

**Status of Large Hydro Power Development in Haryana**

|  | <b>Nos.</b> | <b>Capacity (MW)</b> | <b>Percentage (%)</b> |
|--|-------------|----------------------|-----------------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)# | 1           | 64                   | 100                   |

#Western Yamuna Canal Project (64 MW) has been developed in 4 stages each having Installed Capacity below 25 MW.

### Status of Large Hydro Power Development in Himachal Pradesh

|  |   | Nos.   | Capacity (MW) |
|--|---|--|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 67   | 18470         |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |   | 17   | 2253          |
| Projects identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity                                      |   | 2  | 240           |
| Change in Projects due to splitting of projects<br>(identified during reassessment study in 1978-87)                                   |   | 2  | -41           |
| Change in Projects due to merging of projects<br>(identified during reassessment study in 1978-87)                                     |   | -4   | -1290         |
| <b>Total</b>   |   | <b>84</b>  | <b>19632</b>  |
| I  | Projects in operation                                     | 29   | 10263         |
| II A   | Projects under active construction                        | 7  | 1966          |
| II B   | Projects on which construction is held up                 | 1  | 44            |
| III  | Projects allotted by States for development               |  |               |
|  | (i)   | Projects concurred by CEA and yet to be taken up for construction                | 5<br>1319     |
|  | (ii)  | Projects under Examination in CEA  | 1<br>456      |
|  | (iii)   | Projects returned to project authorities   | 1<br>400      |
|  | (iv)  | Projects under S&I   | 5<br>1671     |
|  | (v)   | Projects allotted for development on which S&I is held up/<br>yet to be taken up | 6<br>1690     |
| IV   | Projects dropped due to Basin studies/ Other reasons      | 8  | 889           |
| V  | Projects yet to be allotted by the State for development* | 21   | 1707          |

Note - One project Seawa (70 MW) was identified in HP but presently this project is in operation in J&K. In addition to above, one pumped storage project namely Renukaji (1630 MW) is under PIR prepared category.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the Projects, addition/deletion of the projects and merger of two projects into one etc.

**1 (A). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.    | Name of Project    | River              | I.C. (MW)   | Status                    |
|-----------|--------------------|--------------------|-------------|---------------------------|
| 1         | Chango Yangthang   | Spiti              | 180         | Dropped                   |
| 2         | Chanju-I           | Chanju Nallah      | 36          | In Operation              |
| 3         | Integrated Kashang | Satluj             | 195         | In Operation              |
| 4         | Malana-II          | Malana             | 100         | In Operation              |
| 5         | Dugar              | Chenab             | 500         | UE                        |
| 6         | Chiroti Saichu     | Saichu Nallah      | 26          | Dropped                   |
| 7         | Saichu             | Saichu Nallah      | 58          | Dropped                   |
| 8         | Saichu Sach Khas   | Saichu Nallah      | 117         | Dropped                   |
| 9         | Tinget             | Miyar              | 145         | Dropped                   |
| 10        | Stingiri           | Chenab             | 98          | Dropped                   |
| 11        | Patam              | Chenab             | 65          | Dropped                   |
| 12        | Thana Plaun        | Beas               | 191         | UE                        |
| 13        | Sorang             | Sorang/Satluj      | 100         | In Operation              |
| 14        | Tangu Romai        | Pabbar/Tons/Yamuna | 44          | Construction is held up   |
| 15        | Uhl-III            | Uhl/Beas           | 100         | Under Active Construction |
| 16        | Purthi             | Chenab             | 232         | S&I                       |
| 17        | DhauLasidh         | Beas               | 66          | Under Active Construction |
| <b>17</b> | <b>Sub Total</b>   |                    | <b>2253</b> |                           |

**1 (B). Project identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity**

| Sl.No.   | Name of Project  | River        | I.C. (MW)  | Status       | Remarks          |
|----------|------------------|--------------|------------|--------------|------------------|
| 1        | Giri Bata        | Giri & Jalal | 60         | In Operation | Giri Bata - 24MW |
| 2        | Bajoli Holi      | Ravi         | 180        | In Operation | Holi - 13 MW     |
| <b>2</b> | <b>Sub Total</b> |              | <b>240</b> |              |                  |

**1 (C). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting       |                  |        |             |            | After Splitting |                 |        |             |                           |
|------------------------|------------------|--------|-------------|------------|-----------------|-----------------|--------|-------------|---------------------------|
| Sl.No.                 | Name of Project  | River  | I.C. (MW)   | Status     | Sl.No.          | Name of Project | River  | I.C. (MW)   | Status                    |
| 1                      | Bhakra Nangal    | Sutlej | 1395        | Identified | 1               | Bhakra Left     | Sutlej | 612         | In Operation              |
|                        |                  |        |             |            | 2               | Bhakra Right    | Sutlej | 785         | In Operation              |
| 2                      | Luhri            | Sutlej | 425         | Identified | 3               | Luhri St. I     | Sutlej | 210         | Under Active Construction |
|                        |                  |        |             |            | 4               | Luhri St. II    | Sutlej | 172         | S&I                       |
| <b>2</b>               | <b>Sub Total</b> |        | <b>1820</b> |            | <b>4</b>        |                 |        | <b>1779</b> |                           |
| Net Change in Numbers  |                  |        | <b>2</b>    | Increase   |                 |                 |        |             |                           |
| Net Change in Capacity |                  |        | <b>-41</b>  | Decrease   |                 |                 |        |             |                           |

**1 (D). Change in Projects due to merging of projects (identified during reassessment study in 1978-87)**

| Before Merging         |                     |          |              |            | After Merging |                     |               |             |              |
|------------------------|---------------------|----------|--------------|------------|---------------|---------------------|---------------|-------------|--------------|
| Sl.No.                 | Name of Project     | River    | I.C. (MW)    | Status     | Sl.No.        | Name of Project     | River         | I.C. (MW)   | Status       |
| 1                      | Allain Nallah       | Allain   | 46           | Identified | 1             | Allain Duhangan     | Allain Nallah | 192         | In Operation |
| 2                      | Duhangan            | Duhangan | 29           | Identified |               |                     |               |             |              |
| 3                      | Khab-I              | Sutlej   | 1640         | Identified | 2             | Khab                | Sutlej        | 636         | Held Up      |
| 4                      | Khab-II             | Sutlej   | 425          | Identified |               |                     |               |             |              |
| 5                      | Jangi Thopan        | Sutlej   | 410          | Identified | 3             | Jungi Thopan Powari | Sutlej        | 804         | S&I          |
| 6                      | Thopan Powari       | Sutlej   | 650          | Identified |               |                     |               |             |              |
| 7                      | Sainj (Parbati-III) | Sainj    | 215          | Identified | 4             | Parbati-III         | Sainj         | 520         | In Operation |
| 8                      | Sainj-IV            | Sainj    | 27           | Identified |               |                     |               |             |              |
| <b>8</b>               | <b>Sub Total</b>    |          | <b>3442</b>  |            | <b>4</b>      | <b>Sub Total</b>    |               | <b>2152</b> |              |
| Net Change in Numbers  |                     |          | <b>-4</b>    | Decrease   |               |                     |               |             |              |
| Net Change in Capacity |                     |          | <b>-1290</b> | Decrease   |               |                     |               |             |              |

**3A. H.E. Projects Under Active Construction:**

| Sl. No. | Name of Project              | Agency                                  | District        | River         | Basin | I.C. (MW)   | Type (R/S/R(P)) | Likely Commissioning |
|---------|------------------------------|---|-----------------|---------------|-------|-------------|-----------------|----------------------|
| 1       | Parbati St--II (Parbati -II) | NHPC                                    | Kullu           | Parbati/Beas  | Indus | 800         | R               | 2023-24 (Sept'23)    |
| 2       | Uhl- III                     | Beas Valley Power Corp. Ltd. (BVPC)     | Mandi           | Uhl/Beas      | Indus | 100         | R               | 2023-24 (Dec'23)     |
| 3       | Tidong-I                     | M/s NSL Tidong                          | Kinnaur         | Tidong/Satluj | Indus | 100         | R               | 2022-24 (April'23)   |
| 4       | Shontong Karcham             | HPPCL                                   | Kinnaur         | Satluj        | Indus | 450         | R               | 2024-25 (Mar.'25)    |
| 5       | Kutehr                       | JSW Energy (Kutehr) Power Ltd. (JSWEPL) | Chamba          | Ravi          | Indus | 240         | R               | 2025-26 (Nov'25)     |
| 6       | Luhri St.I                   | SJVNL                                   | Shimla/Kullu    | Satluj        | Indus | 210         | R               | 2025-26 (Jan'26)     |
| 7       | DhauLasidh                   | SJVNL                                   | Hamirpur/Kangra | Beas          | Indus | 66          | R               | 2025-26 (May'25)     |
| 7       | <b>Total</b>                 |   |                 |               |       | <b>1966</b> |                 |                      |

**3B. H.E. Projects on which Construction is held up:**

| Sl. No. | Name of Project | Agency                       | District | River              | Basin | I.C. (MW) | Type (R/S/R(P)) | Status & Likely Commissioning   |
|---------|-----------------|------------------------------|----------|--------------------|-------|-----------|-----------------|---|
| 1       | Tangu Romai     | Tangu Romai Power Generation | Shimla   | Pabbar/Tons/Yamuna | Ganga | 44        | R               | Works are on hold since Aug 2016 due to fund constraints with developer.* |
| 1       | <b>Total</b>    |                              |          |                    |       | <b>44</b> |                 |   |

\* Subject to re-start of work in immediate future

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

## 2. H.E. Projects in Operation:

| S. NO. | UTILITY/STATIONS                    | NO. OF STNS. | NO. OF UNITS | NO. OF UNITS X CAPACITY (MW) | RIVER/ BASIN*                                | DISTRICT  | CAPACITY (MW) | Type (R/S/R(P)) | YEAR OF COMMISSIONING |
|--------|-------------------------------------|--------------|--------------|------------------------------|--|-----------|---------------|-----------------|-----------------------|
|        | <b>CENTRAL SECTOR</b>               |              |              |                              |  |           |               |                 |                       |
|        | <b>BBMB</b>                         |              |              |                              |  |           |               |                 |                       |
| 1      | BHAKRA LEFT (BHAKRA NANGAL)         | 1            | 5            | (1X108+ 4x126)               | SUTLEJ                                       | BILASPUR  | 612           | S               | 1960-1961             |
| 2      | BHAKRA RIGHT (BHAKRA NANGAL)        | 1            | 5            | (5X157)                      | SUTLEJ                                       | BILASPUR  | 785           | S               | 1966-1968             |
| 3      | DEHAR (PANDOH DIVERSION)            | 1            | 6            | (6X165)                      | BEAS   | MANDI     | 990           | R(P)            | 1977-1983             |
| 4      | PONG (PONG DAM)                     | 1            | 6            | (6X66)                       | BEAS   | KANGRA    | 396           | S               | 1978-1983             |
|        | <b>SUB-TOTAL BBMB</b>               | <b>4</b>     | <b>22</b>    |                              |  |           | <b>2783</b>   |                 |                       |
|        | <b>NHPC</b>                         |              |              |                              |  |           |               |                 |                       |
| 5      | BAIRA SIUL                          | 1            | 3            | (3X60)                       | RAVI   | CHAMBA    | 180           | R(P)            | 1980-1981             |
| 6      | CHAMERA-I (CHAMERA SHERPUR)         | 1            | 3            | (3X180)                      | RAVI   | DALHOUSIE | 540           | S               | 1994                  |
| 7      | CHAMERA- II (GWAR)                  | 1            | 3            | (3X100)                      | RAVI   | CHAMBA    | 300           | R(P)            | 2003-2004             |
| 8      | CHAMERA- III (HIBRA)                | 1            | 3            | (3X77)                       | RAVI   | CHAMBA    | 231           | R(P)            | 2012                  |
| 9      | PARBATI-III [SAINJ (PARBATI - III)] | 1            | 4            | (4X130)                      | SAINJ  | KULLU     | 520           | R(P)            | 2014                  |
|        | <b>SUB-TOTAL NHPC</b>               | <b>5</b>     | <b>16</b>    |                              |  |           | <b>1771</b>   |                 |                       |
|        | <b>SJVNL</b>                        |              |              |                              |  |           |               |                 |                       |
| 10     | NATHPA JHAKRI                       | 1            | 6            | (6X250)                      | SATLUJ                                       | SHIMLA    | 1500          | R(P)            | 2003-2004             |
| 11     | RAMPUR (RAMPUR NANJAH)              | 1            | 6            | (6X68.67)                    | SATLUJ                                       | SHIMLA    | 412           | R               | 2014-15               |
|        | <b>SUB-TOTAL SJVNL</b>              | <b>2</b>     | <b>12</b>    |                              |  |           | <b>1912</b>   |                 |                       |
|        | <b>NTPC LTD.</b>                    |              |              |                              |  |           |               |                 |                       |
| 12     | KOLDAM                              | 1            | 4            | (4X200)                      | SATLUJ                                       | BILASPUR  | 800           | S               | 2015                  |
|        | <b>SUB-TOTAL NTPC LTD.</b>          | <b>1</b>     | <b>4</b>     |                              |  |           | <b>800</b>    |                 |                       |
|        | <b>TOTAL CENTRAL SECTOR</b>         | <b>12</b>    | <b>54</b>    |                              |  |           | <b>7266</b>   |                 |                       |
|        | <b>STATE SECTOR</b>                 |              |              |                              |  |           |               |                 |                       |
|        | <b>HPSEBL</b>                       |              |              |                              |  |           |               |                 |                       |
| 13     | BASSI                               | 1            | 4            | (4X16.5)                     | BEAS   | MANDI     | 66            | R(P)            | 1970-1981             |
| 14     | GIRI BATA *                         | 1            | 2            | (2X30)                       | YAMUNA                                       | SIRMAUR   | 60            | R(P)            | 1978                  |
| 15     | LARJI                               | 1            | 3            | (3X42)                       | Beas River & its tributaries Sainj & Tirthan | KULLU     | 126           | R(P)            | 2006                  |
| 16     | SANJAY [BHABA (SANJAY)]             | 1            | 3            | (3X40)                       | SATLUJ                                       | KINNAUR   | 120           | R(P)            | 1989                  |
|        | <b>TOTAL HPSEBL</b>                 | <b>4</b>     | <b>12</b>    |                              |  |           | <b>372</b>    |                 |                       |
|        | <b>HPPCL</b>                        |              |              |                              |  |           |               |                 |                       |
| 17     | INTEGRATED KASHANG                  | 1            | 3            | (3X65)                       | SATLUJ                                       | KINNAUR   | 195           | R (P)           | 2016-17               |
| 18     | SAINJ (SAINJ KARTAH-II)             | 1            | 2            | (2X50)                       | SAINJ  | KULLU     | 100           | R(P)            | 2017                  |
| 19     | SWARA KUDDU (Pangula Sanail)        | 1            | 3            | (3X37)                       | Pabbar/Tons/ Yamuna                          | SHIMLA    | 111           | R               | 2020                  |
|        | <b>TOTAL HPPCL</b>                  | <b>3</b>     | <b>8</b>     |                              |  |           | <b>406</b>    |                 |                       |

|           |  |           |            |                   |                          |         |              |      |                |
|-----------|--|-----------|------------|-------------------|--------------------------|---------|--------------|------|----------------|
|           | <b>PSPCL</b>   |           |            |                   |                          |         |              |      |                |
| 20        | SHANAN<br>(Uhl at Joginder Nagar)                    | 1         | 5          | (1X50)+<br>(4X15) | UHL & Lamba<br>Dug River | MANDI   | 110          | R(P) | 1932-1982      |
|           | <b>TOTAL PSPCL</b>                                   | <b>1</b>  | <b>5</b>   |                   |                          |         | <b>110</b>   |      |                |
|           | <b>TOTAL STATE<br/>SECTOR</b>                        | <b>8</b>  | <b>25</b>  |                   |                          |         | <b>888</b>   |      |                |
|           | <b>PRIVATE SECTOR</b>                                |           |            |                   |                          |         |              |      |                |
|           | <b>MPCL</b>  |           |            |                   |                          |         |              |      |                |
| 21        | MALANA   | 1         | 2          | (2X43)            | MALANA                   | KULLU   | 86           | R(P) | 2001           |
|           | <b>TOTAL MPCL</b>                                    | <b>1</b>  | <b>2</b>   |                   |                          |         | <b>86</b>    |      |                |
|           | <b>GBHPPL</b>  |           |            |                   |                          |         |              |      |                |
| 22        | BUDHIL   | 1         | 2          | (2X35)            | RAVI                     | CHAMBA  | 70           | R(P) | 2012           |
|           | <b>TOTAL GBHPPL</b>                                  | <b>1</b>  | <b>2</b>   |                   |                          |         | <b>70</b>    |      |                |
|           | <b>EPPL</b>  |           |            |                   |                          |         |              |      |                |
| 23        | MALANA-II  | 1         | 2          | (2X50)            | MALANA                   | KULLU   | 100          | R(P) | 2011-12        |
|           | <b>TOTAL EPPL</b>                                    | <b>1</b>  | <b>2</b>   |                   |                          |         | <b>100</b>   |      |                |
|           | <b>IA ENERGY</b>                                     |           |            |                   |                          |         |              |      |                |
| 24        | CHANJU-I   | 1         | 3          | (3X12)            | RAVI                     | CHAMBA  | 36           | R(P) | 2017           |
|           | <b>TOTAL IA ENERGY</b>                               | <b>1</b>  | <b>3</b>   |                   |                          |         | <b>36</b>    |      |                |
| 25        | ALLAIN DUHANGAN<br>(ALLAIN NALLAH &<br>DUHANGAN)     | 1         | 2          | (2X96)            | ALLAIN<br>NALLAH         |         | 192          | R(P) | 2010-11        |
|           | <b>TOTAL ADHPL</b>                                   | <b>1</b>  | <b>2</b>   |                   |                          |         | <b>192</b>   |      |                |
|           | <b>JSWHEL</b>  |           |            |                   |                          |         |              |      |                |
| 26        | BASPA (BASPA-II)                                     | 1         | 3          | (3X100)           | BASPA                    | KINNAUR | 300          | R(P) | 2003           |
| 27        | KARCHAM WANGTOO                                      | 1         | 4          | (4X261.25)        | SATLAJ                   | KINNAUR | 1045         | R(P) | 2011 (1000 MW) |
|           | <b>TOTAL JSWHEL</b>                                  | <b>2</b>  | <b>7</b>   |                   |                          |         | <b>1345</b>  |      |                |
|           | <b>HSPPL</b>   |           |            |                   |                          |         |              |      |                |
| 28        | Sorang   | 1         | 2          | 2x50              | Sorang                   | Kinnaur | 100          | R    | 2021 (100 MW)  |
|           | <b>GMR BAJOLI HOLI<br/>HYDRO POWER PVT.<br/>LTD.</b> |           |            |                   |                          |         |              |      |                |
| 29        | Bajoli Holi  | 1         | 3          | 3x60              | Ravi                     | CHAMBA  | 180          | R    | 2022           |
|           | <b>TOTAL PVT</b>                                     | <b>9</b>  | <b>23</b>  |                   |                          |         | <b>2109</b>  |      |                |
| <b>29</b> | <b>TOTAL HP</b>                                      | <b>29</b> | <b>102</b> |                   |                          |         | <b>10263</b> |      |                |

