retendered in Dec, 2019, but had to be cancelled in Feb,2020 due to no response.
4	Sawalkot	JKSPC	Chenab	Ramban & Udhampur	1856	18.04.18	EC recommended by EAC on 31.01.17 subject to FC-I clearance. FC yet to be obtained. Joint survey under process.
4		]	Fotal		3419		

Note: Two projects namely Bursar (800 MW) & Ujh (196 MW) have been cleared as Multi purpose project (MPP).

#### 5. Multipurpose projects approved by MoWR:

Sl. No.	Name of Project	Sector	I.C. (MW)	Month of receipt	Status
1	Bursar	Central	800	Jan-17	Cleared: PPS (14.12.16)
2	Ujh (Including Dam Toe PH)	State	196	Jan-18	Cleared: PPS (29.10.18)
2	Total		996		

#### 6. Hydro Projects Under Examination in CEA:

Sl. No.	Name of Project	Sector	I.C. (MW)	Agency	Month of receipt
1	Kirthai -I (Sho)	State	390	JKSPDC	17-Jul-18
1	Total		390		

7.	H.E. Projects allotted for	development on	which Survey	& Investigation is	s held up/ yet to be taker	ı up:
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Sl. No.	Project	I. C. (MW)	Agency	Date of Allotment/ MoA	Status
1	Shamnot	370	NHPC		S&I held up as the project will submerge National Highway.
1	Total	370			

Profile on Hydro Development for U.T. of Jammu and Kashmir

Sl. No.	Project Name	River	Туре	I.C. (MW)	Remarks
1	Chakothi	Jhelam	R	285	
2	Chinari	Jhelam	R	475	Project located in POK. Hence dropped
3	Hatian	Jhelam	R	215	
4	Gangbal	Kankanag	S	55	Dropped due to Environmental issue
4	Total			1030	

8. Projects dropped as per Reconciliation Study by CEA in 2014

## 9. H. E. Projects yet to be allotted by the State for development

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Shuas	Chenab	R	505
2	Berinaum	Chenab	R	435
3	Naga	Kal Nai	R	29
4	Kiwa	Kal Nai	R	37
5	Tipri	Kal Nai	R	36
6	Bichlari	Bichlari	R	75
7	Sonmarg	Sind	S	155
8	Upper Sindh-I	Sind	R	65
9	Ganderbal	Sind	R	75
10	Wangam	Bonar	R	60
10	Total	10 Nos. of l	Projects	1472

Note: R – Run of the River & S - Storage

## Hydro Power Development in Ladakh

		Nos.	Capacity (MW)
Identified Hydro Power Potential as per Reassessment Study a) Projects having capacity above 25 MW		23	2046
b) Project identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity		1	44
	Total	24	2090
Ι	Projects in operation	2	89
п	Projects yet to be allotted by U.T. of Laddakh for development*	22	1866

#### Identified Hydro Power Potential and its status of Development:

\*The capacity yet to be allotted by U.T. of Laddakh for development is different from arithmetic calculation from the potential assessed due to change in capacity of the projects, addition of the projects, etc.

#### Profile on Hydro Development for U.T. of Ladakh

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Kiari	Indus	R	28
2	Parfila	Zaskar	R	45
3	Paidar	Zaskar	R	46
4	Tillarchu	Zaskar	R	39
5	Nurla (Ulitopo)	Indus	R	65
6	Khalsi (Khalsti)	Indus	R	170
7	Takmaching	Indus	R	75
8	Dumkar	Indus	R	130
9	Achinthang	Indus	R	140
10	Kanyunche	Indus	R	105
11	Batalik (Sunit)	Indus	R	235
12	Parkhachik (Parkhachik Panikar)	Suru	R	110
13	Dandal (Drass Suru-I)	Drass	R	26
14	Khabru (Drass Suru-II)	Drass	R	30
15	Tahanus	Shingo	R	120
16	Karkit	Shingo	R	190
17	Gunderman	Suru	R	120
18	Chalunka	Shyok	R	45
19	Chechesna	Suru	R	47
20	Leh	Indus	R	29
21	Kesar	Indus	R	42
22	Thambas	Suru	R	29
23	Nimu	Indus	S	180
	Total			2046
24	Chutak (Suru) #	Suru	R	44
24	Grand Total	24 Nos. of Projects		2090

#### 1. Identified Projects during Reassessment study:

# Project was identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity:

Note: R – Run of the River & S- Storage

Sl.No.	UTILITY/STATIONS	NO. OF STATIONS	NO. OF UNITS X CAPACITY (MW)	RIVER/BASIN*	DISTRICT	ТҮРЕ	CAPACITY (MW)	YEAR OF COMMISSIONING
	NHPC							
1	CHUTAK	1	(4X11)	INDUS	KARGIL	R	44	2012-13
2	NIMOO BAZGO (NIMU)	1	(3X15)	INDUS	LEH	R	45	2013
	SUB-TOTAL NHPC	2					89	
	TOTAL LADAKH	2					89	

#### 3. H. E. Projects yet to be allotted by U.T. of Laddakh for development

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Kiari	Indus	R	28
2	Parfila	Zaskar	R	45
3	Paidar	Zaskar	R	46
4	Tillarchu	Zaskar	R	39
5	Nurla (Ulitopo)	Indus	R	65
6	Khalsi (Khalsti)	Indus	R	170
7	Takmaching	Indus	R	75
8	Dumkar	Indus	R	130
9	Achinthang	Indus	R	140
10	Kanyunche	Indus	R	105
11	Batalik (Sunit)	Indus	R	235
12	Parkhachik (Parkhachik Panikar)	Suru	R	110
13	Dandal (Drass Suru-I)	Drass	R	26
14	Khabru (Drass Suru-II)	Drass	R	30
15	Tahanus	Shingo	R	120
16	Karkit	Shingo	R	190
17	Gunderman	Suru	R	120
18	Chalunka	Shyok	R	45
19	Chechesna	Suru	R	47
20	Leh	Indus	R	29
21	Kesar	Indus	R	42
22	Thambas	Suru	R	29
22	Total	22 Nos.	1866	

Note: R – Run of the River

## Hydro Power Development in Punjab

		Nos.	Capacity (MW)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)		5	971
Ι	Projects in operation	9	1096.3
II	Projects under construction	1	206
III	Projects held up due to Inter-State aspects	1	50
IV	Projects yet to be allotted by the State for development*	0	0

#### **Identified Hydro Power Potential and its status of Development:**

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of projects, etc.

#### 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C.(MW)
1	Mukerian-I,II, III & IV [Mukerian Canal]	Beas	207
2	Anadpur Sahib-I & II [Anadpur Sahib, Ph-I & II]	Sutlej	134
3	Ranjit Sagar [Thein]	Ravi	325
4	Shahpurkandi [Shahpur]	Ravi	215
5	UBDC	Ravi	90
5	TOTAL		971

S.No	UTILITY/ STATIONS	NO. OF STATIONS	NO. OF UNITS X CAPACITY (MW)	RIVER/ BASIN*	DISTRICT	I.C. (MW)	YEAR OF COMMISSIONING
	PSPCL						
1	ANANDPUR SAHIB-I [Anadpur Sahib, Ph-I & II]	1	(2X33.5)	AHC (CANAL)	RUPNAGAR	67	1985
2	ANANDPUR SAHIB-II [Anadpur Sahib, Ph-I & II]	1	(2X33.5)	AHC (CANAL)	RUPNAGAR	67	1985
3	MUKERIAN-I [Mukerian Canal]	1	(3X15)	TAIL WATER OF PONG DAM	HOSHIARPUR	45	1983
4	MUKERIAN-II [Mukerian Canal]	1	(3X15)	TAIL WATER OF PONG DAM	HOSHIARPUR	45	1988-89
5	MUKERIAN-III [Mukerian Canal]	1	(3X19.5)	TAIL WATER OF PONG DAM	HOSHIARPUR	58.5	1989
6	MUKERIAN-IV [Mukerian Canal]	1	(3X19.5)	TAIL WATER OF PONG DAM	HOSHIARPUR	58.5	1989
7	RANJIT SAGAR [Thein]	1	(4X150)	Reservoir on River Ravi	PATHANKOT	600	2000
	TOTAL PSPCL	7				941	
	BBMB						
8	GANGUWAL	1	(2X24.2)+ (1X29.25)	SATLUJ	RUPNAGAR	77.65	1955-1962
9	KOTLA	1	(2X24.2)+ (1X29.25)	SATLUJ	RUPNAGAR	77.65	1956-1961
	SUB-TOTAL BBMB (PUNJAB)	2				155.3	
9	TOTAL PUNJAB	9				1096.3	

\* ALL PROJECTS ARE IN INDUS BASIN

Sl. No.	Name of Project	Implementing Agency	District	River /Basin	I. C. (MW)	Likely Commissioning
1	Shahpurkandi [Shahpur]	Irr. Deptt. & PSPCL	Gurdaspur	Ravi /Indus	206	2023-24 (Dec.'23)
1	Total				206	

## **3.** H.E. Projects under Construction:

## 4. H.E. Projects held up due to Inter-State aspects:

Sl. No.	Name of Project	I.C. (MW)	Location (State)	States Involved	Status
1	SYL (2x18+2x7 =50 MW)	50	Punjab	Punjab/ Haryana/ Rajasthan.	<ul> <li>Cleared by CEA in 12/1987 at an estimated cost of Rs.101.28 crores (5/1985 PL).</li> <li>Work on the canal on which project is located is held up.</li> <li>Haryana and Rajasthan have raised question regarding their shares of power as it envisages utilizing common facilities and water belonging to all three states, viz. Haryana, Punjab &amp; Rajasthan.</li> </ul>
1	Total	50			

## 5. H. E. Projects yet to be allotted by the State for development

Sl.No.	Name of Scheme	River	Туре	I.C. (MW)
0	Total	No. of Project		0

Note: R –Run of the River

## Hydro Power Development in Rajasthan

<b>Identified Hy</b>	Iro Power Potential	l and its status of	<b>Development:</b>
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		Nos.	Capacity (MW)
Projects	sment Study from Large Hydroelectric		483
I	Projects in operation	4	411
	andhi Sagar (115 MW) was identified in Rajas Pradesh.	than but has be	en developed in
1. Ide	entified Projects during Reassessment st	tudy:	
SI. No.	Name of Project	River	I. C. (MW)
1	Gandhi Sagar	Chambal	115
2	Rana Pratap Sagar	Chambal	172
3	Jawahar Sagar	Chambal	99
4	Mahi Bajaj - I [Mahi Bajaj Sagar St-II]	Mahi	60
5	Mahi Bajaj - I [Mahi Bajaj Sagar St-I]	Mahi	37
5	TOTAL		483

SL. NO.	UTILITY/ STATIONS	NO. OF STATIONS	NO. OF UNITS X CAPACITY (MW)	RIVER	BASIN	DISTRICT	I.C. (MW)	YEAR OF COMMISSIONING
1	JAWAHAR SAGAR	1	(3X33)	CHAMBAL	GANGA	BUNDI	99	1972-1973
2	MAHI BAJAJ-I [Mahi Bajaj Sagar St-I]	1	(2X25)	MAHI	CIR	BANSWARA	50	1986
3	MAHI BAJAJ-II [Mahi Bajaj Sagar St-II]	1	(2X45)	MAHI	CIR	BANSWARA	90	1989
4	R P SAGAR	1	(4X43)	CHAMBAL	GANGA	CHITTORGARH	172	1968
4	TOTAL RRVUNL	4					411	

Note: Mahi Bajaj Sagar I & II (140 MW) were identified for I.C. of 97 MW.

I	Identified Hydro Power Potential and its status of Development:							
		Nos.	Capacity (MW)					
Study fro	d Hydro Power Potential as per Reassessment om Large Hydroelectric Projects having capacity above 25 MW)	6	664					
I	Projects in operation	4	501.6					
п	Projects held up due to Inter-State aspects	1	90					

## Hydro Power Development in Uttar Pradesh

#### 1. Identified Projects during Reassessment study:

Sl. No.	Name of Project	River	Туре	I. C. (MW)
1	Khara	Yamuna	R	160
2	Matatila	Betwa	S	31
3	Orchha #	Betwa	R	39
4	Rihand	Rihand	S	300
5	Obra	Rihand	R	99
6	Eastern Yamuna Canal ##	Yamuna	R	35
6	TOTAL			664

# Orchha is under Inter-State issue in the State of M.P. for 90 MW.

## Eastern Yamuna Canal project (35 MW) has been developed in 2 stages each having Installed Capacity below 25 MW

SL. NO.	STATIONS	NO. OF STATIONS	NO. OF UNITS X CAPACITY (MW)	RIVER/ BASIN*	DISTRICT	I. C. (MW)	YEAR OF COMMISSIONIN G
1	KHARA	1	(3X24)	YAMUNA LINK CHANNEL	SUNEBHADRA	72	1992
2	MATATILLA	1	(3X10.2)	BETWA	LALITPUR	30.6	1965
3	OBRA	1	(3X33)	RIHAND	SUNEBHADRA	99	1970-1971
4	RIHAND	1	(6X50)	GOVIND BALLAB PANT NAGAR	SINGRAULI	300	1961-1965
4	TOTAL UPJVNL	4				501.6	

\* ALL PROJECTS ARE IN GANGA BASIN.

## 3. H.E. Projects held up due to Inter-State aspects:

	Name of Project	I.C. ( MW)	Location (State)	States Involved	Status
1	Panchnad MPP (6x15 = 90MW)	90	U.P.	U.P./M.P/ Rajasthan	DPR with Project estimated cost of Rs 559 Crores (6/1983 PL) returned. Involves submergence in MP and Rajasthan.
1		90			

#### Status of Hydro Power Development in Uttarakhand

			Nos.	Capacity (MW)
Study	from Large	Power Potential as per Reassessment Hydroelectric Projects apacity above 25 MW)	84	17998
I	Projects	in operation	16	3756.35
II	Projects	under construction	7	1490
III	Projects	allotted by States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	3	815
	( <b>ii</b> )	Projects under Examination in CEA	2	450
	(iii)	Projects returned to project authorities	5	489
	(iv)	Multi purpose projects (International Projects) under examination by India and Nepal	2	2400
	(v)	Projects under S&I	3	482
	(vi)	Projects allotted for development on which S&I is held up/ yet to be taken up	15	2402
IV	Projects reasons	dropped due to Basin studies/ Other	5	2012
V	Projects developi	yet to be allotted by the State for nent*	25	3394

#### **Identified Hydro Power Potential and its status of Development:**

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects and merger of more than one projects into one etc.

S. NO.	UTILITY/ STATIONS	NO. OF STNS.	NO. OF UNITS X CAPACITY (MW)	RIVER	DISTRICT	I.C. (MW)	YEAR OF COMMISSIONING
	CENTRAL SECTOR						
	NHPC						
1	DHAULI GANGA [ KHET TAWAGHAT]	1	(4X70)	DHAULIGANGA	PITHORAGARH	280	2005
2	TANAKPUR	1	(3X31.4)	SARDA	CHAMPAVAT	94.2	1992
	SUB-TOTAL NHPC	2				374.2	
	тндс						
3	TEHRI ST-I [TEHRI DAM ST-I]	1	(4X250)	BHAGIRATHI	TEHRI GARHWAL	1000	2006-2007
4	KOTESHWAR	1	(4X100)	BHAGIRATHI	TEHRI GARHWAL	400	2010-12
	TOTAL THDC	2				1400	
	SUB TOTAL CENTRAL	4				1774.2	
	STATE SECTOR						
	UJVNL						
5	CHIBRO (YAMUNA) [CHIBRO]	1	(4X60)	Tons River at Ichari Dam	DEHRADUN	240	1975-1976
6	CHILLA [RISHIKESH HARDWAR]	1	(4X36)	GANGA	HARIDWAR	144	1980-1981
7	DHAKRANI	1	(3X11.25)	Tons & Yamuna Rivers at Dakpathar Barrage	DEHRADUN	33.75	1965-1970
8	DHALIPUR	1	(3X17)	Tons & Yamuna Rivers at Dakpathar Barrage	DEHRADUN	51	1965-1970
9	KHATIMA	1	(3X13.8)	SHARDA	UDHAM SINGH NAGAR	41.4	1955-1956
10	KHODRI	1	(4X30)	TONS	DAK PATHAR	120	1984
11	KULHAL	1	(3X10)	TONS	DEHRADUN	30	1975
12	MANERI BHALI- I	1	(3X30)	BHAGIRATHI	UTTARKASHI	90	1984
13	MANERI BHALI- II	1	(4X76)	BHAGIRATHI	UTTARKASHI	304	2008
14	RAMGANGA [ RAMGANGA DAM (KALAGARH)]	1	(3X66)	RAMGANGA	PAURI GARHWAL	198	1975-1977
	TOTAL UJVNL	10				1252.15	
	PRIVATE						
	АНРС						
15	SHRINAGAR	1	(4X82.50)	ALAKNANDA	TRHRI & PAURI	330	2015
	JPPVL						
16	VISHNU PRAYAG	1	(4X100)	ALAKNANDA		400	2006
	SUB TOTAL PRIVATE	2				730	
16	TOTAL UTTARAKHAND	16				3756.35	

Note: ALL PROJECTS ARE IN GANGA BASIN

#### Name of I.C. SI. Likely Basin Agency District River Project Commissioning No. (**MW**) Dhauliganga / 1 Lata Tapovan NTPC Chamoli Ganga 171 2025-26 \* Alaknanada Tapovan Vishnugad Dhauliganga / 2021-22 2 Chamoli NTPC 520 Ganga [Tapovan Alaknanada (Dec'21) Chunar] Vishnugad 2023-24 3 THDC Chamoli 444 Alaknanada Ganga Pipalkoti (Dec'23) Tons/ 2021-22 SJVNL 4 Naitwar Mori Uttarkashi 60 Ganga Yamuna (Dec'21) Vyasi 2022-23 5 [Lakhwar UJVNL Dehradun 120 Yamuna/Ganga Ganga (Apr.'22) Vyasi - II] Mandakini/ 6 Phata Byung LANCO Rudraprayag 76 Ganga 2024-25 \* Alaknanda Singoli Mandakini/ 2020-21 7 Bhatwari L&T Rudraprayag 99 Ganga Alaknanda (Dec.'20) [Mandankini] 7 Sub-total: Uttarakhand 1490

