

# **Status of Under Execution Hydro Electric Projects (above 25 MW) in the Country as per Hydro Capacity Programme for the year 2020-21**

As on 30.04.2020

Sl. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	State Comm. Sch. (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
<b>Central Sector</b>				
1.	<b>Kameng</b> NEEPCO 02.12.2004 4x150 = 600 MW (2 units in operation, 2 units under construction) <b>Broad Features:</b> Dam :Bichom-69m High, 247.3m long. Tenga – 24.4 High, 103m long. HRT- 6.7m dia, 14.45 km. High Pressure Tunnel (HPT) Total length 3.64 km Surge Shaft: 25m dia, 70m Height P.House- semi-U/G Turbine- Francis  <b>Cost:</b> Original: 2496.90 Latest: 7927.34 <b>Contractors</b> Civil : Patel HM : Om Metals & JSC JV E&M : BHEL	Arunachal Pradesh  2009-10 2020-21 (Aug'20)	All major works related to commissioning of project completed. All Units Boxed up. Leakage observed in penstocks during water filling in March, 2018. Thereafter, complete NDT of all joints of pressure shaft / penstock is in progress along with rectification of defects.  Progress of Rectification :-  <b>Penstock-1 :-</b> Rectification / Repair works completed.  <b>Penstock -2 :</b> i) Repair Welding of WELD DEFECT 2532 RM completed out of 5071 RM.  <b>Unit#1 &amp; 2 taken as Capacity addition on 10.02.2020 &amp; 03.02.2020 respectively.</b>  ii) Repair Welding of OFFSETS:- 786 RM completed out of 873.85 RM.  Balance two units are scheduled to be commissioned in July, 2020.	Rectification / repair works of penstock 2 to be expedited by M/s. Om Metals / NEEPCO.
<b>State Sector</b>				
2.	<b>Uhl-III</b> Beas Valley Power Corporation Ltd. (HPSEB) 19.09.02 / (TEC -2x50 MW) 3x33.3 =100 MW (Revised vide HPSEB letter dt. 19.01.07. <b>Broad Features:</b> HRT-4.15m x 8.47 km S.Shaft- 13m x 57m Penstock- 3.4m x 1860m P.House- Surface Turbine- V. Francis <b>Cost:</b> Original: 431.56 Latest: 1281.52 <b>Contractors</b> Civil : Continental / Abir HM : PES E&M : BHEL	H.P.  2006-07 2020-21 (July'20)	All works completed. During Hydro Static pressure Test (HST) of Penstock some leakage was observed. Repair of penstock & HST completed and filling of water conductor system is in progress. Project is Programmed to be commissioned by March, 2020.	
3.	<b>Sawra Kuddu</b> H.P. Power Corpn. Ltd. Clearance: 10.11.2004	H.P.  2011-12	All works related to commissioning of the project completed except cleaning of HRT. Water conductor system filling is expected to commence by 1 <sup>st</sup> week of March, 2020.	-Power system evacuation

