

### Status of Hydro Electric Projects under execution

| Sl. No                | Name of Project<br>Executing Agency<br>Date of CEA clearance /<br>Approval<br>Capacity (MW)<br>Broad Features<br>Cost (original/latest)  | State<br>Commng.<br>Schedule<br>(original/<br>Now Ant. | Broad Present Status  | Remarks/issues  |
|-----------------------|--|--|---|---|
| <b>Central Sector</b> |  |  |   |   |
| 1.                    | <b>Uri-II</b><br>4x60 = 240 MW<br>J&K<br>NHPC<br><b>Broad Features :</b><br>Dam – 52m High, 172m long,<br>concrete gravity<br>HRT- 8.4m x 4.27km<br>P.House-Underground<br>Turbine- V. Francis<br>TRT- 8.4 m diax 3.78 km long<br>SWYD- 11/400 kV<br><b>Cost:</b><br>Original:1724.79 (02/05)<br>Latest: 1794.00             | J&K<br><br><u>2009-10</u><br>2012-13                   | <b>Civil works:</b><br>Major civil works almost completed.<br><b>E &amp; M works:</b><br>Erection of draft tubes for all units completed.<br>Erection of Spiral Casing and lower pit liner for all Units completed.<br>Unit 1 - Box-up completed.<br>Unit 2 - Box-up completed.<br>Unit 3 - Box up completed.<br>Unit 4 – Rotor lowered on 03.02.12 and erection of balance TG parts is in progress.<br><b>HM works:</b> All works completed.   | - Rainfall & snowfall w.e.f. Feb. 11 to May, 11 resulting in over-topping of dam on 17.04.11.<br>- Delay in completion of down stream civil works.<br>- M/s HCC is facing cash flow crunch.<br>- Flooding of TRT due to flash flood on 16.09.2011.<br>- Adverse weather conditions.<br>- <b>Works stopped on all fronts w.e.f. 19.03.2012 due to local unrest for demanding jobs in NHPC.</b> |
| 2.                    | <b>Chutak</b><br>4x11 = 44 MW<br>NHPC<br><b>Broad Features:</b><br>Barrage- 5 bays, 47.5 long<br>HRT- D-5.9m , L- 4.37 Km<br>P.House- Underground<br>81mx 15.5 mx 34.5 m<br>Turbine- V. Francis<br>SWYD- 11/33 kV<br><b>Cost:</b><br>Original: 621.26 (12/05)<br>Latest: 913.25  | J&K<br><br><u>2010-11</u><br>2012-13                   | <b>E&amp;M Works:</b><br><b>Unit-1:</b> Generation started on 6.11.11. Maximum load put on machine was 4.24 MW.<br><b>Unit-2:</b> Generation started on 26.03.12. The unit has been put on 1.5 MW load.<br><b>Unit-3:</b> Rotor lowered on 17.04.2012. Alignment in progress.<br><b>Unit-4:</b> MIV completed. Stator and rotor building in progress.<br><b>HM Works:</b> All HM gates have been commissioned.  | -Extreme cold climate and high altitude.<br>- <b>U # 1 &amp; U #2 synchro-nized on 06.11.11 &amp; 26.03.12 respectively but could not be commissioned due to insufficient load.</b><br>- <b>JKPDC have been requested to provide full load.</b>   |
| 3.                    | <b>Nimoo Bazgo</b><br>3x15 = 45 MW<br>NHPC<br><b>Broad Features:</b><br>Dam –57.5m High, concrete gravity<br>Spillway- 5 x 65m<br>P.House- Surface<br>Turbine- V. Francis<br>SWYD- 11/33 kV<br><b>Cost:</b><br>Original: 611.01 (12/05)<br>Latest: 936.10  | J&K<br><br><u>2010-11</u><br>2013-14                   | <b>Dam:</b> Concreting of spillway blocks, R/S Non-overflow blocks and Power Dam completed.<br>4407 cum concreting balance in L/S non overflow blocks.<br><b>River Diversion:</b> 2 <sup>nd</sup> stage diversion achieved on 21.10.2011.<br><b>Power House:</b> Concreting completed.<br><b>E&amp;M works:</b><br><b>U #3 :</b> Leveling and alignment of machine in progress after rotor lowering on 21.11.2011.<br><b>U #2:</b> Stator brazing and rotor building in progress.<br><b>U # 1:</b> E&M works yet to start.<br><b>HM Works:</b> All radial & Draft tubes gates erection completed. Erection of Intake gates has also been completed. | - Supply of E&M by BHEL and manpower for erection of E&M parts.<br>- <b>Power evacuation arrangement/availability of sufficient load.</b>   |
| 4.                    | <b>Kishanganga</b><br>3x110 = 330 MW<br>NHPC<br><b>Broad Features :</b><br>Dam – 77m High,<br>concrete gravity<br>HRT- 5.3m x 24 km long<br>S.Shaft-15m dia x 127m high<br>P.House- Underground<br>103mx 21m x 45.5m.<br>Turbine- Pelton wheel<br>Swyd.- 220 kV<br><b>Cost:</b><br>Original:3186.32(1/03)<br>Latest: 3642.04 | J&K<br><br><u>2016-17</u><br>2016-17                   | <b>DT lining – Completed.</b><br><b>Dam:</b> 180640 cum excavation on left bank completed out of 300000 cum.<br><b>HRT:</b> 5083 m excavation completed out of 8630 m by DBM.<br>2891 m excavation completed out of 14799 m by TBM.<br>Surge Shaft excavation sinking from top – 31.8 m completed out of 105m.<br>MAT excavation upto Service Bay completed.  | - Rainfall in March, 2011.<br>- Cavity occurred in HRT- TBM portion on 15.06.11.<br>- Uncertainty due to decision of International Court of Arbitration regarding raising of dam above river bed.   |