#### 2. H.E. Projects under Construction:

\* Subject to restart of works

#### 3. H.E. Projects Concurred by CEA:

Sl. No.	Name of Project	River	Agency	District	I.C. (MW)	Status
1	Kotlibhel St-IA # [Kotlibhel]	Bhagirathi	NHPC	Tehri Garhwal	195	<ul> <li>EC accorded on 9.05.07.</li> <li>FC-I accorded on 13.10.11 &amp; for FC-II, Compliance Report is awaited from State Govt. The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Hon'ble Supreme Court vide order dated 13.08.2013 directed the MoEF&amp;CC as well as State of Uttrakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttrakhand until further orders. In compliance to the above order, MoEF &amp; CC constituted an Expert Body vide order dated 12.05.2015. Expert Body has given its report to MoEF&amp;CC in Sept, 2017. The expert Body has recommended the project should operate to run one turbine continuously during lean season to minimize peaking impact at Devprayag.</li> <li>Hon'ble Supreme Court vide order dated 24.11.2015 directed MoP, MoEF&amp;CC and MoWR to arrive at a common policy framework amongst three ministries which is yet to be formulated.</li> <li>NHPC vide letter dated 09.07.2020 has sought clarification from AIG (Forest), MoEF&amp;CC on various aspects related to validity of Forest Clearance (St-I) issued for KB- IA and NPV paid for the project. Further, AIGF vide letter dated 23.07.2020 has requested Addl. Chief Secretary (Forest), GoUK to provide details of amount deposited against the project so that the same can be confirmed from N-CAMPA for further action in the matter.</li> </ul>
2	Kotlibhel St-IB # [Kotlibhel]	Alaknanda	NHPC	Pauri & Tehri Garhwal	320	EC accorded earlier on 14.08.07 is withdrawn on 15.09.10. MoEF&CC declined FC-I on 7.07.11. The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Hon'ble Supreme Court vide order dated 13.08.2013 directed the MoEF&CC as well as State of Uttrakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttrakhand until further orders.
3	Alaknanda # [Badri Nath]	Alaknanda	GMR	Chamoli	300	08.08.08/ Revalidation up to 07.08.19 E.C Obtained on 12.3.08 F.C St-I obtained on 8.11.11. St-II obtained on 09.11.2012.
3	Total				815	

Note: All projects are in Ganga Basin

# Matter is sub judiced in Hon'ble Supreme Court.

#### 4. Hydro Projects Under Examination in CEA:

Sl. No.	Name of Project	River	Sector	I.C. (MW)	Agency
1	Bowala Nand Paryag	Alaknanda	State	300	UJVNL
2	Goriganga-IIIA [Devi Bagar Khartoli]	Goriganga	Central	150	NHPC
2	Total			450	

#### 5. Multi purpose projects (International Projects) under examination by India and Nepal

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Pancheshwar MPP [Pancheshwar - I]	Sarda	S	1335
2	Rupali Garh Regulating Dam [Pancheshwar - II]	Sarda	S	1065
2	Total			2400

Note: S-Storage

#### 6. Hydro Projects Returned to Project Authorities for re-submission after compliance of observations:

Sl. No.	Name of Project	River	Agamay	Sector	I.C.	Month of Return
51. 190.		Kiver	Agency	Sector	( <b>MW</b> )	Month of Return
1	Nand Prayag Langasu	Alaknanda	UJVNL	State	100	Apr-11
2	Mori Hanol [Ugmir]	Tons		Private	63	Jan-10
3	Bogudiyar Sirkari Bhyol	Gori Ganga	GVK L&T	Private	146	Sep-10
4	Tiuni Plasu [Tiuni]	Tons	UID	State	72	Oct-10
5	Jhelum Tamak #	Dhauliganga	THDCIL	Central	108	Aug-19
5	Total				489	

# Matter is sub judiced in Hon'ble Supreme Court.

NOTE: As per MoP letter dated 24.12.2010 in the meeting of NGRBA held on 1.11.2010 under the chairmanship of Hon'ble Prime Minister, it was decided to discontinue Loharinag Pala, Pala Maneri and Bhaironghati H.E. Projects on Bhagirathi.

#### 7. H.E. Projects under Survey & Investigation:

Sl. No.	Name of Project	Basin/River	I.C. (MW)	Agency	Target date of preparation of DPR
1	Sirkari Bhyol Rupsiabagar	Gori Ganga	120	UJVNL	Sep-20
2	Bokang Bailing	Dhauliganga	200	THDC	Oct-20
3	Devsari	Pinder	162	SJVNL	
3	Total		482		

#### 8. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:

Sl. No.	Project	River	I. C. (MW)	Agency	Date of Allotment/ MoA	Status
1	Arakot Tiuni [Nakot Patlasu]	Pabar , Tons	72	UID	-	MOEF clearance awaited. S&I yet to be taken up.
2	Chhunger - Chal	Dhauliganga	120	NHPC	21.11.2005	S&I held up due to non-clearance of MOEF
3	Garba Tawaghat	Goriganga	630	NHPC	21.11.2005	S&I held up. MoP approached MEA for taking up the matter of dev. of Garba Tawaghat H.E.Project under the aegis of Mahakali treaty.
4	Urthing Sobla	Dhauliganga	280	Reliance Power Ltd.	-	MoEF Clearance awaited. S7I heldup as the project area falls under ASkot Musk dear Sanctuary
5	Sela Urthing	Dhauliganga	230	UJVNL	09.12.2004	Road connectivity is not proper upto the project site. S&I shall be taken up after carrying out detail survey at project site & confirmation of levels.
6	Jadh Ganga	Jadh Ganga	50	THDC	21.11.2005	S&I yet to be taken up. Located in Eco sensitive Zone of Gangotri National Park.
7	Karmoli	Jadh Ganga	140	THDC	21.11.2005	S&I yet to be taken up. Located in Eco sensitive Zone of Gangotri National Park.
8	Rishi Ganga - I	Rishi Ganga	70	UJVNL	09.12.2004	&I yet to be taken up. Located in Nanda Devi National Park. MoEF Clearance awaited.
9	Rishi Ganga - II	Rishi Ganga	35	UJVNL	09.12.2004	S&I yet to be taken up. Located in Nanda Devi National Park. MoEF Clearance awaited.

Sl. No.	Project	River	I. C. (MW)	Agency	Date of Allotment/ MoA	Status
10	Taluka Sankri [Taluka Saul + Sankri Kunare]	Tons	140	UJVNL	09.12.2004	S&I yet to be taken up. Project falls under Govind Pashu Vihar WLS.
11	Gohana Tal	Birahi Ganga	50	THDC	21.11.2005	Project included in the list of 24 HE project named in PIL under consideration by Hon'ble Supreme court
12	Karmoli Lumti Tulli [Khartoli Lumti Talli]	Goriganga	40	NHPC	07.04.2005	S & I was held up.PCCF (Wildlife) and chief Warden Wildlife, Dehradun has since granted permission for S& I on 13. 12. 2016.Preparation of PFR is in progress for obtaining approval of ToR from MoEF & CC for carrying out S& I works.
13	Maleri Jhelam [Malari Jhelam]	Dhauliganga	65	THDC	21.11.2005	Project included in the list of 24 HE project named in PIL under consideration by Hon'ble Supreme court
14	Mapang - Bogidiyar	Goriganga	200	GVK-L&T	07.05.2005	S&I held up due to Supreme Court order directing MoEF and State of Uttarakhand not to grant any Environmental Clearance or Forest Clearance for any hydroelectric project in the State of Uttarakhand until further orders.
15	Tamak Lata	Dhauliganga	280	UJVNL	09.12.2004	Project included in the list of 24 HE project named in PIL under consideration by Hon'ble Supreme court
15	Total		2402			

#### 9. Pumped Storage Projects under Construction:

		I.C.	
Sl. No.	Sl. No. Name of Project (MW)		Remarks
1	Tehri St.II	4x250=1000	Likely commissioning by 2021-23* (June'22)
	Total	1000	

\* Subject to restsrt works

Sl. No.	Project	I.C. (MW)	River	Basin	Remarks
1	Pala Maneri * [Pala Bhela Tipri + Bhela Tipri]	480	Bhagirath	Ganga	The project has been discontinued by Govt. of Uttarakhand due to additional conditions for environmental safeguards vide order dated 3.01.11.
2	Kotlibhel St-II [Kotlibhel]	530	Bhagirath	Ganga	MoEF on 22.11.2010 has withdrawn the environment clearance. FC-I declined on 5.07.11. The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Hon'ble Supreme Court vide order dated 13.08.2013 directed the MoEF&CC as well as State of Uttarakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttarakhand until further orders. In compliance to the above order, MoEF&CC constituted an Expert Body vide order dated 12.05.2015. Expert Body has given its report to MoEF&CC in Sept, 2017. The expert Body has recommended to drop the project to preserve Mahseer.
3	Loharinagpala * [Lohari Nag Tharang]	360	Bhagirath	Ganga	Project discontinued by NGRBA
4	Bhaironghati * [Gangotri + Bhairon ghati + Harsil Dam]	381	Bhagirath	Ganga	Project discontinued by NGRBA
5	Rupsiyabagar Khasiyabara	261	Gauri Ganga	Ganga	EC accorded on 26.03.09. FC-I accorded on 17.06.2006 and FC-II yet to be obtained. MoEF&CC declined FC due to project location in highly sensitive wild life habitat.
5	Total	2012			

#### 10. Projects dropped due to Basin studies/ Other reasons:

\* As per MoP letter dated 24.12.2010 in the meeting of NGRBA held on 1.11.2010 under the chairmanship of Hon'ble Prime Minister, it was decided to discontinue Loharinag Pala, Pala Maneri and Bhaironghati H.E. Projects on Bhagirathi.

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Kishau Dam	Tons	S	350
2	Pisha Naitwar	Rupin	R	30
3	Ram Ganga Dam	Ram Ganga	S	75
4	Kuwa ford	Yamuna	R	42
5	Nelang	Jadh Ganga	R	190
6	Ganga Canal	Ganga	R	31
7	Diulong Sumangaon	Bhagirathi	R	26
8	Dhargaon Jhandarwali	Bhagirathi	R	29
9	Jamolna Ghansyali	Bhagirathi	R	44
10	Nayar Dam	Nayar	S	34
11	Benakuli	Alaknanda	R	40
12	Khel Kuran Neti	Dhauli Ganga	R	49
13	Niti Ghansali	Dhauli Ganga	R	32
14	Bampa Kurkuti	Dhauli Ganga	R	60
15	Girthi Ganga	Girthi Ganga	R	34
16	Deodi	Rishi Ganga	R	65
17	Tikh Gurupha	Pindar	R	26
18	Malkhet Dam	Pindar	S	37
19	Banoli Nalgam	Pindar	R	55
20	Lakhwar MPP (Lakhwar Vyasi - I)	Yamuna	S	115
21	Uttyasu Dam	Alaknanda	S	1140
22	Sobla Jhimirigaon	Dhauli Ganga	R	145
23	Tawaghat Dharchula	Sarda	R	310
24	Kalika Dantu	Sarda	R	140
25	Garjia Dam	Gori Ganga	S	295
25	Total	25 nos. of pro	ojects	3394

## **11.** H. E. Projects yet to be allotted by the State for development

Note: R – Run of the River & S- Storage

#### Hydro Power Development in Chhattisgarh

		Nos.	Capacity (MW)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)		15	2202
I	Projects in operation	1	120
II	Projects dropped due to Basin studies/ Other reasons	1	60
III	Projects yet to be allotted by the State for development*	13	2109

#### Identified Hydro Power Potential and its status of Development:

\*The capacity, yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the Projects.

#### 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
1	Joka	Kanhar	28
2	Kharauli	Mahan	46
3	Pasal	Rihand	55
4	Duniadhih (Duniadhin)	Rihand	80
5	Rehar-II (Karri)	Rihand	70
6	Hasdeo Bango [Hasdeo (Bango)]	Hasdeo	55
7	Konta	Sabari	65
8	Matnar (Chitrakot)	Indravati	38
9	Bodhghat	Indravati	295
10	Kutru-I	Indravati	100
11	Kutru-II	Indravati	155
12	Nugur-I	Indravati	160
13	Bhopalapatnam	Indravati	715
14	Nugur-II	Indravati	270
15	Kotri	Kotri	70
15	Total		2202

S. No.	Utility/ Stations	No. of Station	No. of units x Capacity (MW)	River /Basin	District	I.C. (MW)	Year of commissioning
	CSPGCL						
1	HASDEO BANGO [Hasdeo (Bango)]	1	( <b>3X40</b> )	HASDEO/ CIR	KORBA	120	1994-1995
1	TOTAL CSPGCL	1				120	

#### 3. H.E. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Name of Project	I.C. (MW)	River	Basin	Remarks
1	Matnar [Chitrakot]	60	Indravati	EFR	As per MoEF&CC, matter of FC is closed. As per developer, project seems not to viable with revised IC of 40 MW and it is expected to be dropped
1	Total	60			

#### 4. H. E. Projects yet to be allotted by the State for development

Sl. No.	Name of Project	River	Туре	I.C. (MW)	
1	Joka	Kanhar	S	28	
2	Kharauli	Mahan	R	46	
3	Pasal	Rihand	S	55	
4	Duniadhih (Duniadhin)	Rihand	S	80	
5	Rehar-II (Karri)	Rihand	R	70	
6	Konta	Sabari	R	65	
7	Bodhghat	Indravati	S	295	
8	Kutru-I	Indravati	S	100	
9	Kutru-II	Indravati	S	155	
10	Nugur-I	Indravati	S	160	
11	Bhopalapatnam	Indravati	S	715	
12	Nugur-II	Indravati	S	270	
13	Kotri	Kotri	S	70	
13	Total	13 Nos. o	13 Nos. of Projects		

Note: R – Run of the River & S- Storage

## Hydro Power Development in Goa

#### Identified Hydro Power Potential and its status of Development :

	No.	I.C. (MW)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)		55
Projects yet to be allotted by the State for development	1	55

## 1. Identified Project during Reassessment study :

Sl.No.	Name of Scheme	River	I. C. (MW)
1	Sonal	Mandavi	55
1	TOTAL		55

#### 2. H. E. Project yet to be taken up for development

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Sonal	Mandavi	S	55
1	Total	1 No. of Project		55

**Note: S- Storage** 

# Hydro Power Development in Gujarat

		Nos.	Capacity (MW)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)			590
I	Capacity in operation	2	550

## Identified Hydro Power Potential and its status of development:

# 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
	Ukai [Ukai Dam PH]	Tapti	120
2	Sardar Sarovar CHPH [Sardar Sarovar]	Narmada	470
2	TOTAL		590

#### 2. H.E. Projects in Operation:

S. No.	Utility/ Stations	No. of Stns.	No. of units x Capacity (MW)	River / Basin*	District	I.C. (MW)	Year of commissioning
	GSECL	·		•			•
1	UKAI [Ukai Dam PH]	1	(4X75)	ТАРІ	TAPI	300	1974-1976
	SUB-TOTAL GSECL	1				300	
	SSNNL						
2	SARDAR SAROVAR CHPH [Sardar Sarovar]	1	(5X50)	NARMADA	NARMADA	250	2004
	SUB-TOTAL SSNNL	1				250	
2	TOTAL GUJARAT	2				550	

\* All projects are in CIR Basin

Sl. No.	Name of Project	I. C. (MW)	Year of Commissioning
1	Kadana St. I & II #	240	1990-98
2	Sardar Sarovar *	1200	2005-06
	Total	1440	

#### 3. Pumped Storage Projects in operation:

\* In Operation (Not Working in Pumping Mode because d/s energy dissipation and miscellaneous works are in progress - likely to be completed by Dec.2020. However, Dam body of tail pool is completed; Tail pool is filled with water at full capacity and tested.)