\* ALL PROJECTS EXCEPT GIRI BATA & SWARA KUDDU (GANGA BASIN) ARE IN INDUS BASIN

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**4. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl. No. | Name of Project | Agency | River                | District       | I.C. (MW)   | Date of CEA Concurrence | Type (R/S/R(P)) | Status   |
|---------|-----------------|--------|----------------------|----------------|-------------|-------------------------|-----------------|--|
| 1       | Miyar (Udaipur) | NTPC   | Chenab /Miyar Nallah | Lahul & Spiti  | 120         | 07.02.2013              | R(P)            | EC accorded on 30.07.12. FC-I accorded on 27.07.12. FC-II yet to be obtained. #  |
| 2       | Sunni Dam       | SJVNL  |                      | Shimla & mandi | 382         | 11.02.2021              | R(P)            | EC accorded by MoEF&CC on 04.02.2022. FC-I accorded by MoEF&CC on 22.12.2021. FC-II clearance is awaited. Compliance report of FC-I submitted to MoEF&CC on 11.02.2022. ## |
| 3       | Chhatru         | DSIL   |                      |                | 126         | 15.01.15                | R(P)            | EC recommended by EAC on 24.02.15. Letter will be issued after FC-I. FC-I & FC-II yet to be obtained. ###  |
| 4       | Thana Plaun     | HPPCL  |                      |                | 191         | 07.09.2021              | R cum S         | EC Cleared. FC yet to be obtained ####   |
| 5       | Dugar           | NHPC   |                      |                | 500         | 26.04.22                | R(P)            | Both EC and FC are yet to be obtained.   |
| 5       | <b>Total</b>    |        |                      |                | <b>1319</b> |                         |                 |  |

**Note: All projects are in Indus basin**

# FRA compliance under process.

MoU was signed between Government of Himachal Pradesh and NTPC Ltd. on 25.10.2019 to set-up the hydro project. All clearances and concurrence are yet to be transferred in favour of NTPC Ltd. NTPC exploring for execution by either NEEPCO or THDCIL. NEEPCO has denied due to high tariff. THDC is examining the project. Validity of Concurrence to the project expired on 07.02.2016.

## Observations raised by MoEF&CC on FRA and CA area on 08.03.2022. Reply to observation on CA scheme submitted by SJVN limited on 30.03.2022. Public meeting held on 24.04.2022 and 28.04.2022 for FRA issue.

CAT plan approved by PCCF (HoFF), GoHP on 01.04.2021.

Acquisition of private land is in progress.

Updated cost estimates vetted by CEA on 30.06.2021. Recommended by PIB on 27.01.2022. Investment approval is under process.

NIT for EPC contract package (Civil & HM works) issued on 20.04.2021. Price Bid opened on 21.02.2022. Approval of Award of works is in process.

### Govt of Himachal Pradesh vide its letter dated 3.10.2019 has since cancelled allotment of Chhatru HEP which was allotted on 28.7.2007 to M/S DCM Shriram Infrastructure limited, and terminated the Pre- Implementation Agreement (PIA) signed on 15.2.2008 and further forfeited the upfront money of Rs.21.87 Cr paid by DCM Shriram Infrastructure limited in year 2007.

DCM Shriram Infrastructure limited filed a Petition before the High Court of Himachal Pradesh in Shimla regarding upfront money. Further, validity of Concurrence to project expired on 15.01.2020

#### EAC in its meeting dated 27.11.2018 has recommended Environmental Clearance (EC) to MoEF&CC subject to condition of Stage-I FC and adherence to the condition of Cumulative EIA study of Beas Basin.

FC yet to be obtained. CAT Plan has been approved by Government of Himachal Pradesh on 03.01.2019. Forest Case has been recommended by State Govt. for further submission to MoEF&CC, New Delhi.

Social Impact Assessment (SIA) study for acquisition of Private land has been completed and approved from GoHP vide notification dated 16.12.2020.

Financial tie-up under process. Land Acquisition shall be processed after achieving financial closure. HPPCL exploring possibility of funding from ADB, PFC and other commercial banks.

**5. H.E. Projects Under Examination/Scrutiny in CEA:**

| Sl. No. | Name of Project | Sector  | I.C. (MW)  | Agency | Type (R/S/R(P)) | Month of receipt |
|---------|-----------------|---------|------------|--------|-----------------|------------------|
| 1       | Reoli Dugli     | Central | 456        | SJVNL  | R(P)            | Jan'22           |
| 1       | <b>Total</b>    |         | <b>456</b> |        |                 |                  |



**6. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:**

| Sl. No.  | Name of Project | Agency | I.C. (MW)  | Type (R/S/R(P)) | Reason of Return |
|----------|-----------------|--------|------------|-----------------|------------------|
|          | Ravi Basin      |        |            |                 |                  |
| 1        | Seli            | SHPCL  | 400        | R(P)            |                  |
| <b>1</b> | <b>Total</b>    |        | <b>400</b> |                 |                  |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**7. H.E. Projects Under Survey & Investigation:**

| Sl. No. | Name of Project      | Basin*/River | Agency for DPR | I.C. (MW)   | Type (R/S/R(P)) | Date of MoA | Target date of Preparation of DPR |
|---------|----------------------|--------------|----------------|-------------|-----------------|-------------|-----------------------------------|
| 1       | Luhri St.-II (Luhri) | Satluj       | SJVNL          | 172         | R               | 25.09.2019  | Sept'24                           |
| 2       | Jangi Thopan Powari  | Satluj       | SJVNL          | 804         | R               | 25.09.2019  | June'23                           |
| 3       | Purthi               | Chenab       | SJVNL          | 232         | R               | 25.09.2019  | Jan'23                            |
| 4       | Bardang              | Chenab       | SJVNL          | 175         | R               | 25.09.2019  | Mar'23                            |
| 5       | Sach khas            | Chenab       | SJVNL          | 288         | R               | 05.01.21    | Apr-23                            |
| 5       | <b>Total</b>         |              |                | <b>1671</b> |                 |             |                                   |

\* All projects are in Indus Basin

**8. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:**

| Sl. No.  | Project                 | I.C. (MW)   | Agency                  | Date of Allotment/ MoA | Status  |
|----------|-------------------------|-------------|-------------------------|------------------------|---|
|          | <b>Satluj Basin</b>     |             |                         |                        |   |
| 1        | Khab (Khab-I & Khab-II) | 636         | HPPCL                   | 22.09.2009             | Govt. of HP has confirmed the TWL of Upstream project i.e. Yangthang Khab and FRL of Downstream project Jhangi Thopan vide letter dated 15.06.2017. Accordingly a revised PFR for Khab HEP is being prepared considering the scheme to be single stage RoR and considering the virgin stretch of river as per MoEF&CC guidelines. |
| 2        | Sumte Kothang (Thibda)  | 130         | Reliance Power Ltd.     | 31.12.2012             | S&I held up due to opposition from locals and NGOs. <b>Project stands terminated on 28.07.2017.</b>   |
| 3        | Lara Sumta              | 104         | Reliance Power Ltd.     | 31.12.2012             | S&I held up due to opposition from locals and NGOs. <b>Project stands terminated on 28.07.2017.</b>   |
| 4        | Tidong-II               | 60          | Tidong Hydro Power Ltd. | 20.01.2012             | S&I is held up due to local public agitation & there is no progress in the S&I activities of the project for a long time.   |
|          | <b>Sub Total</b>        | <b>930</b>  |                         |                        |   |
|          | <b>Chenab Basin</b>     |             |                         |                        |   |
| 5        | Gyspa Dam (Gyspa)       | 300         | HPPCL                   | 22.09.2009             | S&I held up due to sustained opposition from local people.  |
|          | <b>Sub Total</b>        | <b>300</b>  |                         |                        |   |
|          | <b>Beas Basin</b>       |             |                         |                        |   |
| 6        | Nakhtan (Parbati-I)     | 460         | HPPCL                   | 22.09.2009             | Request of HPPCL for monitoring of Nakhtan HEP to be put on hold received on 31.12.18 on account of CEIA study of Beas Basin & Hearing of court case on regular basis.  |
|          | <b>Sub-Total</b>        | <b>460</b>  |                         |                        |   |
| <b>6</b> | <b>Total</b>            | <b>1690</b> |                         |                        |   |

**9. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No.  | Project          | I.C. (MW)  | River  | Basin | Type (R/S/R(P)) | Remarks  |
|----------|------------------|------------|--------|-------|-----------------|--|
| 1        | Chango Yangthang | 180        | Spiti  | Indus | R(P)            | Project has been surrendered by developer vide letter dated 11.07.2017 as the project became unviable due to increased e-flow, local protests etc.   |
| 2        | Chiroti Saichu   | 26         | Chenab | Indus |                 | Projects dropped after final report of basin studies on cumulative impact  |
| 3        | Saichu           | 58         | Chenab | Indus |                 |  |
| 4        | Saichu Sach Khas | 117        | Chenab | Indus |                 |  |
| 5        | Tinget           | 145        | Chenab | Indus |                 |  |
| 6        | Stingiri         | 98         | Chenab | Indus |                 |  |
| 7        | Patam            | 65         | Chenab | Indus |                 |  |
| 8        | Bara Banghal     | 200        | Ravi   | Indus | R               | Developer vide letter dated 20.09.2021 intimated that the project is located in Dhauladhar Wild Life Sanctuary and hence not doable. Accordingly, developer surrendered the project to the Himachal Govt in December, 2015 |
| <b>8</b> | <b>Total</b>     | <b>889</b> |        |       |                 |  |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**10. H. E. Projects yet to be allotted by the State for development**

| Sl.No.    | Name of Project   | River                      | Type | I.C.(MW)    |
|-----------|-------------------|----------------------------|------|-------------|
| 1         | Ropa              | Ropa                       | S    | 31          |
| 2         | Taiti-I           | Taiti                      | S    | 50          |
| 3         | Homte             | Bhaba                      | R    | 60          |
| 4         | Gandharni         | Beas                       | R    | 49          |
| 5         | Gharopa           | Beas                       | R    | 85          |
| 6         | Tirthan-I         | Tirthan                    | R    | 32          |
| 7         | Tirthan-III       | Tirthan                    | R    | 26          |
| 8         | Rana Khad         | Rana Khad                  | R    | 29          |
| 9         | Tundah            | Tundah                     | R    | 34          |
| 10        | Baroti            | Siul                       | S    | 40          |
| 11        | Chhota Dara       | Chandra                    | R    | 50          |
| 12        | Khoksar           | Chandra                    | R    | 80          |
| 13        | Telling (Railing) | Chandra                    | S    | 155         |
| 14        | Gondhala          | Chandra                    | R    | 90          |
| 15        | Jhalma            | Chenab                     | R    | 275         |
| 16        | Baspa-I           | Baspa                      | S    | 335         |
| 17        | Manali            | Manalasu                   | R    | 37          |
| 18        | Kulu              | Beas                       | R    | 90          |
| 19        | Uhl               | Uhl                        | R    | 70          |
| 20        | Gaj               | Gaj Khad                   | R    | 34          |
| 21        | Sainj-I           | Sainj                      | R    | 55          |
| <b>21</b> | <b>Total</b>      | <b>21 Nos. of Projects</b> |      | <b>1707</b> |

Note: R –Run of the River &amp; S- Storage

## Status of Large Hydro Power Development in Jammu and Kashmir

|   |   | Nos.      | Capacity (MW)  |
|---|---|-----------|----------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 32        | 11567          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)               |   | 4         | 374.5          |
| Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)                                   |   | 4         | 40             |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity#                                   |   | -3        | -200           |
| <b>Total</b>  |   | <b>37</b> | <b>11781.5</b> |
| I   | Projects in operation   | 10        | 3360           |
| II A  | Projects under active construction  | 4         | 2511.5         |
| II B  | Projects on which construction is held up   | 1         | 48             |
| III   | Projects allotted by States for development                                       |           |                |
|   | (i) Projects concurred by CEA and yet to be taken up for construction             | 4         | 3419           |
|   | (ii) Multi purpose Projects approved by MoWR                                      | 2         | 996            |
|   | (iii) Projects returned to project authorities                                    | 1         | 390            |
|   | (iv) Projects under S&I   | 2         | 500            |
|   | (v) Projects allotted for development on which S&I is held up/ yet to be taken up | 1         | 370            |
| IV  | Projects dropped as per Reconciliation Study by CEA in 2014                       | 4         | 1030           |
| V   | Projects yet to be allotted by the State for development*                         | 8         | 1332           |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

# Dunadi (60 MW) has been developed below 25 MW as Ranjala Dunadi (15 MW) as per Reconciliation Study by CEA in 2014.

**1(A). Identified Projects during Reassessment study:**

| Sl.No.    | Name of Project         | River                      | Type | I.C. (MW)    |
|-----------|-------------------------|----------------------------|------|--------------|
| 1         | Shuas                   | Chenab                     | R    | 505          |
| 2         | Barinium (Berinaum)     | Chenab                     | R    | 435          |
| 3         | Sho                     | Chenab                     | R    | 215          |
| 4         | Naunut                  | Chenab                     | R    | 1120         |
| 5         | Kiru                    | Chenab                     | R    | 295          |
| 6         | Kwar                    | Chenab                     | R    | 440          |
| 7         | Pakaldul                | Marsudar                   | R    | 765          |
| 8         | Bursar                  | Marsudar                   | S    | 195          |
| 9         | Dulhasti                | Chenab                     | R    | 1120         |
| 10        | Naga                    | Kal Nai                    | R    | 29           |
| 11        | Kiwa                    | Kal Nai                    | R    | 37           |
| 12        | Tipri                   | Kal Nai                    | R    | 36           |
| 13        | Dunadi                  | Kagune Garh                | R    | 60           |
| 14        | Ratle                   | Chenab                     | R    | 515          |
| 15        | Shamnot                 | Chenab                     | R    | 200          |
| 16        | Baglihar                | Chenab                     | R    | 750          |
| 17        | Bichlari                | Bichlari                   | R    | 75           |
| 18        | Sawalkot                | Chenab                     | R    | 1350         |
| 19        | Salal                   | Chenab                     | R    | 780          |
| 20        | Shutkarikulan (Sonmarg) | Sind                       | S    | 155          |
| 21        | Upper Sindh-I           | Sind                       | R    | 65           |
| 22        | Upper Sindh-II          | Sind                       | R    | 140          |
| 23        | Gangbal                 | Kankanag                   | S    | 55           |
| 24        | Ganderbal               | Sind                       | R    | 75           |
| 25        | Karalpur                | Kishan Ganga               | S    | 280          |
| 26        | Kishenganga-II (Wangam) | Bonar                      | R    | 60           |
| 27        | Lower Jhelum            | Jhelam                     | R    | 170          |
| 28        | Uri                     | Jhelam                     | R    | 600          |
| 29        | Chakothe                | Jhelam                     | R    | 285          |
| 30        | Chinari                 | Jhelam                     | R    | 475          |
| 31        | Hatian                  | Jhelam                     | R    | 215          |
| 32        | SEWA-II<br>[Seawa]      | Seawa                      | R    | 70           |
| <b>32</b> | <b>Total</b>            | <b>32 Nos. of Projects</b> |      | <b>11567</b> |

Note: R –Run of the River &amp; S- Storage

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River        | I.C. (MW)    | Status                               |
|----------|------------------|--------------|--------------|--------------------------------------|
| 1        | New Ganderwal    | Jhelum/Sindh | 93           | Concurred                            |
| 2        | Lower Kalnai     | Chenab       | 48           | Construction is held up              |
| 3        | Parnai           | Jhelam       | 37.5         | Under Active Construction            |
| 4        | Ujh MPP          |              | 196          | Under Examination (Approved by MoWR) |
| <b>4</b> | <b>Sub Total</b> |              | <b>374.5</b> |                                      |

