Agenda for discussions in the 44th meeting of the STU Coordination Committee to be held under the chairmanship of Addl. Chief Secretary (MPP & Power)

1.2. Progress Review of Transmission Projects being built by HPPTCL with Financial assistance by ADB and KfW in Different river basins: -

Progress review of Transmission Projects being built by HPPTCL with financial assistance by ADB, KfW and Domestic funding agencies:

Sr. No.	Name of Transmission Project/Distt	Implementing Agency/ Source of funding	Upcoming generation based on connectivity/LTA application received	Target COD as committed in 43rd STU meeting on 16.6.2016	Revised COD	Reasons for slippage
A	SATLUJ BASIN					
1	22/66/220 kV, (22/66 kV, 2x10 MVA+66/220 kV, 31.5 MVA) Pooling station at Bhoktoo +LILO of one circuit of 220 kV Kashang-Bhaba Line/ Kinnaur	HPPTCL/ ADB_Tr-I	1. Shyang (3 MW)-Completed 2. Tangling (5 MW)-Completed 3. Shaung (interim) (3 MW)--completed 4 Brua (Interim) (9 MW) - Completed 6. Tidong-I (100 MW) 7. Kashang (3x65 MW)- 100 MW commisssioned	September, 2016	December, 2016	
2.	220 kV Kashang-	HPPTCL/ Domestic		Completed on		

	Bhaba D/C Line/ Kinnaur			31.5.2016		
3.	66 kV GIS Switching station at Urni (Revised Time Line- January, 2016/ Kinnaur	HPPTCL/ ADB_Tr-II	8. Raura (12 MW)- Original application indicated COD as **31.1.2017 Revised COD to be given by Developer**	31.8. 2017		
			9. Shaung (final) (3 MW)--completed			
			10 Brua (final) (9 MW) - Completed			
4.	66 kV Urni-Wangtoo D/C Line / Kinnaur	HPPTCL/ ADB_Tr-II		June 2018		
5.	66/220 kV, 2x80/100 MVA+220/400 kV, 2x315 MVA P.S at Wangtoo+ LILO of both circuits of 220 kV and 400 kV Lines/ Kinnaur	HPPTCL/ ADB_Tr-I	11. Rala (13 MW)- as per LTA application indicated COD as **1.9.2017**	220 kV portion Dec 2017		
6	66/22 kV GIS sub station at Nirmand/ Kullu	HPPTCL/ ADB_Tr-III	No connectivity/LTA application received	Dec 2018		
7	66 kV Nirmand-Kotla D.C line	HPPTCL/ ADB_Tr-III		Oct 2018		
B	PABBAR BASIN					
1	22/132 kV sub station in/close to the yard of Tangnu Romai-I (44 MW) HEP	HPPTCL/ (KfW)	1. Tangnu Romai-I (44 MW)- Original application indicated COD as **30.6 2014. Revised COD to be given by Dev. Of project**	Oct 2018		

2	132 kV D/C line from Tangnu Romai HEP to 132/220 kV Sunda sub station	HPPTCL/ (KfW)	2. Tangnu Romai-II (6 MW)- Original application indicated COD as **30.6 2012. Project commissioned and is evacuating power through HPSEBL system as Interim measures.**	Aug 2018		
3	33/132 kV, 31.5 MVA sub station near Rupin HEP	HPPTCL/ (KfW)	3. Rupin (45 MW)- Original application indicated COD as **30.9.2018.**	Oct 2018		
4	132 kV Rupin – Sunda D/C line	HPPTCL/ (KfW)		Aug 2018		
5	66/220 kV, 80/100 MVA sub station at Sunda sub station with LILO of 66 kV Samoli-Andhra line	HPPTCL/ (KfW)		May 2018		
6	132/220 kV, 2x100 MVA sub station at Sunda	HPPTCL/ ADB_Tr-II	4. Dhamwari Sunda (70 MW)- Original application indicated COD as **30.6 2012. No progress**	May 2018		
7	220 kV Sunda-Hatkoti D/C line	HPPTCL/ ADB_Tr-II		Dec 2017		
7 (a)	220 kV Switching station at Hatkoti	HPPTCL/ ADB_Tr-III	5. Paudital Lassa (24 MW)- Original application indicated COD as **31.3 2015.. Revised COD to be given by Dev. Of project**	March 2018		