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| 5.     | <b>Parbati-II</b><br>4x200 = 800 MW<br>NHPC<br><b>Broad Features :</b><br>Dam – 85m High, 109. m long<br>at top, concrete gravity type<br>HRT- 6m x 31.23km<br>P.House- Surface<br>23.5mx 39.7mx 123m.<br>Turbine- Pelton<br>Swyd.- 13.8/400 kV<br><b>Cost:</b><br><u>Original:3919.59</u><br><u>(12/01)</u><br>Latest: 5524.00 | <u>H.P.</u><br><br><u>2009-10</u><br>2016-17           | <b>Dam-</b> 189625 cum Dam & Inlet structure concreting out of 196977 cum completed.<br><b>Head Race Tunnel-</b> 26615 m excavation out of 31525m completed<br><b>Total Overt lining:</b> 16801 m excavation out of 31525m completed.<br><b>Surge Shaft Lining:</b> 108.7 m completed out of 121 m.<br><b>Feeder Tunnels (Jiwa Nalah):</b> 3495 m exc. out of 4560m done.<br><b>Power House:</b> 39017 cum concreting completed out of 53416 cum. (Progress hampered due to PH back slope failure in April, 04, June, 06 & Feb.07).<br><b>E&amp;M Works:</b> Work of power house was suspended due to slide of backhill slope has been resumed and presently concreting is in progress. Erection of pit liner for all four units completed.<br><b>HM Works:</b> Supply of HM components is in progress. Erection of ferrules in both Vertical Pressure Shafts completed.  | -Slow progress of excavation of HRT due to poor geological strata especially in Face-4 being excavated by TBM.<br>- Rock busting phenomena in Face-III in HRT.<br>- Flash flood on 16 <sup>th</sup> Aug.11.<br><b>- Contract of Lot PB-2 works terminated on 09.03.2012. Re-tendering for balance works under process.</b> |
| 6.     | <b>Parbati-III</b><br>4x130 = 520 MW<br>NHPC<br><b>Broad Features :</b><br>Dam – 43m High, 229 m long,<br>Rockfill type<br>HRT- 7.25m x 7.98km<br>P. House -Underground<br>Turbine- V. Francis<br>SWYD- 13.8/400 kV<br><b>Cost:</b><br><u>Original: 2304.56 (05/05)</u><br>Latest: 2716.00                                      | <u>H.P.</u><br><br><u>2010-11</u><br>2012-14           | <b>Rockfill Dam:</b><br><b>Plunge Pool excavation:</b> 148650 cum completed out of 163550 cum.<br><b>Head Race Tunnel:</b><br><b>Overt Lining (Face 2 to 6):</b> 7850 m concreting completed out of 7863 m.<br><b>Invert Lining (Face 1 to 6):</b> 6020 m concreting completed out of 7880 m.<br><b>Surge Shaft-</b> 141.5 m concreting out of 147 m done.<br><b>Vertical Pressure Shaft I&amp;II:</b> 602 m of steel liner erection completed out of 620 m.<br><b>Tail Race Tunnel-</b> 457 m D/S Overt Conc. out of 1094 m completed.<br><b>Power House:</b> Conc .of surge chamber, Machine Hall of Unit-IV completed.<br><b>E&amp;M Works:</b><br>Scroll case erection completed in all Units.<br><b>Unit #1:</b> Lowering of rotor and stator completed and erection of MIV & boxing up in progress.<br><b>Unit #2:</b> Stator lowered and rotor assembly in service bay & erection of turbine in progress.<br><b>Unit #3:</b> Turbine erection and rotor assembly in progress.<br><b>Unit #4:</b> Turbine assembly started.<br><b>HM Works:</b> Erection of steel liners for Pressure Shaft is in progress. Erection of Spillway Radial Gates, Intake gates & SFT gates has been completed and testing & commissioning in progress. | - Poor geology in HRT.<br>- Stoppage of work by local w.e.f. 01.07.2011.<br>- Flash flood on 16 <sup>th</sup> Aug.11.<br>- Forest clearance for transmission line.   |
| 7.     | <b>Kol Dam</b><br>NTPC<br>30.6.2002/Oct.2002<br>4x200 = 800 MW<br><b>Broad Features :</b><br>Dam – 163m High, Rock & Gravel fill<br>Penstock Tunnel: 4nos. 6.45m dia, 1600m long<br>P.House- Surface<br>Turbine- V. Francis<br><b>Cost:</b><br><u>Original: 4527.15</u><br>Latest: 4527.15                                      | <u>H.P.</u><br><br><u>2008-10</u><br>2013-14           | <b>Gravity Dam:</b> Excavation in Dam area completed. Excavation in Spillway area 123.62 lac cum out of 127.88 lac cum has been completed.<br><b>Main Dam:</b> 112.70 lac cum filling completed out of 126.22 lac cum.<br>Clay filling – 19.85 lac cum out of 21.72 lac cum completed.<br>Other materials filling – 92.85 lac cum out of 104.50 lac cum completed.<br><b>Spillway concreting:</b> 3.87 lac cum concreting completed out of 4.81 lac cum.<br><b>Power Intake Concreting:</b> 58065 cum out of 63400 cum has been completed.<br><b>Power House:-</b> 113591 cum primary conc. out of  | - Clay/earth filling of main dam.<br>- Grouting of dam galleries.<br>- Concreting of spillway.<br>- Contractual issues.<br>- Submergence issues since some portion is coming under Wild Life Area.   |

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|        |  |   | 121162 cum and 21084 cum secondary conc. Out of 21085 cum have been completed.<br><b>Unit-1:</b> Boxed up.<br><b>Unit-2:</b> Boxed up.<br><b>Unit-3:</b> Boxed up.<br><b>Unit-4:</b> Erection of turbine completed.<br><b>Penstock:</b> Erection of penstock liners completed. Erection of D/T gate of one unit completed.<br>Erection of Power Intake gates for all units is in progress.<br>Erection of Generator Transformer completed for all four units.   |  |
| 8.     | <b>Ram Pur (SJVNL)</b><br>SJVNL<br>16.12.2005/25.01.07<br>6x68.67= 412 MW<br><b>Broad Features:</b><br>HRT-10.5m x 15.08Km<br>S.Shaft- 38m x 149m<br>P.House- Surface<br>Turbine- Francis<br>Switchyard – 400 kV<br><b>Cost:</b><br><u>Original:</u> 2047.03<br><u>Latest:</u> 2047.03   | <u>H.P.</u><br><br><u>2011-12</u><br>2013-14                      | <b>HRT:</b> Heading excavation 300 m is balance out of 15176 m and lining 7.7 km out of 15.177 km completed.<br><b>Surge Shaft (40 m dia):</b> Excavation completed and 147 m concreting has also been completed out of 165 m.<br><b>Erection of Units:</b><br><b>U #1:</b> Assembly of stator & rotor is in progress.<br><b>U #2:</b> Erection of pit liner completed.<br><b>U #3:</b> 2 <sup>nd</sup> stage concreting upto stay ring pedestal is in progress.<br><b>U #4:</b> 2 <sup>nd</sup> stage reinforcement in progress.<br><b>U #5:</b> Hydro testing completed on 16.04.12. Pit liner erected.<br><b>U #6:</b> Welding of spiral casing segment is in progress.  | - Slow progress of HRT due to poor geology.<br>- Slope failure in Power House area.  |
| 9.     | <b>Tapovan Vishnugad</b><br>NTPC<br>11.08.2004/Nov, 2006<br>4x130 = 520 MW<br><b>Broad Features :</b><br>Barrage–5 bays of 12m<br>HRT- 5.4m x 11.97km<br>P.House- underground<br>Turbine- V.Pelton<br><b>Cost:</b><br><u>Original:</u> 2810.84<br><u>Latest:</u> 2978.48   | <u>Uttarakhand</u><br><br><u>2011-12</u><br>2015-16               | HRT from Intake D/s excavation 2106 m out of 3472m, U/S excavation 226.5 m out of 241.4 m and HRT by TBM 5436 m out of 8618.6 m completed. Excavation of Desilting Chamber under progress and 15.03 lakh m <sup>3</sup> out of 16.90 lakh m <sup>3</sup> completed. In TRT open exc. & tunnel excavation completed & concreting also completed.<br><b>Surge shaft excavation:</b> Surge shaft full widening completed.<br>Penstock excavation completed. Erection of steel liner in inclined PS-1 from intermediate to top completed and in PS-2 from intermediate to top also completed.<br><b>E&amp;M works:</b> Erection of EOT crane in BF Valve completed. Pit liner erection for Unit #1, 2 & 3 completed & for unit #4 is in progress.<br>Turbine housing erection is in progress. | - Delay in HRT work due to late deployment of TBM.<br>- Heavy water ingress in HRT w.e.f. 25.12.2009 and excavation by TBM was affected.<br>- <b>Contract for barrage &amp; desilting chamber terminated and re-tendering work is in progress.</b> |
| 10.    | <b>Tehri PSS,</b><br>THDC,<br>18.7.06<br>Nov-11 (Revised CCEA)<br>4x250=1000 MW<br><b>Broad Features :</b><br>Surge Shaft: U/s – 2 nos.<br>D/s – 2 nos<br>Power House: U/G<br>TRT: 2, Dia 9m and Length 1081m + 1176m<br>Turbine: VF reversible pump turbine<br><b>Cost:</b><br><u>Original:</u> 1657.60<br><u>Latest:</u> 2978.86 | <u>Uttarakhand</u><br><br><u>2011-12</u><br>13 <sup>th</sup> Plan | EPC contract has been awarded on 23.06.11 with commencement date from 27.07.11.<br><br>Pre-construction activities and construction of approach adits to various underground works are in progress. Crown slashing of Power House pit started. Out of 60.0 Th. cum excavations up to Service bay area, a progress of 1.284 Th.cum has been completed.   |  |