**1 (C). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting |                        |        |             |            | After Splitting |                  |        |             |              |
|------------------|------------------------|--------|-------------|------------|-----------------|------------------|--------|-------------|--------------|
| Sl.No.           | Name of Project        | River  | I.C. (MW)   | Status     | Sl.No.          | Name of Project  | River  | I.C. (MW)   | Status       |
| 1                | Baglihar               | Chenab | 750         | Identified | 1               | Baglihar         | Chenab | 450         | In Operation |
|                  |                        |        |             |            | 2               | Baglihar II      | Chenab | 450         | In Operation |
| 2                | Uri                    | Jhelum | 600         | Identified | 3               | Uri I            | Jhelum | 480         | In Operation |
|                  |                        |        |             |            | 4               | Uri II           | Jhelum | 240         | In Operation |
|                  |                        |        |             |            | 5               | Uri-I (Stage-II) | Jhelum | 240         | S&I          |
| 3                | Dulhasti               | Chenab | 1120        | Identified | 6               | Dulhasti         | Chenab | 390         | In Operation |
|                  |                        |        |             |            | 7               | Dulhasti St-II   | Chenab | 260         | S&I          |
| <b>3</b>         | <b>Sub Total</b>       |        | <b>2470</b> |            | <b>7</b>        |                  |        | <b>2510</b> |              |
|                  | Net Change in Numbers  |        | <b>4</b>    | Increase   |                 |                  |        |             |              |
|                  | Net Change in Capacity |        | <b>40</b>   | Increase   |                 |                  |        |             |              |

**1 (D). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Name of Project | State           | River      | Type | I.C. (MW)  | Status  |
|----------|-----------------|-----------------|------------|------|------------|---|
| 1        | Dunadi          | Jammu & Kashmir | Kagunegarh | R    | 60         | In Operation as Ranjala Dunadi (15 MW) As per reconciliation study 2014 |
| 2        | Upper Sindh-I   | Jammu & Kashmir | Sind       | R    | 65         | In Operation in 22.60 MW  |
| 3        | Ganderbal       | Jammu & Kashmir | Sind       | R    | 75         | In Operation in 15 MW   |
| <b>3</b> | <b>Total</b>    |                 |            |      | <b>200</b> |   |

**2. H.E. Projects in Operation:**

| Sl.No.        | UTILITY/STATIONS        | NO. OF STATIONS | NO. OF UNITS X CAPACITY (MW) | RIVER/BASIN* | DISTRICT        | CAPACITY (MW) | Type (R/S/R(P)) | YEAR OF COMMISSIONING |
|---------------|-------------------------|-----------------|------------------------------|--------------|-----------------|---------------|-----------------|-----------------------|
| <b>JKSPDC</b> |                         |                 |                              |              |                 |               |                 |                       |
| 1             | BAGLIHAR-I              | 1               | (3X150)                      | CHENAB       | RAMBAN          | 450           | R(P)            | 2008                  |
| 2             | BAGLIHAR II [BAGLIHAR]  | 1               | (3X150)                      | CHENAB       | RAMBAN          | 450           | R(P)            | 2015                  |
| 3             | LOWER JHELUM            | 1               | (3X35)                       | JHELUM       | BARAMULLAH      | 105           | R(P)            | 1978-1979             |
| 4             | UPPER SINDH-II          | 1               | (3X35)                       | SINDH        | GANDERBAL       | 105           | R(P)            | 2001-2002             |
|               | <b>TOTAL JKSPDC</b>     | <b>4</b>        |                              |              |                 | <b>1110</b>   |                 |                       |
| <b>NHPC</b>   |                         |                 |                              |              |                 |               |                 |                       |
| 1             | DULHASTI                | 1               | (3X130)                      | CHENAB       | KISTWAR         | 390           | R(P)            | 2007                  |
| 2             | SALAL - I&II (SALAL)    | 1               | (6X115)                      | CHENAB       | REASI & UDAMPUR | 690           | R               | 1987-95               |
| 3             | URI-I (URD)             | 1               | (4X120)                      | JHELUM       | BARAMULA        | 480           | R               | 1996-1997             |
| 4             | URI-II (URD)            | 1               | (4X60)                       | JHELUM       | BARAMULA        | 240           | R               | 2013-14               |
| 5             | SEWA-II [Seawa]         | 1               | (3X40)                       | SEWA II      | MAHSKA          | 120           | R(P)            | 2010-11               |
| 6             | KISHENGANGA (KARAL PUR) | 1               | (3X110)                      | KISHENGANGA  |                 | 330           | R(P)            | 2018                  |
|               | <b>SUB-TOTAL NHPC</b>   | <b>6</b>        |                              |              |                 | <b>2250</b>   |                 |                       |
| <b>10</b>     | <b>TOTAL J&amp;K</b>    | <b>10</b>       |                              |              |                 | <b>3360</b>   |                 |                       |

\* ALL PROJECTS ARE IN INDUS BASIN.

**3A. H.E. Projects Under Active Construction:**

| Sl.No.   | Name of Project | Agency        | District | I.C. (MW)     | River             | Basin | Type (R/S/R(P)) | Likely Commissioning |
|----------|-----------------|---------------|----------|---------------|-------------------|-------|-----------------|----------------------|
| 1        | Pakal Dul       | CVPPL         | Kishtwar | 1000          | Marusadar/ Chenab | Indus | S               | 2025-26 (July'25)    |
| 2        | Parnai          | JKSPDC        | Poonch   | 37.5          | Jhelum            | Indus | R               | 2023-24 (Dec.'23)    |
| 3        | Kiru            | CVPPL         | Kishtwar | 624           | Chenab            | Indus | R               | 2024-25 (Aug.'24)    |
| 4        | Ratle           | RHEPPL / NHPC | Kishtwar | 850.00        | Chenab            | Indus | R(P)            | 2025-26 (Feb'26)     |
| <b>4</b> | <b>Total</b>    |               |          | <b>2511.5</b> |                   |       |                 |                      |

**3B. H.E. Projects on which Construction is held up:**

| Sl.No.   | Name of Project | Agency | District | I.C. (MW) | River  | Basin | Type (R/S/R(P)) | Status & Likely Commissioning  |
|----------|-----------------|--------|----------|-----------|--------|-------|-----------------|--|
| 1        | Lower Kalnai    | JKSPDC | Kishtwar | 48        | Chenab | Indus | R               | Works on all fronts at Dam and Power House site are stalled since the contract has been terminated by JK Govt. order no. 115-PDD of 2019 dated 08.06.2019.** |
| <b>1</b> | <b>Total</b>    |        |          | <b>48</b> |        |       |                 |  |

\*\* Subject to re-start of work in immediate future

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**



**4. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl No.   | Name of Project     | Agency | River                | District          | I.C. (MW)   | Date of CEA Concurrence | Type (R/S/R(P)) | Status  |
|----------|---------------------|--------|----------------------|-------------------|-------------|-------------------------|-----------------|---|
| 1        | New Ganderwal       | JKSPC  | Jhelum/Sindh         | Ganderwal         | 93          | 10.06.14                | R(P)            | EC accorded on 27.9.13 & FC accorded on 02.04.2012. #   |
| 2        | Kwar                | CVPPPL | Chenab               | Kishtwar          | 540         | 23.02.17                | R(P)            | EC accorded on 10.04.17. FC accorded on 08.08.14. ##  |
| 3        | Kirthai-II (Naunut) | CVPPPL | Chandrabhaga /Chenab | Kishtwar          | 930         | 14.06.2019              | R(P)            | EC recommended by MoEF&CC on 15.04.2021. FC yet to be obtained by developer. ###  |
| 4        | Sawalkote           | NHPC   | Chenab               | Ramban & Udhampur | 1856        | 18.04.18                | R(P)            | EC recommended by EAC in its meeting dated 31.01.2017. Formal letter will be issued after FC-I. (MoEF&CC delisted EC for the project on 04.08.2017 and further relisted on 24.01.2022). FC yet to be obtained. #### |
| <b>4</b> | <b>Total</b>        |        |                      |                   | <b>3419</b> |                         |                 |   |

# Award of contract packages is under progress. PPA signed with State Government. Loan agreement to be signed with finances.

##Board of CVPPPL decided that the tender process of the project be cancelled and tenders be re-invited through e-tender mode, due to the delay in PIB/CCEA approval of the project. Subsequently the tendering process of all the work packages was scrapped. Re-tendering and award of works in process.

PIB Proposal at September, 2020 PL for investment approval has been recommended on 14.02.2022. CCEA in its meeting dated 27.04.2022 accorded investment approval.

Extension of validity of Appraisal for further 1 years (i.e.beyond 23.02.2022 to 22.02.2023) on same terms & conditions as contained in OM 23.02.2017, except change in cost estimate was granted vide HPA letter dated 25.03.2022.

### Survey under process. The project was handed over to NHPC vide MoU signed on 03.01.21. The project will be executed by CVPPPL ( A JV of NHPC, JSKPDCL). CEA vide OM dated 29.12.2021 transferred the appraisal of Kirthai-II HEP in the name of M/s. CVPPPL. Proposal for revalidation of concurrence for further two years i.e. upto 13.06.2024 received in CEA on 10.03.2022. NOC from appropriate Govt for extension of validity of appraisal is awaited.

####The project was handed over to NHPC vide MoU signed on 03.01.21. The project will be executed by NHPC on BOOT basis. All clearances and appraisal of CEA are yet to be transferred in favour of M/s. NHPC. Transfer of Appraisal of Sawalkote HE Project from M/s JKSPDC to M/s NHPC Ltd. and Extension of validity of Appraisal for further 3 years (i.e.beyond 18.04.2021 to 17.04.2024) on same terms & conditions as contained in OM 18.04.2018 was granted vide HPA letter dated 25.03.2022.

**5. Multipurpose projects approved by MoWR:**

| Sl. No.  | Name of Project            | Sector  | I.C. (MW)  | Month of receipt | Status                  |
|----------|----------------------------|---------|------------|------------------|-------------------------|
| 1        | Bursar                     | Central | 800        | Jan-17           | Cleared: PPS (14.12.16) |
| 2        | Ujh (Including Dam Toe PH) | State   | 196        | Jan-18           | Cleared: PPS (29.10.18) |
| <b>2</b> | <b>Total</b>               |         | <b>996</b> |                  |                         |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**6. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:**

| Sl. No.  | Name of Project  | Agency | I.C. (MW)  | Type (R/S/R(P)) | Month of Return |
|----------|------------------|--------|------------|-----------------|-----------------|
| 1        | Kirthai -I (Sho) | JKSPDC | 390        | R(P)            | Jul'21          |
| <b>1</b> | <b>Total</b>     |        | <b>390</b> |                 |                 |

**7. H.E. Projects Under Survey & Investigation:**

| Sl. No.  | Name of Project  | Basin/River   | Agency for DPR | I.C. (MW)  | Type (R/S/R(P)) | Date of MoA | Target date pf preparation of DPR |
|----------|------------------|---------------|----------------|------------|-----------------|-------------|-----------------------------------|
| 1        | Uri-I (Stage-II) | Indus/ Jhelum | NHPC           | 240        | R               | 03.01.2021  | Jun-22                            |
| 2        | Dulhasti St-II   | Indus/ Chenab | NHPC           | 260        | R               | 03.01.2021  | Sep'22                            |
| <b>2</b> | <b>Total</b>     |               |                | <b>500</b> |                 |             |                                   |

**8. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:**

| Sl. No.  | Project      | I. C. (MW) | Agency | Date of Allotment/ MoA | Status   |
|----------|--------------|------------|--------|------------------------|--|
| 1        | Shamnot      | 370        | NHPC   | -                      | S&I held up as the project will submerge National Highway. |
| <b>1</b> | <b>Total</b> | <b>370</b> |        |                        |  |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**9. Projects dropped as per Reconciliation Study by CEA in 2014**

| Sl. No.  | Project Name | River    | Type | I.C. (MW)   | Remarks                                  |
|----------|--------------|----------|------|-------------|--|
| 1        | Chakothi     | Jhelam   | R    | 285         | Project located in POK.<br>Hence dropped |
| 2        | Chinari      | Jhelam   | R    | 475         |  |
| 3        | Hatian       | Jhelam   | R    | 215         |  |
| 4        | Gangbal      | Kankanag | S    | 55          | Dropped due to<br>Environmental issue    |
| <b>4</b> | <b>Total</b> |          |      | <b>1030</b> |  |

**10. H. E. Projects yet to be allotted by the State for development**

| Sl.No.   | Name of Project            | River                     | Type | I.C. (MW)   |
|----------|----------------------------|---------------------------|------|-------------|
| 1        | Shuas                      | Chenab                    | R    | 505         |
| 2        | Barinium( Berinaum)        | Chenab                    | R    | 435         |
| 3        | Naga                       | Kal Nai                   | R    | 29          |
| 4        | Kiwa                       | Kal Nai                   | R    | 37          |
| 5        | Tipri                      | Kal Nai                   | R    | 36          |
| 6        | Bichlari                   | Bichlari                  | R    | 75          |
| 7        | Shutkarikulan (Sonmarg)    | Sind                      | S    | 155         |
| 8        | Kishenganga-II<br>(Wangam) | Bonar                     | R    | 60          |
| <b>8</b> | <b>Total</b>               | <b>8 Nos. of Projects</b> |      | <b>1332</b> |

Note: R –Run of the River & S - Storage

## Status of Large Hydro Power Development in Ladakh

|   |   | Nos.      | Capacity (MW) |
|---|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 23        | 2046          |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                |   | 1         | 44            |
| <b>Total</b>  |   | <b>24</b> | <b>2090</b>   |
| I   | Projects in operation   | 2         | 89            |
| II  | Projects yet to be allotted by U.T. of Laddakh for development* | 22        | 1866          |

\*The capacity yet to be allotted by U.T. of Laddakh for development is different from arithmetic calculation from the potential assessed due to change in capacity of the projects, addition of the projects, etc.

**1. Identified Projects during Reassessment study:**

| <b>Sl.No.</b> | <b>Name of Project</b>             | <b>River</b>               | <b>Type</b> | <b>I.C. (MW)</b> |
|---------------|------------------------------------|----------------------------|-------------|------------------|
| 1             | Kiari                              | Indus                      | R           | 28               |
| 2             | Parfila                            | Zaskar                     | R           | 45               |
| 3             | Paidar                             | Zaskar                     | R           | 46               |
| 4             | Tillarchu                          | Zaskar                     | R           | 39               |
| 5             | Nurla (Ulitopo)                    | Indus                      | R           | 65               |
| 6             | Khalsi (Khalsti)                   | Indus                      | R           | 170              |
| 7             | Takmaching                         | Indus                      | R           | 75               |
| 8             | Dumkar                             | Indus                      | R           | 130              |
| 9             | Achinthang                         | Indus                      | R           | 140              |
| 10            | Kanyunche                          | Indus                      | R           | 105              |
| 11            | Batalik (Sunit)                    | Indus                      | R           | 235              |
| 12            | Parkhachik<br>(Parkhachik Panikar) | Suru                       | R           | 110              |
| 13            | Dandal (Drass Suru-I)              | Drass                      | R           | 26               |
| 14            | Khabru (Drass Suru-II)             | Drass                      | R           | 30               |
| 15            | Tahanus                            | Shingo                     | R           | 120              |
| 16            | Karkit                             | Shingo                     | R           | 190              |
| 17            | Gunderman                          | Suru                       | R           | 120              |
| 18            | Chalunka                           | Shyok                      | R           | 45               |
| 19            | Chechesna                          | Suru                       | R           | 47               |
| 20            | Leh                                | Indus                      | R           | 29               |
| 21            | Kesar                              | Indus                      | R           | 42               |
| 22            | Thambas                            | Suru                       | R           | 29               |
| 23            | Nimu                               | Indus                      | S           | 180              |
|               | <b>Total</b>                       |                            |             | <b>2046</b>      |
| 24            | Chutak (Suru) #                    | Suru                       | R           | 44               |
| <b>24</b>     | <b>Grand Total</b>                 | <b>24 Nos. of Projects</b> |             | <b>2090</b>      |

# Project was identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity:

Note: R –Run of the River & S- Storage

**2. H.E. Projects in Operation:**

| Sl.No.      | UTILITY/STATIONS      | NO. OF STATIONS | NO. OF UNITS X CAPACITY (MW) | RIVER/BASIN * | DISTRICT | Type (R/S/R(P)) | CAPACITY (MW) | YEAR OF COMMISSIONING |
|-------------|-----------------------|-----------------|------------------------------|---------------|----------|-----------------|---------------|-----------------------|
| <b>NHPC</b> |                       |                 |                              |               |          |                 |               |                       |
| 1           | CHUTAK                | 1               | (4X11)                       | INDUS         | KARGIL   | R               | 44            | 2012-13               |
| 2           | NIMOO BAZGO (NIMU)    | 1               | (3X15)                       | INDUS         | LEH      | R(P)            | 45            | 2013                  |
|             | <b>SUB-TOTAL NHPC</b> | <b>2</b>        |                              |               |          |                 | <b>89</b>     |                       |
|             | <b>TOTAL LADAKH</b>   | <b>2</b>        |                              |               |          |                 | <b>89</b>     |                       |

**3. H. E. Projects yet to be allotted by U.T. of Laddakh for development**

| Sl.No.    | Name of Project                 | River                      | Type | I.C. (MW)   |
|-----------|---------------------------------|----------------------------|------|-------------|
| 1         | Kiari                           | Indus                      | R    | 28          |
| 2         | Parfila                         | Zaskar                     | S    | 45          |
| 3         | Paidar                          | Zaskar                     | R    | 46          |
| 4         | Tillarchu                       | Zaskar                     | R    | 39          |
| 5         | Nurla (Ulitopo)                 | Indus                      | R    | 65          |
| 6         | Khalsi (Khalsti)                | Indus                      | R    | 170         |
| 7         | Takmaching                      | Indus                      | R    | 75          |
| 8         | Dumkar                          | Indus                      | R    | 130         |
| 9         | Achinthang                      | Indus                      | R    | 140         |
| 10        | Kanyunche                       | Indus                      | R    | 105         |
| 11        | Batalik (Sunit)                 | Indus                      | R    | 235         |
| 12        | Parkhachik (Parkhachik Panikar) | Suru                       | R    | 110         |
| 13        | Dandal (Drass Suru-I)           | Drass                      | R    | 26          |
| 14        | Khabru (Drass Suru-II)          | Drass                      | R    | 30          |
| 15        | Tahanus                         | Shingo                     | R    | 120         |
| 16        | Karkit                          | Shingo                     | R    | 190         |
| 17        | Gunderman                       | Suru                       | R    | 120         |
| 18        | Chalunka                        | Shyok                      | R    | 45          |
| 19        | Chechesna                       | Suru                       | R    | 47          |
| 20        | Leh                             | Indus                      | R    | 29          |
| 21        | Kesar                           | Indus                      | R    | 42          |
| 22        | Thambas                         | Suru                       | R    | 29          |
| <b>22</b> | <b>Total</b>                    | <b>22 Nos. of Projects</b> |      | <b>1866</b> |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

## Status of Large Hydro Power Development in Punjab

|   |   | Nos.      | Capacity      |
|---|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 5         | 971           |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)               |   | 3         | 205.3         |
| Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)                                   |   | 4         | 0             |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity                                    |   | -1        | -90           |
| <b>Total</b>  |   | <b>11</b> | <b>1086.3</b> |
| I   | Projects in operation                       | 9         | 1096.3        |
| II  | Projects under active construction          | 1         | 206           |
| III   | Projects held up due to Inter-State aspects | 1         | 50            |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of projects, etc.