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	3x37= 111 MW <b>Broad Features:</b> Diversion Structure: 10.45m high Piano Key Weir. HRT- D-Shaped, 5m dia, 11.145Km long. Power House- Under ground Turbine- 500 rpm VF. Switchyard: 220 Kv. <b>Cost:</b> <u>Original: 558.53</u> Latest: 1181.90 <b>Contractors</b> Civil & HM : HCC / Patel E&M : Andritz	2020-21 (July,20)	Project is likely to be commissioned by June, 2020.	
4.	<b>Thottiyar</b> KSEB 1x30 + 1x10= 40 MW 05.06.2008 <b>Broad Features:</b> Weir: 222m Long 11 blocks 7.5m height Tunnel: Circular 2.6m dia 199m long. Power House: Surface Turbine : Vertical Pelton <b>Cost:</b> <u>Original: 136.79</u> Latest: 280 <b>Contractors</b> Civil & HM : PRIL- Sri Sarvana Industries	<u>Kerala</u>  2012-13 2020-21 (Mar'21)	<b>Civil Works:</b> <b>Weir:</b> 3590.17 cum excavation out of total 10208 cum and 5550 Cum concreting out of 10928 Cum completed. <b>Approach Channel &amp; Intake:</b> Excavation-3184 cum out of 9584 cum done. <b>Power Tunnel :</b> Excavation completed. <b>Power House, switchyard &amp; allied works:</b> 33785 cum excavation out of 43690 cum and 3676 cum concreting out of 16209 m done.	-Original contract for Civil & HM works foreclosed without risk & cost of Contractor M/s. Coastal Project Ltd. -Civil & HM works re-awarded to M/s PRIL-Sri Sarvana Industries Pvt. Ltd. on 05.01.2018. E&M works to be executed by KSEB.
5..	<b>Vyasi</b> UJVNL 25.10.2011 (TEC) 2x60= 120 MW <b>Broad Features:</b> Dam: Conc. Gravity H- 86m L-207.2m HRT- Circular, 7m dia, 2.7Km long. Power House- Surface Turbine- VF. Switchyard: 220 Kv. <b>Cost:</b> <u>Original: 936.23</u> Latest: 936.23 <b>Contractors</b> Civil : Gammon / MPCC E&M : BHEL	<u>Uttarakhand</u>  2014-15 2020-21 (Mar,21)	<b>Civil Works:</b> <b>Dam :</b> Excavation completed. 3.22 Lakh cum out of 3.6 lakh cum of Concreting completed. <b>Diversion Channel :</b> Completed. <b>Head Race Tunnel (2.7 Km):</b> Excavation of HRT completed. 2632m Overt Lining and 2544m Invert Lining out of 2655m has been done. <b>Pressure Shaft:</b> 4939cum out of 5000cum Excavation completed. <b>Surge Shaft :</b> Excavation completed. Concreting-2118cum out of 6626cum completed. <b>Power House:</b> 2,58,500 cum out of 270,000cum Excavation completed. 14498 cum out of 17,800 cum Concreting of Sub structure completed. Erection of Draft Tube in both the units completed.	-Dam and E&M works are Critical.
	<b>Private Sector</b>			
6.	<b>Singoli Bhatwari</b> M/s L&T 11.07.2008 3x33 MW = 99 MW <b>Broad Features:</b> Barrage-FRL 1017 m, MDDL 1009 m, Barrage Top 1020m HRT- 4.65m dia & 11.870m length	<u>Uttarakhand</u>  2012-13 2020-21 (Aug,20)	<b>Dam &amp; Dykes/Barrage:</b> Excavation almost completed and concreting 66169 out of 70220 cum completed. <b>HRT:</b> Excavation completed <b>Overt Concrete Lining</b> 11127m out of 11257m completed. <b>Invert Lining:</b> 11127 m out of 11257m completed. <b>Pressure Shaft::</b> Excavation completed. <b>Power House:</b> Excavation completed & concreting 29365cum out of 29959cum completed. <b>Surge Tank:</b> Excavation completed. 4113.93cum out of 5349cum concreting completed.	- Works severely affected due to flash floods in June, 2013. - HRT Critical