# Not operating in pumping mode due to vibration problem.

# Hydro Power Development in Maharashtra

		Nos.	Capacity (MW)
Reassess Projects	d Hydro Power Potential as per ment Study from Large Hydroelectric s having capacity above 25 MW)	25	3314
I	Projects in operation	12	2647
п	Projects yet to be allotted by the State for development*	14	1932

# **Identified Hydro Power Potential and its status of Development:**

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

#### I.C. Sl.No. River Name of Project (**MW**) 1 28 Vaitarna (Vaitarna I) Vaitarna 2 Kundalik Bhira Tail Race 55 3 Tillari Tillari 39 4 Pench Pench 85 5 Gosikhurd (Pathri) Wainganga 40 6 Wainganga Wainganga 150 Samda Pranhita 7 95 8 Chichdoh Barrage (Ghargaon) Pranhita 105 9 Kunghara Pranhita 115

#### 1. Identified Projects during Reassessment study

Sl.No.	Name of Project	River	I. C. (MW)
10	Pranhita	Pranhita	310
11	Sahasrakund (Sahasrakund I)	Penganga	29
12	Bhivpuri	Andhra	85
13	Khopoli	Ganga	70
14	Bhira	Mula	215
15	Koyna St-IV	Koyna	350
16	Koyna St-III	Koyna	145
17	Koyna St-I & II	Koyna	245
18	Koyna Dam PH	Koyna	65
19	Patharpunj	Varna	29
20	Kadvi	Varna	215
21	Warna (Varna)	Varna	27
22	Kasari (Kasari-I)	Kasari	215
23	Kumbhi (Kubhi-I)	Penganga	170
24	Kumbhi (Kumbhi-II)	Penganga	27
25	Hiranyakeshi (Hiranyakeshi II)	Vedganga	405
25	TOTAL		3314

#### 2. H.E. Projects in Operation:

S. No.	Utility/	No. Of stns.	No. Of units x Capacity (MW)	River	Basin	District	I.C. (MW)	Year of commissioning
	MAHAGENCO							
1	BHIRA TAIL RACE	1	(2X40)	KUNDALIKA	WFR	RAIGAD	80	1987-1988
2	KOYNA DPH	1	(2X18)	KOYNA	EFR	SATARA	36	1980-1981
3	KOYNA-I&II	1	(4X70)+ (4X80)	KOYNA	EFR	PATAN	600	1962-1967
4	KOYNA-III	1	(4X80)	Water let out through ulestward units (St-I,II & IV)	EFR	RATNAGIRI	320	1975-1978
5	KOYNA-IV	1	(4X250)	KOYNA	EFR	SATARA	1000	1999-2000
6	TILLARI	1	(1X60)	TILLARI	WFR	KOLHAPUR	60	1986
7	VAITARNA (Vaitarna I)	1	(1X60)	VAITARNA	WFR	NASIK	60	1976
	SUB-TOTAL MAHAGENCO	7					2156	
	MPPGCL							
8	PENCH	1	(2X80)	PENCH	EFR	CHINDWARA	160	1986-1987
	SUB-TOTAL MPPGCL	1					160	
	TOTAL STATE SECTOR	8					2316	
	PRIVATE					•		
	DODSON-LINDBLOM HYD	RO POW	ER PVT. LTD.	(DLHP)				
9	BHANDARDHARA ST-II	1	(1X34)	PRAVARA	EFR		34	1996
	SUB-TOTAL DLHP	1					34	
	TATA POWER COMPANY (PVT.)							
10	BHIRA	1	(6X25)	NEELA & MULA	EFR	RAIGAD	150	1927-1949
11	BHIVPURI	1	(3X24) + (2X1.5)	ANDHRA	EFR	RAIGAD	75	1997-1999
12	KHOPOLI	1	(3X24)	INDRAYANI	EFR	RAIGAD	72	2001-2003
	SUB-TOTAL TPCL	3					297	
	TOTAL PVT (MAHARASHTRA)	4					331	
12	TOTAL MAHARASHTRA	12					2647	

#### 3. Pumped storage H.E Projects in operation:

Sl. No.	Name of Project	I. C. (MW)	Remarks
1	Bhira	1x150 =150	Pumping Mode- Working
2	Ghatgar	2x125 =250	Pumping Mode- Working
	Total	400	

#### 4. Pumped Storage Projects under Construction:

Sl. No.	Name of Project	I. C. (MW)	Remarks
1	Koyna Left Bank	2x40=80	The current expenditure on the project has already reached to original administrative approved cost level hence expenditure on the project is stopped & project works are stalled. Revised cost is under approval by State Government.
1	Total	80	

#### 5. H. E. Projects yet to be allotted by the State for development

Sl .No.	Name of Project	River	Туре	I.C.(MW)
1	Gosikhurd (Pathri)	Wainganga	S	40
2	Wainganga	Wainganga	S	150
3	Samda	Pranhita	R	95
4	Chichdoh Barrage (Ghargaon)	Pranhita	R	105
5	Kunghara	Pranhita	R	115
6	Pranhita	Pranhita	S	310
7	Sahasrakund (Sahasrakund I)	Penganga	S	29
8	Patharpunj	Varna	S	29
9	Kadvi	Varna	S	215
10	Kesari (Kasari-I)	Kasari	S	215
11	Kumbhi (Kubhi-I)	Penganga	S	170
12	Kumbhi (Kubhi-II)	Penganga	R	27
13	Warna (Varna)	Varna	S	27
14	Hiranyakeshi (Hiranyakeshi II)	Vedganga	S	405
14	Total	14 Nos. o	1932	

Note: R – Run of the River & S- Storage

# Hydro Power Development in Madhya Pradesh

		Nos.	Capacity (MW)
from L	fied Hydro Power Potential as per Reassessment Study Large Hydroelectric Projects cts having capacity above 25 MW)	13	1970
I	Projects in operation	9	2235
п	Projects under construction	1	400
ш	Projects held up due to Inter-State aspects	2	140
IV	Projects dropped due to Basin studies/ Other reasons	1	100
v	Projects yet to be allotted by the State for development*	4	191

Identified Hydro Power Potential as per reassessment Study:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

1. Ide	1. Identified Projects during Reassessment study					
S.No.	Name of Project	River	I.C. (MW)			
1	Sone (Chorhat)	Sone	55			
2	Bansagar-III (Bansagar)	Sone	45			
3	Bansagar-II (Beehar)	Tons	30			
4	Bansagar-I (Tons HE Projects)	Tons	315			
5	Rajghat	Betwa	29			
6	Dhurwara	Betwa	28			
7	Burhner	Burhner	28			
8	Basania	Narmada	60			
9	Bargi	Narmada	115			
10	Hoshangabad (Jahanpur)	Narmada	75			
11	Indira Sagar (Narmada Sagar)	Narmada	675			
12	Omkareshwar	Narmada	290			
13	Maheshwar	Narmada	225			
13	Total		1970			

# 2. H.E. Projects in Operation:

S. No.	Utility/ Stations	No. of Stns.	No. Of units x Capacity (MW)	River	Basin	District	I.C. (MW)	Year of commissioning
	NHDC							
1	INDIRA SAGAR (NARMADA SAGAR)	1	(8X125)	NARMADA	CIR	KHANDWA	1000	2004-2005
2	OMKARESHWAR	1	(8X65)	NARMADA	CIR	KHANDWA	520	2007
	SUB-TOTAL NHDC	2					1520	
	TOTAL CENTRAL	2					1520	
	MPPGCL							
3	BANSAGAR TONS-I (TONS)	1	(3X105)	TONS	GANGA	SATNA	315	1991-1992
4	BANSAGAR-II (BEEHAR)	1	(2X15)	TONS	GANGA	REWA	30	2002
5	BANSAGAR-III (BANSAGAR)	1	(3X20)	SONE	GANGA	SATNA	60	2000-2002
6	BARGI	1	(2X45)	NARMADA	CIR	JABALPUR	90	1988
7	GANDHI SAGAR	1	(5X23)	CHAMBAL	GANGA	MANDSAUR	115	1960-1966
8	MADHIKHERA	1	(3X20)	KALI SINDH	GANGA	SHIVPURI	60	2006-2007
9	RAJGHAT	1	(3X15)	BETWA	GANGA	ASHOK NAGAR	45	1999
	SUB-TOTAL MPPGCL	7					715	
9	TOTAL MP	9					2235	

Sl. No.	Name of Project	I. C. (MW)	District	River	Basin	Agency	Likely Commissioning
1	Maheshwar (Pvt.) #	400	Khargone & Khandwa	Narmada	CIR	SMHPCL	2023-24*
1	Total	400					

#### 3. H.E. Projects Under Construction:

# PFC as lead lender have acquired majority i.e 51% in the SMHPCL w.e.f. 1st June, 2016. Matter Sub-judice.

\* Subject to restart of works

Sl. No.	Name of Project	I.C. (MW)	Location (State)	States Involved	Status
1	Orcha MPP (2x30+2x15 = 90 MW)	90	M.P.	U.P./M.P.	• DPR with estimated cost of Rs. 89.01 crores (3/1980 PL) returned in 07/1985.
					• Inter-state aspects mainly relate to submergence under the reservoir as well as sharing of water below Orcha.
2	Ken (2x15+2x10 =50 MW)	50	M.P.	U.P./M.P.	• DPR with estimated cost of Rs 202.06 crores returned in 2/1987.
					• The yield at the project site and sharing of water u/s & d/s of the project has been agreed between U.P. & M.P. Both the States have also agreed for preparation of DPR for the Ken MPP and NWDA proposal for transfer of surplus water of Ken to Betwa u/s of Rajghat Dam.
					• DPR for Ken-Betwa River Linking Project has been prepared by NWDA in Dec., 2008, copies of which were forwarded by them to Govt. of M.P. and Govt. of U.P. The status of the project was discussed by the respective Govts./NWDA/ MOWR in the meeting taken by Secretary (WR) on 04.08.2010 and it was decided that S&I works will be
					taken up by NWDA on priority.
2	Total	140			

## 4. H.E. Projects held up due to Inter-State aspects:

## 5. Projects dropped due to Basin Studies/ Other reasons:

Sl. No.	Name of Project	Sector	I.C. (MW)	Month of Return	Remarks
1	Sone (Chorhat)	State	100		DPR returned due to non-furnishing of basic inputs/ clearances. Since the project is not feasible with the re-conceptualized proposal of lower FRL, the MPPGCL has dropped the project in April,2017.
1		Total	100		

	6. H. E. Projects yet to be allotted by the State for development:									
S.No.	Name of Project	River	Туре	I.C. (MW)						
1	Dhurwara	Betwa	R	28						
2	Burhner	Burhner	S	28						
3	Basania	Narmada	R	60						
4	Hoshangabad (Jahanpur)	Narmada	S	75						
4	Total			191						

Note: R – Run of the River & S- Storage

Identi	fied Hydro Power Potential and its status of	Development:	
		Nos.	Capacity (MW)
Projec	essment Study from Large Hydroelectric	10	2341
I	Projects in operation	5	1610
II	Projects under construction	1	960
III	Projects held up due to Inter-State aspects	1	975
IV	Projects yet to be allotted by the State for development*	3	192

#### Hydro Power Development in Andhra Pradesh

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

#### 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
1	Machkund #	Machkund	205
2	Balimela	Sileru	65
3	Upper Sileru I&II (Upper Sileru)	Sileru	150
4	Lower Sileru	Sileru	385
5	Donkarayi Dam Canal ## (Donkarai Canal)	Sileru	44
6	Polavaram	Godavari	545
7	Pondugala	Krishna	95
8	Nagarjunasagar RBC & Ext. (Nagarjunasagar RBC)	Krishna	45
9	Srisailam	Krishna	775
10	Tungabhadra HLC (Tungbhadra HLC)	Bhadra	32
10	Total		2341

# This project has been in operation in Odisha State for 114.75 MW

## This project has been in operation but developed with capacity less than 25 MW

#### 2. H.E. Projects in Operation:

S. No.	Utility/ Stations	No. Of stns.	No. of units x Capacity (MW)	River / Basin*	District	I.C. (MW)	Year of commissioning
	APGENCO						
1	LOWER SILERU	1	(4X115)	SILERU	KHAMMAM	460	1976-1978
2	NAGARJUNA SGR RBC & EXT. (NAGARJUNA SGR RBC )	1	(3X30)	KRISHNA	SATRASALA	90	1983-90
3	SRISAILAM	1	(7X110)	KRISHNA	MAHABUBNAGAR	770	1982-1987
4	UPPER SILERU-I&II (UPPER SILERU)	1	(4X60)	SILERU	VISHAKAPATNAM	240	1967-1995
5	NJ SAGAR TPD	1	(2X25)	KRISHNA	GUNTUR	50	2017
5	TOTAL APGENCO	5				1610	

\* All projects are in EFR Basin

## 3. H.E. Projects under Construction:

Sl. No.	Name of Project	Agency	District	River/ Basin	I. C. (MW)	Likely Commissioning	Issues / Constraints
1	Polavaram	Polavaram Project Authority	East & West Godavari	Godavari/ EFR	960	2023-25 **	Public hearing for construction of protective embankment to be held in Odisha and Chhattisgarh as desired by MOEF at later stage.
1	Total				960		

\*\* Subject to restsrt of works

# 4. H.E. Projects held up due to Inter-State aspects:

Sl. No.	Name of Project	I.C. (MW)	Location (State)	States Involved	Status
	Inchampalli MPP (13x75= 975MW)	975	A.P.	A.P./M.P./Chh attisgarh/Maha rashtra	DPR with estimated cost of Rs.1110 crores (1987-88 PL) returned in 05/1989. Requires Resolution of inter-state aspects and submergence with MP, Chhattisgarh and Maharashtra.
1	Total	975			

S. No.	Name of Project	No. of Stations	Capacity (MW)	River / Basin*	District	Agency
1	Pinnapuram		1200	Off the river / EFR	Kurnool	Greenko
1	Total		1200			

5. Pump Stoarge Projects in Under Examination in CEA:

#### 5. Pump Stoarge Projects in Under S&I:

S. No.	Name of Project	No. of Stations	Capacity (MW)	River / Basin*	District	Agency
1	Upper Sileru		1350	EFR	Vishakhapatnam	
1	TOTAL		1350			

#### 6. H. E. Projects yet to be allotted by the State for development:

Sl.No.	Name of Project	River	Туре	I. C. (MW)
1	Balimela	Sileru	S	65
2	Pondugala	Krishna	S	95
3	Tungbhadra HLC	Bhadra	R	32
3	Total			192

Note: R - Run of the River & S- Storage

# Hydro Power Development in Karnataka

·		-	
		Nos.	Capacity (MW)
from Lar	Hydro Power Potential as per Reassessment Stud ge Hydroelectric Projects having capacity above 25 MW)	<b>y</b> 38	6459
I	Projects in operation	16	3644.2
II	Projects allotted by States for development		
	(i) <b>Projects returned to project authorities</b>	2	665
ш	Projects held up due to Inter-State aspects	1	400
IV	Projects dropped due to Basin studies/ Other reason	<b>s</b> 1	200
v	Projects yet to be allotted by the State fo development*	<b>r</b> 18	2848

# Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

#### River Sl.No. Name of Project I. C. (MW) 1 Mahadayi [Krishnapur] Mandavi 210 Kalinadi Supa 2 140 Kalinadi [Kalinadi I (Supa)] Kalinadi II (Dandeli) 3 Kalinadi 60 [Kalinadi I (Dandeli II)] Kalinadi (Nagjhari) 4 Kalinadi 855 [Kalinadi I (Nagjhari)] Kodassali 5 Kalinadi 95 [Kalinadi I (Kadassali)] 6 Kadra [Kalinadi I (Kadra)] Kalinadi 100 Kalinadi III 7 Kalinadi 175 [Kalinadi I (Mardi)] Bedthi 8 380 Gangavali [Gangavali (Bedti) St.I] Gangavali St.II 9 Gangavali 105 Gangavali (Sonda) St.II] 10 Aghnashini Aghnashini 370 Bennehole [Bannehole] Bannehole 55 11 12 Lingnamakki [Linganamakki] 125 Saravathi 13 Sharavathy [Saravathi] Saravathi 1365 Sharavathy Tail Race 14 Saravathi 157 [Saravathi Tail Race] 15 Varahi Varahi 305 Machchattu 16 Varahi 35 17 Netravathy Netravathy 60 18 Sirpadi Netravathy 38 19 Kumaradhari Kumaradhari 49 20 Barapole I Barapole 335 21 Jaldurg Krishna 270 22 Tamankal [Narayanpur] Krishna 70 Almatti 23 Krishna 160 24 Ghataprabha Tungabhadra 41 25 Shivapur [Shivpur] Tungabhadra 26 Munirabad 26 41 Tungabhadra Hampi Tungabhadra 34 27 T.B. Dam 28 27 Tungabhadra [Tungbhadra RBC] Bhadra 29 36 Bhadra [Tungbhadra Dam PH] 30 Krishnarajasagar 55 Cauvery Sivasamudram 44 31 Cauvery [Shivasamudram]

## 1. Identified Projects during Reassessment study

38	TOTAL		6459
38	Hogenekkal # [Cauvery PH-IV]	Cauvery	36
37	Rasi Manal # [Cauvery PH-III]	Cauvery	90
36	Mekadatu [Cauvery PH-II]	Cuvery	165
35	Arkavathy [Arkavathi]	Arkavathi	42
34	Shimsa [Shimsa PH-II]	Shimsha	42
33	Sivasamudram [Cauvery PH-I]	Cauvery	235
32	Shimsa [Shimsa PH-I]	Cauvery	31

# Rasi Manal & Hogenekkal are in Inter-State issue in Tamil Nadu State

#### 2. H.E. Projects in Operation:

S. No.	No. 11 tility/Stations		No. Of units x capacity (MW)	River	Basin	District	I.C. (MW)	Year of commissioning
	KPCL							•
1	ALMATTI	1	(5X55) +(1X15)	KRISHNA	EFR	BIJAPUR	290	2004-2005
2	GERUSOPPA (SHARAVATHY TAIL RACE) [SARAVATHY TAIL RACE]	1	(4X60)	SHARAVATHY	WFR	UTTARA KANNADA	240	2001-2002
3	GHAT PRABHA	1	(2X16)	GHATPRABHA	EFR	BELGAUM	32	1992
4	MAHATMA GANDHI JOG	1	(4X21.6) +(4X13.2)	SHARAVATHY	WFR	SHIMOGA	139.2	1949-1952
5	KADRA [Kalinadi I (Kadra)]	1	(3X50)	KALI	WFR	UTTARA KANNADA	150	1997-1999
6	KALINADI (NAGJHARI) [Kalinadi I (Nagjhari)]	1	(3X135) +(3X150)	KALI	WFR	UTTARA KANNADA	855	1979-1984
7	KALINADI SUPA [Kalinadi I (Supa)]	1	(2X50)	KALI	WFR	UTTARA KANNADA	100	1985
8	KODASALI [Kalinadi I (Kadassali)]	1	(3X40)	KALI	WFR	UTTARA KANNADA	120	1998-1999
9	LINGNAMAKKI [Linganamakki]	1	(2X27.5)	SHARAVATHY	WFR	SHIMOGA	55	1979-1980
10	MUNIRABAD	1	(2X9) +(1X10)	TUNGABHADRA	EFR	KOPPAL	28	1962-1965
11	SHARAVATHY [Saravathi]	1	(10X103.5)	SHARAVATHY	WFR	SHIMOGA	1035	1965-1977
12	SIVASAMUNDRUM [Shivasamudram]	1	(4X6)+(6X3)	CAUVERY	EFR	MANDYA	42	1922-1934
13	VARAHI	1	(4X115)	VARAHI	WFR	UDUPI	460	1989-2009
14	BHADRA [Tungbhadra Dam PH]	1	(2x12)+(1x2)	BHADRA	EFR	CHICKMAGALUR	26	1965
	TOTAL KPCL	14					3572.2	
	APGENCO	•						
15	T B DAM * [Tungbhadra RBC]	1	(4X9)	TUNGABHADRA		BELLARI	36	1957-1964
16	HAMPI *	1	(4X9)	TUNGABHADRA	EFR	BELLARI	36	1958-1964
	SUB-TOTAL APGENCO	2					72	
16	TOTAL KARNATAKA	16					3644.2	

\* Utilities are in Andhra Pradesh

# **3.** Hydro Projects Returned to Project Authorities for re-submission after compliance of observations:

Sl. No.	Name of Project	Agency	I.C.(MW)	Reason of Return
1	Sivasamudram [Cauvery PH-I]	KPCL	345	Presentation meeting held on 16.5.2012 as it involves interstate issues; DPR could not be processed and returned the same for resubmission after resolution of interstate aspects.
2	Mahadayi [Krishnapur]	KPCL	320	Returned due to non-tie up of inputs/clearances, the project involves interstate aspects.
2	Total		665	