### 1 (A). Identified Projects during Reassessment study:

| Sl.No.   | Name of Project                                 | River  | I. C.(MW)  |
|----------|---|--------|------------|
| 1        | Mukerian-I,II, III & IV [Mukerian Canal]        | Beas   | 207        |
| 2        | Anadpur Sahib-I & II [Anadpur Sahib, Ph-I & II] | Sutlej | 134        |
| 3        | Ranjit Sagar [Thein]                            | Ravi   | 325        |
| 4        | Shahpurkandi [Shahpur]                          | Ravi   | 215        |
| 5        | UBDC  | Ravi   | 90         |
| <b>5</b> | <b>TOTAL</b>                                    |        | <b>971</b> |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River  | I.C. (MW)    | Status       |
|----------|------------------|--------|--------------|--------------|
| 1        | Ganguwal         | Satluj | 77.65        | In Operation |
| 2        | SYL              |        | 50           | Inter-State  |
| 3        | Kotla            | Satluj | 77.65        | In Operation |
| <b>3</b> | <b>Sub Total</b> |        | <b>205.3</b> |              |

**1 (C). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting |                          |        |            |            | After Splitting |                   |        |            |              |
|------------------|--------------------------|--------|------------|------------|-----------------|-------------------|--------|------------|--------------|
| Sl.No.           | Name of Project          | River  | I.C. (MW)  | Status     | Sl.No.          | Name of Project   | River  | I.C. (MW)  | Status       |
| 1                | Anandpur Sahib PH I & II | Sutlej | 134        | Identified | 1               | Anandpur Sahib I  | Sutlej | 67         | In Operation |
|                  |                          |        |            |            | 2               | Anandpur Sahib II | Sutlej | 67         | In Operation |
| 2                | Mukerian Canal           | Beas   | 207        | Identified | 3               | Mukerian I        | Beas   | 45         | In Operation |
|                  |                          |        |            |            | 4               | Mukerian II       | Beas   | 45         | In Operation |
|                  |                          |        |            |            | 5               | Mukerian III      | Beas   | 58.5       | In Operation |
|                  |                          |        |            |            | 6               | Mukerian IV       | Beas   | 58.5       | In Operation |
| <b>2</b>         | <b>Sub Total</b>         |        | <b>341</b> |            | <b>6</b>        |                   |        | <b>341</b> |              |
|                  | Net Change in Numbers    |        | <b>4</b>   | Increase   |                 |                   |        |            |              |
|                  | Net Change in Capacity   |        | <b>0</b>   | No Change  |                 |                   |        |            |              |

**1 (D). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Name of Project | State  | River | Type | I.C. (MW) | Status |
|----------|-----------------|--------|-------|------|-----------|--------|
| 1        | UBDC            | Punjab | Ravi  | R    | 90        | **     |
| <b>1</b> | <b>Total</b>    |        |       |      | <b>90</b> |        |

\*\* All three units of UBDC Stage-I have been developed in different locations with (.C. (15 MW) less than 25 MW each. The distance between different locations varies from 3 to 5 km. In UBDC Stage-II also three units have been developed in different locations as above. The distance between each unit of Stage-II w.r.t. corresponding unit of Stage-II is approxi. 100m



## 2. H.E. Projects in Operation:

| S.No         | UTILITY/<br>STATIONS                                  | NO. OF<br>STATIONS | NO. OF<br>UNITS X<br>CAPACITY<br>(MW) | RIVER/<br>BASIN*             | DISTRICT   | I.C.<br>(MW)  | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|--------------|---|--------------------|---------------------------------------|------------------------------|------------|---------------|--------------------|--------------------------|
| <b>PSPCL</b> |   |                    |                                       |                              |            |               |                    |                          |
| 1            | ANANDPUR<br>SAHIB-I<br>[Anadpur Sahib,<br>Ph-I & II]  | 1                  | (2X33.5)                              | AHC<br>(CANAL)               | RUPNAGAR   | 67            | R                  | 1985                     |
| 2            | ANANDPUR<br>SAHIB-II<br>[Anadpur Sahib,<br>Ph-I & II] | 1                  | (2X33.5)                              | AHC<br>(CANAL)               | RUPNAGAR   | 67            | R                  | 1985                     |
| 3            | MUKERIAN-I<br>[Mukerian<br>Canal]                     | 1                  | (3X15)                                | TAIL WATER<br>OF PONG<br>DAM | HOSHIARPUR | 45            | R                  | 1983                     |
| 4            | MUKERIAN-II<br>[Mukerian<br>Canal]                    | 1                  | (3X15)                                | TAIL WATER<br>OF PONG<br>DAM | HOSHIARPUR | 45            | R                  | 1988-89                  |
| 5            | MUKERIAN-III<br>[Mukerian<br>Canal]                   | 1                  | (3X19.5)                              | TAIL WATER<br>OF PONG<br>DAM | HOSHIARPUR | 58.5          | R                  | 1989                     |
| 6            | MUKERIAN-IV<br>[Mukerian<br>Canal]                    | 1                  | (3X19.5)                              | TAIL WATER<br>OF PONG<br>DAM | HOSHIARPUR | 58.5          | R                  | 1989                     |
| 7            | RANJIT<br>SAGAR<br>[Thein]                            | 1                  | (4X150)                               | Reservoir on<br>River Ravi   | PATHANKOT  | 600           | S                  | 2000                     |
|              | <b>TOTAL PSPCL</b>                                    | <b>7</b>           |                                       |                              |            | <b>941</b>    |                    |                          |
| <b>BBMB</b>  |   |                    |                                       |                              |            |               |                    |                          |
| 8            | GANGUWAL  | 1                  | (2X24.2)+<br>(1X29.25)                | SATLUJ                       | RUPNAGAR   | 77.65         | R                  | 1955-1962                |
| 9            | KOTLA   | 1                  | (2X24.2)+<br>(1X29.25)                | SATLUJ                       | RUPNAGAR   | 77.65         | R                  | 1956-1961                |
|              | <b>SUB-TOTAL<br/>BBMB<br/>(PUNJAB)</b>                | <b>2</b>           |                                       |                              |            | <b>155.3</b>  |                    |                          |
| <b>9</b>     | <b>TOTAL<br/>PUNJAB</b>                               | <b>9</b>           |                                       |                              |            | <b>1096.3</b> |                    |                          |

\* ALL PROJECTS ARE IN INDUS BASIN

Note: R= Run of River, S=Storage &amp; R(P)= Run of River with Pondage

**3. H.E. Projects under active Construction:**

| Sl. No.  | Name of Project        | Implementing Agency | District  | River /Basin | I. C. (MW) | Type (R/S/R(P)) | Likely Commissioning |
|----------|------------------------|---------------------|-----------|--------------|------------|-----------------|----------------------|
| 1        | Shahpurkandi [Shahpur] | Irr. Deptt. & PSPCL | Gurdaspur | Ravi /Indus  | 206        | R               | 2024-25 (Aug.'24)    |
| <b>1</b> | <b>Total</b>           |                     |           |              | <b>206</b> |                 |                      |

**4. H.E. Projects held up due to Inter-State aspects:**

| Sl. No.  | Name of Project       | I.C. (MW) | Location (State) | States Involved            | Status  |
|----------|-----------------------|-----------|------------------|----------------------------|---|
| 1        | SYL (2x18+2x7 =50 MW) | 50        | Punjab           | Punjab/ Haryana/ Rajasthan | <ul style="list-style-type: none"> <li>•Cleared by CEA in 12/1987 at an estimated cost of Rs.101.28 crores (5/1985 PL).</li> <li>•Work on the canal on which project is located is held up.</li> <li>• Haryana and Rajasthan have raised question regarding their shares of power as it envisages utilizing common facilities and water belonging to all three states, viz. Haryana, Punjab &amp; Rajasthan.</li> </ul> |
| <b>1</b> | <b>Total</b>          | <b>50</b> |                  |                            |   |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

## Status of Large Hydro Power Development in Rajasthan

|   |                       | Nos.     | Capacity (MW) |
|---|-----------------------|----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |                       | 5        | 483           |
| Project(s) Identified in this State but developed/being developed in other State(s) #   |                       | -1       | -115          |
| <b>Total</b>  |                       | <b>4</b> | <b>368</b>    |
| I   | Projects in operation | 4        | 411           |

# Gandhi Sagar (115 MW) was identified in Rajasthan but has been developed in Madhya Pradesh.

### 1. Identified Projects during Reassessment study:

| Sl. No.  | Name of Project                            | River   | I. C. (MW) |
|----------|--|---------|------------|
| 1        | Gandhi Sagar                               | Chambal | 115        |
| 2        | Rana Pratap Sagar                          | Chambal | 172        |
| 3        | Jawahar Sagar                              | Chambal | 99         |
| 4        | Mahi Bajaj - I<br>[Mahi Bajaj Sagar St-II] | Mahi    | 60         |
| 5        | Mahi Bajaj - I<br>[Mahi Bajaj Sagar St-I]  | Mahi    | 37         |
| <b>5</b> | <b>TOTAL</b>                               |         | <b>483</b> |

**2. H.E. Projects in Operation:**

| SL. NO.  | UTILITY/ STATIONS                         | NO. OF STATIONS | NO. OF UNITS X CAPACITY (MW) | RIVER    | BASIN | DISTRICT    | I.C. (MW)  | Type (R/S/R(P)) | YEAR OF COMMISSIONING |
|----------|---|-----------------|------------------------------|----------|-------|-------------|------------|-----------------|-----------------------|
| 1        | JAWAHAR SAGAR                             | 1               | (3X33)                       | CHAMBHAL | GANGA | BUNDI       | 99         | R(P)            | 1972-1973             |
| 2        | MAHI BAJAJ-I<br>[Mahi Bajaj Sagar St-I]   | 1               | (2X25)                       | MAHI     | CIR   | BANSWARA    | 50         | S               | 1986                  |
| 3        | MAHI BAJAJ-II<br>[Mahi Bajaj Sagar St-II] | 1               | (2X45)                       | MAHI     | CIR   | BANSWARA    | 90         | R(P)            | 1989                  |
| 4        | R P SAGAR                                 | 1               | (4X43)                       | CHAMBHAL | GANGA | CHITTORGARH | 172        | S               | 1968                  |
| <b>4</b> | <b>TOTAL RRVUNL</b>                       | <b>4</b>        |                              |          |       |             | <b>411</b> |                 |                       |

Note: Mahi Bajaj Sagar I & II (140 MW) were identified for I.C. of 97 MW.

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

## Status of Large Hydro Power Development in Uttar Pradesh

|   |   | Nos.     | Capacity (MW) |
|---|---|----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 6        | 664           |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                |   | 1        | 90            |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity                                    |   | -1       | -35           |
| Project(s) Identified in this State but developed/being developed in other State(s) #   |   | -1       | -39           |
| <b>Total</b>  |   | <b>5</b> | <b>680</b>    |
| I   | Projects in operation                       | 4        | 501.6         |
| II  | Projects held up due to Inter-State aspects | 1        | 90            |

# One project, Orchha is under Inter-State issue in the State of M.P. for 90 MW.

**1 (A). Identified Projects during Reassessment study:**

| Sl. No. | Name of Project         | River  | Type | I. C. (MW) |
|---------|-------------------------|--------|------|------------|
| 1       | Khara                   | Yamuna | R    | 160        |
| 2       | Matatila                | Betwa  | S    | 31         |
| 3       | Orchha #                | Betwa  | R    | 39         |
| 4       | Rihand                  | Rihand | S    | 300        |
| 5       | Obra                    | Rihand | R    | 99         |
| 6       | Eastern Yamuna Canal ## | Yamuna | R    | 35         |
| 6       | <b>TOTAL</b>            |        |      | <b>664</b> |

# Orchha is under Inter-State issue in the State of M.P. for 90 MW.

## Eastern Yamuna Canal project (35 MW) has been developed in 2 stages each having Installed Capacity below 25 MW

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No. | Name of Project  | River | I.C. (MW) | Status      |
|--------|------------------|-------|-----------|-------------|
| 1      | Panchnaad MPP    |       | 90        | Inter-State |
| 1      | <b>Sub Total</b> |       | <b>90</b> |             |

**1 (C). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No. | Naome of Project     | State         | River  | Type | I.C. (MW) | Status                            |
|---------|----------------------|---------------|--------|------|-----------|-----------------------------------|
| 1       | Eastern Yamuna Canal | Uttar Pradesh | Yamuna | R    | 35        | Developed in 2 stages below 25 MW |
| 1       | <b>Total</b>         |               |        |      | <b>35</b> |                                   |

**2. H.E. Projects in Operation:**

| SL. NO. | STATIONS            | NO. OF STATIONS | NO. OF UNITS X CAPACITY (MW) | RIVER/ BASIN*            | DISTRICT   | I. C. (MW)   | Type (R/S/R(P)) | YEAR OF COMMISSIONING |
|---------|---------------------|-----------------|------------------------------|--------------------------|------------|--------------|-----------------|-----------------------|
| 1       | KHARA               | 1               | (3X24)                       | YAMUNA LINK CHANNEL      | SUNEBHADRA | 72           | R(P)            | 1992                  |
| 2       | MATATILLA           | 1               | (3X10.2)                     | BETWA                    | LALITPUR   | 30.6         | S               | 1965                  |
| 3       | OBRA                | 1               | (3X33)                       | RIHAND                   | SUNEBHADRA | 99           | S               | 1970-1971             |
| 4       | RIHAND              | 1               | (6X50)                       | GOVIND BALLAB PANT NAGAR | SINGRAULI  | 300          | S               | 1961-1965             |
| 4       | <b>TOTAL UPJVNL</b> | <b>4</b>        |                              |                          |            | <b>501.6</b> |                 |                       |

\* ALL PROJECTS ARE IN GANGA BASIN.

**3. H.E. Projects held up due to Inter-State aspects:**

| Sl.      | Name of                    | I.C.      | Location | States              | Status  |
|----------|----------------------------|-----------|----------|---------------------|---|
| 1        | Panchnad MPP (6x15 = 90MW) | 90        | U.P.     | U.P./M.P/ Rajasthan | DPR with Project estimated cost of Rs 559 Crores (6/1983 PL) returned.<br>Involves submergence in MP and Rajasthan. |
| <b>1</b> |                            | <b>90</b> |          |                     |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**Status of Large Hydro Power Development in Uttarakhand**

|  |   | Nos.      | Capacity (MW) |
|--|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 84        | 17998         |
| Large Project Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)                |   | 1         | 76            |
| Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)                                      |   | 2         | -830          |
| Change in Projects due to merging of projects (identified during reassessment study in 1978-87)  |   | -4        | 184           |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity                                       |   | -2        | -71           |
| <b>Total</b>   |   | <b>81</b> | <b>17357</b>  |
| I  | Projects in operation   | 17        | 3855.35       |
| II A   | Projects under active construction  | 4         | 1144          |
| II B   | Projects on which construction is held up   | 2         | 247           |
| III  | Projects allotted by States for development   |           |               |
|  | (i) Projects concurred by CEA and yet to be taken up for construction                     | 3         | 815           |
|  | (ii) Projects under Examination in CEA  | 1         | 300           |
|  | (iii) Projects returned to project authorities  | 5         | 489           |
|  | (iv) Multi Purpose Projects (International Projects) under examination by India and Nepal | 2         | 2400          |
|  | (v) Multi Purpose projects  | 2         | 960           |
|  | (vi) Projects under S&I   | 3         | 514           |
|  | (vii) Projects allotted for development on which S&I is held up/ yet to be taken up       | 15        | 2402          |
| IV   | Projects dropped/stuck due to Basin studies/ Other reasons                                | 7         | 2457          |
| V  | Projects yet to be allotted by the State for development*                                 | 22        | 3028          |

Note : In addition to above, one pumped storage project, namely Tehri (4x250 = 1000 MW) is under active construction and is likely to be commissioned by June.'2023.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects and merger of more than one projects into one etc.