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	Surge Shaft-10 m dia & 102.85 m length Pressure Shaft-One, 3.80m dia & 358m length Penstock- 3 Nos., 2.20 m dia & 34m, 42m, 48m long. P. House-Surface Turbine-Vertical Francis TRT- Open Channel, 650m length <b>Cost : Original : 666.47</b> Latest:1694.00(PL-2018) <b>Contractors</b> Civil : L&T HM : General Mechanical Works E&M : Voith		<b>E&amp;M Works:</b> Boxing up of Unit#1 & Unit#3 completed & Boxing up of Unit#2 is in progress.  All the works are scheduled to be completed by March, 2020 and project is programmed to be commissioned by May, 2020.	
7.	<b>Rongnichu</b> Madhya Bharat Power Corporation Ltd. 01.10.2008 2x48= 96 MW <b>Broad features :</b> Barrage : Height 14m, length 120.00m Desilting Basin : Size (60Lx18Wx7H)m. HRT : Horse shoe type, 12.302km, 4.00m dia Surge shaft : 85m high, 10m dia, orifice dia 1.7m Pressure shaft : 3.0m dia, 415m long steel lined Penstock 812m long Power house : Surface (61.5Lx47.75Wx38.0H) m Turbine : Pelton, vertical shaft, 2nos. <b>Cost : Original : 491.32</b> Latest : 1187.00 <b>Contractors</b> Civil & HM : Sew E&M : Voith	<u>Sikkim</u>  <u>2014-15</u> 2020-21 (Oct'20)	The civil works have been re-awarded to M/s Moshvaraya Infrastructure Ltd. and E&M works to M/s Litosroj Power, Slovakia & CG Electric system, Hungary. <b>Barrage:</b> Excavation completed & 71300 out of 71700 cum concreting completed. <b>HRT:</b> Excavation completed and concreting 8217cum out of 12600cum completed. <b>Surge shaft:</b> Excavation & Concreting completed. <b>Pressure Shaft:</b> 175m out of 1426.50m of steel lining completed. Civil works of VPS completed. <b>Power House:</b> Excavation completed. 15482cum out of 24644 cum Concreting has been completed. <b>E&amp;M works:</b> EOT Crane works completed <b>Unit #1 &amp; #2 :</b> Erection works are in progress.	- Land acquisition. - Poor geology.
8.	<b>Bajoli Holi</b> M/s GMR Bajoli Holi Hydro Power Pvt. Limited 31.12.2011 3x60= 180 MW <b>Broad Features</b> Dam Height-66 M Dam Length-178 M Desilting Chamber- 2 Nos. 240 Mx14.5 MX 10.8 M HRT- Length-15.538 Km., 5.6 M dia P.H. –Surface	<u>H.P.</u>  <u>2018-19</u> 2020-21 (Mar,21)	<b>Civil Works:</b> 86% works completed. <b>Dam:</b> Excavation completed. Concreting 1,36,844 cum out of 2,10,000 cum completed. <b>HRT:</b> Excavation completed. 6.485 km lining out of 15.9 km completed. <b>Surge Shaft:</b> Excavation completed. Lining-4470/5200 cum completed. <b>Pressure shaft:</b> Excavation completed. Lining-664MT / 2440MT completed. <b>Power house:</b> Excavation completed and concreting almost completed.  <b>HM Works:</b> 72% works completed.  <b>E&amp;M Works:</b> 82% works completed.	-Slow progress of works -Poor approach roads -Power evacuation system is critical. - Due to excessive snowfall on 6 <sup>th</sup> & 7 <sup>th</sup> Feb 2019, in the entire region up to Chamba, access roads got severely damaged. Power Supply remained completely cut off to the entire region during 6 <sup>th</sup> ~25 <sup>th</sup> Feb 2019.

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	<b>Cost:</b> Original 1696.93 Latest 2205.00 <b>Contractors</b> Civil & HM : Gammon E&M : Alstom/ GE			
9.	<b>Sorang</b> Himachal Sorang Power corporation Ltd. June, 2006/ 2x50= 100 MW <b>Broad Features:</b> HRT- 1.5 km Trench Weir-59 m P.House- underground Turbine- Pelton Gross Head-626 m SWYD- 11/400 kV (GIS) <b>Cost:</b> Original: 586.00 Latest: 586.00 <b>Contractors</b> Civil & HM : NCC – Maytas – SS JV E&M : Voith Siemens	<u>H.P.</u>  <u>2011-12</u> 2020-21 (Mar-21)	All Civil Works completed.  Both the units are boxed up. During the filling of water conductor system in 1 <sup>st</sup> week of Nov., 2013, leakage occurred in penstock due to cracks. Rectification work completed in April, 2015. Unit #1 synchronized with grid on 30.10.2015, however, could not be commissioned due to non-availability of rated discharge. On 18-11-2015 when Unit # 2 was under trial run, there was rupture in the surface penstock pipe. The incidence caused loss of lives and property. The rectification work is under progress. Land acquisition for new alignment of Penstock & other infrastructure is completed. Fabrication of Ferrules under progress.	- Repair of penstock work -Arrangement of funds to carry out repair works.