# 4. Pumped Storage Projects under Survey & Investigation:

Sl. No.	Name of Project	Basin/River	I.C. (MW)	Agency	Target date of preparation of DPR
1	Sharavathy	WFR/ Sharavathy	2000	KPCL	18-Dec-18
2	Saundatti	WFR/ Malaprabha	1260	Greenko	
	Total		3260		

## 5. H.E. Projects held up due to Inter-State aspects:

Sl. No.	Name of Project	I.C. ( MW)	Location (State)	States Involved	Status
1	Cauvery Power Projects- Mekadatu [Cauvery PH-II]	400	Karnataka	Kerala/TN/ Karnataka	<ul> <li>Preliminary report of Stage-I was returned in 10/1996.</li> <li>Sharing of Cauvery water awarded by CWDT.</li> <li>With the consent of GOTN and GOK, NHPC took up S&amp;I and preparation of DPR.</li> <li>In the Core Group Meeting taken by secretary (Power) on 27.10.2004, it was agreed by GOK and GOTN that Shivasamudram (Karnataka) and Hogenekkal (T.N.) should be taken up simultaneously in the first phase and remaining two projects viz. Mekadatu and Rasimanal in the next phase.</li> <li>In the Core Group Meeting taken by Secretary (Power) on 21.06.2006, it was agreed that execution of these four projects through NHPC would be most viable proposition. It was decided that representatives of both the Govts. would take up the matter with their respective Govts. and seek their approval and thereafter necessary agreement will be signed between NHPC and the two State Govts. Consent by both the State Govts. was to be communicated to MOP by 31.07.2006. The State of Karnataka in June, 2007 informed that Shivasamudram and Mekadatu will be executed by them in State sector.</li> <li>KPCL informed in April, 2009 that the tribunal award is with Supreme Court.</li> <li>Subsequently, a meting was held on 08.07.2009 under the chairmanship of Secretary (Power) to discuss the pending issue of development of Hydroelectric Projects in Cauvery Basin. Secretary (Power) expressed that Shivasamudram being a Run of River Project with in the territory of Karnataka, Tamil Nadu should not have any objection to the development of the Project by the State Government. He further opined that there should not be any problem in taking up Shivasamudram Project by the State of Karnataka provided there is joint mechanism for monitoring the water level/releases of water to Tamil Nadu. He suggested that the CWC could act as an observer in this regard and directed that the GOK would provide/share all the technical details of the Project to/with Tamil Nadu. Both the States Government were advised to consult CEA and CWC before finalization of designin</li></ul>
1	Total	400			

## 6. Projects dropped due to Basin studies/ Other reasons:

SI. No.	Name of Project	I.C. (MW)	River	Basin	Remarks
1	Gundia	200	Gundia	WER	Due to implementation of Yethnable Drinking water Project in same catchment area, the project is stalled.
1	Total	200			

Sl.No.	Name of Project	River	Туре	I.C.(MW)	
1	Bennehole (Bannehole)	Bannehole	S	55	
2	Machchattu	Varahi	R	35	
3	Netravathy	Netravathy	S	60	
4	Sirpadi	Netravathy	R	38	
5	Kumaradhari	Kumaradhari	S	49	
6	Barapole I	Barapole	S	335	
7	Kalinadi II (Dandeli [Kalinadi I (Dandeli II)]	Kalinadi	R	60	
8	Kalinadi III [Kalinadi I (Mardi)]	Kalinadi	R	300	
9	Bedthi [Gangavali (Bedti) St.I]	Gangavali	S	380	
10	Gangavali St.II [Gangavali (Sonda) St.II]	Gangavali	S	400	
11	Aghnashini	Aghnashini	S	600	
12	Tamankal [Narayanpur]	Krishna	R	70	
13	Shivapur [Shivpur]	Tungabhadra	R	26	
14	Krishnarajasagar	Cauvery	S	55	
15	Shimsa [Shimsa PH-I]	Cauvery	R	31	
16	Shimsa [Shimsa PH-II]	Shimsha	R	42	
17	Arkavathy [Arkavathi]	Arkavathi	R	42	
18	Jaldurg	Krishna	R	270	
18	Total	18 Nos. of Pi	18 Nos. of Projects		

# 7. H. E. Projects yet to be allotted by the State for development:

Note: R – Run of the River & S- Storage

# Hydro Power Development in Kerala

		Nos.	Capacity (MW)
from Large	Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects Projects having capacity above 25 MW)		3378
Ι	Projects in operation	14	1856.5
п	Projects under construction	2	100
ш	Projects held up due to Inter-State aspects	4	520
IV	Projects dropped due to Basin studies/ Other reasons	1	163
V	Projects yet to be allotted by the State for development*	11	1004

## Identified Conventional Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects and merger of two projects into one etc.

Sl.No.	Name of Project	River	IC
1	Baraple II	Barapole	85
2	Kuttiyadi, Kuttityadi Ext & Kuttiyadi Add. Ext. (Kuttiyadi)	Kuttiyadi	80
3	Chalipuzha	Baypore	50
4	Cholathipuzha #	Baypore	80
5	Pandiyar Punnapuzha Tail Race (Pandiyar Punnapuzha II)	Pandiyar	85
6	Silent Valley	Kundipuzha	130
7	Idukki (Idukki I & II)	Periyar	565
8	Idukki (Iddukki III)	Periyar	130
9	Lower Periyar	Periyar	145
10	Pallivasal (Pallivasal Replacement)	Mudirapuzha	190
11	Sengulam	W. Kallar	55
12	Panniar	Panniar	40
13	Neriamangalam	Mudirapuzha	65
14	Perinjankutty	Perinjankutty	120
15	Manali	Idamlayar	36
16	Kudal	Idamlayar	47
17	Puyanukutty	Puyanukutty	285
18	Idamalayar	Idamalayar	55
19	Sholayar [Sholaiyar]	Sholaiyar	75
20	Kuriarkutty (Kuriakutty)	Kuriakutty	65
21	Poringalkuthu(R.B)	Chalakuddi	65
22	Poringalkuttu (Poringalkuthu(L.B))	Chalakuddi	60
23	Athirappilly (Adirapally)	Chalakuddi	65
24	Sabarigiri	Pamba	410
25	Kakkad	Kakkad	75
26	Lower Sabarigiri	Kakkad	55
27	Twin-Kallar (Twin Kallar Multipurpose)	Achankovil	65
28	Mananthavady (Manthavadi)	Kabini	200
28	Total		3378

## 1. Identified Projects during Reassessment study

# This project is in Inter-State issue in Tamil Nadu State

#### 2. Hydro Electric Projects in Operation:

S. No.	Utility/Stations	No. of Stns.	No. of units x Capacity (MW)	River / Basin*	District	I.C. (MW)	Year of commissioning
	KSEB						•
1	IDAMALAYAR	1	(2X37.5)	IDAMALAYAR	ERNAKULAM	75	1987
2	IDUKKI [Idukki I & II + Idukki - III]	1	(6X130)	PERIYAR	IDUKKI	780	1976-1986
3	KAKKAD	1	(2X25)	PAMBA	PATHANAMTHI TTA	50	1999
4	KUTTIYADI [Kuttiyadi]	1	(3X25)	KUTTIYADI	KOZHIKODE	75	1972
5	KUTTIYADI EXTN . [Kuttiyadi]	1	(1X50)	KUTTIYADI	KOZHIKODE	50	2001
6	KUTTIYADI ADDN EXTN [Kuttiyadi]	1	(2X50)	KUTTIYADI	KOZHIKODE	100	2010
7	LOWER PERIYAR	1	(3X60)	PERIYAR	IDUKKI	180	1997
8	NERIAMANGLAM	1	(3X15)	MUTHIRAPUZHA	IDUKKI	45	1961-63
9	PALLIVASAL [Pallivasal Replacement]	1	(3X5) +(3X7.5)	MUTHIRAPUZHA	IDUKKI	37.5	1948-2001
10	PANNIAR	1	(2X15)	PANNIAR	IDUKKI	30	1963-2001
11	PORINGALKUTTU	1	(4X8)	CHALAKUDY	COIMBATORE	32	1957-1960
12	SABARIGIRI	1	(6X50)	PAMBA	PATHANAMTHI TTA	300	1960-1967
13	SENGULAM	1	(4X12)	MUTHIRAPUZHA	IDUKKI	48	1954-2001
14	SHOLAYAR [Sholaiyar]	1	(3X18)	SHOLAYAR	COIMBATORE	54	1956-1968
14	TOTAL KSEB	14				1856.5	

\* All projects are in WFR Basin

#### 3. H.E. Schemes under Construction:

Sl. No.	Name of Project	Agency	District	River /Sub- Basin/ Basin	I.C.	Likely Commissioni
					(MW)	ng
1	Pallivasal Extn.	KSEB	ldukki	Mudirapuzha/ Baypore Periyar/ WFR	60	2022-23 (Dec.'22)
2	Thottiyar	KSEB	ldukki	Thottiyar/ Baypore Periyar / WFR	40	2021-22 (Mar.'22)
2	Total				100	

## 4. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Name of Project	Agency	District	River / Basin	I.C. (MW)	Date of CEA Concurrence	Status
1	Athirapally [Adirapally]	KSEB	Thrishur	Chalakkudy / WFR	163	31.03.05	MoEF&CC informed that validity of EC for the project has approved and advised to process for fresh FC. The project is likely to be dropped due to ecological constraints.
1	Total				163		

#### 5. H.E. Projects held up due to Inter-State aspects:

Sl. No.	Name of Project/Installed Capacity	I.C. MW	Location (State)	States Involved	Status
1*	Kerala Bhavani (MPP) (3x50= 150 MW)				• DPR with estimated cost of Rs 168.75 crores (1990-91 PL) returned in 01/1992.
		150	Kerala	Kerala/T.N. /Karnataka	<ul> <li>Final award of CWDT stated that the Project involves trans- basin diversion of water of Bhavani, therefore it is not possible to allocate water for this project.</li> </ul>
					• Since the tribunal has ruled out trans-basin transfer (from interstate rivers), this project remains a non-starter.
					•The final award of CWDT has been challenged by Kerela State before the Hon'ble Supreme Court of India.
2*	Mananthvady MPP (Manthavadi) (5x45 =225MW)				• Earlier DPR with estimated cost of Rs 69.17 crores (1980 PL) returned in 07/1980.
		225	Kerala	Kerala/T.N. /Karnataka	<ul> <li>Final award of CWDT stated that the Project involves trans- basin diversion of water of Kabini, therefore it is not possible to allocate water for this project.</li> </ul>
					• Since the tribunal has ruled out transbasin transfer (from interstate rivers), this project remains as a non-starter.
					• The final award of CWDT has been challenged by Kerela State before the Honourable Supreme Court of India.
3	Pandiar Punnapuzha Tail Race [Pandiyar Punnapuzha II]				• Earlier DPR with estimated cost of Rs 22.00 crores (12/1972 PL) returned in 07/82
		105	Kerala	TN/Kerala	<ul> <li>Project envisages utilisation of tailrace waters of the proposed Pandiar Punnapuzha HEP of Tamil Nadu.</li> </ul>
					• The project would be taken up if GOTN and Kerala come to a mutual agreement.
					• Inter-state issue is not resolved.

Sl. No.	Name of Project/Installed Capacity	I.C. MW	Location (State)	States Involved	Status
4*	Pambar (40 MW)				• Earlier DPR for 30 MW with estimated cost of Rs.65.46 crores (1989 PL) returned in 03/1990.
					• The project is also entangled with Cauvery Waters Disputes Tribunal (CWDT).
		40	Kerala	T.N./Kerala /Karnataka	KSEB revised the Project from earlier proposal of storage Project to run-of-river Project.
					• Non-Consumptive use of 5.6 TMC was proposed for power generation, which has been allowed by Tribunal subject to agreement with Tamil Nadu for schedule of water release.
					• DPR is yet to be finalized.
4	Total	520			

SI. No.	Name of Project	River	Туре	Probable I.C.(MW)
1	Chalipuzha	Baypore	S	50
2	Silent Valley	Kundipuzha	S	130
3	Manali	Idamlayar	S	36
4	Kudal	Idamlayar	S	47
5	Puyanukutty	Puyanukutty	S	285
6	Kuriarkutty (Kuriakutty)	Kuriakutty	S	66
7	Lower Sabarigiri	Kakkad	S	55
8	Twin-Kallar (Twin Kallar Multipurpose)	Achankovil	S	65
9	Baraple II	Barapole	R	85
10	Perinjankutty	Perinjankutty	S	120
11	Poringalkuthu(R.B)	Chalakuddi	S	65
11	Total	11 Nos. of Pr	ojects	1004

#### 6. H. E. Projects yet to be allotted by the State for development

Note: R - Run of the River & S- Storage

# Hydro Power Development in Tamil Nadu

# **Identified Hydro Power Development and its status of Development:**

		Nos.	Capacity (MW)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)		23	1693
I	Projects in operation	26	1778.2
II	Projects held up due to Inter-State aspects	4	690
ш	Projects yet to be allotted by the State for development*	4	132

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

## 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
1	Pandiyar Punnapuzha (Pandiyar-Punnapuzha I)	Pandiyar	125
2	Aliyar (Upper Aliyar)	Bharatpuzha	90
3	Periyar (Periyar Lake)	Periyar	145
4	Nirar	Idamalayar	26
5	Sholayar- I [Sholaiyar- I]	Sholaiyar	75
6	Sarkarpathy [Sarkarpathi]	Periyar	33
7	Kodayar I	Kodayar	65
8	Kodayar II	Kodayar	30
9	Paraliyar	Paraliyar	39
10	Mettur Dam (Mettur Dam PH)	Cauvery	32
11	Mettur Tunnel (Mettur Tunnel PH)	Cauvery	100

12	Lower Mettur I, II, III & IV (Lower Mettur)	Cauvery	115
13	Bhavani Kattalai Barrage I, II & III (Bhawani Kattalai)	Cauvery	115
14	Lower Bhavani (Lower Bhawani)	Bhavani	34
15	Lower Moyar	Moyar	33
16	Moyar	Moyar	75
17	Pykara (Pykara (Singara))	Moyar	115
18	Pykara Ultimate (Pykara (Ultimate))	Moyar	60
19	Kundah I (Avalaanche Em'ld (Kundah-I))	Kundah	70
20	Kundah II (Kundapallam (Kundah-II))	Kundah	160
21	Kundah III (Pengumbahalla (Kundah-III))	Kundah	95
22	Suruliyar (Surullar)	Suruliar	30
23	Papanasam	Tambraparni	31
23	TOTAL		1693

S. No.	Utility/ Stations	No. Of stns.	No. of units x Capacity (mw)	River	Basin	District	Capacity (MW)	Year of commissioning
	TANGEDCO							
1	ALIYAR [Upper Aliyar]	1	(1X60)	MASONARY DAM	WFR	COIMBATORE	60	1970
2	BHAVANI KATTALAI BARRAGE-I [Bhawani Kattalai]	1	(2X15)	CAUVERY	EFR	ERODE	30	2006
3	BHAVANI KATTALAI BARRAGE-II [Bhawani Kattalai]	1	(2X15)	CAUVERY	EFR	ERODE	30	2013
4	BHAVANI KATTALAI BARRAGE-III [Bhawani Kattalai]	1	(2X15)	CAUVERY	EFR	ERODE	30	2012
5	KODAYAR-I	1	(1X60)	KODAYAR	WFR	KANYAKUMARI	60	1970
6	KODAYAR-II	1	(1X40)	KODAYAR	WFR	KANYAKUMARI	40	1971
7	KUNDAH-I [Avalaanche Em'ld (Kundah-I)]	1	(3X20)	AVLANCHE STREAM	EFR	NILGRIS	60	1960-1964
8	KUNDAH-II [Kundapallam (Kundah- II)]	1	(5X35)	KUNDAH	EFR	NILGRIS	175	1960-1965
9	KUNDAH-III [Pengumbahalla (Kundah- III)]	1	(3X60)	PENGUNBA HALLAH	EFR	COIMBATORE	180	1965-1978
10	KUNDAH-IV	1	(2X50)	BHAVANI	EFR	COIMBATORE	100	1966-1978
11	KUNDAH-V	1	(2X20)	BHAVANI	EFR	NILGRIS	40	1964-1988
12	LOWER METTUR-I [Lower Mettur]	1	(2X15)	CAUVERY	EFR	SALEM	30	1988
13	LOWER METTUR-II [Lower Mettur]	1	(2X15)	CAUVERY	EFR	SALEM	30	1988
14	LOWER METTUR-III [Lower Mettur]	1	(2X15)	CAUVERY	EFR	SALEM	30	1987-1988
15	LOWER METTUR-IV [Lower Mettur]	1	(2X15)	CAUVERY	EFR	SALEM	30	1988-1999
16	METTUR DAM [Mettur Dam PH]	1	(4X12.5)	CAUVERY	EFR	SALEM	50	1937-1946
17	METTUR TUNNEL [Mettur Tunnel PH]	1	(4X50)	CAUVERY	EFR	SALEM	200	1965-1966
18	MOYAR	1	(3X12)	MOYAR	EFR	NILGRIS	36	1952-1953
19	PAPANASAM	1	(4X8)	THAMBRAP ARANI	EFR	TIRUNELVELI	32	1944-1951
20	PARSON'S VALLEY	1	(1X30)	BHAVANI	EFR	NILGIRIS	30	2000
21	PERIYAR [Periyar Lake]	1	(3X42)+ (1X35)	PERIYAR	WFR	IDUKKI	161	1958-1965
22	PYKARA [Pykara (Singara)]	1	(3X7)+ (2X13.6)+ (1X11)	Glenmorgan Forebay dam	EFR	NILGRIS	59.2	1932-2005
23	PYKARA ULTMATE [Pykara (Ultimate)]	1	(3X50)	PYKARA	EFR	NILGRIS	150	2005
24	SARKARPATHY [Sarkarpathi]	1	(1X30)	PARABIKUL AM	WFR	KOZHIKODE	30	1966
25	SHOLAYAR I [Sholaiyar- I]	1	(2X35)	SHOLAYAR	WFR	COIMBATORE	70	1971
26	SURULIYAR [Surullar]	1	(1X35)	ERAVANGA LAR	EFR	TIRUNELVELI	35	1978
26	TOTAL TANGEDCO	26					1778.2	

## 2. H.E. Projects in Operatio

#### 3. Pumped Storage Projects in Operation:

SI. No.	Name of Project	L C. (MW)	Remarks
1	Kadamparai PSS	400	Pumping Mode- Working
	Total	400	

