Annexure-Status of Under Execution Hydro Electric Projects (above 25 MW) in the Country (As on 28.02.2021)

SI. No.	Name of Project Executing Agency Date of CEA clearance / Approval Capacity (MW) Broad Features Cost (original/latest) In Rs. Crores.	<u>State</u> <u>Comm.</u> <u>Sch.</u> (original/ Now Ant.	Broad Present Status / Critical Area	Remarks/ Critical issues
1	Central Sector Parbati-II	<u>H.P.</u>	All major works related to commissioning of the project	- Poor geology in HRT
	NHPC 11.09.2002 4x200 = 800 MW Broad Features : Dam – 85m High, 109. m long at top, concrete gravity type HRT- 6m x 31.23km P.House- Surface 23.5mx 39.7mx 123m. Turbine- Pelton Swyd 13.8/400 kV Cost: <u>Original:3919.59</u> Latest: 9897.59 (04/20 PL) <u>Contractors</u> Civil : Gammon / Valecha HM : Om Metals E&M : BHEL	<u>n.r.</u> 2009-10 2021-22 (Mar'22)	All major works related to commissioning of the project completed except HRT. Head Race Tunnel-Excavation: 29.04 km out of 31.5km completed Total Overt lining: 27.40 km lining out of 31.5km completed. E&M Works: All units have been synchronized with grid at part load using water from Jiwa Nallah.	- Pool geology II HKT especially in Face-4 (TBM-Face).
2	Tapovan Vishnugad NTPC 11.08.2004/Nov, 2006 4x130 = 520 MW Broad Features : Barrage–5 bays of 12m HRT- 5.4m x 11.97km P.House- underground Turbine- V.Pelton Cost: Original: 2978.48 Latest: 5867.38 Contractors Civil : Rithwik/L&T / Patel HM : Om Metals E&M : BHEL	<u>Uttara</u> <u>khand</u> <u>2012-13</u> 2022-23 (Dec'22)	Barrage: Excavation Completed and Concreting 127628 cum out of 129358 cum completed. HRT: Excavation of 2.79 km out of 3.81 km by DBM & 5.50km out of 8.27km by TBM completed. 6.61 km concrete lining out of 12.09km completed PH Cavern: Excavation and concreting completed. Desilting Chamber & Intake: Excavation and concreting completed. TRT: Excavation and lining completed. Surge shaft: Excavation & Lining completed. Penstock: Excavation and Lining completed. E&M works: Pit liner erection on all 4 units completed. Turbine housing erection of all 4 units completed. Unit #1: Boxed up. Unit #2: Boxed up. Unit #3: Turbine erection completed. Unit #4: Turbine erection in progress. Bus Duct: Erection of all units completed Critical : HRT On 07.02.2021 , there was a sudden flash flood in Dhauli Ganga river due to an avalanche resulting in part damage to NTPC hydro power plant. Considering the nature of natural disaster, at this stage it is difficult to quantify exact losses and damage to the project. A detailed analysis is to be done to assess the extent of physical and financial damage to the project and the new commissioning scheduled will be worked out subsequently	 Completion of HRT. Associated Transmission system Due to flash flood in Dhauli ganga River on 07 Feb 2021, construction work is held up. .
3	Tehri PSS, THDC, 18.7.06 Nov-11 (Revised CCEA) 4x250=1000 MW Broad Features :	<u>Uttara</u> <u>khand</u> <u>2010-11</u> 2022-23 (Dec'22)	Upstream (Tehri Dam) and Downstream (Koteshwar Dam), intake and Head Race Tunnels (2 Nos.) already completed alongwith Tehri Stage-I works. Surge Shafts Upstream (2 nos- 140m) .: Excavation, Mucking & Rock bolt, Lattice Girder Support work in Progress.	 Poor Geology in under ground works of BVC, PAC, TRT, PH Cavern etc. Slow progress of works Cash flow crisis with M/s. HCC.

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	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: <u>Original:</u> <u>1657.60</u> Latest: <u>4835.60</u> (02/2019 PL) <u>Contractors</u> Turnkey : Alstom, France/ HCC		 Surge Shafts Downstream (2 Nos): Excavation, Mucking & Rock Bolt, Lattice Girder Support work in progress. Butterfly Valve Chamber (BVC 78x10x26m): Excavation of all 10 bench completed. Penstock Assembly Chamber (PAC): Crown slashing with steel ribs completed. Excavation of all 7 bench completed. Power House: Excavation completed. TRT-3(1151 RM): Excavation in Heading 979.5 RM, Benching 722.5 RM, Invert Lining-217.9m, Overt Lining 139.3m completed TRT-4 (1255 RM): Excavation in Heading-1028.4 RM, Benching- 920.5 RM, Invert Lining-354m & Overt Lining: 301m completed. E&M Works: Manufacturing & supplies are in progress. 	
4	Lata Tapovan, NTPC Aug-2012 3x57= 171 MW Broad Features : Barrage-14 bays of 11m each HRT- 7.51 Km, 4.7m dia P.House- underground Turbine- V.Francis Cost: Original: 1527.00 Latest: 1801.07 <u>Contractors</u> Civil & HM : L&T E&M : BHEL	<u>Uttara</u> <u>khand</u> <u>2017-18</u> 2025-26 (Subject to re-start of works)	Infrastructure works are almost completed. Main works to re- start after clearances from Hon'ble Supreme Court. EPC contract for Civil & HM works awarded to M/s L&T on 17-08-2012. E&M package awarded to M/s BHEL on 07.12.12.	-Works of barrage & HRT yet to start due to protest by villagers. -Construction work stopped vide Hon'ble Supreme Court order dated 7.5.14.
5	Vishnugad Pipakoti THDC 21.08.2008 4x111= 444 MW Broad Features : Dam – 65m High, 89.3m long, concrete gravity HRT- 13.4 Km, 8.8m dia Horse shoe shape P. House-Underground 127mx 20.3mx 50m Turbine- Francis SWYD- 13.8/420 kV Cost: <u>Original</u> : <u>2491.58</u> Latest: 3860.35 (02/2019 PL) <u>Contractors</u> Civil & HM : HCC E&M : BHEL	<u>Uttara</u> <u>khand</u> 2013-14 2023-24 (Dec.'23)	River diverted on 02.04.2018. Concreting of U/S coffer dam has been completed. TBM has been commissioned on 24.11.19. Main Access Tunnel (MAT) 413.50m: Excavation completed upto 397.50m. HRT (13400m): 644m completed by DBM. Construction of Adits and infrastructure works are under progress Desilting Chambers (3 No. X 390m) : Crown Slashing completed in DC #2 & DC #3 and Benching is under progress in DC #1, DC #2 and DC#3. Upstream Surge Shaft: 129 RM out of 325.5 RM excavation from bottom adit to Upstream Surge Shaft has been completed. Downstream Surge Shaft : 337.17 RM out of 352 RM excavation from adit to Downstream Surge Tank bottom has been completed.	-Frequent disruption of works by local people. - Slow progress of works - Cash flow crisis with M/s. HCC.
6	Subansiri Lower NHPC 09.09.2003 8x250= 2000 MW (1000 MW in 12 th Plan) Broad Features : Dam –116m High, concrete gravity HRT- 8 x 9.5m x 1145m Power House- Surface Turbine- Francis SWYD- 16/400 kV	Arunachal <u>Pradesh</u> Assam <u>2009-11</u> 2023-24 (Aug'23)	 Dam :- Dam concreting 12.54 lac Cum (60.56%) out of 20.70 lac Cum & Intake concreting 269904cum (97%) out of 279454cum completed. HRT:- 6948m (98%) out of 7102m heading excavation, 5275m (74.27%) out of 7102m benching excavation & 4087m (57.54%) out of 7102m concrete overt lining completed. Surge Tunnel :- Heading excavation 3063m (85.64%) & benching excavation 416m (12%) out of 3545m completed. Pressure Shaft :- Out of total 1594m, 293m pressure shaft steel liner erected Power House :- Excavation completed & concreting 	