**1 (A). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River                   | I.C. (MW) | Status                  |
|----------|------------------|-------------------------|-----------|-------------------------|
| 1        | Phata Byung      | Mandakini/<br>Alaknanda | 76        | Construction is held up |
| <b>1</b> | <b>Sub Total</b> |                         | <b>76</b> |                         |

**1 (B). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting |                        |            |             |            | After Splitting |                  |            |             |           |
|------------------|------------------------|------------|-------------|------------|-----------------|------------------|------------|-------------|-----------|
| Sl.No.           | Name of Project        | River      | I.C. (MW)   | Status     | Sl.No.          | Name of Project  | River      | I.C. (MW)   | Status    |
| 1                | Kotlibhel              | Bhagirathi | 1875        | Identified | 1               | Kotlibhel-IA     | Bhagirathi | 195         | Concurred |
|                  |                        |            |             |            | 2               | Kotlibhel-IB     | Bhagirathi | 320         | Concurred |
|                  |                        |            |             |            | 3               | Kotlibhel-II     | Bhagirathi | 530         | Dropped   |
| <b>1</b>         | <b>Sub Total</b>       |            | <b>1875</b> |            | <b>3</b>        | <b>Sub Total</b> |            | <b>1045</b> |           |
|                  | Net Change in Numbers  |            | <b>2</b>    | Increase   |                 |                  |            |             |           |
|                  | Net Change in Capacity |            | <b>-830</b> | Decrease   |                 |                  |            |             |           |

**1 (C). Change in Projects due to merging of projects (identified during reassessment study in 1978-87)**

| Before Merging |                        |            |            |            | After Merging |                  |            |             |         |
|----------------|------------------------|------------|------------|------------|---------------|------------------|------------|-------------|---------|
| Sl.No.         | Name of Project        | River      | I.C. (MW)  | Status     | Sl.No.        | Name of Project  | River      | I.C. (MW)   | Status  |
| 1              | Taluka Saul            | Tons       | 39         | Identified | 1             | Taluka Sankri    | Tons       | 140         | Held Up |
| 2              | Sankri Kunare          | Tons       | 33         | Identified |               |                  |            |             |         |
| 3              | Pala Bhela Tipri       | Bhagirathi | 165        | Identified | 2             | Pala Maneri      | Bhagirathi | 480         | Dropped |
| 4              | Bhela Tipri            | Bhagirathi | 100        | Identified |               |                  |            |             |         |
| 5              | Gangotri               | Bhagirathi | 70         | Identified | 3             | Bhaironghati     | Bhagirathi | 381         | Dropped |
| 6              | Bhairon Ghati          | Bhagirathi | 60         | Identified |               |                  |            |             |         |
| 7              | Harsil Dam             | Bhagirathi | 350        | Identified |               |                  |            |             |         |
| <b>7</b>       | <b>Sub Total</b>       |            | <b>817</b> |            | <b>3</b>      | <b>Sub Total</b> |            | <b>1001</b> |         |
|                | Net Change in Numbers  |            | <b>-4</b>  | Decrease   |               |                  |            |             |         |
|                | Net Change in Capacity |            | <b>184</b> | Increase   |               |                  |            |             |         |

**1 (D). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Name of Project | State       | River  | Type | I.C. (MW) | Status                |
|----------|-----------------|-------------|--------|------|-----------|-----------------------|
| 1        | Nayar dam       | Uttarakhand | Nayar  | S    | 34        | Developed below 25 MW |
| 2        | Malkhet         | Uttarakhand | Pindar | S    | 37        | Developed below 25 MW |
| <b>2</b> | <b>Total</b>    |             |        |      | <b>71</b> |                       |

## 2. H.E. Projects in Operation:

| S. NO. | UTILITY/<br>STATIONS                      | NO. OF<br>STNS. | NO. OF<br>UNITS X<br>CAPACITY<br>(MW) | RIVER   | DISTRICT             | I.C. (MW)      | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|--------|---|-----------------|---------------------------------------|---|----------------------|----------------|--------------------|--------------------------|
|        | <b>CENTRAL SECTOR</b>                     |                 |                                       |   |                      |                |                    |                          |
|        | <b>NHPC</b>                               |                 |                                       |   |                      |                |                    |                          |
| 1      | DHAULI GANGA<br>[ KHET TAWAGHAT]          | 1               | (4X70)                                | DHAULIGANGA                                     | PITHORAGARH          | 280            | R(P)               | 2005                     |
| 2      | TANAKPUR                                  | 1               | (3X31.4)                              | SARDA   | CHAMPAVAT            | 94.2           | R                  | 1992                     |
|        | <b>SUB-TOTAL NHPC</b>                     | <b>2</b>        |                                       |   |                      | <b>374.2</b>   |                    |                          |
|        | <b>THDC</b>                               |                 |                                       |   |                      |                |                    |                          |
| 3      | TEHRI ST-I<br>[TEHRI DAM ST-I]            | 1               | (4X250)                               | BHAGIRATHI                                      | TEHRI GARHWAL        | 1000           | S                  | 2006-2007                |
| 4      | KOTESHWAR                                 | 1               | (4X100)                               | BHAGIRATHI                                      | TEHRI GARHWAL        | 400            | R(P)               | 2010-12                  |
|        | <b>TOTAL THDC</b>                         | <b>2</b>        |                                       |   |                      | <b>1400</b>    |                    |                          |
|        | <b>SUB TOTAL<br/>CENTRAL</b>              | <b>4</b>        |                                       |   |                      | <b>1774.2</b>  |                    |                          |
|        | <b>STATE SECTOR</b>                       |                 |                                       |   |                      |                |                    |                          |
|        | <b>UJVNL</b>                              |                 |                                       |   |                      |                |                    |                          |
| 5      | CHIBRO (YAMUNA)<br>[CHIBRO]               | 1               | (4X60)                                | Tons River at Ichari<br>Dam                     | DEHRADUN             | 240            | R(P)               | 1975-1976                |
| 6      | CHILLA [RISHIKESH<br>HARDWAR]             | 1               | (4X36)                                | GANGA   | HARIDWAR             | 144            | R                  | 1980-1981                |
| 7      | DHAKRANI                                  | 1               | (3X11.25)                             | Tons & Yamuna<br>Rivers at Dakpathar<br>Barrage | DEHRADUN             | 33.75          | R                  | 1965-1970                |
| 8      | DHALIPUR                                  | 1               | (3X17)                                | Tons & Yamuna<br>Rivers at Dakpathar<br>Barrage | DEHRADUN             | 51             | R                  | 1965-1970                |
| 9      | KHATIMA                                   | 1               | (3X13.8)                              | SHARDA  | UDHAM SINGH<br>NAGAR | 41.4           | R                  | 1955-1956                |
| 10     | KHODRI                                    | 1               | (4X30)                                | TONS  | DAK PATHAR           | 120            | R(P)               | 1984                     |
| 11     | KULHAL                                    | 1               | (3X10)                                | TONS  | DEHRADUN             | 30             | R                  | 1975                     |
| 12     | MANERI BHALI- I                           | 1               | (3X30)                                | BHAGIRATHI                                      | UTTARKASHI           | 90             | R(P)               | 1984                     |
| 13     | MANERI BHALI- II                          | 1               | (4X76)                                | BHAGIRATHI                                      | UTTARKASHI           | 304            | R(P)               | 2008                     |
| 14     | RAMGANGA<br>[ RAMGANGA DAM<br>(KALAGARH)] | 1               | (3X66)                                | RAMGANGA  | PAURI GARHWAL        | 198            | S                  | 1975-1977                |
|        | <b>TOTAL UJVNL</b>                        | <b>10</b>       |                                       |   |                      | <b>1252.15</b> |                    |                          |

|           |                              |           |           |           |               |                |      |      |
|-----------|------------------------------|-----------|-----------|-----------|---------------|----------------|------|------|
|           | <b>PRIVATE</b>               |           |           |           |               |                |      |      |
|           | <b>AHPC</b>                  |           |           |           |               |                |      |      |
| 15        | SHRINAGAR                    | 1         | (4X82.50) | ALAKNANDA | TRHRI & PAURI | 330            | R(P) | 2015 |
|           | <b>JPPVL</b>                 |           |           |           |               |                |      |      |
| 16        | VISHNU PRAYAG                | 1         | (4X100)   | ALAKNANDA |               | 400            | R    | 2006 |
|           | <b>ReNew Power</b>           |           |           |           |               |                |      |      |
| 17        | SINGOLI BHATWARI             | 1         | (3X33)    |           |               | 99             | R    | 2020 |
|           | <b>SUB TOTAL PRIVATE</b>     | <b>3</b>  |           |           |               | <b>829</b>     |      |      |
| <b>17</b> | <b>TOTAL<br/>UTTARAKHAND</b> | <b>17</b> |           |           |               | <b>3855.35</b> |      |      |

**Note: ALL PROJECTS ARE IN GANGA BASIN**

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**2A. H.E. Projects under active Construction:**

| Sl. No.  | Name of Project                    | Agency | District   | I.C. (MW)   | River                    | Basin | Type (R/S/R(P)) | Likely Commissioning |
|----------|------------------------------------|--------|------------|-------------|--------------------------|-------|-----------------|----------------------|
| 1        | Vishnugad Pipalkoti                | THDC   | Chamoli    | 444         | Alaknanada               | Ganga | R               | 2024-25 (Jun'24)     |
| 2        | Naitwar Mori                       | SJVNL  | Uttarkashi | 60          | Tons/ Yamuna             | Ganga | R(P)            | 2022-23 (Jan'23)     |
| 3        | Vyasi [Lakhwar Vyasi - II]         | UJVNL  | Dehradun   | 120         | Yamuna/Ganga             | Ganga | R               | 2022-23 (Mar.'22)    |
| 4        | Tapovan Vishnugad [Tapovan Chunar] | NTPC   | Chamoli    | 520         | Dhauliganga / Alaknanada | Ganga | R               | 2024-25 (June'24)    |
| <b>4</b> | <b>Total</b>                       |        |            | <b>1144</b> |                          |       |                 |                      |

Note : In addition to above, one pumped storage project, namely Tehri (4x250 = 1000 MW) is under active construction and is likely to be commissioned by 2022-24 ( Dec'23).\*\*

|   |
|---|
| ** 2 units (500 MW) likely during 2022-23 & 2 units (500 MW) during 2023-24 |
|---|

**2B. H.E. Projects on which Construction is held up:**

| Sl. No.  | Name of Project | Agency | District    | I.C. (MW)  | River                    | Basin | Type (R/S/R(P)) | Status & Likely Commissioning   |
|----------|-----------------|--------|-------------|------------|--------------------------|-------|-----------------|---|
| 1        | Lata Tapovan    | NTPC   | Chamoli     | 171        | Dhauliganga / Alaknanada | Ganga | R               | Subsequent to the Uttarakhand disaster in June, 2013, Hon'ble Supreme Court gave the judgment on 13.08.2013 that "MoEF as well as State of Uttarakhand not to grant any further environmental clearance or forest clearance for any hydroelectric power project in the State of Uttarakhand, until further orders". Therefore, the construction work stopped .The matter is sub-judice.<br>2025-26*       |
| 2        | Phata Byung     | LANCO  | Rudraprayag | 76         | Mandakini/ Alaknanda     | Ganga | R               | Works stalled since July, 2017 due to Financial crunch with the contractor / developer.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.<br>2024-25* |
| <b>2</b> | <b>Total</b>    |        |             | <b>247</b> |                          |       |                 |   |

\* Subject to re-start of work in immediate future

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**3. H.E. Projects Under Examination/Scrutiny in CEA:**

| Sl. No.  | Name of Project    | Sector | I.C. (MW)  | Agency | Type (R/S/R(P)) | Month of receipt |
|----------|--------------------|--------|------------|--------|-----------------|------------------|
| 1        | Bowala Nand Prayag | State  | 300        | UJVNL  | R               | Apr-22           |
| <b>1</b> | <b>Total</b>       |        | <b>300</b> |        |                 |                  |

**4. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl. No.  | Name of Project             | River      | Agency | District              | I.C. (MW)  | Type (R/S/R(P)) | Status   |
|----------|-----------------------------|------------|--------|-----------------------|------------|-----------------|--|
| 1        | Kotlibhel St-IA [Kotlibhel] | Bhagirathi | NHPC   | Tehri Garhwal         | 195        | R               | EC accorded on 9.05.07. However, NHPC vide email dated 02.04.2021 furnished that EC expired in May'2012 FC-I accorded on 13.10.11 & for FC-II, Compliance Report is awaited from State Govt. However, NHPC vide email dated 02.04.2021 furnished that FC-I expired in Oct'2016.# |
| 2        | Kotlibhel St-IB [Kotlibhel] | Alaknanda  | NHPC   | Pauri & Tehri Garhwal | 320        | R               | EC accorded earlier on 14.08.07 is withdrawn on 15.09.10. MoEF&CC declined FC-I on 7.07.11.##  |
| 3        | Alaknanda [Badri Nath]      | Alaknanda  | GMR    | Chamoli               | 300        | R               | EC accorded on 12.3.08.FC-I accorded on 8.11.11. FC-II accorded on 09.11.2012. The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Validity of Concurrence expired on 07.08.2019.  |
| <b>3</b> | <b>Total</b>                |            |        |                       | <b>815</b> |                 |  |

#The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Hon'ble Supreme Court vide order dated 13.08.2013 directed the MoEF&CC as well as State of Uttarakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttarakhand until further orders. In compliance to the above order, MoEF & CC constituted an Expert Body vide order dated 12.05.2015. Expert Body has recommended, in its report to MoEF&CC issued in Sept, 2017, that the project should operate to run one turbine continuously during lean season to minimize peaking impact at Devprayag. Hon'ble Supreme Court vide order dated 24.11.2015 directed MoP, MoEF&CC and MoWR to arrive at a common policy framework amongst three ministries which is yet to be formulated.

M/s. NHPC vide letter dated 22.10.2021 informed that the project has been closed w.e.f. 01.04.2021 vide NHPC office order dated 12.04.2021. Further, MoEF&CC has filed the affidavit dated 17.08.2021 before Hon'ble Supreme Court of India incorporating the responses of MoP and MoJS. It has been mentioned in the affidavit that there is consensus on only 7 projects, where substantial progress and sizeable investment have already been made, for implementation amongst the three Ministries and the Govt. of Uttarakhand. Kotlibhel- 1A HE Project of NHPC does not figure in this list.

##The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Hon'ble Supreme Court vide order dated 13.08.2013 directed the MoEF&CC as well as State of Uttarakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttarakhand until further orders. Further, MoEF&CC has filed the affidavit dated 17.08.2021 before Hon'ble Supreme Court of India incorporating the responses of MoP and MoJS. It has been mentioned in the affidavit that there is consensus on only 7 projects, where substantial progress and sizeable investment have already been made, for implementation amongst the three Ministries and the Govt. of Uttarakhand. Kotlibhel- 1B HE Project of NHPC does not figure in this list.

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

### 5. Multi purpose projects (International Projects) under examination by India and Nepal

| Sl.No. | Name of Project                                  | River | Type | I.C.(MW)    |
|--------|--|-------|------|-------------|
| 1      | Pancheshwar MPP<br>[Pancheshwar - I]             | Sarda | S    | 1335        |
| 2      | Rupali Garh Regulating<br>Dam [Pancheshwar - II] | Sarda | S    | 1065        |
| 2      | <b>Total</b>                                     |       |      | <b>2400</b> |

Note: S- Storage

### 6. Multi purpose projects

| Sl.No. | Name of Project                    | River  | Type | I.C.(MW)   |
|--------|------------------------------------|--------|------|------------|
| 1      | Lakhwar MPP<br>(Lakhwar Vyasi - I) | Yamuna | S    | 300        |
| 2      | Kishau MPP                         | Tons   | S    | 660        |
| 2      | <b>Total</b>                       |        |      | <b>960</b> |

### 7. Hydro Projects Returned to Project Authorities for re-submission after compliance of observations:

| Sl. No. | Name of Project         | River       | Agency  | Sector  | Type<br>(R/S/R(P)) | I.C. (MW)  | Month of Return |
|---------|-------------------------|-------------|---------|---------|--------------------|------------|-----------------|
| 1       | Nand Prayag Langasu     | Alaknanda   | UJVNL   | State   | R                  | 100        | Apr-11          |
| 2       | Mori Hanol<br>[Ugmir]   | Tons        |         | Private |                    | 63         | Jan-10          |
| 3       | Bogudiyar Sirkari Bhyol | Gori Ganga  | GVK L&T | Private | R                  | 146        | Sep-10          |
| 4       | Tiuni Plasu<br>[Tiuni]  | Tons        | UID     | State   | R                  | 72         | Oct-10          |
| 5       | Jhelum Tamak            | Dhauliganga | THDCIL  | Central | R(P)               | 108        | Aug-19          |
| 5       | <b>Total</b>            |             |         |         |                    | <b>489</b> |                 |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**8. H.E. Projects under Survey & Investigation:**

| Sl. No.  | Name of Project           | Basin/River | I.C. (MW)  | Agency | Type (R/S/R(P)) | Target date of preparation of DPR |
|----------|---------------------------|-------------|------------|--------|-----------------|-----------------------------------|
| 1        | Sirkari Bhyol Rupsiabagar | Gori Ganga  | 120        | UJVNL  | R               | December'22                       |
| 2        | Bokang Bailing            | Dhauliganga | 200        | THDC   | R               | December'22                       |
| 3        | Devsari                   | Pinder      | 194        | SJVNL  | R               | Feb'23                            |
| <b>3</b> | <b>Total</b>              |             | <b>514</b> |        |                 |                                   |