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| 11.    | <b>Teesta Low Dam-III</b><br>4x33 = 132 MW<br>NHPC<br><b>Broad Features :</b><br>Barrage – 140m long , 32.5 m high<br>Penstock-4x 7m x 50m<br>P.House- Surface<br>125mx 22mx56m<br>Turbine- Kaplan<br>Net head- 21.34m<br>SWYD- 11/220 kV<br><br><b>Cost:</b><br><u>Original: 768.92 (12/02)</u><br>Latest: 1628.00 | <u>West Bengal</u><br><br><u>2006-07</u><br>2013-14    | <b>Dam Cellular wall concreting:</b> 66833 cum concreting completed out of 67315 cum.<br><b>Barrage-</b> Barrage Blocks I to II: Concreting completed.<br><b>E&amp;M Works:</b> Unit-1: Unit axis alignment and Box-up completed. Erection of auxiliaries is in progress.<br><b>Unit-2:</b> Unit axis alignment and Box-up completed. Erection of auxiliaries is in progress.<br><b>Unit-3:</b> Unit axis alignment and Box-up completed. Erection of auxiliaries is in progress.<br><b>Unit-4:</b> Unit axis alignment & Box up completed. Erection of auxiliaries in progress.<br>Erection of GIS Equipment and Pothead Yard Equipment is in progress. Erection of generator transformer of Unit-1 & 2 in progress.<br><b>Hydro-Mechanical Works:</b> Erection of Penstocks completed. Erection of all intake service gate completed. ET&C of spillway stoplog Bay S-3, S-5, S-6 & S-7 completed. Erection of Radial gate in Bay No.-3, 4, 5, 6 & 7 completed and same is under progress for Bay-1 & 2. Erection of Intake stoplog Gantry crane completed and erection of Intake Stoplog gates is in progress. Erection of Draft tube gantry crane completed and erection of Draft Tube Gates is in progress and 6 gates completed out of 8. | -Delay in forest clearance<br>-Slope failure in Power House and Intake area.<br>- Frequent interruption of works due to GJM agitation.<br>- Inadequate labour at site.<br>- Erection of spillway gates #2 is critical.   |
| 12.    | <b>Teesta Low Dam-IV</b><br>4x40 = 160 MW<br>NHPC<br><b>Broad Features :</b><br>Dam – 45m High, 511m long, concrete gravity<br>P. House- Surface 130mx 24mx 63m<br>Turbine- Kaplan<br>SWYD- 11/220 kV<br><b>Cost:</b><br><u>Original: 1061.38 (03/2005)</u><br>Latest: 1502.00                                      | <u>West Bengal</u><br><br><u>2009-10</u><br>2014-15    | <b>Power House:</b> 111180 cum concreting completed out of 132742 cum.<br><b>Excavation of RCC Dam:</b> 157250 cum completed out of 290000 cum.<br><b>E&amp;M Works:</b><br>Design/Engineering in progress by M/s BHEL. Erection of EOT crane completed in service Bay. Erection of Draft Tube Liner in all units completed. Erection of Spiral case in Unit-1, 2 & 3 completed and is under progress for unit-4. Turbine assembly erection & rotor assembly erection for Unit #1 is under progress at Service Bay.<br><b>HM Works:</b> Design/Engineering in progress by M/s Om Metals. 81.5% erection of Radial gate in Bay-1 to 7 completed. 19% erection of Silt Flushing Gate completed. Erection of penstock liner completed. 20% erection of Intake gates completed.  | -Delay in forest clearance<br>- Frequent interruption of works due to GJM agitation.<br>- Financial crunch with HCC.   |
| 13.    | <b>Subansiri Lower</b><br>8x250= 2000 MW<br>NHPC<br><b>Broad Features :</b><br>Dam –116m High, concrete gravity<br>HRT- 8 x 9.5m x 1145m<br>P.House- Surface<br>Turbine- Francis<br>SWYD- 16/400 kV<br><b>Cost:</b><br><u>Original: 6285.33 (12/02)</u><br>Latest: 10667.00   | Arunachal Pradesh<br><br><u>2010-11</u><br>2016-17     | <b>Diversion tunnel:</b> River diverted on 25.12.2007.<br><b>Dam concreting:</b> 575426 cum completed out of 1351000 cum.<br><b>Intake Structure:</b> 261377 cum concreting completed out of 283000 cum.<br><b>Head Race Tunnel (I-VIII):</b> 7050 m heading excavation completed out of 7124m.<br>4279 m benching excavation completed out of 7124 m.<br>3199 m concrete lining completed out of 7124 m.<br><b>Surge Tunnels (8 nos.):</b> 3109 m heading excavation completed out of 3545 m.<br><b>Pressure Shaft-<br/>Vertical Pressure Shaft Slashing:</b> 199 m excavation out of 384 m completed.<br><b>Surface Power House:<br/>Concreting:</b> 124887 cum out of 302600 cum completed.<br><b>E&amp;M Works:<br/>Unit #1:</b> Elbow erection (1 to 6) and Turbine stay  | - Signing of MoU with State Government of Assam.<br>- Law & Order problem.<br>- Cut-off wall issue.<br>- <b>Issue of downstream Impact Study &amp; demand for stoppage of works by anti dam activities.</b><br>- <b>No progress at site due to agitation by activities against construction of project since 16.12.2011.</b> |