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	Cost: Original: 6285.33 Latest: 20368.9 (01/20 PL) Contractors Civil : BGS-SGS-Soma JV HM : Texmaco E&M : Alstom		 36.22%completed. E&M Works:- Concreting of Generator Barrel of Unit#1 and 2 already completed. Unit-1: Turbine Stay Ring and Spiral Case erection completed. Unit-2: Turbine Stay Ring and Spiral Case erection completed. Unit-3: Erection of Draft Tube (part 2 to 6) of Unit#3 already completed. HM Works: Erection of 3 nos. of Diversion Tunnel Gates (gate No. 3,4& 5) completed out of 5 nos. Erection of Intake Gates: Intake Service Gate no. 5, 6, 7 & 8 have been erected. Erection of Rope Drum Hoist (RDH) is in progress All work except safety works were stalled from December, 2011 to September, 2019 due to agitation launched by various activists against construction of Subansiri Lower HE Project and as per directions of NGT. Works restarted w.e.f. 15.10. 2019 after clearance from NGT. However, work initially remained suspended w.e.f. 24.03.2020 to 20.04.2020 due to COVID -19 lockdown and further got affected due to Monsoon Period from May 2020. Left Bank approach road to dam got damaged due to slope failure at left bank on 26.05.2020. Also, a part of coffer wall of powerhouse got collapsed on 22.07.2020 resulting in flooding of powerhouse and disruption of right bank road to dam. An alternate approach to left bank of dam by extension of existing road tunnel and Deo-Nallah slope protection work is in progress. Restoration of approach road to right bank of Dam near Power House is also being done. Power House Civil works package has been awarded to M/s Patel Engineering Ltd on 01.09.2020. 	
7	Teesta-VI NHPC 08.3.2019 4x125= 500 MW Broad Features: Barrage: 26.5m high HRT- 2nos,27.52km long Pressure shaft: 4nos. 5.4m dia. 151m to 198m length, TRT: 4nos 247m each length, 7.5x7.0m D- shapped. PH- Under ground Turbine- Francis Cost: Original: 3283.08 Latest : 5748.04 (07/2018 PL) Contractors Civil : JAL & Gammon E&M : Alstom	<u>Sikkim</u> <u>2012-13</u> 2023-24 (Mar'24)	 Barrage and Desilting: Excavation completed & concreting 98% of 380003 cum completed. HRT: Heading excavation 10650m and benching excavation 4270 m out of total 27505 m completed. Overt lining 1550 m completed. Surge Tank: Excavation completed & concreting under progress. Pressure Shaft: Underground excavation of 4 no. pressure shaft completed, lining of one no. pressure shaft completed, lining under progress. HM works: 2 nos. radial gates erection in bay 1&2 completed. Erection of 1st stage embedded parts of radial gates in bay 3&4 under progress. Power House: Excavation completed & conc. 21945 / 44578 cum completed. Erection of spiral casing of Unit #1 completed. Transformer Cavern: Excavation completed & concreting 2539/7101 cum completed. Regarding, tendering, LOT-I (Civil works of Barrage, Desilting Basins, SFT, Intake, Part of HRT-I & HRT-II and other associated structure) awarded to M/s. Jaypee Associate Ltd on 31.03.2020 and LOT-II (Civil 	- Works stalled since April, 2014 due to financial crunch with the earlier developer LTHPL. - Accordingly, the Corporate Insolvency Resolution Process (CIRP) was initiated vide order dated 16.03.2018 of Hon'ble NCLT, Hyderabad Bench. In the Bidding process, NHPC emerged as successful bidder for acquisition of LTHPL. Subsequently, the investment proposal for an estimated cost of Rs 5748.04 crore (Jul'18 PL), which includes Bid amount of Rs 907 crore for