**9. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:**

| Sl. No. | Project                      | River        | I. C. (MW) | Agency              | Date of Allotment/ MoA | Status  |
|---------|------------------------------|--------------|------------|---------------------|------------------------|---|
| 1       | Arakot Tiuni [Nakot Patlasu] | Pabar , Tons | 72         | UID                 | -                      | MOEF clearance awaited. S&I yet to be taken up.   |
| 2       | Chhunger - Chal              | Dhauliganga  | 120        | NHPC                | 21.11.2005             | S&I was held up due to MoEF Clearance. Project in Askot wild life Sanctuary. PCCF (Wildlife) and Chief Warden Wildlife, Dehradun has since granted permission for S&I on 17.05.2016. NHPC vide letter dated 09.04.2018 intimated GoUK that it is not presently prudent to proceed further with implementation of Chungar Chal HE Project. State Govt. has requested NHPC to inform about their final decision on the project. |
| 3       | Garba Tawaghat               | Goriganga    | 630        | NHPC                | 21.11.2005             | MoEF&CC has issued draft notification on 29.01.2019 regarding proposed ESZ of Askot Wildlife Sanctuary. Publication of final notification of boundaries is still awaited. Being located on Mahakali River, the project would need to be developed jointly with Nepal under the provision of Mahakali Treaty.  |
| 4       | Urthing Sobla                | Dhauliganga  | 280        | Reliance Power Ltd. | -                      | MoEF Clearance awaited. S&I heldup as the project area falls under ASkot Musk deer Sanctuary  |
| 5       | Sela Urthing                 | Dhauliganga  | 230        | UJVNL               | 09.12.2004             | Road connectivity is not proper upto the project site. S&I shall be taken up after confirmation of levels.  |
| 6       | Jadh Ganga                   | Jadh Ganga   | 50         | THDC                | 21.11.2005             | Project included in the list of 24 HE peroproject named in PIL under consideration by Hon'ble Supreme Court. Project also fall in Gangotri National Park and notified as Eco-Sensitive Zone by central Govt. Hence no activities are being taken up.<br><b>Proposed to be dropped as per Draft final Report of EB-II.</b>   |
| 7       | Karmoli                      | Jadh Ganga   | 140        | THDC                | 21.11.2005             | Project included in the list of 24 HE peroproject named in PIL under consideration by Hon'ble Supreme Court. Project also fall in Gangotri National Park (notified as Eco-Sensitive Zone by Central Govt). Hence no activities are being taken up.<br><b>Proposed to be dropped as per Draft final Report of EB-II.</b>   |

|    |   |              |             |         |            |   |
|----|---|--------------|-------------|---------|------------|---|
| 8  | Rishi Ganga - I                                   | Rishi Ganga  | 70          | UJVNL   | 09.12.2004 | Project included in the list of 24 HE peroproject named in PIL under consideration by Hon'ble Supreme Court.<br><b>Proposed to be dropped as per Draft final Report of EB-II.</b>   |
| 9  | Rishi Ganga - II                                  | Rishi Ganga  | 35          | UJVNL   | 09.12.2004 | Project included in the list of 24 HE peroproject named in PIL under consideration by Hon'ble Supreme Court.<br><b>Proposed to be dropped as per Draft final Report of EB-II.</b>   |
| 10 | Taluka Sankri<br>[Taluka Saul +<br>Sankri Kunare] | Tons         | 140         | UJVNL   | 09.12.2004 | Project located in Govind Pashu Vihar & Govind National Park.   |
| 11 | Gohana Tal  | Birahi Ganga | 50          | THDC    | 21.11.2005 | Project included in the list of 24 HE peroproject named in PIL under consideration by Hon'ble Supreme Court.<br>Further, the project shall not be viable due to Gazette of India, notification dtd. 09.10.2018 on e-flows.<br><b>Proposed to be dropped as per Draft final Report of EB-II.</b>                           |
| 12 | Karmoli Lumti Tulli<br>[Khartoli Lumti<br>Talli]  | Goriganga    | 40          | NHPC    | 07.04.2005 | Project falls within 10 km from boundary of Askot Wildlife sanctuary. PCCF (Wildlife) and Chief Warden Wildlife, Dehradun has since granted permission for S&I on 13.12.2016. <b>NHPC vide letter dated 16.07.2019 intimated GoUK that project is commercially unviable.</b>  |
| 13 | Maleri Jhelam<br>[Malari Jhelam]                  | Dhauliganga  | 65          | THDC    | 21.11.2005 | Project included in the list of 24 HE peroproject named in PIL under consideration by Hon'ble Supreme Court. Project is not viable as the e-flows have been increased vide The Gazette of India Dtd. 09.10.2018. <b>Proposed to be dropped as per Draft final Report of EB-II.</b>  |
| 14 | Mapang - Bogidiyar                                | Goriganga    | 200         | GVK-L&T | 07.05.2005 | S&I held up due to Supreme Court order directing MoEF and State of Uttarakhand not to grant any Environmental Clearance or Forest Clearance for any hydro electric project in the State of Uttarakhand until further orders. <b>State of Uttarakhand has scrapped the project and planning to re-tender for the same.</b> |
| 15 | Tamak Lata  | Dhauliganga  | 280         | UJVNL   | 09.12.2004 | Project <b>included in the list of 24 HE peroproject</b> named in PIL under consideration by Hon'ble Supreme Court.   |
| 15 | <b>Total</b>                                      |              | <b>2402</b> |         |            |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage



**10. Projects dropped/ Stuck due to Basin studies/ Other reasons:**

| Sl. No. | Project  | I.C. (MW)   | River       | Basin | Type (R/S/R(P)) | Remarks  |
|---------|--|-------------|-------------|-------|-----------------|--|
| 1       | Pala Maneri *<br>[Pala Bhela Tipri + Bhela Tipri]        | 480         | Bhagirath   | Ganga | R(P)            | The project has been discontinued by Govt. of Uttarakhand due to additional conditions for environmental safeguards vide order dated 3.01.11.  |
| 2       | Kotlibhel St-II<br>[Kotlibhel]                           | 530         | Bhagirath   | Ganga | R               | MoEF on 22.11.2010 has withdrawn the environment clearance. FC-I declined on 5.07.11.<br>The project is included in the list of 24 projects under review by Hon'ble Supreme Court. Hon'ble Supreme Court vide order dated 13.08.2013 directed the MoEF&CC as well as State of Uttarakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttarakhand until further orders. In compliance to the above order, MoEF&CC constituted an Expert Body vide order dated 12.05.2015. Expert Body has given its report to MoEF&CC in Sept, 2017. The expert Body has recommended to drop the project to preserve Mahseer.   |
| 3       | Loharinagpala *<br>[Lohari Nag Tharang]                  | 360         | Bhagirath   | Ganga |                 | Project discontinued by NGRBA  |
| 4       | Bhaironghati *<br>[Gangotri + Bhaironghati + Harsil Dam] | 381         | Bhagirath   | Ganga |                 | Project discontinued by NGRBA  |
| 5       | Rupsiyabagar<br>Khasiyabara                              | 261         | Gauri Ganga | Ganga | R               | EC accorded on 26.03.09. FC-I accorded on 17.06.2006 and FC-II yet to be obtained. MoEF&CC declined FC due to project location in highly sensitive wild life habitat.  |
| 6       | Goriganga-III A  | 150         | Gauri Ganga | Ganga | R(P)            | The DPR has been examined and cleared from planning, design & cost angle, financial and commercial angle. It has been observed that first year and levelised tariff computed by NHPC are of the order of ₹8.09/kWh and ₹8.13/kWh respectively which are on higher side and the same was communicated to NHPC vide letter dated 25.08.2020.<br>NHPC limited vide letter dated 23.10.2020 has intimated that in order to bring down the tariff they have requested Govt. of Uttarakhand for providing waiver of free power, State GST concession and subordinate loan. NHPC has also asked Ministry of Power to take up the matter with Govt. of Uttarakhand for extending support through concessions.<br>Considering that above matter may take some time to conclude in NHPC's favour, the examination of DPR of Goriganga-III A H.E. project has been suspended till such time. DPR examination shall be continued here onwards after above issues are resolved with State Govt. |
| 7       | Garjia   | 295         | Gori ganga  | Ganga |                 | Environmental Issue  |
| 7       | <b>Total</b>   | <b>2457</b> |             |       |                 |  |

\* As per MoP letter dated 24.12.2010 in the meeting of NGRBA held on 1.11.2010 under the chairmanship of Hon'ble Prime Minister, it was decided to discontinue Loharinag Pala, Pala Maneri and Bhaironghati H.E. Projects on Bhagirathi.

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**11. H. E. Projects yet to be allotted by the State for development**

| Sl.No.    | Name of Project                    | River                      | Type | I.C.(MW)    |
|-----------|------------------------------------|----------------------------|------|-------------|
| 1         | Kishau Dam                         | Tons                       | S    | 350         |
| 2         | Pisha Naitwar                      | Rupin                      | R    | 30          |
| 3         | Ram Ganga Dam                      | Ram Ganga                  | S    | 75          |
| 4         | Kuwa ford                          | Yamuna                     | R    | 42          |
| 5         | Nelang                             | Jadh Ganga                 | R    | 190         |
| 6         | Ganga Canal                        | Ganga                      | R    | 31          |
| 7         | Diulong Sumangaon                  | Bhagirathi                 | R    | 26          |
| 8         | Dhargaon Jhandarwali               | Bhagirathi                 | R    | 29          |
| 9         | Jamolna Ghansyali                  | Bhagirathi                 | R    | 44          |
| 10        | Benakuli                           | Alaknanda                  | R    | 40          |
| 11        | Khel Kuran Neti                    | Dhauri Ganga               | R    | 49          |
| 12        | Niti Ghansali                      | Dhauri Ganga               | R    | 32          |
| 13        | Bampa Kurkuti                      | Dhauri Ganga               | R    | 60          |
| 14        | Girithi Ganga                      | Girithi Ganga              | R    | 34          |
| 15        | Deodi                              | Rishi Ganga                | R    | 65          |
| 16        | Tikh Gurupha                       | Pindar                     | R    | 26          |
| 17        | Banoli Nalgam                      | Pindar                     | R    | 55          |
| 18        | Lakhwar MPP<br>(Lakhwar Vyasi - I) | Yamuna                     | S    | 115         |
| 19        | Uttyasu Dam                        | Alaknanda                  | S    | 1140        |
| 20        | Sobla Jhimirigaon                  | Dhauri Ganga               | R    | 145         |
| 21        | Tawaghat Dharchula                 | Sarda                      | R    | 310         |
| 22        | Kalika Dantu                       | Sarda                      | R    | 140         |
| <b>22</b> | <b>Total</b>                       | <b>22 nos. of projects</b> |      | <b>3028</b> |

**Note: R –Run of the River & S- Storage**

## Status of Large Hydro Power Development in Chhattisgarh

|   |   | Nos. | Capacity (MW) |
|---|---|------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 15   | 2202          |
| I   | Projects in operation                                     | 1    | 120           |
| II  | Projects dropped due to Basin studies/<br>Other reasons   | 3    | 627           |
| III   | Projects yet to be allotted by the State for development* | 11   | 1124          |

\*The capacity, yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the Projects.

### 1. Identified Projects during Reassessment study:

| Sl.No.    | Name of Project               | River     | I. C.<br>(MW) |
|-----------|-------------------------------|-----------|---------------|
| 1         | Joka                          | Kanhar    | 28            |
| 2         | Kharauli                      | Mahan     | 46            |
| 3         | Pasal                         | Rihand    | 55            |
| 4         | Duniadhih (Duniadhin)         | Rihand    | 80            |
| 5         | Rehar-II (Karri)              | Rihand    | 70            |
| 6         | Hasdeo Bango [Hasdeo (Bango)] | Hasdeo    | 55            |
| 7         | Konta                         | Sabari    | 65            |
| 8         | Matnar (Chitrakot)            | Indravati | 38            |
| 9         | Bodhghat                      | Indravati | 295           |
| 10        | Kutru-I                       | Indravati | 100           |
| 11        | Kutru-II                      | Indravati | 155           |
| 12        | Nugur-I                       | Indravati | 160           |
| 13        | Bhopalapatnam                 | Indravati | 715           |
| 14        | Nugur-II                      | Indravati | 270           |
| 15        | Kotri                         | Kotri     | 70            |
| <b>15</b> | <b>Total</b>                  |           | <b>2202</b>   |

**2. H.E. Projects in Operation:**

| S. No.   | Utility/<br>Stations             | No. of<br>Station | No. of<br>units x<br>Capacity<br>(MW) | River /Basin   | District | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Year of<br>commissioning |
|----------|----------------------------------|-------------------|---------------------------------------|----------------|----------|--------------|--------------------|--------------------------|
| CSPGCL   |                                  |                   |                                       |                |          |              |                    |                          |
| 1        | HASDEO BANGO<br>[Hasdeo (Bango)] | 1                 | (3X40)                                | HASDEO/<br>CIR | KORBA    | 120          | S                  | 1994-1995                |
| <b>1</b> | <b>TOTAL CSPGCL</b>              | <b>1</b>          |                                       |                |          | <b>120</b>   |                    |                          |

**3. H.E. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No.  | Name of Project       | I.C.<br>(MW) | River     | Basin | Type<br>(R/S/R(P)) | Remarks   |
|----------|-----------------------|--------------|-----------|-------|--------------------|---|
| 1        | Matnar<br>[Chitrakot] | 60           | Indravati | EFR   | R(P)               | As per MoEF&CC, matter of FC is closed. As per developer, project seems not to viable with revised IC of 40 MW and it is expected to be dropped |
| 2        | Bhopalapatnam         | 90           | Indravati | EFR   |                    | Environmental Issue   |
| 3        | Nugur-II              | 477          | Indravati | EFR   |                    | Environmental Issue   |
| <b>3</b> | <b>Total</b>          | <b>627</b>   |           |       |                    |   |

**4. H. E. Projects yet to be allotted by the State for development**

| Sl. No.   | Name of Project          | River                          | Type | I.C. (MW)   |
|-----------|--------------------------|--------------------------------|------|-------------|
| 1         | Joka                     | Kanhar                         | S    | 28          |
| 2         | Kharauli                 | Mahan                          | R    | 46          |
| 3         | Pasal                    | Rihand                         | S    | 55          |
| 4         | Duniadhih<br>(Duniadhin) | Rihand                         | S    | 80          |
| 5         | Rehar-II (Karri)         | Rihand                         | R    | 70          |
| 6         | Konta                    | Sabari                         | R    | 65          |
| 7         | Bodhghat                 | Indravati                      | S    | 295         |
| 8         | Kutru-I                  | Indravati                      | S    | 100         |
| 9         | Kutru-II                 | Indravati                      | S    | 155         |
| 10        | Nugur-I                  | Indravati                      | S    | 160         |
| 11        | Kotri                    | Kotri                          | S    | 70          |
| <b>11</b> | <b>Total</b>             | <b>11 Nos. of<br/>Projects</b> |      | <b>1124</b> |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

### Status of Large Hydro Power Development in Goa

|   | No. | I.C. (MW) |
|---|-----|-----------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) | 1   | 55        |
| Projects dropped due to Basin studies/ Other reasons:   | 1   | 55        |

#### 1. Identified Project during Reassessment study :

| Sl.No.   | Name of Scheme | River   | I. C. (MW) |
|----------|----------------|---------|------------|
| 1        | Sonal          | Mandavi | 55         |
| <b>1</b> | <b>TOTAL</b>   |         | <b>55</b>  |

#### 2. Projects dropped due to Basin studies/ Other reasons:

| Sl.No.   | Name of Project | River                   | Type | I.C. (MW) | Remarks             |
|----------|-----------------|-------------------------|------|-----------|---------------------|
| 1        | Sonal           | Mandavi                 | S    | 55        | Environmental issue |
| <b>1</b> | <b>Total</b>    | <b>1 No. of Project</b> |      | <b>55</b> |                     |

Note: S- Storage

### Status of Large Hydro Power Development in Gujarat

|   |                       | Nos. | Capacity (MW) |
|---|-----------------------|------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |                       | 2    | 590           |
| I   | Capacity in operation | 2    | 550           |

Note : In addition to above, two pumped storage projects, namely Kadana (4x60 = 240 MW) and Sardar Sarovar (6x200 = 1200 MW) are constructed but not working in pumping mode. Kadana is not operating in pumping mode due to vibration problem. Sardar Sarovar Project is an interstate project of Gujarat, MP & Maharashtra and the operation of this project in pumping mode is under discussion with Narmada Control Authority (NCA) and concerned State Govts.

#### 1. Identified Projects during Reassessment study:

| Sl.No. | Name of Project                         | River   | I. C. (MW) |
|--------|---|---------|------------|
| 1      | Ukai<br>[Ukai Dam PH]                   | Tapti   | 120        |
| 2      | Sardar Sarovar CHPH<br>[Sardar Sarovar] | Narmada | 470        |
| 2      | <b>TOTAL</b>                            |         | <b>590</b> |

**2. H.E. Projects in Operation:**

| S. No. | Utility/<br>Stations                          | No. of<br>Stns. | No. of units x<br>Capacity (MW) | River /<br>Basin* | District | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Year of<br>commissioning |
|--------|---|-----------------|---------------------------------|-------------------|----------|--------------|--------------------|--------------------------|
|        | <b>GSECL</b>                                  |                 |                                 |                   |          |              |                    |                          |
| 1      | UKAI<br>[Ukai Dam PH]                         | 1               | (4X75)                          | TAPI              | TAPI     | 300          | S                  | 1974-1976                |
|        | <b>SUB-TOTAL<br/>GSECL</b>                    | <b>1</b>        |                                 |                   |          | <b>300</b>   |                    |                          |
|        | <b>SSNNL</b>                                  |                 |                                 |                   |          |              |                    |                          |
| 2      | SARDAR<br>SAROVAR<br>CHPH<br>[Sardar Sarovar] | 1               | (5X50)                          | NARMADA           | NARMADA  | 250          | R(P)               | 2004                     |
|        | <b>SUB-TOTAL<br/>SSNNL</b>                    | <b>1</b>        |                                 |                   |          | <b>250</b>   |                    |                          |
| 2      | <b>TOTAL<br/>GUJARAT</b>                      | <b>2</b>        |                                 |                   |          | <b>550</b>   |                    |                          |

\* All projects are in CIR Basin

**Note :** In addition to above, two pumped storage projects, namely Kadana (4x60 = 240 MW) and Sardar Sarovar (6x200 = 1200 MW) are constructed but not working in pumping mode. Kadana is not operating in pumping mode due to vibration problem. Sardar Sarovar Project is an interstate project of Gujarat, MP & Maharashtra and the operation of this project in pumping mode is under discussion with Narmada Control Authority (NCA) and concerned State Govts.