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|        |   |  | ring and Spiral case erection completed.<br><b>Unit #2:</b> Elbow erection (2 to 6) and Turbine stay ring and Spiral case erection completed.<br><b>HM Works:</b><br>Erection of diversion tunnel gates 23% completed.<br>Erection of Intake-I : 5.2% completed.<br>Erection of Intake 7 & 8 – 20% completed.<br>Out of total 1594m, 201 m pressure shaft steel liner erected.  |   |
| 14.    | <b>Kameng</b><br>NEEPCO<br>02 12 2004<br>/4x150 = 600 MW<br><b>Broad Features:</b><br>Dam :Bichom-75m High, 247.3m long.<br>Tenga – 25.0 High, 103m long.<br>HRT- 6.7m dia, 14.477km.<br>High Pressure Tunnel (HPT)Total length 3.64 km<br>Surge Shaft: 25m dia, 70m H<br>P.House- semi-U/G<br>Turbine- Francis<br><b>Cost:</b><br><u>Original: 2496.90</u><br>Latest: 2496.90  | Arunachal Pradesh<br><br><u>2009-10</u><br>2016-17     | <b>Bichom Dam:</b> Excavation (including intake) (R) 590668/611546 cum and Concreting 8082/ 357490 cum completed.<br><b>Tenga Dam:</b> Excavation 112710/135000 cum and Concreting 6280/92850 cum completed.<br><b>HRT:</b> Excavation: 10919.60/14477.50 RM completed.<br><b>Surge Shaft:</b> Open excavation and boring completed, Lining: 61.20/70 RM completed.<br><b>HPT:</b> Boring of vertical portion 343.33/346.40 RM completed & horizontal portion 1529.86/1674.16 RM completed. Open excavation of surface penstock 352737/407504 cum completed.<br><b>Power House:</b> Excavation 1078565/1214865 cum completed. Concreting 28907/29477 cum completed.<br><b>HM Works &amp; Penstock:</b> Fabrication & erection of penstock steel liner and HM works are in progress.<br><b>Electro-mechanical works:</b><br>Unit #1: Placing of DT bend liner completed. Assembly of DT drain box and drain pipe completed.<br>Unit #2: Earthing of Pit completed. | - Length of dam increased from 247.3m to 264.15m. Diversion arrangement modified.<br>- Slow progress in Dam & HRT due to various reasons i.e. Bad geology, heavy seepage, in adequate machinery at site etc.<br>- Contractual issues. |
| 15.    | <b>Pare</b><br>NEEPCO/4.12.2008<br>2x55 = 110 MW<br><b>Broad Features:</b><br>Dam : 78m High, Con.Gravity<br>Spillway – 3 nos. gates<br>Size of gate:<br>10.4m (w)X 12 m(H)<br>Crest Level: 216 m<br>HRT: Dia – 7.5 M<br>Length– 2810.75M<br>Pressure Shaft: Dia: 6.4 M<br>Length: 220M<br>Bifucation Penstock<br>Dia: 4.5 M<br>Power House: Surface<br>P.H. Size: 68 mX 25m<br>Type of Turbine: VF<br>TRC: Open channel<br>60.62 M wide 49M long<br><b>Cost:</b> <u>573.99</u><br>674.45 | Arunachal Pradesh<br><br><u>2012-13</u><br>2014-15     | <b>Dam:</b> Excavation 144750 cum out of 391131 cum completed.<br><b>Diversion Tunnel:</b> Excavation completed and lining 90/265 m completed.<br><b>Surge shaft:</b> Boring of surge shaft 57 m out of 59 m completed. <b>HRT</b> Face-I- excavation 682/778 m, & Face-II excavation 694/1038 m & Face-III excavation 115/1012 m completed.<br><b>High Pressure Tunnel:</b> Excavation Face-III & V completed and Face-IV 76 m out of 91.5 m completed.<br><b>Power House:</b> Excavation 119406/125000 cum completed. Concreting 8415/35000 cum completed.  |   |
| 16.    | <b>Tuirial</b><br>NEEPCO<br>2x30= 60 MW<br>Revised CCEA 14.01.2011<br>Dam: Earthfill<br>L – 250 M<br>H – 75 M<br>Diversion Tunnel: Partly circular & partly modified horse shoe   | <u>Mizoram</u><br><br><u>2006-07</u><br>2016-17        | Works resumed.<br><b>Main Dam:</b> Excavation 71600 cum out of 440000 cum completed.<br><b>Spillway:</b> Excavation 1575536 cum out of 1824159 cum completed.<br><b>Power House &amp; Switchyard:</b> Open excavation 136160 cum out of 260000 cum & concreting 40 cum out of 19225 cum has been completed.   | Works suspended earlier due to local unrest since June, 04, the works re-started on 14.01.2011.   |

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|        | Diameter Diverted concrete portion 6 M steel liner portion 6M, 5.6 M & 3.6 M<br>Power tunnel: Concrete Portion – 200 M<br>Steel Liner Portion – 140M, 80M & 2.30 M<br>Cost: <u>913.63</u><br>913.63  |  |  |   |
|        | <b>State Sector</b>  |  |  |   |
| 17.    | <b>Baglihar-II</b><br>JKPDC<br>3x150= 450 MW   | <u>J&amp;K</u><br><br><u>2014-15</u><br>2016-17        | Baglihar-II H.E. Project was conceived along with Baglihar-I H.E. Project. Some of the works associated with dam and some portion of HRT was completed alongwith Baglihar Stage-I project. The HRT excavation is in progress and 55% excavation has been completed. The contract for civil as well as E&M works have been finalized and completion period has been stipulated as 45 months. Member (Hydro), CEA, asked JKSPDC representative to furnish the details programme (L2 schedule) for completion of the project. It was appraised by the Project Authorities that water availability has been scheduled on 01.03.2015 and unit commissioning in May, June & August, 2015, respectively. The critical activity for commissioning of units is the supply & erection of E&M equipments. . | Supply and erection of E & M EquipmentsUnits  |
| 18.    | <b>Uhl-III,</b><br>Beas Valley Power Corporation Ltd. (HPSEB)<br>19.09.02 /<br>(TEC -2x50 MW)<br>3x33.3 =100 MW<br>(Revised vide HPSEB letter dt. 19.01.07.<br><b>Broad Features:</b><br>HRT-4.15m x 8.47 km<br>S.Shaft- 13m x 57m<br>Penstock- 3.4m x 1860m<br>P.House- Surface<br>Turbine- V. Francis<br>Cost: Original: <u>431.56</u><br>Latest: 431.56 | <u>H.P.</u><br><br><u>2006-07</u><br>2014-15           | Completion of HRT is the most critical activity since the contract was earlier cancelled twice due to poor performance of the contractors. The present contractor is presently facing financial crisis. It was intimated that the project authorities are taking up the issue on priority basis. HRT excavation of 300 m and lining of of about 7000 M balance. The project authorities are expecting to complete HRT works by August, 2013 which seems to be too optimistic in view of smaller dia of HRT, ventilation problem, volume of balance works and financial crisis with the contractor.   | -Poor geology in HRT.<br>-Cancellation of contract for HRT twice.<br>Slow Progress of HRT |
| 19.    | <b>Kashang-I</b><br>H.P. Power Corpn. Ltd.<br>31.07.08<br>65 MW  | <u>H.P.</u><br><br><u>2012-13</u><br>2014-15           | Excavation for trench weir completed and concreting is in progress. Out of 1993 m HRT, 1610 m excavation and 285 m lining has been completed. Excavation of power house, transformer hall and TRT is completed. The pace of civil as well as E&M works is slow and not in commensurate with the scheduled commissioning of March, 2013.  |   |
| 20.    | <b>Kashang-II &amp; III</b><br>H.P. Power Corpn. Ltd.<br>1x65 + 1x65= 130 MW   | <u>H.P.</u><br><br><u>2013-14</u><br>2015-16           | Works of Kerang-Kashang link (KK Link) tunnel awarded to M/s Patel Engineering Ltd. Works getting delayed due to continuous agitation by Lippa villagers. The matter is sub-judice.  | - Local issues.   |
| 21.    | <b>Sainj</b><br>H.P. Power Corpn. Ltd.<br>100 MW<br>29.12.2010<br>Cost:<br>Original <u>725.24 Cr.</u><br>Latest 725.24 Cr.   | <u>H.P.</u><br><br><u>2013-14</u><br>2014-15           | Civil works have been awarded and progressing smoothly without any obstacle. Excavation of barrage completed and concreting is in progress. For HRT, excavation of Adit #1 is completed and excavation of Adit #2 is in progress. Excavation of power house, transformer hall and TRT is in progress   | Evacuation system   |

