**Status of Under Execution Hydro Electric Projects (above 25 MW) in the Country**

**(As on 30.06.2022)**

| 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** |
| --- | --- | --- | --- | --- |
| A | **Central Sector** |  |  |  |
| 1 | **Tehri PSS,**  THDC,  18.7.06  Nov-11 (Revised CCEA)  4x250=1000 MW  **Broad Features :**  Surge Shaft: U/s – 2 nos.  D/s – 2 nos  Power House: U/G  TRT: 2, Dia 9m and Lenghth 1070m & 1160m  Turbine: VF reversible pump turbine  **Cost:** Original: 1657.60  Latest**:**4835.60  (02/2019 PL)  **Contractors**  Turnkey : Alstom, France/ HCC | Uttara khand 2010-11  2022-24  (June’23) | Upstream (Tehri Dam) and Downstream (Koteshwar Dam), intake and Head Race Tunnels (2 Nos.) already completed alongwithTehri Stage-I works.  **Widening of Upstream Surge Shaft-3&4 (Depth 140m each):** Cumulative widening completed in a depth of 140 m in each.  **Downstream Surge Shaft-3&4 (Depth 80.9 m each):** Widening of DSSS-3 & 4 has been completed.  **Butterfly Valve Chamber (BVC 78X10X26m):** Excavation completed.  **Penstock Assembly Chamber (PAC 95X12X19.30 m):** Excavation completed.  **Upper Horizontal Penstocks (UHP):** Excavation is in progress.  **Vertical Penstocks(4 Nos. each of Dia 6.1 m and 135 m depth):**  Excavation completed. Widening of vertical penstock 5 & 7 completed and 113 m & 128 m completed in vertical penstock 6 & 8 respectively  **Power House (203m x 28.20m x 56m size):** Excavation completed and erection of EM equipment is in progress in all 4 units.  **Control Room:** All 9 slabs have been casted. Further, cleaning work is in progress and architectural works are being taken up.  **Tail Race Tunnels- 3 & 4 (2406 m):**  Excavation: -Heading& Benching: Completed 2370 m & 1839 m respectively.  Lining - Invert& Overt: Completed 1675 m & 1199 m respectively.  **E&M Works:** Both EOT cranes have been commissioned in service bay . |  |
| 2 | **Subansiri Lower**  NHPC  09.09.2003  8x250= 2000 MW  (1000 MW in 12th Plan)  **Broad Features :**  Dam –116m High, concrete gravity  HRT- 8 x 9.5m x 1145m  Power House- Surface  Turbine- Francis  SWYD- 16/400 kV  **Cost:**  Original: 6285.33  Latest**:19992.43**  (04/17 PL)  **Contractors**  Civil : BGS-SGS-Soma JV  HM : Texmaco  E&M : Alstom | Arunachal Pradesh  Assam  2009-11  2022-24  (Unit#1&2 in 2022-23 and Unit#3-8 in 2023-24) | ➢ Dam (116m high and 284m long):- Dam concreting 16.05 lac Cum (78%) out of 20.56 lac Cum & Intake concreting 272940 cum (97.7%) out of 279454 cum completed.  ➢ HRT (Total length-7102 m, 9.5m diameter):-99.5% heading excavation, 93.5% benching excavation, 81.6 % concrete overt lining and 47.2 % Invert lining completed.  ➢ Surge Tunnel (8 nos., 9.5 M dia, Horse Shoe):-Heading excavation 90.5% & benching excavation 52.5% completed.  ➢ Pressure Shaft (8 nos. 9.5/8/7 dia.):- PS liner 681 m (43%) out of 1594m completed.  ➢ Power House (285m x 61m x 64m size):- Cumulative Power house concrete qty. achieved 303009 cum out of 512000 cum (59.2% achieved so far).  ➢ E&M Works of Units 1, 2, 3, 4 & 6 are in progress.  ➢ HM Works:  Erection of Diversion Tunnel Gates: 97.5 % completed.  Erection of Intake Gates: 80% completed.  Pressure shaft liner - Out of total 1594m, 816 m pressure shaft steel liner erected. (51% completed).  Radial Gate: 8.14% work completed. | Signing of PPA for 113 MW is pending. |