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			works of Part of HRT-I & HRT-II, Surge shaft, Pressure shaft, Powerhouse, TRT & other associated structure) awarded to M/s. Gammon Engineers on 15.03.2020. HM works awarded on 27.10.2020 and E&M works are under tender evaluation. The Consideration Amount of Rs. 897.50 Crore released by NHPC on dated 09.10.2019 and Taking over along with all assets and documents as 'Going concern' completed on 09.10.2019.	acquisition of LTHPL; was approved by the CCEA on 08.03.2019 for investment, acquisition of M/s LTHPL and execution of balance works of Teesta-VI HE Project by NHPC. Taking over along with all assets and documents as 'Going concern' completed on 09.10.2019.
8	Ramam-III NTPC Hydro Ltd. 10.09.14 3x40 = 120 MW Broad Features : Run of the River Scheme Cost : <u>Original: 1381.84</u> Latest : 1592.34 <u>Contractors</u> Civil & HM : Simplex- Apex JV / Sew E&M : BHEL	<u>West Bengal</u> 2019-20 2024-25 (Dec,24)	First stage river diversion done on 23.03.2016. First phase Barrage excavation completed and Raft concreting in progress. Intake structure 1 & 2: Excavation completed, SFT excavation 20% completed. HRT excavation 7% completed. Excavation of Desilting chamber completed. Surge Shaft: Excavation completed. Pressure Shaft: Excavation 50% completed Power House: Excavation 94% completed. TRC: Excavation and concreting completed Switchyard : Excavation and filling completed	 Works affected due to GJMM Andolan. Funds flow constraints with the contractor PPA with West Bengal Associated Transmission system
9	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 Latest : 648.33 Contractors Civil : JP Associates HM : GMW E&M : Voith	<u>Uttara</u> <u>khand</u> 2021-22 2021-22 (Dec,21)	 River Diverted on 31.01.2019 Desilting Tank: Excavation completed and concreting 22284 cum out of 59000cum completed. Barrage: 1,37,875 cum out of 1,40,000 cum excavation completed and concreting 17592 cum cum out of 47700cum. HRT: Excavation 4119 m out of 4317m completed. Surge Shaft : 2925 cum out of 15700 cum excavation completed. Power House & Transformer Hall: Excavation of Power Hose cavern 53185 cum out of 54250 cum completed. TRT: Heading excavation completed. Benching excavation 80 m (43%) completed out of 188 m. HM works : LoA issued to M/s GMW Private Ltd. on 18.04.18. E&M works : Works awarded to M/s. Voith Hydro Pvt. Ltd. On 11.06.2018. Embedded part of EOT crane installed. Erection of Draft Tube liner in Unit-1 & Unit-2 started on 05.12.2020 and work is under progress 	 Powerhouse & Barrage works critical. Associated Transmission system
10	Pakal Dul CVPPL 03.10.2006 4x250 = 1000 MW Broad Features : Dam – 167m High, Width-305m), CFRD, HRT- 2 nos. 7.2m dia 1000m long S.Shaft-16m dia 200m Height P.House- Underground (157mx20.20mx49m)	<u>J&K</u> 2020-21 2025-26 (July.'25)	Infrastructural works: Excavation of MAT and adit to Powerhouse completed. Dam: Letter of Acceptance issued to M/s Jaiprakash Associates on 21.06.18. 379 m excavation of access adit to HRT-I have been completed out of a total of 698.2m. Surge Shaft: Access road to Surge shaft top completed on 30.11.18. Pressure Shaft:Excavation of 156.2 m from adit to Pressure shaft bottom has been completed out of a total of 238.7m Power House(157mx20.20mx49m): Letter of Acceptance issued to M/s. AFCON-JP Associates JV on 21.02.18. Excavation of MAT completed on 20.12.18	The work at Dam site and Power house site of the project partially restored after lockdown with limited Manpower after obtaining the permission from District Administration.

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	TRT- 5.5m dia, 125m long. Cost: <u>Original:8112.12</u> Latest: 8112.12 <u>Contractors</u> Civil : Afcons – JAL - JV E&M : Voith Hydro Ltd		E&M Package: Letter of Award issued to M/s. Voith Hydro Ltd. On 02.01.2019. HM Works Package: Letter of Award issued to M/s. PES Engineers Pvt. Ltd. on 26.08.2019. HRT-TBM package: LoA issued to M/s L&T Ltd. On 3.7.2020.Survey and initial works are in progress.	
11	Kiru CVPPL 13.06.2016 4x156=624 MW Broad Features : Dam – 135m High, Width-193m), Concrete gravity, Penstock 4nos., 5.5m dia. P.House- Underground (182mx23.6mx51.2m) TRT- 4 nos., 7.0m dia, 165 to 190m long. Cost: Original:4287.59 Latest: 4287.59 Contractors Civil : Patel Engg. HM: PES Engineers E&M : Andritz Hydro	<u>J&K</u> <u>2023-24</u> 2024-25 (Aug.'24)	Civil, HM and E&M works awarded on 24.02.2020. Construction of approach roads for Dam top(215m), DT inlet (1.6 KM) and outlet (1.2 Km) completed.	Construction works of the project have been delayed in view of the lockdown ordered w.e.f.23.3.2020.
12	RatleRatle Hydro ElectricProject Pvt. Ltd. / NHPC19.12.20124x205+1x30= 850 MWBroad Features :Dam Height-133mLength-194.8mSpillway-Radia Gate-(5)Size-10.75x1420 mDiversion Tunnel:2Nos., Circular (Rightback)Pressure Tunnel:11mdia each.Pressure Shaft : 6.6 meach steel lined.P.House-UndergroundTurbine- FrancisAverage Gross Head-100.39mAddl. Unit(30MW)Housed in Main P.H.Cavity)Rated Head-98.9mCost :Original: 5281.94(11/2018 PL)ContractorsCivil & HM : GVKE&M : Alstom	J&K 2017-18 2025-26 (Subject to re-start of works)	EPC Contract for Civil & HM works awarded to M/s GVK Projects & Technical Services Limited on 04.07.2013. Excavation of DT1 (298m out of 472m) & DT2 (192m out of 552m) completed. -Project was stalled since 11.07.2014 due to various issues viz. R&R issues, Local issues, Law & order problem etc. Earlier, it was under execution by private sector developer and some works already have been done. There is no progress since 11th July, 2014. JV of Govt. of UT of J&K and NHPC has been formed. CCEA clearance received. Award of works is to be done.	- Award of works is to be done.
13	Rangit-IV Jal Power corp. Ltd. 06.07.2007	<u>Sikkim</u> 2011-12	Dam & Intake works: Excavation 409184 / 492775 cum completed and concreting 61045 cum out of 173229 cum	Financial crunch with the developer.