#### 4. Pumped Storage Projects Under construction:

Sl. No.	Name of Project	I. C.	Remarks	Likely Commissioni ng	
		( <b>MW</b> )			
1	Kundah Pumped Storage (Stage I,II,III&IV)	500	Under Construction	2022-23 (Mar'23)	
	Total	500			

#### 5. Pumped Storage H.E. Projects Under S&I:

S.No.	Name of Project	River	I.C. (MW)	District
1	Sillahalla StI	Sillahalla	1000	
2	Kodayar	Kodayar	500	
	Sub Total		1500	

#### 6. H.E. Projects held up due to Inter-State aspects:

6. H.I Sl. No.	E. Projects held up due Name of Project	I.C. (MW)	Location (Site)	States Involved	Status
1	Nellithorai	50	T.N.	TN/ Kerala	<ul> <li>Sanctioned by Planning Commission in 1974 at an estimated cost of Rs.10.04 crores.</li> <li>Concurrence not issued by CEA due to objections received from Govt. of Kerala.</li> </ul>
2	Cauvery Power Projects [Rasimanal(90 MW) & Hogenekkal (36 MW) (from Karnataka)]	480	T.N.	Kerala/ TN/ Karnataka	<ul> <li>Returned in 2/1997.</li> <li>In the Core Group Meeting taken by Secretary (Power) on 27.10.2004, it was agreed by GOK and GOTN that Shivasamudram (in Karnataka) and Hogenekkal (in TN) should be taken up simultaneously in the first phase and remaining two projects viz. Mekadatu (in Karnataka) and Rasimanal (in TN) in the next phase.</li> <li>In the Core Group Meeting taken by Secretary (Power) on 21.06.2006, it was agreed that execution of these four projects through NHPC would be most viable proposition. It was decided that representatives of both the Govts. would take up the matter with their respective Govts. and seek their approval and thereafter necessary agreement will be signed between NHPC and the two State Govts. Consent by both the State Govts. was to be communicated to MOP by 31.07.2006. Tripartite agreement between Govt. of Tamil Nadu, Govt. of Karnataka and NHPC was to be signed. However, in June, 2007 the State of Karnataka informed that Shivasamudram and Mekadatu will be executed by Karnataka in State Sector.</li> <li>TNEB informed in April, 2009 that Tamil Nadu has given its concurrence to MOP's draft tripartite agreement and sent it to MOP, GOI on 15.12.2008. Tamil Nadu insists the execution of the projects by neutral agency under Govt. of India. Final award of CWDT is yet to be notified in the Gazette of Govt. of India, as the case has been filed in the Supreme Court of India.</li> <li>Subsequently, a meting was held on 08.07.2009 under the chairmanship of Secretary (Power) to discuss the pending issue of development of Hydroelectric Projects in Cauvery Basin. Secretary (Power) expressed that way objection to the development of the Project with in the territory of Karnataka provided there is joint mechanism for monitoring the water level/releases of water to Tamil Nadu. He suggested that the CWC could act as an observer in this regard and directed that the GOK would provide/share all the technical details of the Project lo/with Tamil Nadu. Both the States Governments were advised to co</li></ul>
3	Pandiyar Punnapuzha [Pandiyar-Punnapuzha I]	100	T.N.	TN/ Kerala	<ul> <li>DPR with estimated cost of Rs 73.90 crores (11/1976 PL) returned in 07/1982.</li> <li>Project is located in TN on West flowing Pandiar Punnapuzha river (Chaliyar river).</li> <li>Concurrence of Govt. of Kerala is required, as per agreement in 1965, for revised project proposal, which is yet to be communicated by Govt. of Kerala.</li> <li>Based on Ministrial level meeting between Kerela and Tamil Nadu on 10.06.2002, modified proposal was evolved by TNEB and has been sent to Govt. of Kerela on 10.04.2007 for its consideration.</li> <li>Concurrence of Govt. of Kerala is yet to be received.</li> </ul>
4	Cholatipuzha (from Kerala)	60	T.N.	TN/ Kerala	<ul> <li>DPR with estimated cost of Rs7.39 crores (1976 PL) returned in 07/1982</li> <li>As per agreement between Tamil Nadu &amp; Kerala reached in Oct., 1965, cost and benefits from the project located on their border are to be shared equally by the two States.</li> <li>Kerala has not communicated its concurrence to the project investigated by TNEB.</li> <li>This Project will be finalized while finalizing the Project of Pandiar- Punnapuzha with Kerela.</li> </ul>
4	Total	690			

#### 7. H. E. Projects yet to be allotted by the State for development

SI. No.	Name of Project	River	Туре	I.C.(MW)	
1	Nirar	Idamalayar	R	26	
2	Paraliyar	Paraliyar	R	39	
3	Lower Bhavani (Lower Bhawani)	Bhavani	S	34	
4	Lower Moyar	Moyar	s	33	
4	Total	4 Nos. of	f Projects	132	

Note: R -Run of the River; S- Storage

# Hydro Power Development in Telangana

			Nos.	Capacity (MW)
Identified Study from (Projects ha	Large Hy	8	2019	
I	Projects i	n operation	6	800
п	Projects a	allotted by States for development		
	(i)	Projects returned to project authorities	1	320
ш	Project y developm	et to be allotted by the State for lent*	1	250

# **Identified Hydro Power Potential and its status of Development:**

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects etc.

Sl.No.	Name of Project	River	I. C. (MW)
1	Pochampad	Godavari	47
2	Inchampalli #	Godavari	920
3	Singareddi	Godavari	250
4	Dummugudem (Dummagudem)	Godavari	360
5	Pulichintala	Krishna	180
6	Nagarjunasagar LBC	Krishna	42
7	Nagarjunasagar (Nagarjunasagar Dam PH)	Krishna	115
8	Priyadarshini Jurala (Priyadarshini )	Krishna	105
8	TOTAL		2019

# 1. Identified Projects during Reassessment study:

# Inchampalli is under Inter-State issue in the State of Andhra Pradesh for 975 MW.

## 2. H.E. Projects in Operation:

S. No.	Utility/ Stations	No. of Stns.	No. of units x Capacity (MW)	River / Basin*	District	Capacity (MW)	Year of commissioning
	TSGENCO						
1	PRIYADARSHNI JURALA (PRIYADARSHNI)	1	(6X39)	KRISHNA	MAHABOOB NAGAR	234	2008-2011
2	POCHAMPAD	1	( <b>4X9</b> )	GODAVARI	NIZAMABAD	36	1987-1988, 2010
3	NAGARJUNA SGR (NAGARJUNA SGR DAM PH)	1	( <b>1X110</b> )	KRISHNA		110	1978-85
4	NAGARJUNA SGR LBC	1	(2X30)	KRISHNA	GUNTUR	60	1983
5	LOWER JURALA	1	(6X40)	KRISHNA	WANPARTHY	240	2015-16
6	PULINCHINTHALA	1	(4X30)	KRISHNA	SURAPETA	120	2016-17
6	TOTAL TSGENCO	6				800	

\* All projects are in EFR Basin

#### 3. Pumped Storage Projects in Operation:

Sl. No.	Name of Project	I. C. (MW)	River/ Basin	District	Year of Commissioning
1	Srisailam LBPH	900	Krishna/ EFR	Nagarkurnool	2000-04
2	Nagarjuna Sagar	705.6	Krishna/ EFR	Nalgonda	1978-85
	Total	1605.6			

#### I.C. Month of Sl. No. Name of Project **Reason for Return** Agency (MW) Return Returned due to non-replying of various comments such as hydro planning, cost of Dummugudem APGENCO 1 320 Mar-06 (Dummagudem) E&M works, hydel civil Engineering, geological aspects etc. 1 Total 320

#### 4. H.E. Projects Returned to project Authorities:

#### 5. H. E. Projects yet to be allotted by the State for development

Sl. No.	Name of Project	River	Туре	LC. (MW)
1	Singareddi	Godavari R		250
1	Total	1 No. of Project		250

Note: R – Run of the River

## Hydro Power Development in Bihar

	Nos.	I.C. (MW)
Identified Hydro Power Potential as per Reassessment Study from Large Hydroelectric Projects (Projects having capacity above 25 MW)	1	40
Projects Under S&I	1	130

## **Identified Hydro Power Potential and its status of Development:**

Note: Identified project namely East Gandak Canal has been developed with installed capacity below 25 MW

## 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
1	Eastern Gandak Canal	Gandak	40
	TOTAL	40	)

## 2. Hydroelectric Projects in operation in Bihar (above 25 MW):

At present, no hydroelectric project (above 25 MW) is under operation in Bihar. Four H.E. Projects having installed capacity of 44.9MW, consisting of Kosi (20MW), Sone Western Canal (6.6MW), Sone Eastern Canal (3.3MW) and Eastern Gandak (15MW), are in operation in Bihar which are all below 25MW capacity each.

### **3.** Projects under Construction:

At present no hydro scheme is under construction in Bihar.

## 4. Projects Under S&I:

Sl. No.	Name of Scheme	Agency	I.C. (MW)	Date of MoA
1	Dagmara	BSHPC	130	
	Total		130	

## Hydro Power Development in Jharkhand

#### Identified Hydro Power Potential and its status of Development:

		Nos.	Capacity (MW)
from La	d Hydro Power Potential as per Reassessment Study rge Hydroelectric Projects s having capacity above 25 MW)	8	582
Ι	Projects in operation	3	170
II	Projects dropped due to Basin studies/ Other reasons	1	710
ш	Projects yet to be allotted by the State for development*	4	307

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the schemes, addition/deletion of the schemes, etc.

Sl.No.	Name of Project	River	I. C. (MW)
1	Panchet (Panchet Hill)	Damodar	40
2	Maithon #	Damodar	60
3	Subernrekha MPP ##	Subernrekha	30
4	Koel Karo (Koel Karo St-I ### (Lumpungkhel PH))	N.Koel	145
5	Serengada	N.Koel	37
6	Sankh-II (Upper Sankh St-II)	Sankh	55
7	Lower Sankh	Sankh	55
8	Indrapuri (Khadwan)	Sone	160
8	TOTAL		582

### **1. Identified Projects during Reassessment study:**

# Maithon is in operation in West Bengal State

## Subernrekha MPP has been developed below 25 MW.

### Koel Karo H.E. Project (4x172.5 + 1x20 = 710 MW), located in Ranchi, Gumla & Singhbhum Districts of Jharkhand ( in the erstwhile unified State of Bihar), envisages utilization of waters of the South Koel and North Karo rivers. Koel Karo H.E. Project was entrusted to NHPC in August 1980 for execution under central sector. The project was sanctioned by Govt. of India as a NHPC project in June 1981 at an estimated cost of Rs. 444.67 crores (gross) including cost of associated transmission line and interest during construction (IDC).

Ministry of Power vide their letter dated 30-09-2005 informed the closure of project due to non-finalization of power purchase agreement.

S. NO.	UTILITY / STATIONS	NO. OF STNS.	NO. OF UNITS X CAPACITY (MW)	RIVER / BASIN*	DISTRICT	I.C. (MW)	YEAR OF COMMISSIONING	
	DVC	•						
1	PANCHET	1	(1X40)	DAMODAR	DHANBAD	40	1990	
	SUB-TOTAL DVC	1				40		
	JUUNL							
1	SUBERNREKHA -I	1	(1X65)	SUBERNAR EKHA	RANCHI	65	1977	
2	SUBERNREKHA -II	1	(1X65)	SUBERNAR EKHA	RANCHI	65	1980	
	TOTAL JUUNL	2				130		
3	TOTAL JHARKHAND	3				170		

\* Panchet is in Ganga and Subernrekha-I & II are in CIR Basin.

#### 3. Pumped storage Projects in Operation:

SI. No.	Name of Project	I. C. (MW)	Remarks
1	Panchet Hill-DVC	40	Not Working in Pumping Mode -Tail Pool dam not constructed. Land acquisition issue involved.

#### 4. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Name of Project	River	Туре	I.C. (MW)	Remarks
1	Koel Karo	N. Koel & S. Karto	S	710	*
1	Total			710	

\* Koel Karo H.E. Project (4x172.5 + 1x20 = 710 MW), located in Ranchi, Gumla & Singhbhum Districts of Jharkhand ( in the erstwhile unified State of Bihar), envisages utilization of waters of the South Koel and North Karo rivers. Koel Karo H.E. Project was entrusted to NHPC in August 1980 for execution under central sector. The project was sanctioned by Govt. of India as a NHPC project in June 1981 at an estimated cost of Rs. 444.67 crores (gross) including cost of associated transmission line and interest during construction (IDC).

Ministry of Power vide their letter dated 30-09-2005 informed the closure of project due to non-finalization of power purchase agreement.

#### 5. H. E. Projects yet to be allotted by the State for development

SI. No.	Name of Project	River	River Type	
1	Serengada	N.Koel	R	37
2	Sankh-II (Upper Sankh St-II)	Sankh	R	55
3	Lower Sankh	Sankh	S	55
4	Indrapuri (Khadwan)	Sone	S	160
4	Total	4 Nos	307	

## Hydro Power Development in Odisha

#### Identified Hydro Power Potential and its status of Development:

			Nos.	Capacity (MW)
Large H	Iydroele	o Power Potential as per Reassessment Study from ctric Projects g capacity above 25 MW)	13	2981
I	Proje	cts in operation	7	2142.25
II	Proje	cts allotted by States for development		
	(i)	Projects under S & I	2	128
	(ii)	Projects held up due to Inter-State aspects	1	320
III		Projects yet to be allotted by the State for opment*	6	1096

Sl.No.	Name of Project	River	IC
1	Bhimkund	Baitarni	29
2	Baljori	Baitarni	230
3	Lodani	Brahmani	42
4	Rengali	Brahmani	135
5	Naraj	Mahanadi	215
6	Tikkarpara	Mahanadi	205
7	Sindol [Hirakud St-III]	Mahanadi	175
8	Hirakud (Chiplima) [Hirakud St-II]	Mahanadi	155
9	Hirakud (Burla) [Hirakud St-I]	Mahanadi	150
10	Upper Indravati	Indravati	585
11	Upper Kolab	Sabari	280
12	Lower Kolab	Sabari	375
13	Balimela	Balimela	405
13	Total		2981

#### 1. Identified Projects during Reassessment study:

S. NO.	UTILITY/ STATIONS	NO. OF STNS.	NO. OF UNITS X CAPACITY (MW)	RIVER	DISTRICT	I.C. (MW)	YEAR OF COMMISSIONING
	ОНРС						
1	BALIMELA	1	(6X60)+ (2X75)	SILERU	MALKANGIRI	510	1973-1977, 2008
2	HIRAKUD (BURLA) [HIRAKUD ST- I]	1	(3X37.5) (2X49.5) +(2X32)	MAHANADI	SAMBALPUR	275.5	1956-1990
3	HIRAKUD (CHIPLIMA) [HIRAKUD ST- II]	1	(3X24)	MAHANADI	SAMBALPUR	72	1962-1964
4	RENGALI	1	(5X50)	BRAHMANI	ANGUL	250	1985-1992
5	UPPER INDRAVATI	1	(4X150)	INDRAVATI	KALAHANDI	600	1999-2001
6	UPPER KOLAB	1	(4X80)	KOLAB	KORAPUT	320	1988-1993
	TOTAL OHPC	6				2027.5	
	APGENCO	1					
1	MACHKUND	1	(3X17)+ (3X21.25)	MACHKUND	KORAPUT	114.75	1959
	SUB-TOTAL APGENCO	1				114.75	
7	TOTAL ODISHA	7				2142.25	

Note: Hirakud (Burla & Chiplima) and Rengali are in CIR basin & others are in EFR Basin.