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|--------|--|---|--|---|
| 22.    | <b>Swara Kuddu</b><br>H.P. Power Corpn. Ltd.<br>HPSEB Clearance:<br>10.11.2004<br>3x37= 111 MW<br><b>Broad Features:</b><br>Diversion Structure: 10.45m<br>high Piano Key Weir.<br>HRT- D-Shaped, 5m dia,<br>11.145Km long.<br>Power House- Under ground<br>Turbine- 500 rpm VF.<br>Switchyard: 220 Kv.<br><b>Cost: Original: 558.53</b><br>Latest: 1181.90  | <u>H.P.</u><br><br><u>2010-11</u><br>2014-15                      | 9.4 km out of 11.4 km HRT excavation and 675 m HRT concreting has been completed. As per the discussion, It was understood that the civil works are delayed mainly due to poor geology and contractual issues. Power house excavation is completed and concreting is in progress. Erection of draft tube liner has been completed in Unit #1 and is in progress in Unit #2. TRT excavation is completed and lining is in progress.   | - Works badly suffered due to encounter of poor geology.  |
| 23.    | <b>Koyana Left Bank PSS</b><br>WRD, Mah.<br>20.02.2004<br>2x40 = 80 MW<br><b>Broad Features:</b><br>Water from the existing<br>Shivaji Sagar Lake<br>(Koyana reservoir)<br>is to be utilized for power<br>generation.<br>Intake Tunnel:<br>Dia – 7.20 M<br>Length – 235.5 M<br>(including Lake tab)<br>HRT: Dia – 7.20 M<br>Length – 80 M<br>Penstock – 2 nos Dia – 2.9 M<br>Length – 10 M each<br>P.House – Underground<br>Turbine – Reversible | <u>Maharashtra</u><br><br><u>2014-15</u><br>13 <sup>th</sup> Plan | Construction of Main Access Tunnel (MAT), Ventilation Tunnel and Intake gate shaft (Trash Rack, Stoplog & Main gate) works are under progress. Underground power house cavern of size 88m x 22 m excavation is in progress. Crown excavation completed and rock bolting is in progress. Benching down to follow after the rock bolting. The complete Electro-mechanical contract has been placed on M/s IVRCL Ltd., Pune on 16.12.2010. The delivery of equipments is expected by June, 2012. The tender documents for supply of EOT crane is under preparation. |   |
| 24.    | <b>Nagarujana Sagar TR</b><br>APGENCO<br>17 01 05<br>2x25=50 MW<br><b>Broad Features:</b><br>Dam –29.5m High<br>Spillway- 21nos gate<br>Penstock- 2x 5.35m<br>P.House- Surface<br>Turbine- V. Kaplan<br><b>Cost:Original: 357.63</b><br>Latest: 464.70   | <u>A.P.</u><br><br><u>2008-09</u><br>2014-15                      | The dam works are slow due to contractual issues. Earlier the contract for HM works cancelled, now the fresh award has been placed.  | - Slow progress in Construction of dam and associated HM works.<br>- Delay in Award of HM works.<br>- unprecedented floods on 01.10.2009<br><b>- unprecedented floods on 05.09.2011</b> |
| 25.    | <b>Lower Jurala</b><br>APGENCO, A.P.<br>TEC in July 2007<br>6x40=240 MW (120 MW likely to slip)<br><b>Broad Features:</b><br>Intake: 18 vents (3 vents for each unit) 4.7m width,<br>P.House- Surface,<br>Turbine- Bulb<br>Design Head- 20m<br>SWYD- 220 kV<br><b>Cost: Original: 908.34</b><br>Latest: 908.34   | <u>AP</u><br><br><u>2011-12</u><br>2014-16                        | Power house works are progressing as per schedule. However, right bank non-overflow section is getting critical since the villagers residing on the right bank are demanding employment in the project and hence agitating continuously.   | - Delay in award of E&M works.<br>- Slow progress of civil works.<br>- Floods in October, 2009.<br>- Floods in 2010.<br>- Frequent bandh by TJAC for Telangana State.                   |

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|--------|--|---|--|---|
| 26.    | <b>Pulichintala</b><br>APGENCO<br>120 MW (4x30 MW)<br>25.04.2007<br>Broad Features:<br>Design Head: 24 M<br>Power House: Surface<br>Turbine : V. Kaplan<br>Annual Energy: 220 MU<br><b>Cost: Original: 380 Crs.</b><br>Latest: 396 Crs.  | <u>A.P.</u><br><br><u>2010-11</u><br><u>2015-17</u>       | Civil construction works are at standstill since Sept. 2011 because of contractual issues resulting in basically no works at site. It was intimated that APGENCO has given ultimatum to the contractor before terminating the contract.  | - Slow progress of Dam.<br>- E&M works need to be expedited.<br>- unprecedented flood on 02.10.2009.<br><b>- unprecedented floods on 05.09.2011.</b><br>- Works standstill since Septemebr, 2011 due to Contractual issues.         |
| 27.    | <b>Pallivasa</b><br>KSEB<br>2x30= 60 MW<br><b>Broad Features:</b><br>HRT: 3.50m X 3396m<br>Surge Shaft: 7.0m X 49m<br>Pressure Shaft: 2.50m X 1019.20m<br>Penstock: 2.00mX1161.20m<br>Power House: Surface<br>Turbine : Pelton<br>S.Yard: 220kV – Single bus<br><b>Cost: Original: 242.95 + US\$ 57M</b> | <u>Kerala</u><br><br><u>2010-11</u><br><u>2014-15</u>     | <b>Weir:</b> Excavation –10833/19700 cum. Concreting 1024/7340 cum.<br><b>Intake structure:</b> Excavation – 28398/33492 cum completed.<br><b>HRT:</b> Excavation –2914/3330 m completed.<br>Overt conc. 1634/3330 m completed.<br>Invert Conc.. – 1637/3330 m completed.<br><b>Power House:</b> Excavation completed.<br>Concreting 1420/11225 cum.<br><b>Surge Tank/Forebay:</b> Excavation –6304/13400 cum. Concreting 306/843 cum.<br><b>Pressure Shaft:</b> Excavation- Completed..<br><b>Surface penstock :</b> Excavation –98648/122600 cum. Concreting 6918/11375 cum.<br><b>P.H.:</b> Excavation- 54831/64408 cum..<br>Concreting –7855/9975 cum.<br><b>Tail race Tunnel:</b> Excavation completed. Lining 40/91 m done.<br><b>E&amp;M Equipment: 79% supply cpmpleted.</b> | - Works are getting affected due to poor maintenance of machineries by contractor.<br>- Land acquisition problem for penstock.<br>- Slow progress of civil works.<br>- Change in alignment of Adit to HRT.<br>-Poor Geology in HRT. |
| 28.    | <b>Thottiyar</b><br>KSEB<br>1x30 + 1x10= 40 MW<br><b>Broad Features:</b><br>Weir: 222m Long 11 blocks<br>7.5m height<br>Tunnel: Circular 2.6m dia<br>199m long.<br>Power House: Surface<br>Turbine : Vertical Pelton<br><b>Cost: Original: 14400 lakhs</b><br>Latest: 14400 lakhs                        | <u>Kerala</u><br><br><u>2013-14</u><br><u>2015-16</u>     | <b>Civil Works:</b><br><b>Weir:</b> 2844 cum excavation out of total 5850 cum completed.<br><b>Approach Channel &amp; Intake:</b> 2749 cum out of 9100 cum done.<br><b>Power House, switchyard &amp; allied works:</b> 24300 cum excavation out of 44500 cum and 409 cum concreting out of 15675 m done.<br><b>E&amp;M and HM Works:</b> Design and supply are in progress.  | The work of weir & approach channel was stopped due to land acquisition issues by local people. Works resumed during February 2012.   |
| 29.    | <b>Bhawani Kattalai Barrage-II</b><br>TANGEDCO<br>11.6.99<br>2x15 = 30 MW<br><b>Broad Features:</b><br>Barrage –22 gates<br>P.House- Surface<br>Turbine- Bulb<br><b>Cost:</b><br><u>Original: 99.15</u><br>Latest: 400.59  | <u>Tamil Nadu</u><br><br><u>2006-07</u><br><u>2012-13</u> | <b>Civil &amp; HM works:</b> Works of barrage and Power House are completed.<br><b>E&amp;M works:</b><br><b>U #1:</b> Unit was synchronized with the grid on part load due to non availability of FRL on 28.07.2011.<br><br><b>U #2 :</b> Unit was synchronized with the grid on part load due to non availability of FRL on 29.09.2011 .<br><br>Units could not commissioned at full load due to non-availability of desired reservoir level which could be done after shifting of Railway pump house at the upstream of Power house.<br>Units are likely to be commissioned at full load during September/October- 2012.   | Reservoir filling.<br>Level raised in the reservoir is EL147.25m against FRL of 148.25. Full load Commissioning at full load held up due to non-availability of Full Reservoir Level.<br>Shifting of Railway pump house.            |
| 30.    | <b>Bhawani Kattalai Barrage-III</b><br>TANGEDCO<br>27.03.02<br>2x15 = 30   | <u>Tamil Nadu</u><br><br><u>2006-07</u><br><u>2012-14</u> | <b>Civil &amp; HM works:</b> Works of barrage and Power House are almost complete.<br><b>E&amp;M works:</b> Both the units boxed up. Testing is in progress.<br>Commissioning is programmed during   |   |