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	3x40= 120 MW Broad Features: Dam: Concrte 44m high .HRT : D- 6.4m L- 6.5km Power House : Surface Turbine: Francis Cost: Original:726.17 Latest : 1692.60 Contractors Civil : Coastal HM : Texmacho E&M : Andritz	2025-26 (Subject to re-start of works)	 completed. Excavation of road diversion tunnel has been completed. HRT: Excavation in progress and 3794 m out of 6488 m completed. Surge Shaft: Excavation has been completed & concreting yet to start. Pressure Shaft: Excavation of Horizontal Pressure Shaft completed. Vertical Pressure Shaft 60.5 m out of 84.7m completed. Power House: Excavation in Power House completed. Concreting 8565 cum out of 19900 cum completed. Desilting chamber: Excavation 2143 m out of 3360 m completed. In the Joint Lenders Forum meet held in PFC on 5th April, 18, Lenders decided to file application in NCLAT and the same has been filed on 24th April, 18. Last hearing of NCLT held on 29.03.2019 and order pronounced on 9.04.2019. As per the order IRP has been appointed. The project is under NCLT process since 9th April, 2019. NHPC submitted EOI on 08.07.2019 and was shortlisted under final list of Prospective Resolution Applicants on dated 23.08.2019.The Resolution Plan submitted by NHPC on 04.12.2019. The Resolution Plan Approval Application was listed for hearing on 17.02.2020 before NCLT, Hyderabad ("Tribunal"). Final hearing was held on 31.07.2020. The project has been awarded to NHPC.PIB/CCEA is under process. 	Project was stalled since October, 2013 due to funds constraints with the developer.
14	Luhri Stage-1 SJVN Ltd. 01.05.2018 2x80+2x25=210 MW Broad Features: Dam: 86 m high HRT: 9m dia 38 km length Power House:Underground Turbine: Francis Contractor : Civil: Luhri Hydro Power Consortium	<u>Himachal</u> <u>Pradesh</u> <u>2025-26</u> <u>2025-26</u>	Work awarded to M/s Luhri Hydro Power Consortium. Contract Agreement signed on 22.12.2020. Mobilization is in progress.	
	State Sector			
15	Parnai JKSPDC 21.10.2013 3x12.5= 37.5 MW Broad Features: Barrage: 107m Long, 11.7m High HRT: D Shape, 9236m long, 3.2m dia Surge Shaft: 3.2m Dia Power House- Surface- 60x12x28 Cost: <u>Original: 640.86</u> Latest 640.86 <u>Contractors</u> Civil : Patel & Alstom E&M : Andritz	<u>J&K</u> 2017-18 2022-23 (Mar,23)	The implementation of the project has been undertaken by awarding the EPC contract in favour of M/s. Patel Engg. Ltd. in 2013. Barrage:- Excavation 33581 cum out of total 46364 cum completed. Concreting 20361.5 cum out of 34589 cum completed. HRT (D-shaped, 3.2m diameter, 9.236km long):- 4976.5m out of 9236m excavation completed. Pressure shaft (1no. 2mdia, 1733mlong) : Excavation: 11254 cum out of 80,000 cum completed. Concreting: 536cum out of 7212 cum completed. Surge shaft (3.2m dia.) : Excavation: 704cum out of 14000cum completed. Power house: excavation 10550 Cum (17.6%) excavation out of 60000 Cum has been completed.	 Slow progress of works Contractual Issues.