| 3 | **Naitwar Mori**  SJVN Limited  16.10.2017  2x30=60 MW  Broad Features :  Barrage: 30.5m height  HRT: 5.6m horse shoe, 4330m long  Pressure shaft: 4m dia, 109m long  Surge shaft: 18m dia, 51.65m height  **Cost :** Original: 648.33 (10/2016 PL)  Latest : 947.89 (12/2020 PL) under apprroval  **Contractors**  Civil : JP Associates  HM : GMW  E&M : Voith | Uttara khand 2021-22  2022-23  (Jan’-23) | * **Barrage (30.5m high above deepest foundation, Length at top 48.9m ):-** Barrage excavation 1,37,875cum (98%) out of 1,40,000cum completed. Concreting:41931 cum (97%) out of 43065 cum completed. Desilting tank excavation completed. Concreting: 54111 cum (92%) out of 59000 cum completed. * **Diversion channel completed.** * **HRT- (5.6m modified Horse Shoe Shape, 4329 m long):-** Excavation of HRT completed, Overt Lining: 3455 m (80%) completed and invert Lining started * **Surge Shaft (18m dia, 50.28m height):**- Excavation completed and Lining in progress. * **Pressure shaft (4.0m dia, 97.50 m long):**-95.50 m (98%) excavation completed. Excavation completed and Lining in progress. * **Power House (Underground 57.70m x 18.60m x 33.07m size):-**Excavation of Power House cavern: 53185 cum (98.04%) out of 54250 cum completed. Concrete works in progress * **Tail Race Tunnel (D-shaped, 8.0m (W) x 8m(H), 235.62m long, TRC-6.0m(W)x5.75m(H), 60.39m long):**- Outfall structure completed. Tail race channel work is in progress.   **E&M works:** Erection of E&M components of both units are in progress. EOT crane is operational. | * Completion of Powerhouse/ Barrage   Completion of transmission line |
| B | **State Sector** |  |  |  |
| 4 | Vyasi UJVNL  25.10.2011 (TEC)  2x60= 120 MW  **Broad Features:**  Dam: Conc. Gravity  H- 86m L-207.2m  HRT- Circular, 7m dia, 2.7Km long.  Power House- Surface  Turbine- VF.  Switchyard: 220 Kv.  **Cost:** Original: 936.23  Latest**:**1581.01  **Contractors**  Civil : Gammon / MPCC  E&M : BHEL | Uttarakhand 2014-15  2022-23  (May,22) | Unit-2 and unit-1 have been commissioned w.e.f. 22.04.2022 and 24.05.2022 respectively. | - |
| 5 | **Pallivasal**  KSEB  2x30= 60 MW  31.01.2007  **Broad Features:**  HRT: 3.50m X 3396m  Surge Shaft: 7.0m X 49m  Pressure Shaft: 2.50m X 1019.20m  Penstock: 2.nos., 1161.20m each.  Power House: Surface  Turbine: Pelton  S. Yard: 220kV – Single bus  **Cost:** Original: 222.00  Latest: 550.00  **Contractors**  Single Package (Except Intake & balance Tunneling works)  ESSAR – DEC – CPPL JV  -M/s Bumi-Zillion JV  (for Intake works & balance Tunneling works)  -M/s Anchor structure-PSE-SSIPCJV, M/s. Shri Sarvasana Industries Pvt. Ltd. | Kerala 2010-11  2022-23  (Mar’23) | Contract for Civil &HM works has been terminated w.e.f. 13.09.18. Balance work has been re-tendered on the risk & cost of Contract, Subsequently balance works have been awarded to M/s. Sri Sarvasna Industries Pvt. Ltd. and M/s. DSE Anchor Structure.  **Intake structure:** Excavation completed.  Leading channel of Water conductor system replaced by cut & cover/soil tunnel and accordingly intake is shifted.  **HRT:** Excavation **–**3388/3347 m completed.  Overt conc. 2941/3347 m completed.  Invert Conc.. – 2400/3347 m completed.  **SurgeTank / Forebay:** Excavation completed. Concreting.650/843 m3 completed.  **Pressure Shaft:** Excavation completed. Fabrication of steel liner completed and erection of 1096/1096 m completed.  **Surface penstock:** Excavation **–**12000/122600 m3. Concreting- 122800/12850 m3 and 1986m out of 2036m erection completed.  **Power House:** Excavation & Concreting completed.Balance work from FACE II tunnel to Power House Contractor- M/s. Anchor Structurals  **Tail race Channel (2 Nos.):** Excavation & lining completed.  **E&M Works:** 75% supply completed, balance of E&M works –Tendering finalized.  **The overall progress achieved :- 88.67%.**  **The overall financial progress achieved :- 88.70%.** |  |
| 6 | **Thottiyar**  KSEB  1x30 + 1x10= 40 MW  05.06.2008  **Broad Features:**  Weir: 222m Long 11 blocks 7.5m height  Tunnel: Circular 2.6m dia 199m long.  Power House: Surface  Turbine : Vertical Pelton  **Cost:** Original: 136.79  Latest**:**  280  **Contractors**  Civil & HM : PRIL- Sri Sarvana Industries | Kerala2012-13 2022-23  (Mar’23) | 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.  KSEB decided to execute E&M works departmentally & tendering was awarded to M/s Fitwell.  **Civil Works**:  **Weir:** 70% completed 9 out of 11 block completed.  **Approach Channel & Intake**: 4011 m3 excavation out of 9584 m3. done.  **Power Tunnel**: Excavation & Concreting completed. Steel line fabrication and erection completed.  **Penstock, Anchor, Rocker support:** - Excavation 32932 m3 out of 37839.37 m,3. concreting 6138 m3 out of 12082 m3 completed, Fabrication of penstock 1953 MT out of 2286.32MT completed and erection 1544 out of 2341 MT completed.  **Power House, switchyard & allied works**: 40283/43690 m3 excavation and 9670 /16209 m3 concreting completed.  **E&M Works:** Tender for erection of supplied Electro/ Hydro Mechanical equipment for power house was awarded to M/s Fitwell. Work commenced on 10.07.2020 and at present 54% work have been completed. |  |
| C | **Private Sector** |  |  |  |
| 7 | **Tidong-I**  M/s Statkraft India Pvt. Ltd.  2x50 = 100 MW  28.07.2006  **Broad Features:**  HRT–D-3.5m L- 8461 m  P.H. Surface  Turbine –Vertical Pelton  **Cost:** Original543.15  Latest 1472  **Contractors**  Civil &HM : SCL Infratech / Himalaya  E&M : Alstom | H.P.  2013-14  2022-24  (March-23 | **Barrage& River Diversion Works:** Common Excavation completed and 71700.84/73409.00 open cut rock excavation completed. 32144 cum out of 37159 cum concreting done.  **Head Regulator & Desilting arrangement:** Common excavation completed. 9763 cum open cut rock excavation out of 10,000 cum completed.  **HRT (8409m):** Excavation completed and 7925/8409 m lining concreting has been completed.  **Surge Shaft:** Excavation completed. Full steel lining remaining.  **Pressure Shaft:** Excavation completed. 80% lining remaining.  **Power house and Tail race channel**- 87709 cum out of 92500 cum excavation completed.  11237 cum out of 16156 cum concreting completed.  Overall 92 % of Powerhouse civil works completed.  E&M works Supply 97% completed and erection 90% Mechanical works and 50% Electrical works completed.  The work of transmission line is critical due to forest land clearance for 17 towers out of 54 towers due to realignment of the transmission line.  Overall physical progress achieved is 85%.  M/s Statkraft India Pvt Ltd has acquired the 100% equity of the project on 04.09.2018 | * Transmission Line critical. |