8	220 kV Snail-Hatkoti D.C line	HPPTCL/ (KfW)	6. Sawra-Kuddu (111 MW)- Original application indicated COD as **Dec, 2012.** **Revised COD to be given by HPPCL**.	Dec 2017		
9	220 kV D/C High Capacity Line from Hatkoti to 220/400 kV P.S near Pragati Nagar	HPPTCL/ Tr-I		30.6.2017		
10	220/400 kV, 315 MVA P.S near Pragati Nagar+ LILO of both circuits of 400 kV Jhakri-Abdullapur D/C Line	HPPTCL/ ADB_Tr-I		Aug 2017		
11	Addl. 220/400 kV, 315 MVA GIS Transformer at Gumma	HPPTCL/ (KfW)		Dec 2017		
C	**BEAS BASIN**					
1	Construction of 33/220 kV GIS Sub Station at Phojal in Naggar Valley / Kullu	HPPTCL/ (REC)	1. Baragaon (24 MW)- project completed and evacuating partial power through 33 kV system of HPSEBL 2. Kesta (3 MW)- Original application	Commissioned on 7.6.2016		

			indicated COD as **March 2016.** 3. Baloot fozal- Original application indicated COD as **Dec, 2018.** 4.Fozal (rev. capacity-16 MW)			
2	220 kV line from Phojal to LILO point/ Kullu	HPPTCL/ (REC)		Commissioned on 7.6.2016		
3	33/132 kV GIS SS at Barsaini/ Kullu	HPPTCL/ ADB_Tr-III	Balarga (9 MW)- Original application indicated COD as **31.10, 2013.**	March 2019		
4	132 kV Barsaini-Charor D/C line/ Kullu	HPPTCL/ ADB_Tr-III		Dec 2018		
5	132/220 kV, 100 MVA GIS SS at Charor/ Kullu	HPPTCL/ ADB_Tr-II		May 2018		Local contractors Vs outsiders
6	220 kV Charor-Banala D/C line/ Kullu	HPPTCL/ ADB_Tr-II		June 2017		
7	33132 kV, 31.5 MVA GIS SS at Pandoh/ Mandi	HPPTCL/ ADB_Tr-I		June 2017		
8	132/220 kV, 2x100 MVA GIS SS at Patti/ Kangra	HPPTCL/ KfW		Oct 2018		

9	220 kV Patti-Hamirpur (PG) D.C line	HPPTCL/ KfW		Oct 2018		
10	33/132 kV, 2x31.5 MVA GIS SS at Chambi/ Kangra	HPPTCL/ ADB_Tr-I	44 MW of small HEPs which can not be evacuated through existing HPSEBL system	Aug 2018		
11	LILO of 132 kV Dehra-Kangra line at Chambi	HPPTCL/ ADB_Tr-II		July 2018		
12	Addl. 33/132 kV, 31.5 MVA transformer at Pandoh/ Mandi	HPPTCL/ KfW		Aug 2018		
13	Addl 33/220 kV, 100 MVA transformer at Charor	HPPTCL/ KfW		Aug 2018		
14	33 kV Switching station at Palchan	HPPTCL/KfW		Dec, 2018		
15	33 kV D/C line from Palchan to 33/220 kV sub station in the yard of Allain Dhuangan HEP	HPPTCL/KfW		Oct, 2018		
16	33/220 kV, 31.5 MVA sub station in the yard of Allain Dhuangan HEP	REC		May, 2017		
HPSEBL WORKS						