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16	Lower Kalnai JKSPDC 16.08.2013 2x24= 48 MW Broad Features: Dam: 110m Span, 49m High HRT: D Shape, 3960m long, 4m dia Surge Shaft: 14m Dia Power House- 55x23.45x32.4 Cost: <u>Original: 576.87</u> Latest 576.87 <u>Contractors</u> Civil : Coastal E&M : GE	<u>J&K</u> 2017-18 2025-26 (Subject to re-start of works)	EPC contract awarded to M/s. CPL in Sept., 2013. Diversion tunnel has been completed and river diversion made on 30.11.2016. Work on coffer dams has been started Dam:- Excavation work completed for right abutment of the dam bridge. Excavation of left abutment completed upto 50%. HRT:- Adit excavation is in progress. 'Works on all fronts at Dam and Power House site are stalled since 24.01.2018 due to payment dispute with subcontractors and due to non-settlement of extension of time of the contract by the JKSPDC .The contract with M/s. Coastal Projects Ltd. has been terminated and re-tendering for selection of EPC contractor is under process.	 Project stalled Re-award of works
17	Shahpurkandi Irrigation Deptt. &PSPCL 04.05.2011 3x33+3x33+1x8=206 MW Cost: <u>Original</u> : <u>1835.50</u> Latest 1938.74 (Power Component) <u>Contractors</u> Civil & HM : Soma – BUREYA JV E&M : BHEL	Punjab 2015-16 2023-24 (Dec.23)	 Main Dam: 13.62 lacs cum Excavation out of 18.40 lacs cum and 4.93 lacs cum concreting out of 11.05 lacs cum completed. Hydel Channel: Excavation / concreting is in advance stage of completion. Works of Dam stopped since 29.08.2014 due to inter-state dispute between states of J&K & Punjab on sharing of waters of river Ravi & tariff. An agreement was signed on 8.9.2018 between Chief Secretary, Govt. of Jammu & Kashmir and Chief Secretary, Govt. of Punjab. The Punjab Cabinet ratified the above agreement. Zero date of the project is 1st November, 2018. NIT for Civil works of Power House is being floated and award of works is expected soon. E&M contract work earlier accorded to BHEL has been revived, Project is programmed for Commission by Mar,2023. 	- Power House civil works to be awarded.
18	Uhl-III Beas Valley Power Corporation Ltd. (HPSEB) 19.09.02 / (TEC -2x50 MW) 3x33.3 =100 MW (Revised vide HPSEB letter dt. 19.01.07. Broad Features: HRT-4.15m x 8.47 km S.Shaft- 13m x 57m Penstock- 3.4m x 1860m P.House- Surface Turbine- V. Francis Cost: Original: 431.56 Latest: 1281.52 Contractors Civil : Continental / Abir HM : PES E&M : BHEL	<u>H.P.</u> 2006-07 2022-23 (Dec'22)	All works completed in July, 2018. During Hydro Static pressure Test (HST) of Penstock, some leakage was observed. Repair of penstock & HST completed by March, 2020. On 17.05.2020 after Trial run of Unit-1, during synchronisation to grid transmission load rejection was done but the penstock ruptured along penstock ferrule # 345 which is about 110m upstream of surface power house. The restoration of the Penstock by replacing/recladding the SAILMA 550HI steel and that of power House is under progress.	
19	Shongtong Karcham H.P. Power Corpn. Ltd. Clearance: 16.08.2012 3x150= 450 MW Broad Features: Intake Tunnel: 4 Nos. Horse shoe 6.4m dia 192 to 280m length	<u>H.P.</u> <u>2016-17</u> 2024-25 (Mar'25)	River Diversion achieved on 10.02.2017. Barrage: Downstream Coffer Dam completed. Upstream Coffer Dam 84% completed. HRT: Heading excavation 6565 m out of 7712.7m completed. Benching excavation 1773 m completed Surge shaft: Pilot hole excavation completed. Power House: 98% excavation of Power House completed.	-Issues with Army authorities for shifting of ammunition depot.- Slow progress of works

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	HRT- Circular, 10.5m dia, 8096m long. Power House- Under ground Turbine- VF. Switchyard: 400 Kv. Cost: <u>Original: 2807.83</u> Latest: 2807.83 <u>Contractors</u> Civil & HM : Patel E&M : Andritz		Works hampered in some portion of HRT due to re-location of Army ammunition depot. Issue is under resolution between Army, GoHP & HPPCL.	
20	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: <u>Original: 936.23</u> Latest: 1581.01 <u>Contractors</u> Civil : Gammon / MPCC E&M : BHEL	<u>Uttarakhand</u> 2014-15 2022-23 (Apr,22)	Civil Works: Dam : Excavation completed. 3.55 Lakh cum out of 3.6 lakh cum of Concreting completed. Diversion Channel : Completed. Head Race Tunnel (2.7 Km): Excavation of HRT completed. 2641.97m overt Lining and 2544.25m Invert Lining out of 2655m has been done. Pressure Shaft: 4939cum out of 5000cum Excavation completed. Surge Shaft : Excavation completed. Concreting-5920.75 cum out of 6626cum completed. Power House: 2,58,500 cum out of 270,000cum Excavation completed. 16036 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.
21	Koyna Left Bank PSS WRD, Mah. 20.02.2004 2x40 = 80 MW Broad Features: Water from the existing Shivaji Sagar Lake (Koyna reservoir) is to be utilized for generation. Intake Tunnel: Dia – 7.20 M Length – 235.5 M (including Lake tap) HRT: Dia – 7.20 M Length – 80 M Penstock – 2 nos , Dia – 2.9M Length – 10 M each P.House – Underground Turbine – Reversible Cost: <u>Original</u> : <u>245.02</u> Latest: 1403.77 <u>Contractors</u> Civil & HM : BT Patil – Malaxmi JV / Patel E&M : Litostroj Slovania & Koncar, Croatia	<u>Maha</u> <u>rashtra</u> <u>2014-15</u> 2025-26 (Subject to re-start of works)	Civil Works: Excavation of intake structure 4781 cum out of 14105 cum and lining 2485 cum out of 3381 cum completed. Excavation of Switchyard completed. Excavation of Approach tunnel & Ventilation tunnel is in progress. Tail surge shaft : Excavation in soft strata completed. Excavation for inclined / vertical / lateral shafts in hard rock 6448 / 9223 cum completed. TRT : 364 / 24003 cum excavation completed. Machine Hall : Underground Excavation is under progress. 22600 cum excavation out of 55050 cum completed. E&M works: The contract for details engineering manufacturing supply, supervision erection, testing commissioning and putting into commercial use of pump turbine, generator motor and associated equipments is signed with M/s IVRCL Ltd., Pune on 16.12.2010. Further TG set has been ordered as under: Turbine/Pump: M/s Litosroj Power, Slovenia (European Union) Generator/Motor: M/s Koncar Power, Plant & Electric Traction Engineering, Croatia (European Union). EOT Crane :- Works awarded to M/s Pedvak Cranes Private Limited Hyderabad on 12.04.2013.	- Contractual Issues - The proposal to