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|-----------------------|---|--|---|--|
|                       | <b>Broad Features:</b><br>Barrage –22 gates<br>P.House- Surface<br>Turbine- Bulb<br><b>Cost:</b><br><u>Original:</u> 99.75<br>Latest: 398.60  |  | August/September, 2012 after impounding of water which is based on the irrigation discharge during monsson.   |  |
| 31.                   | <b>Myntdu, Unit-3</b><br>MeECL<br>20.09.99/<br>2x42+1x42 = 126 MW<br><b>Broad Features:</b><br>Dam –63m High<br>HRT- 3316.46mx3.4m dia<br>Power House- Surface<br>Turbine- V. Francis<br><b>Cost:</b> <u>Original:</u> 363.08<br>Latest: 965.93   | <u>Meghalaya</u><br><br><u>2006-07</u><br>2012-13      | All civil & HM works completed.<br><b>Generating Unit:</b><br><b>Unit #3:</b> Generator barrel constructed. Stator & rotor assembly in progress.  | _Delay in commissioning due to flash flood on 20.05.2010.<br>- Delay in erection of unit.                                    |
| 32.                   | <b>New Umtru</b><br>MeECL,<br>2x20=40<br><b>Broad Features:</b><br>Diversion Structur-Gated structure (FRL-130.1m, MDDL-123.3m)<br>HRT- 5m dia, 750m long<br>P.House- Deep Set<br>SWYD- 132 kV<br><b>Cost:</b> <u>194.3 Cr.</u><br>194.3 Cr.  | <u>Meghalaya</u><br><br><u>2011-12</u><br>2014-15      | <b>Surge shaft:</b> Open excavation completed and 24 m deep completed out of 34.5 m.<br>HRT: Excavation 633 m out of 753 m completed.<br>TRT: Excavation 600 m out of 702 m completed.  | Slow progress of civil works.  |
| <b>Private Sector</b> |   |  |   |  |
| 33.                   | <b>Sorang</b><br>Himachal Sorang Power corporation Ltd.<br>June, 2006/<br>2x50= 100 MW<br><b>Broad Features:</b><br>HRT- 1.5 km<br>Trench Weir-59 m<br>P.House- underground<br>Turbine- Pelton<br>Gross Head-626 m<br>SWYD- 11/400 kV (GIS)<br><b>Cost:</b><br><u>Original:</u><br>Latest:                    | <u>H.P.</u><br><br><u>2012-13</u><br>2013-14           | Presently HRT lining and penstock erection is most critical activity. Length of HRT is 1455 m. Excavation of HRT and penstock completed. Out of 1455 m lining in HRT 800 m has been done and 655 m is balance. Due to the difficult slope of the hill, erection of surface penstock is another critical activity of the project. 5 nos. anchor bends and 536 m ferrule erection is yet to be completed. As per the Project representative, HRT and Penstock works are likely to be completed by Nov. 2012 | - Difficult area, accessibility and availability of working period.<br>- Cavity formation in HRT.<br>- Erection of penstock. |
| 34.                   | <b>Tangu Romai-I</b><br>M/s Tangu Romai Power generation<br>2x22= 44 MW<br>30.11.2007<br>HPSEB<br><b>Broad Features:</b><br>Barrage at EL ± 2555 m<br>HRT-3.1m dia & 7.220 km length<br>Surge Shaft- 5m dia, Top Level 2570 m & Bottom Level 2520 m<br>Penstock- 2 m dia & 609.3 m length<br>P.House- Surface | <u>H.P.</u><br><br><u>2014-15</u><br>2015-16           | Civil works awarded on 14.06.2010 to M/s Sai Urja Hydel Project (P) Ltd. Infrastructure works are in progress.<br><b>HRT</b> – Adit excavation is in progress.<br><b>Surface Power House</b> – 31% excavation completed.  |  |