**Note:** R= Run of River, S=Storage & R(P)= Run of River with Pondage

### Status of Large Hydro Power Development in Maharashtra

|   |   | Nos.      | Capacity (MW) |
|---|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 25        | 3314          |
| Project identified below 25 MW capacity in Reassessment Study but developed above 25 MW capacity                                    |   | 1         | 34            |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity                                    |   | -2        | -67           |
| <b>Total</b>  |   | <b>24</b> | <b>3281</b>   |
| I   | Projects in operation                                     | 12        | 2647          |
| II  | Projects yet to be allotted by the State for development* | 12        | 1865          |

Note : In addition to above, two pumped storage projects, namely Ghatgar (2x125 = 250 MW) and Bhira (1x150 = 150 MW) are constructed & working in pumping mode while construction on one project, namely Koyna Left Bank (2x40= 80 MW) is held up and it is likely to be commissioned by 2025-26.

One project namely Warasgaon (4 x300=1200 MW) is Under S&I and Humbarli (2x200=400MW), Ghatghar St-II(1x 125=125MW), Malshej ghat (2x 350=700 MW), Mutkhel (1x 110=110MW), Chikaldara (2x200=400MW), Varandhghat (2 x 400=800 MW), Panshet (4x 400 =1600MW), Nive (4 x 300=1200 MW) & Kodali (2 x 110=220 MW) are under PFR prepared category.

Also, two pumped storage projects, namely Bhavali(6x250 = 1500MW) and Gandhi Sagar (5x240+2x120=1440MW) are under S&I.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects,etc.



**1 (A). Identified Projects during Reassessment study**

| Sl.No.    | Name of Project                | River     | I. C. (MW)  |
|-----------|--------------------------------|-----------|-------------|
| 1         | Vaitarna (Vaitarna I)          | Vaitarna  | 28          |
| 2         | Bhira Tail Race                | Kundalik  | 55          |
| 3         | Tillari                        | Tillari   | 39          |
| 4         | Pench                          | Pench     | 85          |
| 5         | Gosikhurd (Pathri)             | Wainganga | 40          |
| 6         | Wainganga                      | Wainganga | 150         |
| 7         | Samda                          | Pranhita  | 95          |
| 8         | Chichdoh Barrage (Ghargaon)    | Pranhita  | 105         |
| 9         | Kunghara                       | Pranhita  | 115         |
| 10        | Pranhita                       | Pranhita  | 310         |
| 11        | Sahasrakund (Sahasrakund I)    | Penganga  | 29          |
| 12        | Bhivpuri                       | Andhra    | 85          |
| 13        | Khopoli                        | Ganga     | 70          |
| 14        | Bhira                          | Mula      | 215         |
| 15        | Koyna St-IV                    | Koyna     | 350         |
| 16        | Koyna St-III                   | Koyna     | 145         |
| 17        | Koyna St-I & II                | Koyna     | 245         |
| 18        | Koyna Dam PH                   | Koyna     | 65          |
| 19        | Patharpunj                     | Varna     | 29          |
| 20        | Kadvi                          | Varna     | 215         |
| 21        | Warna (Varna)                  | Varna     | 27          |
| 22        | Kasari (Kasari-I)              | Kasari    | 215         |
| 23        | Kumbhi (Kubhi-I)               | Penganga  | 170         |
| 24        | Kumbhi (Kumbhi-II)             | Penganga  | 27          |
| 25        | Hiranyakeshi (Hiranyakeshi II) | Vedganga  | 405         |
| <b>25</b> | <b>TOTAL</b>                   |           | <b>3314</b> |

**1 (B). Project identified below 25 MW capacity in Reassessment Study but developed above 25 MW capacity**

| Sl.No.   | Name of Project    | River   | I.C. (MW) | Status       | Remarks                 |
|----------|--------------------|---------|-----------|--------------|-------------------------|
| 1        | Bhandardhara St.II | Pravara | 34        | In Operation | Bhandardhara-II - 14 MW |
| <b>1</b> | <b>Sub Total</b>   |         | <b>34</b> |              |                         |

**1 (C). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Naome of Project   | State       | River     | Type | I.C. (MW) | Status                |
|----------|--------------------|-------------|-----------|------|-----------|-----------------------|
| 1        | Gosikhurd (Pathri) | Maharashtra | Wainganga | S    | 40        | Developed below 25 MW |
| 2        | Warna(Varna)       | Maharashtra | Varna     | S    | 27        | Developed below 25 MW |
| <b>2</b> | <b>Total</b>       |             |           |      | <b>67</b> |                       |

## 2. H.E. Projects in Operation:

| S. No.  | Utility/                       | No. Of stns. | No. Of units x Capacity (MW) | River  | Basin | District  | I.C. (MW)   | Type (R/S/R(P)) | Year of commissioning |
|---|--------------------------------|--------------|------------------------------|--|-------|-----------|-------------|-----------------|-----------------------|
| <b>MAHAGENCO</b>                                    |                                |              |                              |  |       |           |             |                 |                       |
| 1   | BHIRA TAIL RACE                | 1            | (2X40)                       | KUNDALIKA  | WFR   | RAIGAD    | 80          | R(P)            | 1987-1988             |
| 2   | KOYNA DPH                      | 1            | (2X18)                       | KOYNA  | EFR   | SATARA    | 36          | S               | 1980-1981             |
| 3   | KOYNA-I&II                     | 1            | (4X70)+<br>(4X80)            | KOYNA  | EFR   | PATAN     | 600         | S               | 1962-1967             |
| 4   | KOYNA-III                      | 1            | (4X80)                       | Water let out through ulestward units (St-I,II & IV) | EFR   | RATNAGIRI | 320         | R(P)            | 1975-1978             |
| 5   | KOYNA-IV                       | 1            | (4X250)                      | KOYNA  | EFR   | SATARA    | 1000        | S               | 1999-2000             |
| 6   | TILLARI                        | 1            | (1X60)                       | TILLARI  | WFR   | KOLHAPUR  | 60          | R(P)            | 1986                  |
| 7   | VAITARNA (Vaitarna I)          | 1            | (1X60)                       | VAITARNA   | WFR   | NASIK     | 60          | S               | 1976                  |
|   | <b>SUB-TOTAL MAHAGENCO</b>     | <b>7</b>     |                              |  |       |           | <b>2156</b> |                 |                       |
| <b>MPPGCL</b>                                       |                                |              |                              |  |       |           |             |                 |                       |
| 8   | PENCH                          | 1            | (2X80)                       | PENCH  | EFR   | CHINDWARA | 160         | S               | 1986-1987             |
|   | <b>SUB-TOTAL MPPGCL</b>        | <b>1</b>     |                              |  |       |           | <b>160</b>  |                 |                       |
|   | <b>TOTAL STATE SECTOR</b>      | <b>8</b>     |                              |  |       |           | <b>2316</b> |                 |                       |
| <b>PRIVATE</b>                                      |                                |              |                              |  |       |           |             |                 |                       |
| <b>DODSON-LINDBLOM HYDRO POWER PVT. LTD. (DLHP)</b> |                                |              |                              |  |       |           |             |                 |                       |
| 9   | BHANDARDHARA ST-II             | 1            | (1X34)                       | PRAVARA  | EFR   |           | 34          | R(P)            | 1996                  |
|   | <b>SUB-TOTAL DLHP</b>          | <b>1</b>     |                              |  |       |           | <b>34</b>   |                 |                       |
| <b>TATA POWER COMPANY (PVT.)</b>                    |                                |              |                              |  |       |           |             |                 |                       |
| 10  | BHIRA                          | 1            | (6X25)                       | NEELA & MULA   | EFR   | RAIGAD    | 150         | S               | 1927-1949             |
| 11  | BHIVPURI                       | 1            | (3X24)+<br>(2X1.5)           | ANDHRA   | EFR   | RAIGAD    | 75          | S               | 1997-1999             |
| 12  | KHOPOLI                        | 1            | (3X24)                       | INDRAYANI  | EFR   | RAIGAD    | 72          | S               | 2001-2003             |
|   | <b>SUB-TOTAL TPCL</b>          | <b>3</b>     |                              |  |       |           | <b>297</b>  |                 |                       |
|   | <b>TOTAL PVT (MAHARASHTRA)</b> | <b>4</b>     |                              |  |       |           | <b>331</b>  |                 |                       |
| <b>12</b>   | <b>TOTAL MAHARASHTRA</b>       | <b>12</b>    |                              |  |       |           | <b>2647</b> |                 |                       |

Note : In addition to above, two pumped storage projects, namely Ghatgar (2x125 = 250 MW) and Bhira (1x150 = 150 MW) are constructed & working in pumping mode while construction on one project, namely Koyna Left Bank (2x40= 80 MW) is held up and it is likely to be commissioned by 2025-26 Subject to re-start of work in immediate future.

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**3. H. E. Projects yet to be allotted by the State for development**

| Sl .No.   | Name of Project                | River                      | Type | I.C.(MW)    |
|-----------|--------------------------------|----------------------------|------|-------------|
| 1         | Wainganga                      | Wainganga                  | S    | 150         |
| 2         | Samda                          | Pranhita                   | R    | 95          |
| 3         | Chichdoh Barrage (Ghargaon)    | Pranhita                   | R    | 105         |
| 4         | Kunghara                       | Pranhita                   | R    | 115         |
| 5         | Pranhita                       | Pranhita                   | S    | 310         |
| 6         | Sahasrakund (Sahasrakund I)    | Penganga                   | S    | 29          |
| 7         | Patharpunj                     | Varna                      | S    | 29          |
| 8         | Kadvi                          | Varna                      | S    | 215         |
| 9         | Kesari (Kasari-I)              | Kasari                     | S    | 215         |
| 10        | Kumbhi (Kubhi-I)               | Penganga                   | S    | 170         |
| 11        | Kumbhi (Kubhi-II)              | Penganga                   | R    | 27          |
| 12        | Hiranyakeshi (Hiranyakeshi II) | Vedganga                   | S    | 405         |
| <b>12</b> | <b>Total</b>                   | <b>12 Nos. of Projects</b> |      | <b>1865</b> |

Note: R –Run of the River & S- Storage

### Status of Large Hydro Power Development in Madhya Pradesh

|  |   | Nos.      | Capacity (MW) |
|--|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 13        | 1970          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |   | 2         | 110           |
| Projects Identified in other State(s) but developed/being developed in this State #  |   | 2         | 205           |
| <b>Total</b>   |   | <b>17</b> | <b>2285</b>   |
| I  | Projects in operation                                     | 9         | 2235          |
| II   | Projects on which construction is held up                 | 1         | 400           |
| III  | Projects held up due to Inter-State aspects               | 2         | 140           |
| IV   | Projects dropped due to Basin studies/ Other reasons      | 1         | 100           |
| V  | Projects yet to be allotted by the State for development* | 4         | 191           |

# Gandhi Sagar in Rajasthan & Orchha in U.P.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

Note : In addition to above, one pumped storage project, namely MP30 Gandhi Sagar (5x240+2x120=1440MW) is under S&I

| <b>1 (A). Identified Projects during Reassessment study</b> |                               |              |                  |
|---|-------------------------------|--------------|------------------|
| <b>S.No.</b>  | <b>Name of Project</b>        | <b>River</b> | <b>I.C. (MW)</b> |
| 1   | Sone (Chorhat)                | Sone         | 55               |
| 2   | Bansagar-III (Bansagar)       | Sone         | 45               |
| 3   | Bansagar-II (Beehar)          | Tons         | 30               |
| 4   | Bansagar-I (Tons HE Projects) | Tons         | 315              |
| 5   | Rajghat                       | Betwa        | 29               |
| 6   | Dhurwara                      | Betwa        | 28               |
| 7   | Burhner                       | Burhner      | 28               |
| 8   | Basania                       | Narmada      | 60               |
| 9   | Bargi                         | Narmada      | 115              |
| 10  | Hoshangabad (Jahanpur)        | Narmada      | 75               |
| 11  | Indira Sagar (Narmada Sagar)  | Narmada      | 675              |
| 12  | Omkareshwar                   | Narmada      | 290              |
| 13  | Maheshwar                     | Narmada      | 225              |
| <b>13</b>   | <b>Total</b>                  |              | <b>1970</b>      |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| <b>Sl.No.</b> | <b>Name of Project</b> | <b>River</b> | <b>I.C. (MW)</b> | <b>Status</b> |
|---------------|------------------------|--------------|------------------|---------------|
| 1             | Ken                    | Ken          | 50               | Inter-State   |
| 2             | Madhikhera             | Kali Sindh   | 60               | In Operation  |
| <b>2</b>      | <b>Sub Total</b>       |              | <b>110</b>       |               |

**2. H.E. Projects in Operation:**

| S. No.        | Utility/<br>Stations               | No. of<br>Stns. | No. Of<br>units x<br>Capacit<br>y<br>(MW) | River         | Basin | District       | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Year of<br>commissioning |
|---------------|------------------------------------|-----------------|---|---------------|-------|----------------|--------------|--------------------|--------------------------|
| <b>NHDC</b>   |                                    |                 |   |               |       |                |              |                    |                          |
| 1             | INDIRA SAGAR<br>(NARMADA<br>SAGAR) | 1               | (8X125)                                   | NARMADA       | CIR   | KHANDWA        | 1000         | S                  | 2004-2005                |
| 2             | OMKARESHWAR                        | 1               | (8X65)                                    | NARMADA       | CIR   | KHANDWA        | 520          | S                  | 2007                     |
|               | <b>SUB-TOTAL NHDC</b>              | <b>2</b>        |   |               |       |                | <b>1520</b>  |                    |                          |
|               | <b>TOTAL CENTRAL</b>               | <b>2</b>        |   |               |       |                | <b>1520</b>  |                    |                          |
| <b>MPPGCL</b> |                                    |                 |   |               |       |                |              |                    |                          |
| 3             | BANSAGAR TONS-I<br>(TONS)          | 1               | (3X105)                                   | TONS          | GANGA | SATNA          | 315          | R(P)               | 1991-1992                |
| 4             | BANSAGAR-III<br>(BANSAGAR)         | 1               | (2X15)                                    | SONE          | GANGA | SATNA          | 30           | R                  | 2000-2002                |
| 5             | BANSAGAR-II<br>(BEEHAR)            | 1               | (3X20)                                    | TONS          | GANGA | REWA           | 60           | S                  | 2002                     |
| 6             | BARGI                              | 1               | (2X45)                                    | NARMADA       | CIR   | JABALPUR       | 90           | S                  | 1988                     |
| 7             | GANDHI SAGAR                       | 1               | (5X23)                                    | CHAMBAL       | GANGA | MANDSAUR       | 115          | S                  | 1960-1966                |
| 8             | MADHIKHERA                         | 1               | (3X20)                                    | KALI<br>SINDH | GANGA | SHIVPURI       | 60           | S                  | 2006-2007                |
| 9             | RAJGHAT                            | 1               | (3X15)                                    | BETWA         | GANGA | ASHOK<br>NAGAR | 45           | S                  | 1999                     |
|               | <b>SUB-TOTAL<br/>MPPGCL</b>        | <b>7</b>        |   |               |       |                | <b>715</b>   |                    |                          |
| <b>9</b>      | <b>TOTAL MP</b>                    | <b>9</b>        |   |               |       |                | <b>2235</b>  |                    |                          |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**3. H.E. Projects on which Construction is held up:**

| Sl. No.  | Name of Project    | I. C. (MW) | District           | River   | Basin | Agency | Type (R/S/R(P)) | Status & Likely Commissioning  |
|----------|--------------------|------------|--------------------|---------|-------|--------|-----------------|--|
| 1        | Maheshwar (Pvt.) # | 400        | Khargone & Khandwa | Narmada | CIR   | SMHPCL | R               | Works suspended since Nov-11 due to cash flow problem with developer. M.P. Power Management Company Ltd. has terminated the Power Purchase Agreement with SMHPCL on 18.04.2020. 2023-24* |
| <b>1</b> | <b>Total</b>       | <b>400</b> |                    |         |       |        |                 |  |

\* Subject to re-start of work in immediate future

**4. H.E. Projects held up due to Inter-State aspects:**

| Sl. No.  | Name of Project                         | I.C. (MW)  | Location (State) | States Involved | Status  |
|----------|---|------------|------------------|-----------------|---|
| 1        | <b>Orcha MPP</b><br>(2x30+2x15 = 90 MW) | 90         | M.P.             | U.P./M.P.       | <ul style="list-style-type: none"> <li>DPR with estimated cost of Rs. 89.01 crores (3/1980 PL) returned in 07/1985.</li> <li>Inter-state aspects mainly relate to submergence under the reservoir as well as sharing of water below Orcha.</li> </ul>   |
| 2        | <b>Ken</b><br>(2x15+2x10 =50 MW)        | 50         | M.P.             | U.P./M.P.       | <ul style="list-style-type: none"> <li>DPR with estimated cost of Rs 202.06 crores returned in 2/1987.</li> <li>The yield at the project site and sharing of water u/s &amp; d/s of the project has been agreed between U.P. &amp; M.P. Both the States have also agreed for preparation of DPR for the Ken MPP and NWDA proposal for transfer of surplus water of Ken to Betwa u/s of Rajghat Dam.</li> <li>DPR for Ken-Betwa River Linking Project has been prepared by NWDA in Dec., 2008, copies of which were forwarded by them to Govt. of M.P. and Govt. of U.P. The status of the project was discussed by the respective Govts./NWDA/ MOWR in the meeting taken by Secretary (WR) on 04.08.2010 and it was decided that S&amp;I works will be taken up by NWDA on priority.</li> </ul> |
| <b>2</b> | <b>Total</b>                            | <b>140</b> |                  |                 |   |