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22	Polavaram APGENCO / Irrigation Deptt., A.P. 21.07.2010/ 25.02.2009 12x80= 960 MW Broad Features: ECRF Dam- L-2454 m, H-57.9m, Spillway- L-1128m, Spill gate -48 Nos. Approach channel- 175m. Intake tunnel: Ø 9m, L- 130m (12 Nos) Power House- Surface type, Turbine- Vertical Kaplan Tail Race Channel- 1130m. Cost: Original: 4956.39 Latest: 5338.95 (Power Component) Contractors Civil : Navyug HM : PES E&M : GE	Andhra Pradesh <u>2017-18</u> 2023-25 (Subject to re-start of works)	 A) Spillway, Earth cum Rockfill Dam, Power House Foundations Works awarded in March, 2013 to M/s. Transtroy- JSC EC UES JV. ECRF DAM: Earth work of 508.06 L.Cum /833.169L.Cum is completed. Diaphragm Wall concreting – completed. SPILLWAY: Excavation-838.80 L Cum out of 1115.59 L Cum completed. Concreting 9.60 L Cum out of 36.79 L cum completed. Gates: Radial Gate fabrication – 11010 MT completed out of 18000 MT (61.17%). Power House: Earth work of 112.20 L Cum / 114 L.Cum is completed. Works stalled since 19.07.2019 as APGENCO asked contractor (NECL) to stop all works and termination of contract issued on 14.08.2019. Now works are being taken up as legal hurdles got cleared on 14.12.2020 and works are yet to be started. The writ petition filed by MECL was disposed by Hon'ble High Court against MECL on 14.12.2020., 	-commencement of works
23	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: <u>222.00</u> Latest: 550.00 <u>Contractors</u> 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.	<u>Kerala</u> <u>2010-11</u> 2021-22 (Dec,21)	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. 1675/3347 m completed. Invert Conc – 1675/3347 m completed. SurgeTank / Forebay: Excavation completed. Concreting.423/843 m ³ completed. Pressure Shaft: Excavation completed. Fabrication of steel liner completed and erection of 850/1096 m completed. Surface penstock: Excavation -111300/122600 m ³ . Concreting- 122800/12850 m ³ and 1921m out of 2036m erection completed. Power House: Excavation & Concreting completed. 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 :- 85.39%.	 Poor Geology Contractual Issues 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. Tender for Erection of Supplied Electro Hydro Mechanical Equipment & Supply and Erection of BoP equipment is under progress.

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24	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	<u>Kerala</u> 2012-13 2021-22 (Apr'21)	 Civil Works: Weir: 3915.17 m3 excavation out of 10208 m3 & 6362.59 m3 concreting out of 10928 m3 completed. Approach Channel & Intake: 3454.00 m3 excavation out of 9584 m3. done. Power Tunnel: Excavation completed & Concreting 272.00 m3 Out of 615 m3 completed. Steel line fabrication 22.5 MT and erection 3 MT out of 27 MT completed. Penstock, Anchor, Rocker support: - Excavation 32204.37 m3 out of 37839.37 m,3. concreting 4193.12 m3 out of 12082 m3 completed, Fabrication of penstock 1457.81MT out of 2286.32MT completed and erection 284 MT out of 2341 MT completed. Power House, switchyard & allied works: 37785/43690 m3 excavation and 6058 /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 20% work have been completed. Over all Progress of the project is around 59.73% and it is expected that the project can be commissioned during March,21. 	-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.
25	Kundah Pumped storage (Phase-I, Phase-II & Phase-III) TANGEDCO 4x125= 500 MW Broad Features: HRT: Ø 8.5mX1247.33m. Surge Shaft: Ø (28m/16m/10m) x68m depth. Pressure Shaft: 2 Nos. Ø 5.50m X 463.38 m (each) Penstock: 4.nos. Ø 3.9m x45.4m each. Power House: Under Ground. Tail race surge chamber: 10m(W);52m(L):48m(H) Tail Race Tunnel: Ø 8.5mx895m Turbine: Francis reversible turbine. Cost: Original: 1216.59 Latest: 1831.29 Contractors Civil & HM : Patel / Kundah PSP E&M: MEIL	Tamil Nadu 2022-23 2023-24 (Apr'23)	 Civil & H&M Works: - Phase-I, Package I & II (Civil and HM works), LOI issued for package - I to M/s Patel engineering, and for package - II M/s Kundah PSP Consortium on 15.02.2018. The site was handed over on 05.03.2018. HRT: Excavation 897m. out of a total 1247 m. have been completed. Pressure Shaft: Excavation 502m out of total a length 926 m completed. Surge Shaft: Surface excavation 54.4m depth out of 68 m completed. Power House: Slashing completed, Benching 16m level out of total 48m level completed. Transformer cavern: slashing completed, benching 9. m level out of total 18.5 m level completed. Tail Race Surge Chamber: - Benching 70% completed. TRT: Excavation 869m out of 895 completed. E&M Works: - Phase-I, Package –III, 1st unit of 125 MW and Phase-II (2x125MW) & Phase –III (1x125 MW) Supply, erection, testing & commissioning works awarded to M/s Megha Engineering & Infrastructure Ltd. on 28.11.2019. Preliminary planning and Engineering works are under progress 	Environmental clearance validity expired on 07.05.2020. MoEF &CC issued TOR for Project works at site for a period of 6 Months from date of issue of TOR or grant of new E.C. Action is being taken to obtained fresh E.C
	Private Sector			
26	Sorang Himachal Sorang Power corporation Ltd. June, 2006/ 2x50= 100 MW Broad Features:	<u>H.P.</u> 2011-12 2021-22 (Dec-21)	All Civil Works completed. Both the units are boxed up. During the filling of water conductor system in 1 st 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,	 Repair of penstock work Arrangement of funds to carry out repair works.