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|--------|--|--|--|---|
|        | Turbine – Vertical Francis<br><b>Cost:</b><br><u>Original: 255.00 Crs</u><br>Latest: 255.00 Crs  |  |  |   |
| 35.    | <b>Shrinagar</b><br>GVK Industries Ltd.<br>14/06/2000/ FC<br>4x82.5=330<br><b>Broad Features:</b><br>Dam –66.5m High, concrete gravity<br>HRT- 13m x 889m<br>Penstock-4x 5.6m x 114m<br>P.House- Surface<br>Turbine- Francis<br><b>Cost:</b><br><u>Original: 1699.12</u><br>Latest: 2069.00  | <u>Uttarakhand</u><br><br><u>2005-06</u><br>2013-14        | Ministry of Environment and Forest, Govt of India has issued stop notice for works from 30.05.2011. The dam & desilting basin works are critical for the commissioning. It was intimated by the project representative that during monsoon 2011, flood water gushing through dam blocks caused heavy damages to dam right bank and foundation. It is assessed that after the start of work, it would take at least 18 months to complete the balance works. It was intimated by Project authorities that villagers are protesting the erection of transmission lines, being erected by UPPTCL. | - Concreting of dam is critical.<br>- Desilting chamber is critical.<br>- Local issues.<br>- <b>Ministry of Environment &amp; Forests, Govt. of India has issued stop notice for works from 30.05.2011.</b><br>-Completion of Evacuation system |
| 36.    | <b>Phata Byung</b><br>M/s Lanco<br>06.10.2008<br>2x38 MW = 76 MW<br>Broad Features:<br>Dam – 26m high<br>HRT- 3.2 m dia &<br>9.38 km length<br>Turbine – Frances   | <u>Uttarakhand</u><br><br><u>2013-14</u><br>2013-14        | It was intimated that 7 km out of 9228 m HRT excavation has been completed. HRT Excavation in Face-IV is hampered due to poor geology. Power House excavation is completed and concreting has been started.  |   |
| 37.    | <b>Singoli Bhatwari</b><br>M/s L&T<br>11.07.2008<br>3x33 MW = 99 MW<br><b>Broad Features:</b><br>Barrage-FRL 1017 m, MDDL 1009 m,<br>Barrage Top 1020m<br>HRT- 4.65m dia & 11.870m length<br>Surge Shaft-10 m dia &<br>102.85 m length<br>Pressure Shaft-One, 3.80m dia &<br>358m length<br>Penstock- 3 Nos., 2.20 m dia &<br>34m, 42m, 48m long respectively.<br>P. House-Surface<br>Turbine-Vertical Francis<br>TRT- Open Channel, 650m length<br><b>Cost :</b><br><u>Original : 666.47 Crs</u><br>Latest : 666.47 Crs | <u>Uttarakhand</u><br><br><u>2015-16</u><br><u>2015-16</u> | All civil works except HRT are progressing generally as per the schedule. The works in HRT suffered due to poor geology and disturbance by locals. 5990 m out of 11255 m of HRT excavation has been completed and scheduled to be completed by Dec.2013. HRT works have been scheduled to be completed by Feb., 2015-16  |   |
| 38.    | <b>Maheshwar,</b><br>SMHPCL<br>30 12 96/ 29.9.2006 (FC)<br>10x40= 400 MW<br><b>Broad Features:</b><br>Dam-35m High, concrete gravity<br>P.Shaft-10x7.82m x 52m<br>P.House - Surface<br>Turbine- Kaplan<br><b>Cost:</b>   | <u>M. P.</u><br><br><u>2001-02</u><br>2013-15              | <b>Civil &amp; HM Works:</b><br>All major civil works completed. Civil works in power house area is progressing as per erection of various units.<br>All 27 nos of radial gates commissioned.<br><b>Unit Erection:</b><br>Unit-10: Initial spinning achieved on 14.10.2011.<br>Unit-9: Ready for spinning.<br>Unit-8: Ready for spinning.<br>Unit-7: Guide apparatus trial assembly in progress.<br>Unit-6: Erection of turbine embedded parts &   | Cash flow problem.<br>R&R issues.   |

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|--------|--|--|--|---|
|        | Original: 1569.27<br>Latest: 2449.20   |  | foundation parts completed.<br>Unit-5 to 1: Erection of units are in various stages.<br><b>Works suspended by BHEL in Nov-11 due to cash flow problem with developer.</b>  |   |
| 39.    | <b>Chujachen</b><br>Gati Infrastructure Ltd,<br>Secunderabad<br>30.11.2004 (State Govt.)/<br>2x49.5= 99 MW<br><b>Broad Features:</b><br>Dam –<br>Rampo- 48.5m High<br>Rongli- 41m High<br>HRT-<br>Rampo-3.3m x 2578m<br>Rongli-3.5m x 2256m<br>Common-5.2m x 3225m<br>S. Shaft-12m x 104m<br>P.House- Surface<br>Turbine- V. Francis<br><b>Cost:</b><br>Original: 448.76<br>Latest: 927.00 | <u>Sikkim</u><br><br><u>2009-10</u><br>2013-14         | <b>Rongli Dam:</b> All excavation & concreting works completed.<br><b>Rangpo Dam:</b> Excavation completed and concreting 80901/82000 cum completed.<br><b>HRT:</b> Excavation almost completed. Invert lining work 5224/7920 m completed. 5969/7920 m overt lining completed.<br><b>BF Valve:</b> Excavation completed and concreting 616.5/900 cum completed.<br><b>Pressure Shaft:</b> Excavation completed. Erection of steel liners completed. Concreting & Grouting completed.<br><b>Surface Penstock:</b> Excavation completed. Erection 640.75/645 m completed.<br><b>H&amp;M works:</b><br><b>TRT</b> – Excavation & lining completed.<br><b>Units:</b> Both units boxed up.<br><b>Switchyard 11/132 kV:</b> Completed. | - Flash flood on 16.04.2009 washing away Rangpo coffer dam.<br>- Slow progress in HRT lining works. |
| 40.    | <b>Teesta-III</b><br>Teesta Urja Ltd. (TUL)<br>12.05.2006<br>6x200=1200 MW<br><b>Broad Features:</b><br>Dam-Concrete with chute spillway 60m high.<br>HRT- 7.5m dia, 13.325Km long.<br>Press. Shaft- 3nos. 3.8m dia.<br>Power House- Under ground<br>Turbine- Pelton<br><b>Cost:</b><br><u>5705.55.</u><br>5705.55.  | <u>Sikkim</u><br><br><u>2011-12</u><br>2014-15         | Civil and E & M works got delayed due to earthquakes in Sikkim in September, 2011. Works have now resumed but at slow pace. The bridge which was damaged during transportation of transformer is being re-constructed by the Project developer which is urgently required for transportation of heavy equipments. Due to ongoing investigations of the bridge collapse by the State Government, work could not be restarted for the bridge construction  | Completion of balance works after Earth Quake<br>Reconstruction of Bdrge to carry Heavy Packages.   |
| 41.    | <b>Tidong-I</b><br>M/s NSL Tidong Power Gen. Ltd.<br>2x50 = 100 MW<br>HRT – D- 3.5m L- 8461 m<br>P.H. Surface<br>Turbine – Vertical Pelton<br>Cost:<br>543.15 .  | <u>H.P.</u><br><br><u>2013-14</u><br>2015-16           | Infrastructure & Pre-construction activities are in progress.<br><b>Barrage:</b> 70% excavation completed.<br><b>HRT:</b> 1.4 km out of 8.6 km excavation completed.   | Local issues.   |
| 42.    | <b>Teesta-VI</b><br>LANCO<br>27.12.2006<br>4x125= 500 MW<br><b>Broad Features:</b><br>Barrage: 34.27m high<br>HRT- 2nos, 13.7km long<br>Pressure shaft: 4nos. 5.4m dia. 130m av length,<br>TRT: 4nos 250m av length, 8.5m dia.<br>PH- Under ground<br>Turbine- Francis<br><b>Cost: Original: 3283.08</b><br>Latest : 3283.08   | <u>Sikkim</u><br><br><u>2012-13</u><br>2015-16         | Power house, transformer cavern and TRT excavation is completed and concreting is in progress. All civil works except HRT are progressing as per the schedule. Out of 27 Km length of HRT boring of 9.6 Km has been completed. The works of HRT suffered due to poor geology. The progress of works have also suffered due to contractual issues.  |   |