Sl. No.	Name of Project	Basin/River	I.C. (MW)	Agency
1	Salki	Salki	65	OHPCL
2	Kharag	Kharag	63	OHPCL
2	Total		128	

#### 3. H.E. Projects under Survey & Investigation:

#### 4. Pumped Storage Projects under Survey & Investigation:

Sl. No.	Name of Project	Basin/River	I.C. (MW)	Agency
1	Upper Indravati	Indravati	600	OHPCL
2	Balimela	Balimela	500	OHPCL
3	Upper Kolab	Kolab	320	OHPCL
	Total		1420	

Sl. No.	Name of Project	I.C. ( MW)	Location (State)	States Involved	Status
1	Sindol [HIRAKUD ST- III] 320 MW= (5x20+5x20+6x20)	320	Orissa	MP/Chhatisgar h/ Bihar/ Jharkhand/ Orissa / Maharashtra	DPR with estimated cost of Rs.2246.14 crores (1994 PL) returned in 07/96 due to non- resolution of interstate aspect. The consent of the upstream States viz. Jharkhand, Bihar, M.P, Chhatisgarh and Maharashtra is not available.DPR is being revised by reducing Installed Capacity. Revised DPR yet to be submitted to CEA. Revised hydrology of Sindol-I for 100 MW has been submitted to CWC for clearance.
1	Total	320			

## 5. H.E. Projects involving Inter-State aspects:

## 6. H. E. Projects yet to be allotted by the State for development

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Bhimkund	Baitarni	S	29
2	Baljori	Baitarni	S	230
3	Lodani	Brahmani	S	42
4	Naraj	Mahanadi	S	215
5	Tikkarpara	Mahanadi	S	205
6	Lower Kolab	Kolab (Sabri)	S	375
6	Total	6 Nos. of Projects		1096

Note: S-Storage

## Hydro Power Development in Sikkim

			Nos.	Capacity (MW)
tudy fro	om Large	Power Potential as per Reassessment Hydroelectric Projects apacity above 25 MW)	24	4248
Ι	Project	s in operation	7	2169
II	Project	s under construction	6	1133
III	Project	s allotted by States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	1	520
	(ii)	Projects allotted for development on which S&I is held up/ yet to be taken up	2	92
	Total (	i-ii)	3	612
IV	Project reasons	s dropped due to Basin studies/ Other	1	96
V	Project develoj	s yet to be allotted by the State for pment*	16	1914

## Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

l.No.	Name of Project	River	Туре	IC
1	Kalep	Tista	R	41
2	Talem	Tista	R	65
3	Jedang	Lhonak	R	185
4	Teesta I (Zema)	Tista	R	125
5	Serum	Sebokung	R	50
6	Lachung	Lachung	R	30
7	Ringpi	Ringpi	R	160
8	Lingza	Ringpi	R	160
9	Rukel	Tolung	R	90
10	Rangyong	Tolung	R	175
11	Dikchu	Dikchu	R	90
12	Chhota Pathing	Rongpo	R	55
13	Rongnichu (Rongni Storage)	Rongni	R	95
14	Mana	G.Ranjit	R	37
15	Lethang (Yoksam)	Rathong	R	44
16	Mamium	G.Ranjit	R	175
17	Gompa	G.Ranjit	R	46
18	Rangit-III (Ligship)	G.Ranjit	R	115
19	Teesta St.II (Chunthang)	Tista	R	830
20	Teesta-III (Singhik)	Tista	R	685
21	Panan	Tolung	R	230
22	Teesta - IV (Mangan)	Tista	R	445
23	Teesta-V (Samdong)	Tista	R	280
24	Lower Lagyap	Rongpi	R	40
24	Total			4248

S. NO.	UTILITY/ STATIONS	NO. OF STNS.	NO. OF UNITS X CAPACITY (MW)	RIVER / BASIN*	DISTRICT	I.C. (MW)	YEAR OF COMMISSIONING
	NHPC						
1	RANGIT-III (Ligship)	1	(3X20)	RANGIT	GANGTOK	60	2000
2	TEESTA-V (Samdong)	1	(3X170)	TEESTA	EAST SIKKIM	510	2008
	SUB-TOTAL NHPC	2				570	
	STATE						
	TEESTA URJA LTD. (	TUL)					
3	TEESTA-III (Singhik)	1	(6X200)	TEESTA	NORTH SIKKIM	1200	2017
	SUB-TOTAL TUL	1				1200	
	PRIVATE						
	GIPL (GATI INFRA PRIVATE LTD.)						
4	CHUZACHEN	1	(2*55)	RONGLI & RANGPO	EAST SIKKIM	110	2013
	SNEHA KINETIC PO	WER PROJE	ECTS PVT LTD ()	SKPPPL)			
5	DIKCHU	1	(2*48)		EAST & NORTH SIKKIM	96	2017
	SHIGA ENERGY PVT	LTD (SEPL	)				
6	TASHIDING	1	(2*48.50)	RATHANG CHU		97	2017
	DANS ENERGY PVT	LTD. (DEPL	)		I		
7	JORETHANG LOOP	1	(2*48)	RANGIT	SOUTH /WEST	96	2015
	SUB-TOTAL PRIVATE	4				399	
7	TOTAL SIKKIM	7				2169	

## 3. H.E. Projects under Construction:

Sl. No.	Name of Project	Agency	District	I.C. (MW)	River/ Basin	Likely Commissioning
1	Bhasmey	Gati Infrastructure	Fast Sikkim	51	Rangpo/ Teesta/	2024-25 *
1	Bhasmey	Gati Initastructure	East Sikkiii	51	Brahmaputra	2024-23 *
2	Rangit-IV	JAL Power	West Sikkim	120	Rangit/ Teesta/	2025-26*
	indigit I v		West Sikkini		Brahmaputra	2023 25
3	Rangit-II	Sikkim Hydro	West Sikkim	66	Greater Rangit/ Teesta/	2024-25*
					Brahmaputra	202125
4	Rongnichu	Madhya Bharat	East Sikkim	96	Rongnichu/ Teesta/	2020-21
	(Rongni Storage)				Brahmaputra	(Mar.'21)
5	Teesta St. VI	NHPC	South Sikkim	500	Teesta/	2023-24
					Brahmaputra	(Mar.'24)
					Rangyongchu/ Teesta/	
6	Panan	Himagiri	North Sikkim	300	Brahmaputra	2025-26 *
6	Total			1133		

\* Subject to re-start of works

#### 4. H.E. Projects Cleared/Appraised by CEA:

Sl. No	Name of Project	Agency	District	River/ Basin*	I.C. (MW)	Date of CEA Concurrence	Status
1	Teesta St-IV (Mangan)	NHPC	North Sikkim	Teesta/ Brahamputra	520	13.05.10	EC accorded on 09.01.14. FC-I accorded on 26.02.13. FC-II is yet to be obtained. MoU with State Govt. to be amended by developer. State Forest Department on 31.01.2018 submitted compliance report of FC-I to MoEF&CC for issuance of FC-II. MoEF&CC, vide letter dated 05.02.2019, has furnished observations on the compliance report to State Govt. NHPC vide letter dated 23.07.2019,14.09.2019, 24.09.2019, 16.10.2019 and 21.08.2020 has requested DC, North Sikkim to resolve the issue of pending consent from 3 GPUs required for obtaining FC-II and also nomination of members of concerned GPUs for constitution of expert group at the earliest. DFO (North) on 15.09.2019 submitted reply to observations of MoEF&CC wrt CA and KML files to CCF (FC), Govt. of Sikkim for further submission to MoEF&CC. CMD NHPC vide DO letter dt. 06.03.2020 has requested Hon'ble CM of Sikkim to direct concerned officers for expeditious compliance on observations of MoEF&CC and constitution of Forest Clearance and acquisition of Private Land for the project. Secretary (Power), MOP vide DO letters dated 02.03.2020 and 09.06.2020 has requested Chief Secretary, Govt. of Sikkim to intervene in the matter and issue directions to the concerned authorities for expediting action on compliance of observation of MoEF&CC reg. FRA 2006 and constitution of Expert Group for appraisal of SIA report.
1		Total			520		

#### 5. H.E. Projects on which Survey & Investigation held up:

Sl. No.	Name of Project	Basin/River Agency		Original I.C. (MW)	Date of MOA
1	Kalez khola	Kalez khola/ Rangit	CWC	52	12.2.2007
2	Suntaleytar	Rangpochu	Hindustan Electric Power Ltd.	40	LOI date 23.02.12
2	Total			92	

#### 6. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Name of Project	Agency	I.C. (MW)	Remarks
	Lethang (Yoksam)	KHCHPL		DPR was not accepted for examination due to lacks of barrage v/s dam design, review of LC. spillway capacity etc. The Government of Sikkim ordered the closure of Lethang HEP being undertaken in Yuksom, Tashiding constituency in West Sikkim in public interest.
1	Total		96	

Sl.No.	Name of Project	River	Туре	IC
1	Kalep	Tista	R	41
2	Talem	Tista	R	65
3	Jedang	Lhonak	R	185
4	Teesta-I (Zema)	Tista	R	125
5	Serum	Sebokung	R	50
6	Lachung	Lachung	R	30
7	Ringpi	Ringpi	R	160
8	Lingza	Ringpi	R	160
9	Rukel	Tolung	R	90 175
10	Rangyong	Tolung	R	
11	Chhota Pathing	Rongpo	R	55
12	Mana	G.Ranjit	R	37
13	Mamium	G.Ranjit	R	175
14	Gompa	G.Ranjit	R	46
15	Lower Lagyap	Rongpi	R	40
16	Teesta St-II	Teesta	R	480
16	Tot	al		1914

Note: R – Run of the River

## Hydro Power Development in West Bengal

			Nos.	Capacity (MW)
from ]	ified Hydro Power Po Large Hydroelectric Pi ects having capacity ab	-	6	2829
I	Projects in operati	on	5	441.2
Π	Projects under cor	struction	1	120
ш	Projects allotted by	y States for development		
	(i)	Projects on which S&I held up	1	81
IV	Projects yet to be a development*	llotted by the State for	2	103

## Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of projects, etc.

## 1. Identified Projects during Reassessment study

Sl.No.	Name of Project	River	I. C. (MW)
1	Balason	Balason	33
2	Teesta Low Dam-IV (Teesta High Dam)	Teesta	2505
3	Rammam-I	Rammam	70
4	Rammam-II	Rammam	85
5	Rammam-III	Rammam	100
6	Jaldhaka (Jaldhaka-I)	Jaldhaka	36
6	TOTAL		2829

Sl.No.	Name of Project	Name of Project Agency I		River /Basin*	I. C.	Year of Commissioning
1	Jaldhaka (Jaldhaka-I)	WBSEDCL	KALIMPONG	Di chu, Ni chu & Bindu Khola River	36	1967-72,2012
2	Rammam-II	WBSEDCL	DARJEELING	Rammam	50	1995-96
3	Teesta Low Dam-III	NHPC	DARJEELING	Teesta	132	2013-14
4	Maithon	DVC	WEST DHANBAD	Basakar	63.2	1957-58
5	Teesta Low Dam-IV		DARJEELING	Teesta Kalikhola confluence	160	2016
5	Total				441.2	

\* Maithon is in Ganga and others are in Brahmaputra Basin.

#### 3. Pumped Storage Projects in Operation:

Sl. No.	Name of Project	I. C. (MW)	Remarks
1	Purulia	900	Pumping Mode- Working
	Total	900	

#### 4. H.E. Projects under Construction:

Sl. No.	Name of Project	Agency	District	River / Basin	I. C. (MW)	Likely Commissioning
1	Rammam-III	NTPC	Darjeeling	Rammam/ Rangit/	120	2022-23 (Noc'22)
1					120	

#### 5. Pumped Storage Projects concurred by CEA:

Sl. No.	Name of Project	I. C. (MW)	Remarks
1	Turga	1000	EC recommended by EAC in its meeting held on 02.07.2018. FRA compliance completed and In-Principle FC-I clearance accorded on 12.04.2018. However, in a Constitutional Writ Petition filed in Hon'ble High Court of Calcutta, the Hon'ble High Court of Calcutta (single bench) has passed a verdict on 02.07.2019 quashing the 'in-principle' stage-I forest clearance granted by MoEF&CC, Govt. of India. An appeal for stay challenging the judgement of single bench has already been filed before the Division bench of Hon'ble High Court, calcutta by WBSEDCL and GoWB on 17.09.2019 and 1.10.2019 respectively. On 24.02.2020 Hon'ble Division Bench of Hon'ble High Court, Kolkata opined that WBSEDCL may do all paperwork and other prepratory work necessary to obtain final clearance from the Central Government. The matter is in the process of hearing in the Hon'ble High Court, Kolkata. FC-II is awaited.
1	Total	1000	

#### 6. H.E Projects on which Survey & Investigation held up:

Sl.No.	Name of Project	Basin /River	Agency	I.C. (MW)	Date of MOA	Status
1	TLDP-I&II	Teesta/Badi (Great Rangit)	NHPC	81	30.07.15	S&I held up due to withdrawal of consent for the project by Govt. of Sikkim on 30.01.2017. NHPC handed over the TLDP I&II HEP back to Govt. of West Bengal due to Non-availability of the consent from Govt. of Sikkim and also due to commercial unviability of the project. NHPC informed vide their letter dated 21.11.2019 that project handed over to WBSEDCL, GoWB.
1	Total			81		

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Balason	Balason	R	33
2	Rammam-I	Rammam	R	70
2	Total	2 Projects		103

## 7. H. E. Projects yet to be allotted by the State for development:

Note: R – Run of the River

## Hydro Power Development in Arunachal Pradesh

			Nos.	Capacity (MW)
from I	Large Hy	ro Power Potential as per Reassessment Study droelectric Projects g capacity above 25 MW)	87	50064
Ι	Project	ts in operation	3	815
Π	Project	ts under construction	2	2300
III	Project	ts allotted by States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	14	15978
	( <b>ii</b> )	Projects returned to project authorities	14	6403
	(iii)	Projects under S&I	15	2957
	(iv)	Projects allotted for development on which S&I is held up/ yet to be taken up	22	7611
IV	Project	ts dropped due to basin studies	20	3998
V	Project	ts stuck due to Inter-State/ Other Issues	4	2600
VI	Project develoj	ts yet to be allotted by the State for pment*	42	14999

Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects and merger of two projects into one etc.

S. No.	Name of Project	No. Of units	No. of units x capacity (MW)	River	District	Capacity (MW)	Year of commissioning
	NEEPCO						
1	RANGANADI [Yazali DivII]	3	(3X135)	RANGANADI	LOWER SUBANSIRI	405	2002
2	PARE	2	(2X55)	BRAHAMPUTRA		110	2018
3	Kameng	2	2x150	Bichom & Tenga / Kameng	West Kameng	300	2020
3	Total	7				815	

Note: All projects are in Brahamputra Basin

### 2. H.E. Projects Under Construction:

Sl. No.	Name of Project	Agency	District	I.C. (MW)	River	Likely Commissioning
1	Kameng	NEEPCO	West Kameng	300	Bichom & Tenga / Kameng	2020-21 (Mar.'21)
2	Subansiri [Subansiri Dam]	NHPC	L.Subansiri/ Dhemaji	2000	Subansiri	2023-24 (Aug.'23)
2	Total			2300		

Note: All projects are in Brahamputra Basin

#### 3. H.E. Projects Cleared/Appraised by CEA:

SI No.	Name of Project	Agency	District	River	I.C. (MW)	Date of CEA Concurrence	Status
1	Lower Siang	JAVL	East Siang	Siang	2700	16.02.10	EC & FC yet to be obtained by developer. MoEF&CC in Jan'2016 closed the proposal due to non- response of developer. Developer is required to carry out fresh EIA/EMP studies.
2	Nafra	SNEL	West Kameng	Bichom	120	11.02.11	EC accorded on 19.08.2013. FC-I accorded on 12.07.2011 & FC-II accorded on 26.06.2012. Financial closure yet to be achieved by the developer.
3	Tawang St-I	NHPC	Tawang	Tawang Chu	600	10.10.11	EC accorded on 10.06.2011. FC-I & FC-II are pending. FRA is under process. In the review meeting held on 29.05.2019 in CEA, Developer stated that FC- II of Tawang-I will be taken up after obtaining FC-II of Tawang- II. There is issue of habitation of Black Necked Crane in the project area. MOEF&CC informed that the report of WII on Black Necked Crane for the project is submitted to MoEF&CC and is under review.
4	Tawang St-II	NHPC	Tawang	Tawang Chu	800	22.09.11	EC accorded on 10.06.2011. FC-I accorded on 08.01.2014. FC- II yet to be obtained. For FC-II, additional information sought by MoEF&CC vide letter 23.02.2017. NHPC informed that local resident are not cooperating. Minister of State (I/C), MOP through DO letter dated 02.02.2018 requested Hon'ble CM, Ar. Pr. to intervene in the matter for submitting compliance report under FRA 2006 by State Govt. to MoEF for accord of FC-II. CMD NHPC vide DO letter dated 28.10.19 had again requested Chief Secretary, Govt. of Arunachal Pradesh to intervene in the matter. Matter is being pursued with District Administration.
5	Demwe Lower	ADPL	Lohit	Lohit	1750	20.11.09	EC accorded on 12.02.2010. FC-I accorded. FC-II accorded on 03.05.2013. Hon'ble NGT vide its Order dated 24th October, 2017 dismissed the Forest Clearance appeal of the project and directed the Standing Committee of NBWL to reconsider the issue relating to Demwe Lower HEP and pass appropriate orders. Till such orders are passed, the forest clearance of the project stands suspended. Developer informed that the project is under NCLT since 2017 and fate of project will be decided after NCLT proceedings are over.
6	Hirong	JAPL	West Siang	Siang	500	10.04.2013	EC & FC yet to be obtained by developer. EIA/EMP report being revised as per Siang BSR. FC-I under process at state level. However, as per MoEF&CC, matter of FC is closed vide letter dated 02.12.2015.
7	Talonga Londa	GMR	East Kameng	Kameng	225	16.08.2013	EC accorded on 07.08.2015. FC-I & FC-II yet to be obtained.

#### 3. H.E. Projects Cleared/Appraised by CEA:

SI No.	Name of Project	Agency	District	River	I.C. (MW)	Date of CEA Concurrence	Status
8	Etalin	EHEPCL	Dibang Valley	Dri & Tangon	3097	12.07.2013	EC recommended by EAC on 31.01.2017. Letter will be issued after FC-I. FC-I & FC-II yet to be obtained. The Biodiversity studies have been completed by Wild Life Institute of India (WII) in July 2019 after which FAC considered it in October 2019 wherein it recommended that a Sub-Committee shall be formed who shall visit the project site and submit its report on grant of forest Clearance for the project considering various aspects. Sub-Committee submitted its report to MOEF&CC and is available in their website. Sub-Committee recommended for the forest clearance of the project. Further, FAC has sought the inputs of nodal ministry i.e. Ministry of Power w.r.t. its stand regarding implementation of Etalin HE Project. MoP's inputs are awaited. MoP vide its letter dated 30.07.2020 requested CEA to provide comments. CEA vide its letter dated 17.08.2020 furnished the comments regarding Etalin HEP to MoP. Final recommendations of FAC are pending
9	Naying HEP	NDSCPL	West Siang	Siang	1000	11.09.2013	EC & FC yet to be obtained by developer. EC is linked with Siang BSR, which is completed and accepted by MoEF&CC. FC-1 pending with State Govt. MoEF&CC stated that developer needs to apply afresh for EC online as old proposal is not valid anymore. DISCOMs are reluctant to sign PPA.
10	Kalai –II	Kalai PPL	Anjaw	Lohit	1200	27.3.2015	EC accorded 20.05.2015. FC-I and FC-II yet to be obtained. Land acquisition under process.
11	Heo	HHPPL	West Siang	Yarjep	240	28.07.2015	EC accorded on 10.11.2015. FC-I accorded on 27.10.2015. FC-II yet to be obtained. The issue of shifting of quarry is pending with FAC which is linked with Pauk, Heo and Tato-I and needs to be resolved for accord of FC-II. Observations of Regional Office awaited. Land acquisition is in progress.
12	Tato-I	SHPPL	West Siang	Yarjep	186	28.10.2015	EC accorded on 10.11.2015. FC-I accorded on 27.10.2015. FC-II yet to be obtained. MoEF&CC stated that the matter of shifting of quarry area was considered by FAC and observations of Regional office are being sought & thereafter it will be again considered by FAC. Land acquisition is in progress.
13	Dibang [Dibang Storage]	NHPC	lower Dibang Valley	Dibang	2880	18.09.2017	EC accorded on 19.05.2015. FC-I accorded on 15.04.2015. FC-II: 12.03.2020 CCEA at its meeting held on 17.07.2019 has accorded approval for incurring expenditure of Rs. 1600 crore on Pre- investment activities for the project including NPV, CA, CAT Plan and Wildlife Management.
14	Attunli	AHEPCL	Dibsng Valley	Tangon	680	15.03.18	Both EC and FC are yet to be obtained. MoEF&CC stated that fresh ToR was issued in May'2019. Forest survey under progress. Land Acquisition under process.
14	Total				15978		