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	HRT- 1.5 km Trench Weir-59 m P.House- underground Turbine- Pelton Gross Head-626 m SWYD- 11/400 kV (GIS) Cost: <u>Original:</u> <u>586.00</u> Latest: <u>586.00</u> <u>Contractors</u> Civil & HM : NCC – Maytas – SS JV E&M : Voith Siemens		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.	
27	Tangnu Romai-I M/s Tangnu Romai Power generation 2x22= 44 MW 30.11.2007 (TEC by HPSEB) Broad Features: Barrage at EL <u>+</u> 2555 m HRT-3.1m dia & 7.220 km length Surge Shaft- 5m dia, Top Level 2570 m & Bottom Level 2520 m Penstock- 2 m dia & 609.3 m length P.House- Surface Turbine – Vertical Francis Cost: Original: 255.00 Latest: 641.89 <u>Contractors</u> Civil & HM : Sai Urja E&M : Andritz	<u>H.P.</u> 2014-15 2024-25 (Subject to re-start of works)	Civil works awarded on 14.06.2010 to M/s Sai Urja Hydel Project (P) Ltd. Barrage and Diversion Cannel: 26211 cum out of 93800 cum excavation completed. Desilting Chambers & SFTPC: Excavation completed. SFT excavation 420 / 450.66 m completed. HRT: 2826m out of 6300m excavation completed. Power House, Switchyard & Misc.: 60275 m ³ out of 72000 m ³ excavation completed. In February-2015, due to land slide the steel bridge on Pabbar River, connecting Project components has been completely damaged. The restoration works are completed.	 Slow progress of works HRT critical, poor geology. Works are stalled due to finance issues since Jan, 2015. Developer have initiated the sale of the Project and are in the process of negotiating with Potential Buyers.
28	Bajoli Holi M/s GMR Bajoli Holi Hydro Power Pvt. Limited 31.12.2011 3x60= 180 MW Broad Features 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 Cost: <u>Original 1696.93</u> Latest 2689.00 <u>Contractors</u> Civil & HM : Gammon E&M : Alstom/ GE	<u>H.P.</u> 2018-19 2021-22 (Dec,21)	Civil Works: 94.65% works completed. Dam: Excavation completed. Concreting 1,69,801 cum out of 2,10,000 cum completed. HRT: Excavation completed. 10.7 km lining out of 15.9 km completed. Surge Shaft: Excavation completed. Lining-72/117m completed. Pressure shaft: Excavation completed. Lining-664MT / 2440MT completed. Power house: Excavation completed and concreting almost completed. HM Works: 75% works completed. E&M Works: 86% works completed.	-Slow progress of works -Poor approach roads -Power evacuation system is critical. - Due to excessive snowfall on 6 th & 7 th 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 th ~25 th Feb 2019.

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29	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: Original 543.15 Latest 1286.27 <u>Contractors</u> Civil & HM : SCL Infratech / Himalaya E&M : Alstom	<u>H.P.</u> <u>2013-14</u> 2022-23 (Jun. 22)	 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 (8526m): Excavation completed and 6587.5/8534 m lining concreting has been completed. Surge Shaft: Excavation 66m/89m completed. Pressure Shaft: Excavation completed. 370m / 1310m lining completed. Power house and Tail race channel- 87709 cum out of 92500 cum excavation completed. Overall 76 % of Powerhouse civil works completed. M/s Statkraft India Pvt Ltd has acquired the 100% equity of the project on 04.09.2018 and remobilization of manpower on the project is in progress. Presently project is scheduled to be commissioned by June 2021. 	 Slow progress of works. Transmission Line critical.
30	Kutehr M/s JSW Energy (Kutehr) Ltd. 3x80 = 240 MW 31.08.2010 Broad Features: Cost: Original : 1798.13 Latest : 1798.13 Contractors Civil & HM : M/s Angelique – PCC consortium, M/s MF Bumi Geotech Pvt. Ltd. & M/s. PES Engineers Pvt. Ltd. E&M : M/s Andritz Hydro Pvt Ltd.	<u>H.P.</u> 2024-25 2025-26 (Nov'25)	Civil works, HM works and E&M works awarded on 20.10.2019, 19.09.2019 and 13.02.2020 respectively. River diversion achieved on 25.01.2020.	-
31	Phata Byung M/s Lanco 06.10.2008 2x38 MW = 76 MW Broad Features: Dam – 26m high HRT- 3.2 m dia & 9.38 km length Turbine – Frances Cost: Original: 520.00 Latest : 1133 <u>Contractors</u> Civil : Lanco HM : Cimmco E&M : Alstom	Uttara <u>khand</u> <u>2012-13</u> 2024-25 (Subject to re-start of works)	 Dam concreting: 17800/18000 cum concreting completed. P.H.: Excavation completed & Concreting in progress. HRT: Excavation almost completed. 1400 m Lining has been completed. Excavation and lining of Intake-I & Intake-II completed. Pressure shaft: Excavation completed & lining is under progress. TRT: Excacation 178/235m completed. E&M Works: Pit liner erection of units completed. EOT Crane installed and Commissioned. Ferrule Fabrication work is in progress. work progress is stalled since July'17 on account of main EPC contractor and holding Company M/s Lanco Infratech Limited (LITL) being referred to NCLT under the Corporate Insolvency Resolution Proceeding as per NCLT Liquidation order in August 2018. However, the preservation works of Project are being carried out regularly at site by the Company, Lanco Mandakini Hydro Energy Private Limited (LMHEPL). 	 Works severely affected due to flash floods in June, 2013. Works are stalled since July, 2017 due to Funds constraints with the developer. Presently, the company is undergoing corporate insolvency resolution process initiated under IBC for resolution and revival of the project.