14	33 Kv Baner-Drang-Kangra line/ Kamgra	HPSEBL	System strengthening	31.3.2017		
15	33 kV Maranda-Nagrota-Kangra line/ Kamgra	HPSEBL	----do---	31.3.2017		
16	33 kV Baner-Sidhpur-Kangra line/ Kamgra	HPSEBL		31.12.2016		
17	33 kV Baijnath-Bassi line/ Kangra	HPSEBL		31.3.2017		
D	**RAVI BASIN**					
1	33/220 kV, 50/63 MVA GIS sub station at Karian / Chamba	HPPTCL/ REC	Kurtha-5 MW- Belij-5 MW Balij Ka Nalla-3.5 MW Dunali-5 MW	Commissioned on 33 kV level		
2	220 kV S/C line on D/C towers between Karian and 400/220 kV Chamera pooling station (PG)/ Chamba	HPPTCL/ REC	All the projects have been commissioned and partial evacuation is being done through HPSEBL existing 33 kV lines	March, 2017		
3	33/220/400 kV GIS SS at Lahal/ Chamba	HPPTCL/ ADB_Tr-II	Bajoli Holi (180 MW) Original application indicated COD as **June, 2018..** **Ketehr-240 MW-** Original application indicated COD as **August, 2017.** **Revised COD to be given by Dev. Of project** **Holi-II (7 MW)-** Original application indicated COD as **April, 2016.**	220 kV-31.10.2017 400 kV-30.6.2018		

			Revised COD to be given by Dev. Of project Kiunr (5 MW)- Original application indicated COD as **July, 2015** **Revised COD to be given by Dev. Of project Dera (5 MW)-** Original application indicated COD as **30.4. 2017** **Tulang , Kurhed and Chirchind (5 MW) have been commissioned and partial evacuation is being done through existing 33 kV lines of HPSEBL**			
4	220 kV S/C line on D/C towers between Lahal and Budhil HEP/ Chamba	HPPTCL/ ADB_Tr-II		March 2017		
5	220 kV D/C line from Bajoli Holi to Lahal/ Chamba	HPPTCL/ ADB_Tr-III		Aug 2018		
6	400 kV D/C line from Lahal to 400/220 kV Chamera P.S (PG)/ Chamba	HPPTCL/ ADB_Tr-III		March 2019		
7	66/220 kV GIS SS at Heling with LILO of one circuit of 220 kV Bajoli Holi-Lahal D/C	HPPTCL/ KfW	Kuwarsi-II (15 MW) Salun (9 MW) Chate Ka Nalla (9 MW) Toral Kundli (18 MW) –application	Oct 2018		

	line		received for a total of 51 MW- COD as per application is 28.2.2017			
8	132/220 kV GIS sub station at Mazra / Chamba	HPPTCL/ ADB_Tr-III	Chanju_I (36 MW) - commissioned Deonthal Chanju (18 MW) Chanju-III (33 MW)-COD_31.12.2020	Dec 2018		
9	220 kV Mazra-Karian D/C line	HPPTCL/ ADB_Tr-III		Nov 2018		
10	33 kV Holi-Gharola D/c line	HPSEBL	System Strengthening	31.3.2017		
11	33 kV Bharmour-Gharola D/C line	HPSEBL	------do----	31.7.2016		

3. <u>Construction of 132 kV dedicated line for evacuation of power of Chanju-III (48 MW) and Deonthal Chanju (30 MW) HEPs of HPPCL by HPPTCL</u>:

Chanju-III and Deonthal Chanju HEPs are under implementation by HPPCL and power of these projects shall be evacuated through 132 kV dedicated line up to Chanju-I (36 MW) HEP and further in joint mode up to 132/220 kV sub station of HPPTCL planned at Majra. Upon request by HPPCL, HPPTCL has undertaken the survey of 132 kV dedicated line of these projects. In addition, Chanju-II (19.8 MW) HEP, down stream of Chanju-III HEP shall also be evacuated through

this joint transmission system. For evacuation of Chanju-II HEP, 132/220 kV Mazra sub station and 220 kV Mazra-Karian line shall be required which are proposed under Tranche-III of ADB loan. This arrangement can cater to evacuation of about 160 MW of power in Churah valley. However, in the ultimate scenario, when the entire potential of Churah valley is exploited, another 132 kV D/C line from Chanju-I to Mazra shall be required. Developer of Chanju-II HEP has requested HPPTCL to undertake the construction of 132 kV Chanju-I-Mazra D/C line on deposit work basis.

