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

| 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  2023-24  (Oct’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):** After completion of widening of USSS-3 & 4, Monorail installation is also complete. Widening of transition of surge shaft and HRT along with support measures has completed and work of RCC lining of transition portion is in progress.  **Downstream Surge Shaft-3&4 (Depth 80.9 m each):** After completion of widening of DSSS-3 & 4, Monorail installation is also complete. Backfill concreting of liner erection in transition with TRT & D/s Penstock below both the surge shafts is also near completion. Orifice concrete of DSSS-4 completed and now, work of reinforcement 16 installation for orifice concreting of DSSS-3 is in progress  **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):**  Widening of all Vertical Penstocks has been completed. Liner erection in all Vertical Penstock-5, 6, 7 & 8 is in progress  **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 completed in both TRTs and concrete Invert & Overt lining also completed up to 2075 m and 1919 m respectively. Lining in all four TRT limbs from outlet side is in progress. Concreting work in outlet structure is also in progress. **E&M Works:** Both EOT cranes have been commissioned in service bay .  **Unit-5:** After lowering of Stator, Erection of Draft Tube Cone, Bottom ring, Runner and Upper labyrinth has been completed in the turbine pit. Both the segments of Head cover have been lowered in Turbine pit and assembly work & adjustment of gaps in head cover assembly are in progress. Erection of VSI cubicles is completed.•**Unit-6**: After lowering of Stator, turbine erection works are in progress  **Unit-7**: In stator assembly in service bay, erection of key bars is in progress. Reinforcement of generator barrel wall is in Progress..**Unit-8:** Reinforcement/ shuttering of Beam & wall at EL 578.00 m is in progress |  |
| 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**  (01/20 PL)  **Contractors**  Civil : BGS-SGS-Soma JV  HM : Texmaco  E&M : Alstom | Arunachal Pradesh  Assam  2009-11  2023-24 | ➢ Dam (116m high and 284m long):- Dam concreting 18.01 lac Cum (87.55%) out of 20.56 lac Cum & Intake concreting 276664 cum (99%) out of 279454 cum completed.  ➢ HRT (Total length-7102 m, 9.5m diameter):-100% heading excavation, 100% benching excavation, 96.75 % concrete overt lining and 69.84 % Invert lining completed.  ➢ Surge Tunnel (8 nos., 9.5 M dia, Horse Shoe):-Heading excavation 95.01% & benching excavation 74.95% completed.  ➢ Pressure Shaft (8 nos. 9.5/8/7 dia.):- PS liner 63.26% completed.  ➢ Power House (285m x 61m x 64m size):- Cumulative Power house concrete qty. achieved 343287 cum out of 512000 cum (67.05% achieved so far).  ➢ E&M Works are in progress.  ➢ HM Works:  Erection of Diversion Tunnel Gates: Erected.  Radial Gate: 23.53% work completed. |  |
| 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 including Transmission line (12/2020 PL) under approval  **Contractors**  Civil : JP Associates  HM : GMW  E&M : Voith | Uttara khand 2021-22  2022-23  (Mar’-23) | * **Barrage (30.5m high above deepest foundation, Length at top 48.9m ):-** Barrage excavation completed. Concreting:39112 cum (87%) out of 44950 cum completed. Desilting tank excavation completed. Concreting: 59314 cum (94%) out of 63000 cum completed. * **Diversion channel completed.** * **HRT- (5.6m modified Horse Shoe Shape, 4329 m long):-** Excavation of HRT completed, Overt Lining:4225 m (98%) completed and invert Lining: 2152 (50%) completed. * **Surge Shaft (18m dia, 50.28m height):**- completed. * **Pressure shaft (4.0m dia, 97.50 m long):**- Excavation completed and HM works in progress. * **Power House (Underground 57.70m x 18.60m x 33.07m size):-**100% excavation and concrete completed. * **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:** Boxing up of unit-1 done. Erection of unit-2 is in progress. EOT crane is operational.   Transmission line works in progress. About 75% works has been done. | * 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  2023-24  (Jun’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:** Intake structure completed except erection gate. Leading channel of Water conductor system replaced by cut & cover/soil accordingly intake is shifted.  **HRT:** Excavation **–**3347/3347 m completed. Overt conc. 3325.40/3347 m completed.  Invert Conc.3325.40/3347 m completed..  **SurgeTank / Forebay:** Excavation completed. Concreting.843/843 m3 completed.  **Pressure Shaft:** Excavation - Completed. Fabrication of steel liner completed and erection of 1906 m/1096 m completed**.**  **Surface penstock** Excavation **–**120000/122600 cum. Concreting- 12800/12850 cum.  Fabrication of ferrule completed 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.  **Civil Works: 92.85**% completed.  **HM Works: 95.48**% completed.  **E&M Works:** 67.85% completed. |  |
| 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  (Jun’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:** 80% completed 9 out of 11 block completed.  **Approach Channel & Intake**: **7**0%works completed.Concreting of floor and side walls is in progress.  **Power Tunnel**: Completed.  **Penstock:** Fabrication and supply 100% completed. Erection of 248 out of 261 ferrules completed except welding and testing. (1190m length of penstock completed out of 1252m).  **Anchor block and Rocker support:** Total 16nos. anchor blocks - First stage concreting of all blocks completed. Second stage concreting of 8 blocks completed. All rocker supports (73Nos.) completed. 85% over all works at penstock track completed. Balance works at all locations in progress.  **Power House, switchyard & allied works**: 89%works completed. Control room, service bay etc. completed except finishing works. Generator floor concreting completed. Construction of barrel for 10MW unit and 30MW unit completed. Power house side wall – concreting upto bracket level completed except two bays. Steel frame work for wall above bracket level is in progress.  **Tail race:** Work in progress, 49% completed.  **Switchyard & allied works:** 97%works completed. Balance cable trench – 80m is to be done.  **Physical progress : 77%**  **Financial progress : 64%**  **E&M Works :**  Tender for erection of supplied Electro/ Hydromechanical equipment for Power House was awarded to the firm M/s Fitwell. Work commenced on 10.07.2020. 60.5% progress achieved. Erection of machineries at barrel 1 has been started. Project is expected to be commissioned during March 2023.  **Overall Physical progress : 85.5%.** |  |
| C | **Private Sector** |  |  |  |
| 7 | **Tidong-I**  M/s Statkraft India Pvt. Ltd.  3x50 = 150 MW  28.07.2006  **Broad Features:**  HRT–D-3.5m L- 8461 m  P.H. Surface  Turbine –Vertical Pelton  **Cost:** Original 543.15  Latest 1850  **Contractors**  Civil &HM : SCL Infratech / Himalaya  E&M : Alstom | H.P.  2013-14  2023-24  (Dec-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 8215/8409 m (97%) lining concreting has been completed.  **Surge Shaft:** Excavation completed.Lining 10m out of 88m completed.  **Pressure Shaft and Penstock:** Excavation completed. 450/1165 (39%) lining completed.  **Power house and Tail race channel**- 93% civil works completed. E&M works for unit –I & II about completed. Unit-3 is initial stage of erection (20%).  The work of transmission line is critical due to forest land clearance (NOC of Supreme Court received recently) for 17 towers out of 54 towers due to realignment of the transmission line. Overall about 54% works completed.  M/s Statkraft India Pvt Ltd has acquired the 100% equity of the project on 04.09.2018 | * Pressure shaft /Transmission Line critical. |