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			Presently, the company is undergoing a corporate insolvency resolution process initiated under IBC for resolution and revival of the project since June 2020. Under this process, the resolution professional appointed by the NCLT has initiated the process for inviting prospective investors for the project.	
32	Maheshwar, SMHPCL 30 12 96/29.9.2006 (FC) 10x40= 400 MW Broad Features: Dam-35m High, concrete gravity P.Shaft-10x7.82m x 52m P.House - Surface Turbine- Kaplan Cost: Original: 1569.27 Latest: 8121.00 Contractors Civil & HM : Sew E&M : BHEL	<u>M. P.</u> 2001-02 2023-24 (Subject to re-start of works)	 Civil & HM Works: All major civil works completed. All 27 nos radial gates commissioned. Unit Erection: Unit-10: Initial spinning achieved on 14.10.2011. Unit-9 & 8: Ready for spinning. Unit-7: Guide apparatus trial assembly in progress. Unit-6: Erection of turbine embedded parts & foundation parts completed. Unit-5 to 1: Erection of units is in initial stages. Works suspended since Nov-11 due to cash flow problem with developer. Recently, the GoMP constituted a High-Level Task Force vide Energy Department Order dtd. 18.04.2019, under the Chairmanship of Dr. Rajan Katoch (IAS Retd.) and having Senior IAS Officers from GoMP among others as members to examine the difficulties in implementation of the project and suggest the way forward. In the first meeting of the Task Force held on 25.05.2019, the Chairman of the Task Force directed the Promoter and Lenders to engage in discussions to reach an understanding on the way forward. Pursuant to the directions of the Task Force, a Memorandum of Understanding (MoU) has been executed on 22.07.2019 between the Entegra Limited (Promoter), Power Finance Corporation (Lead Lender) and SMHPCL. As agreed in the MoU, new Management nominated by the Promoter has taken over charge of SMHPCL, in August 2019. Mr. M L Gupta, former CMD, THDCIL, who was also MD of SMHPCL. Efforts are being made to initially commission the 3 machines already installed since 2011 and start generation with part filling of reservoir after completing R&R to that level. BHEL has agreed to supervise the restoration and commissioning of 3 machines. Action for arrangement of funds required is being taken. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement, R&R Agreement & Escrow Agreement with SMHPCL on 18.04.2020 & 20.04.2020 respectively. 	 Completion of R&R works and E&M works. Works held up due to Fund constraints with developer. Sub-Judice in NCLT.
33	Bhasmey Gati Infrastructure 2x25.5= 51 MW Broad Features : Dam-33.2m High, Symmetrical gravity HRT-5.3m dia &5.132 km length , Circular. Surge Shaft- 89.8m Hight & 14m dia. P.House-Outdoor	<u>Sikkim</u> 2012-13 2024-25 (Subject to re-start of works)	 Project is in initial stage of construction. River diversion achieved. Barrage: 61555cum/194600cum excavation completed. HRT: 1670m/4460m excavation completed. PH: 136105 cum/185937cum excavation completed. Surge Shaft : 8567cum / 22000cum Surface excavation completed. Overall Physical progress: 38% . 	 Slow progress of works Works stalled since Sept., 2016 due to paucity of funds. -No investor showing interest for executing the project.

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	Turbine-VF TRT-2 Nos, L- 50m Swityard-132/11 KV Cost : <u>Original : 408.50</u> Latest : 690.30 <u>Contractors</u> Civil : Simplex E&M : Voith			
34	Rangit-II Sikkim Hydro Power Limited 10.02.2010 2x33= 66 MW Broad Features : Dam-47m High, Concrete Gravity HRT-3.9m dia &4.745 km length , Surge Shaft- 65.5m High & 10m dia. Underground Pressure Shaft : 1.7 m dia & 2.5 km length. P.House-Outdoor Turbine- Pelton Vertical Swityard- GIS, 132/11KV Cost : <u>Original : 496.44</u> Latest : 496.44 <u>Contractors</u> Civil & HM : Coastal E&M : Gammon	<u>Sikkim</u> 2015-16 2024-25 (Subject to re-start of works)	EPC contract awarded to M/s Coastal in February, 2012. Diversion Tunnel: River diversion through diversion tunnel has been achieved. Dam : Excavation 53100cum out of 85000cum completed. HRT: Excavation 623m out of 4745m completed. Surge Shaft: Excavation completed. Concreting 37/1667 cum done. Pressure shaft: Excavation of pressure shaft I - 25m out of 128m and pressure shaft II - 154m out of 377m completed Power House: Excavation of surface power house is being taken up. Overall Physical progress: 40% .	Works are stalled due to non releasing of funds by lenders because of Power evacuation and land acquisition issues. Works restarted. A meeting with financers were held on 23.09.2016 for release of funds. The developer was asked to submit certain document for release of funds. Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020.
35	Rongnichu Madhya Bharat Power Corporation Ltd. 01.10.2008 2x48= 96 MW Broad features : 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. Cost : <u>Original : 491.32</u> Latest : 1453.34 <u>Contractors</u> Civil & HM : Sew E&M : Voith	<u>Sikkim</u> <u>2014-15</u> 2020-21 (Mar'21)	The civil works have been re-awarded to M/s Moshvaraya Infrastructure Ltd. and E&M works to M/s Litosroj Power, Slovania & CG Electric system, Hungary. Barrage: Excavation & concreting completed. HRT: Excavation completed. Overt lining 175m and Invert lining 2km is balance. Surge shaft: Excavation & Concreting completed. Pressure Shaft: 1330 m out of 1426.50m of steel lining is completed. Power House: Excavation & concreting completed. E&M works: Unit #1 : Erected Unit #2 : Erection in progress. Overall Physical progress: 97% .	-Non availability of Testing and commissioning foreign engineers as they left the project site during Covid- 19.

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36	Panan Himagiri Hydro Energy Pvt. Ltd. 07.03.2011 4x75= 300 MW Broad Features : Dam-115m from deepest foundation level Desilting Chambers : Underground, 2 Size (14Lx22Wx2.5H) HRT- modified horse shoe, 6 m dia & 9549m length , Surge Shaft- 102 m High & 15m dia. Pressure Shaft : 2/4, 3.4/2.4m dia, 707.4 m- Long P.House-Surface Turbine-Vertical Francis Cost : <u>Original: 1833.05</u> Latest :2671.00 <u>Contractors</u> Civil : Essar	<u>Sikkim</u> 2018-19 2025-26 (Subject to re- start of works)	Civil works awarded on 22.02.2014. Infrastructural works and geological investigations are in progress. Starting of civil construction works is held up for want of the National Board of Wild Life (NBWL) clearance. There was a case challenging the Eco-Sensitive zone notification of MoEF & Climate Change in NGT. The case is disposed on 21.8.2017. The developer applied for issuance of clearance from Forest, Environment & Wild Life Management Dept., Govt. of Sikkim from NBWL angle. In August, 2016, there was a huge land slide thereby creating a lake which obstruct the approach to project components. Developer are pursuing with concerned department of GoS for early decision on dismantling of Mantham Lake or developing an alternative road to reach the dam site to start main project civil works in full swing at the earliest. Overall Physical progress: NIL	

<u>Grand Total : 36 nos. – 12,673.5 MW</u>