Note: All projects are in Brahamputra Basin

## 4. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:

Sl. No.	Name of Project	Agency	I.C. (MW)	Month of Return/Reason of Return	
1	Ranganadi St-II	NEEPCO	130	Returned on 04/06 and NEEPCO has been asked to review the Project and resubmit DPR after cost and tariff are brought down. MOU with State Govt. yet to be signed.	
2	Yamne St-II	SSYEVPL	84	DPR returned on 05/11 due to inadequate geological investigations at dam site, diversion tunnel, surge shaft & power house etc.	
3	Hutong –II	MEIPL	1200	The DPR was returned on 5.12 as the Project is now to be developed as storage Project. Hydrology & PPS cleared on 9.5.2011 & 27.3.2012.	
4	Kalai-I	MFIPL	1352	Returned on 05/12 and STC decided that M/S MFIPL should carry out the detailed investigation for the revised DPR as per CEA's letter dt 24.5.2012.	
5	Pemashelphu HEP	MHPL	90	Returned on 02/13 due to non-replying of the comments and likely change in location of Dams benefits from the project, DPR of project has been returned.	
6	Sissiri HEP [Sesseri]	SSHPL	100	Returned on 06/13 reason being DPR could not be accepted to detailed examination as representation of State Govt. pointed out that irrigation and drinking water component should be internal part of two project and cost of same should be included in cost of project. DPR returned to developer for sort out the issue with State Govt.	
7	Gimiliang	SKI Pvt. Ltd.	80	DPR returned on 06/13 during presentation meeting held on 03.5.2013 due to inadequate geological investigation. Developer was told to submit revised DPR after carrying out necessary investigation and IC got fixed by CEA.	
8	Raigam	SKI Pvt. Ltd.	141	DPR returned on 06/13 during presentation meeting held on 03.5.2013 due to inadequate geological investigation. Developer was told to submit revised DPR after carrying out necessary investigation and IC got fixed by CEA.	
9	Kangtangshiri	KHPPL	80	Returned on 29.07.2013 due to inadequate investigation and in proper layout etc.	
10	Demwe Upper	LUPL	1080	Returned on 03/15 as developer informed that due to lack of confidence in constructability of Dam considering its deep foundation, they are not in a position to finalize the type of dam and are still in consultation with the contractors in this regard. Hence the project was returned vide secretary CEA ltr. Dtd.26/03/2015	
11	Nyukcharong Chu	SNCPCL	96	Returned on 04/15 due to non-submission of investigation suggested by GSI.	
12	Subansiri Middle (Kamla)	KHEPCL	1800	Returned on 29.01.2018. All the partial clearances issued till date were rescinded as no progress has been made by the Developer towards resolving the issues reading with various	
13	Magochu	SMCPCL	96	Developer towards resolving the issues pending with various appraising groups.	
14	Tagurshit		74	Returned in 06/19.	
14	Total		6403		

## 5. H.E. Projects Under Survey & Investigation:

Sl. No.	Name of Project	Basin/River	Agency for DPR	Original I.C. (MW)	Date of MOA	Target date of Preparation of DPR
1	Oju [Oju-I + Oju-II]	Subansiri	Navayuga Engg. Co. Ltd.	1878	June'2010 for Oju-I & Oju-II, Revised MoU for Single Project is received in April'13	Dec-20
2	Pauk	Siang	Velcan Energy Pvt Ltd	145	30.06.2007 (rev MOA-31.07.09)	Dec-20
3	Pachuk-II	Kameng	Energy development Co. Ltd	61	27.08.2010	Sep-19
4	Tsa Chu - I Lower	Tawang	Energy development Co. Ltd	77	27.08.2010	Sep-19
5	Tsa Chu - II	Tawang	Energy development Co. Ltd	67	27.08.2010	Sep-19
6	Pachuk-II Lower [Kapak Leyak]	Kameng	Energy development Co. Ltd	51	27.8.2010	Sep-19
7	Marijingla	Kameng	Energy development Co. Ltd	39	12.1.2008 (Amended on 27.8.2010)	Sep-19
8	Marijingla Lower	Kameng	Energy development Co. Ltd	37	27.8.2010	Sep-19
9	Rego	Siang	Greenko Energies Ltd.	97	25.09.2012	-

## 5. H.E. Projects Under Survey & Investigation:

Sl. No.	Name of Project	Basin/River	Agency for DPR	Original I.C. (MW)	Date of MOA	Target date of Preparation of DPR
10	Rapum	Siang	Greenko Energies Ltd.	66	27.12.2007	-
11	Pango (Minniying)	Siang	Meenakshi Power Ltd.	96	27.08.2010	Jan-20
12	Sippi	Siang	Meenakshi Power Ltd.	96	20.7.2011	Nov-19
13	Jidu (Yangsang)	Siang	Meenakshi Power Ltd.	92	20.7.2011	Dec-19
14	Panyor	Dikrong	Rajratna Energy Holding Pvt. Ltd.	80	25.02.2009	Oct-19
15	Lower Yamne -I [Jaru]	Siang	Yamne Power Pvt. Ltd	75	29.11.2009	-
15	Total			2957		

#### Date of SI. I.C. Name of Project Allotment/ Agency Status (MW) No. MoA Issue of interference of levels with the Upstream project of M/s Vensar Energy Ltd, i.e Papu Valley HEP (45MW) requires to be resolved. Both Vensar constructions and CESC Ltd clarified 90 CESC Ltd. 16.05.2012 1 Papu that there is no overlapping at ground vide letter dtd 29/12/16. Re-survey and DPR submission was targetted to be completed in May 2019, which is still awaited. MoEF did not issue ToR due to proximity to Pakke Tiger Reserve. All possible alternative site(s), the said proximity of KSK Energy 420 25.01.2007 tiger reserve persists due to which the 2 Kameng Dam Ventures Ltd. project has been dropped. The Developer had already written for refund of upfront premium for surrendering the project. No proper approach road to the project Athena Energy site. No progress is shown till date. 275 02.02.2008 3 Emra-I Ventures Pvt. Intent to Terminate by GoAP under Ltd. process since 25/07/2018. First consultaion meeting held on Indus Hydro 4 Nalo 635 16.11.2010 27.11.2013. Intent to terminate under Power proocess since 19.03/2018 First consultation meeting held on 30.10.2013. No visible progress since 5 Rho 93 SEW Energy 2.3.2009 2015. Drift Work pending. Letter issued to the developer to resolve issues with CEA/CWC/GSI on 17/9/19. No activity/progress in the project. Local KVK Energy public are demanding to hand over the project to CPSU. Dikrong basin study & 26.12.2007 6 Dardu 60 Infrastructure not yet finalised. Intention to terminate Ltd. by GoAP is under process since 10/04/2018. S&I held up due to unapproachable area/difficult & inhospitable terrain & Abir local law & order problem. There is no 7 Naba 1000 Infrastructre 21.06.2010 activity in the project. 2nd show cause Pvt. Ltd. notice was issued by GoAP on 26/06/2015. S&I held up due to unapproachable area/difficult & inhospitable terrain & Coastal 552 Infrastructre 26.04.2011 local law & order problem. No activity in 8 Dengser Pvt. Ltd. the project. 1st show cause notice was

issued on 12/05/2015.

# 6. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:

#### Date of SI. I.C. Name of Project Allotment/ Agency Status (MW) No. MoA S&I held up due to unapproachable area/difficult & inhospitable terrain & Coastal local law & order problem. There is no 9 Niare 800 Infrastructre 26.04.2011 Activity in the project. 5th Show cause Pvt. Ltd. notice was issued by GoAP on 12/05/2015. First consultaion meeting held on Athena 30.07.2014. S&I held up. No progress is Anjaw 270 Energy 09.07.2007 shown by the Developer. The project will 10 Ventures Ltd. be considered for issuing of Intent to terminate. S&I held up. No road connectivity to project site. Local issues, communication problem. Facing local Athena problem. developer was asked to Emra-II 390 02.02.2009 11 Energy complete the drilling work by march Ventures Ltd. 2014. Till now no progress in Submission of DPR. Intent to Terminate under process since 25/07/2018. First consultation meeting held on 30.07.2014. S&I held up. Local S.S. Yamne Problems in Siang Valley. Problems of Yamne-I 111 Power Pvt 05.03.2009 law and order. Reply to final showcause 12 Ltd notice not submitted. Hence under process for termination since 18/05/2018. DPR preparation is in advanced stage of completion but not completed due to KSK Energy Dinchang 252 11.9.2007 various reasons. Project under process 13 Ventures Ltd for termination by GoAP since 13.03.2018. Non-operationalization of Hunli-Desali JVKIL road. Very slow progress, hence under 14 Ithun-I 84 29.8.2008 Consortium process for Intent to Terminate by GoAP since 19/07/2018 S&I held up due to lack of clarity on KSK Energy funding of Flood Moderation cost. Subansiri Upper 1800 18.03.2010 15 Ventures Ltd. Second show cause notice was issued on

26/06/2015.

# 6. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:

#### Date of SI. I.C. Name of Project Allotment/ Agency Status (MW) No. MoA S&I held up as the proposal for sanction of Pre-Investment expenditure is on hold. Meeting of Delegated Investment Kurung Board(DIB) for pre-investment approval [Kurung Dam - I + NEEPCO 27.01.2015 16 330 held on 18/01/2018 wherein Kurung Dam-II] Secy(Power), MoP expressed concern over some of the cluases of MoA between NEEPCO and GoAP S&I held up due to no activity/progress in the project. Due to poor progress an New Melling 90 SEW Energy 02.03.2009 17 intent to terminate is under process since 03/07/18 18 Chomi 80 Adveta Power 14.2.2013 MoA to be renewed. Adveta Power 14.2.2013 Chela 75 MoA to be renewed. 19 M/s Coastal projects Ltd (Developer of Para HE Project) are in the Resolution Coastal 20 Para 45 Projects Pvt. 19.11.2008 process under NCLT. DPR would be Ltd. prepared after resolution Process is completed. S&I is held up as there is in progress in Sai the S&I activities of project. ToR has not Tidding-I 84 Krishnodaya 26.02.2009 21 been obtained and there is no progress Ind. (P) Ltd. in geotechnical investiations. S&I is held up as there is in progress in Sai the S&I activities of project. ToR has not 75 26.02.2009 22 Tidding-II Krishnodaya been obtained and there is no progress Ind. (P) Ltd. in geotechnical investiations. 22 Total 7611

# 6. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:

7. Projects dropped due to basin studies:

SI. No.	Name of Project	I.C. (MW)	River	Basin	Remarks
1	Jarong	90	Siang	Brahmputra	It is recommended not to allot the project again as this wil ensure that 5.1 Km of Siyom river stretch between upstream Taiyong HEP and downstream Hirong HEP will remain a free flowing river stretch.
2	Hirit Korong	42	Siang	Brahmputra	Fish species like Mahseer(Tor putitora) migrates for
3	Soying Korong	48	Siang	Brahmputra	spawning and breeding. <i>Labeo pangusia</i> is another fish which prefers waters of Hirit river for spawning.All the projects in Hirit basin are in eco-sensititive zone i.e.
4	Siri Korong	58	Siang	Brahmputra	within 10 km radius of Yordi rabe Supse Wildlife sanctuary.
5	Sipit Upper	45	Siang	Brahmputra	Dropped due to biodiversity richness of the basin.
6	Gameng	37	Siang	Brahmputra	Sike flow is not sufficient to sustain a project and still have adequate environment flow through out the year.
7	Yemsing	38	Siang	Brahmputra	This is in biodiversity rich area and would be affecting 8.8 Km of the river length for 38 MW.
8	Tammu	55	Subansiri	Brahmputra	Doesn't meet the requirement of minimium e- flow.Dropping of this project will keep free flowing of Siu tributary of subansiri basin and provide lateral connectivity for aquatic fauna and conserve migratory fish species.
9	Nazong	60	Bichom	Brahmputra	Dropped to ensure free flow of natural river .
10	Hutong Stage-I	750	Lohit	Brahmputra	Dropped as it is at the elevation where both <i>Mahaseer</i> and <i>Snow Trout</i> are observed. The dropping of the project will provide the free stretch of 19.1 km for migration of both these species. The site is also not geologically stable
11	Kameng-I [Bharela Lift Dam - I]	1120	Kameng	Brahmputra	
12	Kameng-II [Bharela Lift Dam - II]	600	Kameng	Brahmputra	The project has been deleted from S&I Held up list as the project has been dropped as per Kameng Basin study report.
13	Pakke	110	Kameng	Brahmputra	
14	Seba	80	Kameng	Brahmputra	
15	Pasar	32	Kameng	Brahmputra	
16	Bichom St-I	190	Bichom/ Kameng	Brahmputra	
17	Bichom-II	205	Bichom/ Kameng	Brahmputra	
18	Malinye [Mulinye]	335	Dibang	Brahmputra	Falls within Dibang Wildlife Sanctuary.
19	Tsa Chu-I	43	Tawang	Brahmputra	
20	Thingbu Chu	60	Tawang	Brahmputra	
20	Total	3998			

#### 8. Projects stuck due to Inter-State/ Other Issues:

Sl. No.	Name of Project	I.C. (MW)	River	Date of CEA Concurrence	Remarks
1	Tato-II	700		22.05.2012	EC accorded on 27.6.2011. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF&CC. There is no need to change in IC but as per recommendations in BSR, FRL needs to be reduced for free flow stretch and hence there may be change in other parameters including shift in location of Dam/ Barrage etc.
2	Dibbin	120	Bichomchhu	04.12.09	EC accorded on 23.7.2012. FC-I accorded on 07.02.2012. FC-II yet to be obtained. Project is under consideration for transferr to State Govt./ NEEPCO. Installed capacity of the project is likely to be revised. Accordingly, DPR needs to be re-casted.
3	Siyom (Middle Siang)	1000	Siang	17.12.13	EC accorded 31.01.2008. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF&CC. There is no need to change in IC but as per recommendations in BSR, FRL needs to be reduced for free flow stretch and hence there may be change in other parameters including shift in location of Dam/ Barrage etc.
4	Nyamjang Chhu	780	Tawang	24.03.11	Government of Arunachal Pradesh (GoAP) issued the instant notice for termination on 22.03.2019 to Bhilwara Energy Limited/NIC Hydropower Limited invoking its right to takeover the project on "AS IS WHERE IS BASIS" and allotting the same to third party. BEL filed petition under section 9 of arbitration act for maintaining the status quo of the project in district court of Tawang in Itanagar. The matter was further taken to Gauhati High Court and is sub-judice in Gauhati High court.
4	Total	2600			

Sl.No.	Name of Project	River	Туре	I.C.(MW)	Remarks
1	Siang Upper St. I	Siang	S	6000	
2	Siang Upper St. II	Siang	S	3750	Issue of interference of levels with the Upstream project of M/s Vensar Energy Ltd, i.e Papu Valley HEP (45MW) requires to be resolved. Both Vensar constructions and CESC Ltd clarified that there is no overlapping at ground vide letter dtd 29/12/16. Re-survey and DPR submission was targetted to be completed in May 2019,which is still awaited.
3	Agoline	Dibang	R	235	
4	Elango	Ahi	R	180	
5	Rigong	Rigong	R	130	
6	Mirak	Sigong	R	160	
7	Hegio	Kurung	R	250	
8	Doimukh [Dudmukh Storage]	Dikrong	S	170	The project has been surrendered by developer to the State Govt.
9	Kimi	Bichom	R	535	
10	Chanda	Kameng	R	110	
11	Yapin	Yamne	R	95	
12	Pengging	Yamne	R	60	
13	Milli	Kurung	R	75	
14	Sape	Kurung	R	38	
15	Nyepin	Payam	R	32	
16	Hiya	Payam	R	41	
17	Kamla (Tamen)	Kamala	R	175	
18	Turu (Par)	Dikrong	R	65	
19	Yazali Storage	Ranga	S	95	
20	Tago-I	Yarjap	R	55	
21	Tenga	Tenga	S	275	

### 9. H. E. Projects yet to be allotted by the State for development

Sl.No.	Name of Project	River	Туре	I.C.(MW)	Remarks
22	Rebby	Kameng	R	30	
23	Satuk	Pachuk	R	47	
24	Lachung	Pachi	R	41	
25	Phanchung	Pachi	R	90	
26	Utung	Bichom	R	110	
27	Khuitam	Digen	R	29	
28	But	Digen	R	26	
29	Mathithing	Digen	R	40	
30	Pichang	Kuru	S	31	
31	Tarang Warang	Pacha	R	65	
32	Sepla	Pacha	R	46	
33	Yangman Storage	Burhi Dihing	S	60	
34	Tirap (Tipang)	Tirap	S	80	
35	Jameri	Tenga	R	60	State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to KSK Energy Ventures
36	Meyong	Timkong Rong	R	38	State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Patel Engineering Ltd.
37	Gongri	Gongri	R	144	State Govt. terminated the agreement with developer for execution of Gongri project which was earlier allotted to Patel Engineering Ltd. from under construction stage.
38	Talong	Kameng	S	150	
39	Badao	Kameng	R	66	State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Coastal Projects Pvt. Ltd.
40	Amulin	Mathun	R	420	State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Reliance Power Ltd.
41	Emini	Mathun	R	500	State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Reliance Power Ltd.
42	Mihumdon	Dri	R	400	State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Reliance Power Ltd.
42	Total	42 Nos. of	Projects	14999	

9. H. E. Projects yet to be allotted by the State for development

Note: R – Run of the River & S- Storage

#### Hydro Power Development in Assam

			Nos.	Capacity (MW)
	l Hydro Power Pot ctric Projects (Project	9	650	
I	Projects in operation	1	3	350
II	Projects allotted by	States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	1	120
	(ii)	Projects returned to project authorities	1	60
III	Projects yet to be al	lotted by the State for development *	5	185

#### Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition, etc.