Committee may deliberate on construction of dedicated lines of generators.

4. Kiunr SHEP (5 MW) in Bharmour valley is likely to be commissioned in March, 2017 and has been granted connectivity at 33/220/400 kV Lahal sub station of HPPTCL which is under construction and the minimum system i.e. 33/220 kV portion of the sub station can not be commissioned can not be commissioned before December, 2017. Until then, 33 kV existing/under construction lines of HPSEBL have to be utilized for evacuation of power.

   For deliberations of the Committee.

5. <u>Construction of 33/132 kV sub station at Banjal and 132 kV Banjal-Kurthala D/C line:</u>

   About 81 MW of potential is available in Banjal area of Churah valley. For evacuation of this potential through 33 kV lines up to 33/132 kV Kurthala sub station, about 6 Nos. 33 kV corridors (considering N-1) shall be consumed and another 100 MVA additional transformer capacity shall have to be created at Kurthala sub station. Taking in to account these factors, HPPTCL

has planned a 33/132 kV sub station at Banjal and 132 kV D/C line from Banjal to Kurthala. All the projects of IPPs and HPSEBL shall their power at Banjal at 33 kV level and the pooled power shall be evacuated through 132 kV D/C line up to Kurthala.

Committee may deliberate.

6. Agenda items submitted by HPSEBL for deliberations of the Committee:

   a. LILO of existing 132 kV Dehan-Bassi S/C line at 132/220 kV sub station of HPPTCL planned at Patti in Distt. Kangra.
   b. Construction of 220 kV D/C transmission line from Kangoo to Hamirpur 400/220 kV sub station of PGCIL in Distt. Hamirpur.
   c. LILO of under construction 220 kV Charor-Banala D/C line of HPPTCL at Bajaura sub station of HPSEBL in Distt. Kullu by upgrading it to 220 kV level.
   d. Installation of 220/66 kV, 25/31.5 MVA power transformer at under construction 400/220 kV Pragatinagar sub station of HPPTCL along with 66 kV D/C line up to 66 kV Hulli sub station of HPSEBL in Distt. Shimla.
   e. Installation of additional 220/132 kV power transformer at 220/132 kV Kangoo sub station and drawal of additional power from Dehar power house along with 2nd 220 kV circuit from Dehar P/H to Kangoo sub station and strengthening of the bus bar.
   f. Construction of 66 kV D/C line from 220/66 kV Sunda sub station of HPPTCL to 66 kV Andhra sub station of HPSEBL.
   g. Connectivity to upcoming EHV sub stations of HPPTCL namely Bhoktoo, Karian, Lahal and Heiling for the smooth evacuation of power from IPPs in summer months and drawal of power in the winter months.

7. <u>Evacuation constraints at Kotla sub station of HPSEBL</u>:

- Severe constraints are being faced in evacuation of power of Small HEPs at Kotla sub station due to pending augmentation of 2nd 66/220 kV, 31.5 MVA transformer to 80/100 MVA. HPSEBL may apprise the Committee about the status of augmentation of the transformer and its completion date.
- Transmission constraints are also being experienced in evacuation of power of Small HEPs on 66 kV Ghanvi-Kotla line. HPSEBL has planned to augment this line by replacing the existing conductor by HTLS conductor. HPSEBL may apprise the committee about the status of augmentation of the line and its completion date.

7. <u>Sub stations and Transmission Lines under implementation by HPPTCL with out receipt of connectivity requests</u>:

HPPTCL has undertaken implementation of following transmission projects of the Power System Master Plan but for which not even a single application of connectivity has been received:

i) 33/132 kV, 31.5 MVA sub station near Rupin HEP in Dodra Kwar area of Distt. Shimla.

ii) 22/66 kV, 2x10 MVA sub station at Bagipul (Nirmand) along with 66 kV Nirmand-Kotla D/C line in Distt. Kullu.

iii) 33/132 kV, 31.5 MVA sub station at Pandoh in Distt. Mandi.

Funds for the above transmission projects have been tied up and time lines for completion have been frozen.

For information of the Committee.