| Sl. No | Name of Project<br>Executing Agency<br>Date of CEA clearance /<br>Approval<br>Capacity (MW)<br>Broad Features<br>Cost (original/latest)   | State<br>Commng.<br>Schedule<br>(original/<br>Now Ant.       | Broad Present Status  | Remarks/issues                                      |
|--------|---|--|---|---|
| 43.    | <b>Rangit-IV</b><br>Jal Power corp. Ltd.<br>06.07.2007<br>3x40= 120 MW<br><b>Broad Features:</b><br>Dam: Concrte gravity 44m<br>high .HRT :6.5km long 6.4m<br>dia<br>Power House : Surface<br>Turbine: Francis<br>Power House- Under ground<br>Turbine- Francis<br><b>Cost: Original: 726.17 Crs.</b><br>Latest : 726.17 Crs.   | <u>Sikkim</u><br><br><u>2012-13</u><br>2014-15               | The excavation works are in various stages of completion. However, due to poor geology/cavity formation in some stretches of the HRT, the progress of HRT works is slow. Excavation of 2.33 km out of 6.48 km has been completed. The dam, HRT and power house works have been assured to be completed by October, 2014. To expedite the works, the project authorities are taking various to complte the project works by 2014-15  | Work hampered due to earthquake in September, 2011. |
| 44.    | <b>Jorethang Loop</b><br>M/s DANS Energy<br>2x48 = 96 MW<br><b>Broad Features:</b><br>Barrage: Gravity Floor on<br>Permeable Foundation<br>15 m High .<br>HRT :6.780km long &7m dia<br>Surge Shaft :59m Height &<br>25m dia.<br>Pressure Shaft : 172.60m<br>length & 6m dia.<br>Power House : Surface<br>TR-Cut & Cover Conduit &<br>46.4m length.<br>Switchyard: Outdoor, 220<br>KV/11KV<br><b>Cost: Original: 403.00 Crs.</b><br>Latest : 403.00 Crs. | <u>Sikkim</u><br><br><u>2013-14</u><br>2014-15               | 3.6 km out of 6.7 km HRT excavation has been completed. The HRT works were suffered due to poor geology. Now, the geology has improved and daily progress has increased from 150 m to 350m per month. Spiral casing erection for Unit #1 has been completed and pressure test is in progress  |   |
| 45.    | <b>Bhasmey</b><br>Gati Infrastructure<br>2x25.5= 51 MW<br><b>Broad Features :</b><br>Dam-33.2m High,<br>Symmetrical gravity<br>HRT-5.3m dia &5.132 km<br>length , Circular.<br>Surge Shaft- 89.8m Hight &<br>14m dia.<br>P.House-Outdoor<br>Turbine-Vertical Axis Francis<br>TRT-2 Nos. & 50m length<br>each.<br>Swityard- Outdoor, 132/11<br>KV<br><b>Cost :Original : 408.5 Crs</b><br>Latest : 408.5 Crs   | <u>Sikkim</u><br><br><u>2014-15</u><br>2014-15               | Forest clearance under process. Commencement of land acquisition started. Diversion tunnel excavation under progress.   |   |
| 46.    | <b>Tashiding</b><br>M/s Shiga Energy Private Ltd.<br>2x48.5 = 97 MW<br><b>Broad Features :</b><br>Barrage-EL 917m<br>HRT-4.5 m dia & 5.437 km<br>length ,<br>Surge Shaft- 61.058m Height<br>& 8.5m dia.<br>Penstock- Length upto<br>Bifucation 441.53 m   | <u>Sikkim</u><br><br><u>2013-14</u><br>13 <sup>th</sup> Plan | The excavation of intake, HRT and Power House is in progress. Diversion tunnel excavation has been started. HRT excavation has been started at 4 faces and third adit has also been excavated. The HRT works have been scheduled to be completed by December, 2013. The order for E & M works has been placed to M/s Alstom. It was intimated that model test report submitted by M/s Alstom has been accepted by the project authorities. The erection of embedded part is in progress |   |

| Sl. No | Name of Project<br>Executing Agency<br>Date of CEA clearance /<br>Approval<br>Capacity (MW)<br>Broad Features<br>Cost (original/latest)   | State<br>Commng.<br>Schedule<br>(original/<br>Now Ant.       | Broad Present Status  | Remarks/issues |
|--------|---|--|---|----------------|
|        | After bifurcation 25 m & 30 m long<br>P.House-Surface<br>TRT- Open Channal & 78.5 m length.<br>Swityard- Outdoor, 220 KV<br><b>Cost :</b><br><u>Original : 465.95 Crs</u><br>Latest : 465.95 Crs<br><b>Expected Commissioning :</b><br><b>beyond 12<sup>th</sup> Plan</b><br><b>As per Project Authorities :</b><br><b>2014-15</b>  |  |   |                |
| 47.    | <b>Dikchu</b><br>Sneha Kinetic Power Projects Pvt. Ltd.<br>21.10.2011<br>3x32= 96 MW<br><b>Broad Features :</b><br>Dam-35m High,<br>Concrete Gravity<br>HRT-4m dia &4.6 km length ,<br>Circular.<br>Surge Shaft- 65m High & 9m dia.<br>P.House-Underground<br>Turbine-Vertical Francis<br>TRT-4m dia & 1000m length<br>Swityard- Open, 60mx30m size<br><b>Cost : Original : 639.57 Crs</b><br>Latest : 639.57 Crs<br><b>Expected Commissioning :</b><br><b>Beyond 12<sup>th</sup> Plan</b><br><b>As per Project Authorities :</b><br><b>2016-17</b> | <u>Sikkim</u><br><br><u>2015-16</u><br>13 <sup>th</sup> Plan | EPC contract package has been awarded on 22.03.2011.<br>Infrastructure works completed. Main works is being taken up. |                |
| 48.    | <b>Rangit-II</b><br>Sikkim Hydro Power Limited<br>2x33= 66 MW<br><b>Broad Features :</b><br>Dam-47m High,<br>Concrete Gravity<br>HRT-3.9m dia &4.745 km length ,<br>Surge Shaft- 65.5m High & 10m dia.<br>Underground Pressure Shaft :<br>1.7 m dia &2.5 km length.<br>P.House-Outdoor<br>Turbine- Pelton Vertical<br>Swityard- GIS, 132/11KV<br><b>Cost : Original : 497.17 Crs</b><br>Latest : 497.17 Crs<br><b>Expected Commissioning :</b><br><b>Beyond 12<sup>th</sup> Plan</b><br><b>As per Project Authorities :</b><br><b>2016-17</b>       | <u>Sikkim</u><br><br><u>2016-17</u><br>13 <sup>th</sup> Plan | EPC contract awarded to M/s Coastal in February, 2012.  |                |

| Sl. No | Name of Project<br>Executing Agency<br>Date of CEA clearance /<br>Approval<br>Capacity (MW)<br>Broad Features<br>Cost (original/latest)  | State<br>Commng.<br>Schedule<br>(original/<br>Now Ant.       | Broad Present Status  | Remarks/issues |
|--------|--|--|---|----------------|
| 49.    | <b>Rongnichu</b><br>Madhya Bharat Power Corporation Ltd.<br>2x48= 96 MW<br><b>Broad Features :</b><br>Barrage-14m High<br>Desilting Basin : Surface, 2 Nos.,<br>Size (60Lx18Wx7H)<br>HRT-4 m dia &12.302 km length ,<br>Surge Shaft- 85 m High & 10m dia.<br>Pressure Shaft : 3 m dia & 415 m length.<br>P.House-Surface<br>Turbine- Pelton Vertical<br><b>Cost : Original : 491.32 Crs</b><br>Latest : 491.32 Crs<br><b>Expected Commissioning :</b><br><b>Beyond 12<sup>th</sup> Plan</b><br><b>As per Project Authorities :</b><br><b>2016-17</b> | <u>Sikkim</u><br><br><u>2015-16</u><br>13 <sup>th</sup> Plan | The civil works have been awarded to M/s SEW Infrastructure Ltd. and E&M works to M/s Voith Hydro Power Pvt. Ltd. Award of HM works is likely to be placed by August, 2012. Pre-construction activities and excavation of adits are in progress. The power house excavation is likely to be started in October-2012.<br><br>Boring about 1 km out of about 14 km tunnel has been completed. |                |