#### 1. Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
1	Dilli Stor.	Disang	33
2	Jamuna Dam P/H	Jamuna	28
3	Diyung Dam P/H	Diyung	47
4	Langey	Borpani	37
5	Khondong [Kopili I]	Kopili	50
6	Kopili [Kopili II]	Kopili	265
7	Karbi Langpi [Lower Borpani]	Borpani	90
8	Amring	Amring	40
9	Karbi Langpi [Upper Borpani]	Borpani	60
9		TOTAL	650

S.No	UTILITY/ STATIONS	NO. OF STATIONS	No. of Units	NO. OF UNITS X CAPACITY (MW)	RIVER/ BASIN*	DISTRICT	CAPACITY (MW)	YEAR OF COMMISSIONING
	NEEPCO							
1	KOPILI [Kopili-II]	1	4	(4X50)	KOPILI	DIMA HASAO	200	1988
2	KHONDONG [Kopili-I]	1	2	(2X25)	KOPILI	DIMA HASAO	50	1984
	SUB-TOTAL NEEPCO	2	6				250	
	APGCL							
3	KARBI LANGPI [Lower Borpani]	1	2	(2X50)	BORPANI	KARBI ANGLONG	100	2007
	SUB-TOTAL APGCL	1	2				100	
3	TOTAL ASSAM	3	8				350	

\* All projects are in Brahamputra Basin

#### 3. H.E. Projects Cleared/Appraised by CEA:

Sl No.	Name of Project	Agency	District	River / Basin*	I.C.(MW)	Date of CEA Concurrence	Status
1	Lower Kopili	APGCL	Karbi Anglong & Dima Hasao	Kopili / Brahamputra	120	24.05.2016	EC accorded on 4.09.2019. FC-I accorded on: 05.02.2019. FC-II: Pending. Catchment Area Treatment Plan is yet to be finalized for FC-II.
1	Total				120		

Sl. No	Name of Project	Agency	I.C. (MW)	Month of Return/Reason of Return
1	Karbi Langpi (Upper Borpani)	ASEB	60	Returned on 12/08 due to involvement of interstate aspects with Meghalaya, updated hydrology not been utilized for carrying out power potential study, cost estimates not framed at current PL and inadequate geological investigations etc.
1	Total		60	

## 4. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:

## 5. H. E. Projects yet to be allotted by the State for development

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Dilli Stor.	Disang	S	33
2	Jamuna Dam P/H	Jamuna S		28
3	Diyung Dam P/H	Diyung	S	47
4	Langey	Borpani R		37
5	Amring	Amring S		40
5	Total	5 Nos. of Projects		185

Note: R - Run of the River & S- Storage

			Nos.	Capacity (MW)
Study	•	Power Potential as per Reassessment Hydroelectric Projects (Projects having IW)	15	1761
I	Projects i	n operation	1	105
п	Projects a	illotted by States for development		
	(i)	Projects cleared by CEA and yet to be taken up for construction	1	66
III	Projects d reasons	Iropped due to Basin studies/ Other	1	1500
IV	Projects y developm	ret to be allotted by the State for ent*	12	936

## Identified Hydro Power Potential and its status of Development:

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

Sl.No.	Name of Project	River	I. C. (MW)
1	Laniye-II	Laniye	27
2	Laniye-I	Laniye	34
3	Khongnem Chakha-II	Barak	90
4	Khongnem Chakha-III	Barak	48
5	Nungnag (Nungnang)	Irang	70
6	Nunglieban (Nungliban)	Leimatek	85
7	Khunou	Leimatek	115
8	Thinghat	Tuivai	41
9	Sinjal	Tuivai	39
10	Bungpuilong	Tuivai	80
11	Tipaimukh	Barak	510
12	Irang	Irang	75
13	Pabaram (Pabaram Stor.)	Barak	232
14	Loktak	Loktak	105
15	Tuivai*	Tuivai	210
15	T	1761	

## 1. Identified Projects during Reassessment study:

\*Tuivai is being developed in Mizoram

Sl.No.	Name of Project	Agency	I. C. (MW)	River/Basin	District	Year of Commissioning
NHPC						
1	Loktak	NHPC	105	Loktak Lake/ Brahmputra	Churacha ndpur	1983
1	Total		105			

### 3. H.E. Projects cleared by CEA:

Sl No	Name of Project	Agency	River/ Basin	District	I.C. (MW)	Date of concurrence	Status
1	Loktak D/S	LDHCL	Leimatak/ Brahmputra	Tamenglong	66	4.11.2016 (concurrence	EC accorded on 16.01.2013. FC-I accorded on 03.03.2011 & FC-II accorded on 22.12.2014. Govt. of Manipur vide letter dated 06.08.2020 has conveyed the approval of State Cabinet to the draft Power Purchase Agreement (PPA) with certain conditions, which inter alia included that the condition of equity share of the state to be only 40% (in place of 26% indicated in the MoU signed between NHPC Ltd and Govt. of Manipur in Sept,2007) and Grant of Rs. 400 crore to be borne by the Govt. of Manipur out of which Rs. 99 crore to be released by Ministry of Power, Govt. of India as per related guidelines of the Ministry of Power dated 08.03.2019 and other additional funding from other sources. PPA to purchase entire power to be generated from Loktak Downstream Project has been signed on 31.08.2020 between LDHCL and Govt. of Manipur. Further, Govt. of Manipur vide letter dated 22.09.2020 has conveyed the approval of State Cabinet as decided in its meeting held on 06.08.2020 Land acquisition is yet to start.
1	Total				66		

#### 4. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Name of Project	I.C. (MW)	River	Basin	Remarks
1	Tipaimukh	1500	Barak	Brahmaputra	MoEF&CC vide 29.08.2013 has declined diversion of 22777.50 ha to forest land falling in Manipur and vide letter dated 26.09.2013 has rejected diversion of 1551.30 ha of forest land falling in Mizoram for the project. <b>Project likely to be dropped.</b>
1	Total	1500			

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Laniye-II	Laniye	R	27
2	Laniye-I	Laniye	S	34
3	Khongnem Chakha-II	Barak	S	90
4	Khongnem Chakha-III	Barak	R	48
5	Nungnag (Nungnang)	Irang	S	70
6	Nunglieban (Nungliban)	Leimatek	S	85
7	Khunou	Leimatek	R	115
8	Thinghat	Tuivai	S	41
9	Sinjal	Tuivai	S	39
10	Bungpuilong	Tuivai	S	80
11	Irang	Irang	S	75
12	Pabaram (Pabaram Stor.)	Barak	S	232
12	Total	12 Nos. of Projects		936

### 5. H. E. Projects yet to be allotted by the State for development

Note: R – Run of the River & S- Storage

## Hydro Power Development in Meghalaya

Identified Hydro Power Potential as per reassessment Study:

			Nos.	Capacity (MW)
froi	n Larg	Hydro Power Potential as per Reassessment Study ge Hydroelectric Projects naving capacity above 25 MW)	25	2298
I	Proje	ects in operation	5	322
II	I Projects allotted by States for development			
	(i)	Projects cleared by CEA and yet to be taken up for construction	1	270
	( <b>ii</b> )	Projects under Examination in CEA	1	85
	(iii)	Projects under S&I	1	210
	(iv)	Projects allotted for development on which S&I is held up/ yet to be taken up	2	620
III	III Projects dropped due to Basin studies/ Other reasons		1	210
IV	Projects yet to be allotted by the State for development*		18	1312

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition, etc.

Sl.No.	Name of Project	River	I. C. (MW)
1	Umlamphang	Umiam	28
2	Kyrdamkulai (Umiam Umtru-III)	Umiam	41
3	Umiam Umtru-IV	Umiam	38
4	Umiam Umtru-V	Umiam	27
5	Umiam Umtru-VI	Umiam	145
6	Simsang Dam P.H.	Someshri	65
7	Kynshi-I (Kynshi-I Stor.)	Kynshi	295
8	Sushen	Myntdu	150
9	Selim	Myntdu	125
10	Umjaut	Umjaut	85
11	Umduna (Umduma)	Umtrew	95
12	Mawhu (Manhu)	Umtru	90
13	Umiew (Mawphu- II) [Nonglyngkien]	Umtru	47
14	Umngi Stage-I (Umngi Storage)	Umngi	35
15	Rangmaw	Umngi	42
16	Nongkolait	Umngi	180
17	Nongnam	Umngi	36
18	Mawpat	Umngi	55
19	Kynshi-II	Umrilang	175
20	Nangmawlar (Nongmawlar)	Kynshi	29
21	Mawsyrpat	Kynshi	45
22	Mawthaba	Kynshi	70
23	Mawblei Storage	Kynshi	100
24	Amagam Storage	Rongdi	35
25	Umanghot (Umngot Stor.)	Umngot	265
25	TOTAL	2298	

# 1. Identified Projects during Reassessment study

#### 2. H.E. Projects in Operation:

S. No.	Utility/Stations	No. of Stns.	No. of units x Capacity (MW)	River / Basin*	District	I.C. (MW)	Year of commissioning		
	MePGCL	MePGCL							
1	KYRDEMKULAI [Umiam Umtru-III]	1	(2X30)	Tail water of Umiam stage-II & Umtru river	RI-BHOI	60	1979		
2	UMIAM ST-I	1	(4X9)	UMIAM	RI-BHOI	36	1965		
3	NEW UMTRU	1	(2X20)	UMTRU	RI-BHOI	40	2017		
4	UMIAM ST-IV	1	(2X30)	Tail water of Stage-III PH & own catchment	RI-BHOI	60	1992		
5	MYNTDU ST-I	1	(3X42)	MYNTDU	JAINTIA HILLS	126	2012		
5	TOTAL MePGCL	5				322			

\* All projects are in Brahamputra Basin

#### 3. H.E. Projects Cleared/Appraised by CEA:

Sl No.	Name of Project	Agency	District	River / Basin	I.C. (MW)	Date of CEA Concurrence	Status
1	Kynshi-I [Kynshi-I Stor.]	AKPPL	West Kashi Hills	Kynshi / Brahamputra	270	31.3.2015	EC: Pending. EIA/EMP studies are under process. FC-I & FC-II: Pending.
1	Total				270		•

#### 4. H.E. Projects Under Examination/Scrutiny in CEA:

Sl. No.	Name of Project	Agency	I.C. (MW)	Month of receipt
1	Wah Umiam Satge-III (Mawphu Stage-II)	Umiew (Mawphu StII)	85	8/8/2017
1	Total		85	

#### 5. Projects dropped due to Basin studies/ Other reasons:

Sl. No.	Name of Project	Agency	I.C. (MW)	Month of Return
1	Umangot HEP [Umngot Stor.]	MePGCL	210	Jan-18
1	Total		210	

Sl. No.	Name of Project	Basin /River	Agency	I.C. (MW)	Date of MOA	Target date of Preparation of DPR
1	Myntdu Leshka st-II	Myntdu	MePGCL	210	20.4.12	Dec-20
1	Total			210		

## 6. H.E. Projects Under Survey & Investigation:

### 7. H.E. Projects allotted for development on which Survey & Investigation is held up/yet to be taken up:

Sl. No.	Name of Project	I. C.(MW)	Agency	Date of Allotment/ MoA	Status
1	Kynshi-II	450	GoMe & Jaiprakash Power Venture Ltd. (JV)	11.12.2007	S&I held up on account of non-finalisation of dam location/height due to deposit of Uranium. I.C. revised to 325 MW. GoMe informed vide their letter dated 28.11.2019 that project has been kept in abeyance since 2012 due to presence of Uranium deposits within the Dam & Reservoir areas of the project.
2	Selim	170	MePGCL	2008	First Consultation meeting held on 28.05.2014. STC has given clearance for conversion from Storage to Run-of-River Scheme in its 10th meeting held on 11.06.2015. The installed capacity is revised to 80 MW. CWC has furnished comments on Hydrologic Studies on 07.06.2019. S&I held up due to irregular allocation/release of funds, the hostile terrain, non and non-availability of geologists from GSI, India. MePGCL vide their letter dated 01.11.2019 informed that installed capacity is likely to be 60 MW.
2	Total	620			

Sl.No.	Name of Project	River	Туре	I.C. (MW)
1	Umlamphang	Umiam	R	28
2	Umiam Umtru-V	Umiam	R	27
3	Umiam Umtru-VI	Umiam	S	145
4	Simsang Dam P.H.	Someshri	S	65
5	Sushen	Myntdu	R	150
6	Umjaut	Umjaut	R	85
7	Umduna (Umduma)	Umtrew	R	95
8	Mawhu (Manhu)	Umtru	R	90
9	Umngi Stage-I (Umngi Storage)	Umngi	S	35
10	Rangmaw	Umngi	R	42
11	Nongkolait	Umngi	R	180
12	Nongnam	Umngi	R	36
13	Mawpat	Umngi	R	55
14	Nangmawlar (Nongmawlar)	Kynshi	R	29
15	Mawsyrpat	Kynshi	R	45
16	Mawthaba	Kynshi	S	70
17	Mawblei Storage	Kynshi	S	100
18	Amagam Storage	Rongdi	S	35
18	Total	18 Nos. of Projects		1312

### 8. H. E. Projects yet to be allotted by the State for development

Note: R – Run of the River & S- Storage

## Hydro Power Development in Mizoram

### Identified Hydro Power Potential and its status of Development:

S.No		Nos.	Capacity (MW)
Projects	l Hydro Power Potential as per nent Study from Large Hydroelectric having capacity above 25 MW)	7	2131
Ι	Projects in operation	1	60
П	Projects dropped due to Basin studies/ Other reasons	1	460
ш	H. E. Projects yet to be allotted by the State for development*	6	2076

\*The numbers and capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition, etc.

### 1. Identified Projects during reassessment study.

S. No.	Name of Project	River	I.C. (MW)
1	Lungleng (Lunglang Stor.)	Туао	690
2	Boinu (Boinu Stor.)	Kaldan	635
3	Mat	Mat	90
4	Tuirial [Sonai]	Sonai	55
5	Deh	Deh	26
6	Bhairabi	Dhaleshwari	90
7	Kaldan (Kaldan Stor.)	Kaldan	545
7	TOTAL		2131

#### 1. H.E. Projects in Operation:

S. No.	Utility/Stations	No. of stns.	No. of units x Capacity (MW)	River / Basin*	District	I.C. (MW)	Year of commissioning
	NEEPCO						
1	TUIRIAL [Sonai]	1	(2X30)	TUIRIAL/ BRAHAMPUTRA	KOLASIB	60	2017
1	TOTAL MIZORAM	1				60	

Note: Tuivai scheme (210 MW) was identified in Manipur during the reassessment study. The scheme was concurred by CEA during 1999. The scheme is yet to be taken up under construction.

#### 2. H.E. Projects dropped due to Basin studies/ Other reasons

Sl. No.	Name of Scheme	I.C. (MW)	River	Basin	Remarks
1	Kolodyne St-II	460	Kolodyne	Brahmaputra	Forest proposal submitted to State Govt. on 20.12.2010. The project is likely to be drooped due to high tariff.
1	Total	460			

#### 3. H. E. Projects yet to be allotted by the State for development

Sl.No.	Name of Project	River	Туре	I.C.(MW)
1	Lungleng (Lunglang Stor.)	Туао	S	690
2	Boinu (Boinu Stor.)	Kaldan	S	635
3	Kaldan (Kaldan Stor.)	Kaldan	S	545
4	Bhairabi	Dhaleshwari	S	90
5	Mat	Mat	S	90
6	Deh	Deh S		26
6	Total	6 Nos. of	Projects	2076

Note: S- Storage

# Hydro Power Development in Nagaland

			Nos.	Capacity (MW)
	nent Study	Power Potential as per from Large Hydroelectric ving capacity above 25 MW)		1452
I	Capacity in operation 1 75			75
п	Projects developm	allotted by States for ent		
	(i)	Projects cleared by CEA and yet to be taken up for construction		186
ш	-	ects yet to be allotted by the levelopment*	9	1272

## Identified Hydro Power Potential and its status of Development:

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects.

# **1.** Identified Projects during Reassessment study:

Sl.No.	Name of Project	River	I. C. (MW)
1	Dikhu (Dikhu Lift Dam)	Dikhu	125
2	Yangnyu (Yangnyu Stor.)	Dikhu	135
3	Jhanji storage	Jhanji	75
4	Doyang (Doyang-V)	Doyang	55
5	Dikhu Dam P.H.	chu Dam P.H. Dikhu	
6	Sakhai-II	akhai-II Tizu	
7	Khuzami	Tizu	32
8	Rurrur	Zangki	36
9	Zungki	Zangki	48
10	Laruri Tizu		80
11	Tizu	Tizu	365
11	TOTAL		1452

#### 2. H.E. Projects in Operation:

S. No.	Utility/Stations	No. of Stns.	No. of units x Capacity (MW)	River / Basin	District	I.C.(MW)	Year of commissioning
	NEEPCO						
1	DOYANG (Doyang-V)	1	(3X25)	DOYANG / Brahamputra	WOKHA	75	2000
1	TOTAL NAGALAND	1				75	

#### 3. H.E. Projects Cleared/Appraised by CEA:

SI No.	Name of Project	Agency	District	River / Basin	I.C. (MW)	Date of CEA Concurrence	Status
1	Dikhu (Dikhu Lift Dam)	NMPPL	Longleng	Dikhu and Yangnyu / Brahamputra	186	31.03.2014	EC yet to be obtained by developer. FC not applicable as forest land is not involved. EIA/EMP studies are in progress and are likely to be completed soon. Consent of PPA as per CERC Tariff is obtained. Govt. of Nagaland has forwarded PPA tariff calculations for the approval of Nagaland Regulatory Commission.
1	Total				186		

4.	H. E. Projects yet to be allotted by the State for development	
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Sl.No.	Name of Scheme	River	Туре	I.C.(MW)
1	Yangnyu (Yangnyu Stor.)	Dikhu	S	135
2	Jhanji storage	Jhanji	S	75
3	Sakhai-II	Tizu	R	31
4	Khuzami	Tizu	S	32
5	Rurrur	Zangki	S	36
6	Zungki	Zangki	S	48
7	Laruri	Tizu	R	80
8	Tizu	Tizu	S	365
9	Dikhu Dam P.H.	Dikhu R		470
9	Total	9 Nos. of Projects		1272

Note: R – Run of the River & S- Storage

## Hydro Power Development in Tripura

### Identified Hydro Power Potential and its status of Development:

No Large Hydroelectric Project has been identified in the Tripura State. However, a small Hydel power station in south Tripura named Gumti Hydel project having only 3x5 MW capacities. The details are as under:

Name of Project	Unit	Installed Capacity (MW)	Year of Installation	Phase
	Unit-I	5.00 MW	1976	Phase I
Gumti H.E. Project	Unit-II	5.00 MW	1976	
	Unit-III	5.00 MW	1984	Phase II