**5. Projects dropped due to Basin Studies/ Other reasons:**

| Sl. No.  | Name of Project | Sector | I.C. (MW)  | Month of Return | Remarks   |
|----------|-----------------|--------|------------|-----------------|---|
| 1        | Sone (Chorhat)  | State  | 100        | Apr-03          | DPR returned due to non-furnishing of basic inputs/ clearances. Since the project is not feasible with the re-conceptualized proposal of lower FRL, the MPPGCL has dropped the project in April,2017. |
| <b>1</b> | <b>Total</b>    |        | <b>100</b> |                 |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

| <b>6. H. E. Projects yet to be allotted by the State for development:</b> |                        |              |             |                  |
|---|------------------------|--------------|-------------|------------------|
| <b>S.No.</b>  | <b>Name of Project</b> | <b>River</b> | <b>Type</b> | <b>I.C. (MW)</b> |
| 1   | Dhurwara               | Betwa        | R           | 28               |
| 2   | Burhner                | Burhner      | S           | 28               |
| 3   | Basania                | Narmada      | R           | 60               |
| 4   | Hoshangabad (Jahanpur) | Narmada      | S           | 75               |
| <b>4</b>  | <b>Total</b>           |              |             | <b>191</b>       |

Note: R –Run of the River & S- Storage



**Status of Large Hydro Power Development in Andhra Pradesh**

|   |   | <b>Nos.</b> | <b>Capacity (MW)</b> |
|---|---|-------------|----------------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 11          | 3261                 |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                |   | 1           | 50                   |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity                                    |   | -1          | -44                  |
| Project(s) Identified in this State but developed/being developed in other State(s) #   |   | -1          | -205                 |
| <b>Total</b>  |   | <b>10</b>   | <b>3062</b>          |
| I   | Projects in operation                                     | 5           | 1610                 |
| II  | Projects under active construction                        | 1           | 960                  |
| III   | Projects held up due to Inter-State aspects               | 1           | 975                  |
| IV  | Projects dropped due to Basin studies/ Other reasons      | 1           | 95                   |
| V   | Projects yet to be allotted by the State for development* | 2           | 97                   |

# The Project, Machkund has been in operation in Odisha State for 114.75 MW

Note : In addition to above, one pumped storage project, namely Pinnapuram (4x240+2x120 =1200 MW) is under examination and eight projects, namely Upper Sileru (9x150= 1350 MW), Kurukutti (1200 MW),Karrivalasa (1000 MW), Gandikota (1000 MW),Owk (800 MW),Somsila (900 MW), Chitravathi (500 MW) & Yerravaram (1200 MW) are under S&I.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

**1 (A). Identified Projects during Reassessment study:**

| <b>Sl.No.</b> | <b>Name of Project</b>                         | <b>River</b> | <b>I. C. (MW)</b> |
|---------------|--|--------------|-------------------|
| 1             | Machkund #                                     | Machkund     | 205               |
| 2             | Balimela                                       | Sileru       | 65                |
| 3             | Upper Sileru I&II (Upper Sileru)               | Sileru       | 150               |
| 4             | Lower Sileru                                   | Sileru       | 385               |
| 5             | Donkarayi Dam Canal ## (Donkarai Canal)        | Sileru       | 44                |
| 6             | Polavaram                                      | Godavari     | 545               |
| 7             | Pondugala                                      | Krishna      | 95                |
| 8             | Nagarjunasagar RBC & Ext. (Nagarjunasagar RBC) | Krishna      | 45                |
| 9             | Srisailem                                      | Krishna      | 775               |
| 10            | Tungabhadra HLC (Tungbhadra HLC)               | Bhadra       | 32                |
| 11            | Inchampalli                                    | Godavari     | 920               |
| <b>11</b>     | <b>Total</b>                                   |              | <b>3261</b>       |

# This project has been in operation in Odisha State for 114.75 MW

## This project has been in operation but developed with capacity less than 25 MW

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River   | I.C. (MW) | Status       |
|----------|------------------|---------|-----------|--------------|
| 1        | NJ Sagar TPD     | Krishna | 50        | In Operation |
| <b>1</b> | <b>Sub Total</b> |         | <b>50</b> |              |

**1 (C). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Name of Project | State          | River  | Type | I.C. (MW) | Status                |
|----------|-----------------|----------------|--------|------|-----------|-----------------------|
| 1        | Donkarai Canal  | Andhra Pradesh | Sileru | S    | 44        | Developed below 25 MW |
| <b>1</b> | <b>Total</b>    |                |        |      | <b>44</b> |                       |

**2. H.E. Projects in Operation:**

| S. No.         | Utility/ Stations                            | No. Of stns. | No. of units x Capacity (MW) | River / Basin* | District      | I.C. (MW)   | Type (R/S/R(P)) | Year of commissioning |
|----------------|--|--------------|------------------------------|----------------|---------------|-------------|-----------------|-----------------------|
| <b>APGENCO</b> |  |              |                              |                |               |             |                 |                       |
| 1              | LOWER SILERU                                 | 1            | (4X115)                      | SILERU         | KHAMMAM       | 460         | S               | 1976-1978             |
| 2              | NAGARJUNA SGR RBC & EXT. (NAGARJUNA SGR RBC) | 1            | (3X30)                       | KRISHNA        | SATRASALA     | 90          | S               | 1983-90               |
| 3              | SRISAILAM                                    | 1            | (7X110)                      | KRISHNA        | MAHABUBNAGAR  | 770         | S               | 1982-1987             |
| 4              | UPPER SILERU-I&II (UPPER SILERU)             | 1            | (4X60)                       | SILERU         | VISHAKAPATNAM | 240         | S               | 1967-1995             |
| 5              | NJ SAGAR TPD                                 | 1            | (2X25)                       | KRISHNA        | GUNTUR        | 50          | R(P)            | 2017                  |
| <b>5</b>       | <b>TOTAL APGENCO</b>                         | <b>5</b>     |                              |                |               | <b>1610</b> |                 |                       |

\* All projects are in EFR Basin

**3. H.E. Projects under active construction:**

| Sl. No.  | Name of Project | Agency                      | District             | River/ Basin  | I. C. (MW) | Type (R/S/R(P)) | Likely Commissioning |
|----------|-----------------|-----------------------------|----------------------|---------------|------------|-----------------|----------------------|
| 1        | Polavaram       | Polavaram Project Authority | East & West Godavari | Godavari/ EFR | 960        | S               | 2024-26              |
| <b>1</b> | <b>Total</b>    |                             |                      |               | <b>960</b> |                 |                      |

**4. H.E. Projects held up due to Inter-State aspects:**

| Sl. No.  | Name of Project                | I.C. (MW)  | Location (State) | States Involved                    | Status  |
|----------|--------------------------------|------------|------------------|------------------------------------|---|
| 1        | Inchampalli MPP (13x75= 975MW) | 975        | A.P.             | A.P./M.P./Chhattisgarh/Maharashtra | DPR with estimated cost of Rs.1110 crores (1987-88 PL) returned in 05/1989. Requires Resolution of inter-state aspects and submergence with MP, Chhattisgarh and Maharashtra. |
| <b>1</b> | <b>Total</b>                   | <b>975</b> |                  |                                    |   |

Note : In addition to above, one pumped storage project, namely Pinnapuram (4x240+2x120 =1200 MW) is concurred and one project, namely Upper Sileru (9x150= 1350 MW) is under S&I .

**Note :R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**5. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No. | Name of Project | Agency | River / Basin | I.C. (MW) | Status             |
|---------|-----------------|--------|---------------|-----------|--------------------|
| 1       | Pondugala       |        | Krishna/EFR   | 95        | Abandoned by State |

**6. H. E. Projects yet to be allotted by the State for development:**

| Sl.No. | Name of Project | River  | Type | I. C. (MW) |
|--------|-----------------|--------|------|------------|
| 1      | Balimela        | Sileru | S    | 65         |
| 2      | Tungbhadra HLC  | Bhadra | R    | 32         |
| 2      | <b>Total</b>    |        |      | <b>97</b>  |

Note: R –Run of the River & S- Storage

## Status of Large Hydro Power Development in Karnataka

|  |   | Nos.      | Capacity (MW) |
|--|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 38        | 6459          |
| Large Project Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)                |   | 1         | 139.2         |
| Projects identified below 25 MW capacity in Reassessment Study and being developed above 25 MW   |   | 1         | 200           |
| Project(s) Identified in this State but developed/being developed in other State(s) #  |   | -2        | -126          |
| <b>Total</b>   |   | <b>38</b> | <b>6672.2</b> |
| I  | Projects in operation                                     | 16        | 3689.2        |
| II   | Projects returned to project authorities                  | 2         | 665           |
| III  | Projects held up due to Inter-State aspects               | 1         | 400           |
| IV   | Projects dropped due to Basin studies/ Other reasons      | 6         | 1870          |
| V  | Projects yet to be allotted by the State for development* | 13        | 1178          |

# Rasi Manal [Cauvery PH-III] (90 MW) & Hogenekkal [Cauvery PH-IV] (36 MW) are in Inter-State issue in Tamil Nadu State

Note : In addition to above, two pumped storage projects, namely Sharavathy (8x250 =2000 MW) and Saundatti (4x252+2x126= 1260 MW) are under S&I .

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

**1 (A). Identified Projects during Reassessment study**

| Sl.No. | Name of Project                                    | River       | I. C. (MW) |
|--------|--|-------------|------------|
| 1      | Mahadayi [Krishnapur]                              | Mandavi     | 210        |
| 2      | Kalinadi Supa<br>[Kalinadi I (Supa)]               | Kalinadi    | 140        |
| 3      | Kalinadi II (Dandeli)<br>[Kalinadi I (Dandeli II)] | Kalinadi    | 60         |
| 4      | Kalinadi (Nagjhari)<br>[Kalinadi I (Nagjhari)]     | Kalinadi    | 855        |
| 5      | Kodassali<br>[Kalinadi I (Kadassali)]              | Kalinadi    | 95         |
| 6      | Kadra [Kalinadi I (Kadra)]                         | Kalinadi    | 100        |
| 7      | Kalinadi III<br>[Kalinadi I (Mardi)]               | Kalinadi    | 175        |
| 8      | Bedthi<br>[Gangavali (Bedti) St.I]                 | Gangavali   | 380        |
| 9      | Gangavali St.II<br>[Gangavali (Sonda) St.II]       | Gangavali   | 105        |
| 10     | Aghnashini   | Aghnashini  | 370        |
| 11     | Bennehole [Bannehole]                              | Bannehole   | 55         |
| 12     | Lingnamakki<br>[Linganamakki]                      | Saravathi   | 125        |
| 13     | Sharavathy [Saravathi]                             | Saravathi   | 1365       |
| 14     | Sharavathy Tail Race<br>[Saravathi Tail Race]      | Saravathi   | 157        |
| 15     | Varahi   | Varahi      | 305        |
| 16     | Machchattu   | Varahi      | 35         |
| 17     | Netravathy   | Netravathy  | 60         |
| 18     | Sirpadi  | Netravathy  | 38         |
| 19     | Kumaradhari  | Kumaradhari | 49         |
| 20     | Barapole I   | Barapole    | 335        |
| 21     | Jaldurg  | Krishna     | 270        |
| 22     | Tamankal [Narayanpur]                              | Krishna     | 70         |
| 23     | Almatti  | Krishna     | 160        |

|           |                                  |             |             |
|-----------|----------------------------------|-------------|-------------|
| 24        | Ghataprabha                      | Tungabhadra | 41          |
| 25        | Shivapur [Shivpur]               | Tungabhadra | 26          |
| 26        | Munirabad                        | Tungabhadra | 41          |
| 27        | Hampi                            | Tungabhadra | 34          |
| 28        | T.B. Dam<br>[Tungbhadra RBC]     | Tungabhadra | 27          |
| 29        | Bhadra<br>[Tungbhadra Dam PH]    | Bhadra      | 36          |
| 30        | Krishnarajasagar                 | Cauvery     | 55          |
| 31        | Sivasamudram<br>[Shivasamudram]  | Cauvery     | 44          |
| 32        | Shimsa [Shimsa PH-I]             | Cauvery     | 31          |
| 33        | Sivasamudram<br>[Cauvery PH-I]   | Cauvery     | 235         |
| 34        | Shimsa [Shimsa PH-II]            | Shimsa      | 42          |
| 35        | Arkavathy [Arkavathi]            | Arkavathi   | 42          |
| 36        | Mekadatu [Cauvery PH-II]         | Cuvery      | 165         |
| 37        | Rasi Manal #<br>[Cauvery PH-III] | Cauvery     | 90          |
| 38        | Hogenekkal #<br>[Cauvery PH-IV]  | Cauvery     | 36          |
| <b>38</b> | <b>TOTAL</b>                     |             | <b>6459</b> |

# Rasi Manal & Hogenekkal are in Inter-State issue in Tamil Nadu State

### 1 (B). Additional Projects (Identified after Re-Assessment Studies)

| Sl.No.   | Name of Project    | River      | I.C.<br>(MW) | Status          |
|----------|--------------------|------------|--------------|-----------------|
| 1        | Mahatma Gandhi Jog | Sharavathy | 139.2        | In<br>Operation |
| <b>1</b> | <b>Sub Total</b>   |            | <b>139.2</b> |                 |

### 1 (C). Projects identified below 25 MW capacity in Reassessment Study and being developed above 25 MW

| Sl.No.   | Name of Project  | River | I.C.<br>(MW) | Status  | Remarks           |
|----------|------------------|-------|--------------|---------|-------------------|
| 1        | Gundia           |       | 200          | Dropped | Gundia - 20<br>MW |
| <b>1</b> | <b>Sub Total</b> |       | <b>200</b>   |         |                   |

## 2. H.E. Projects in Operation:

| S. No.      | Utility/ Stations  | No. of Stns. | No. Of units x capacity (MW) | River       | Basin | District       | I.C. (MW)     | Type (R/S/R(P)) | Year of commissioning |
|-------------|--|--------------|------------------------------|-------------|-------|----------------|---------------|-----------------|-----------------------|
| <b>KPCL</b> |  |              |                              |             |       |                |               |                 |                       |
| 1           | ALMATTI  | 1            | (5X55)<br>+(1X15)            | KRISHNA     | EFR   | BIJAPUR        | 290           | S               | 2004-2005             |
| 2           | GERUSOPPA<br>(SHARAVATHY TAIL RACE)<br>[SARAVATHY TAIL RACE] | 1            | (4X60)                       | SHARAVATHY  | WFR   | UTTARA KANNADA | 240           | R(P)            | 2001-2002             |
| 3           | GHAT PRABHA  | 1            | (2X16)                       | GHATPRABHA  | EFR   | BELGAUM        | 32            | S               | 1992                  |
| 4           | MAHATMA GANDHI JOG   | 1            | (4X21.6)<br>+(4X13.2)        | SHARAVATHY  | WFR   | SHIMOGA        | 139.2         | S               | 1949-1952             |
| 5           | KADRA<br>[Kalinadi I (Kadra)]                                | 1            | (3X50)                       | KALI        | WFR   | UTTARA KANNADA | 150           | S               | 1997-1999             |
| 6           | KALINADI<br>(NAGJHARI)<br>[Kalinadi I (Nagjhari)]            | 1            | 6x 150                       | KALI        | WFR   | UTTARA KANNADA | 900           | S               | 1979-1984             |
| 7           | KALINADI SUPA<br>[Kalinadi I (Supa)]                         | 1            | (2X50)                       | KALI        | WFR   | UTTARA KANNADA | 100           | S               | 1985                  |
| 8           | KODASALI<br>[Kalinadi I (Kadassali)]                         | 1            | (3X40)                       | KALI        | WFR   | UTTARA KANNADA | 120           | S               | 1998-1999             |
| 9           | LINGNAMAKKI<br>[Linganamakki]                                | 1            | (2X27.5)                     | SHARAVATHY  | WFR   | SHIMOGA        | 55            | S               | 1979-1980             |
| 10          | MUNIRABAD  | 1            | (2X9)<br>+(1X10)             | TUNGABHADRA | EFR   | KOPPAL         | 28            | S               | 1962-1965             |
| 11          | SHARAVATHY<br>[Saravathi]                                    | 1            | (10X103.5)                   | SHARAVATHY  | WFR   | SHIMOGA        | 1035          | S               | 1965-1977             |
| 12          | SIVASAMUNDRUM<br>[Shivasamudram]                             | 1            | (4X6)+(6X3)                  | CAUVERY     | EFR   | MANDYA         | 42            | R(P)            | 1922-1934             |
| 13          | VARAHI   | 1            | (4X115)                      | VARAHI      | WFR   | UDUPI          | 460           | R(P)            | 1989-2009             |
| 14          | BHADRA<br>[Tungbhadra Dam PH]                                | 1            | (2x12)+(1x2)                 | BHADRA      | EFR   | CHICKMAGALUR   | 26            | S               | 1965                  |
|             | <b>TOTAL KPCL</b>  | <b>14</b>    |                              |             |       |                | <b>3617.2</b> |                 |                       |



| APGENCO   |                               |           |       |             |     |         |               |   |           |
|-----------|-------------------------------|-----------|-------|-------------|-----|---------|---------------|---|-----------|
| 15        | T B DAM *<br>[Tungbhadra RBC] | 1         | (4X9) | TUNGABHADRA |     | BELLARI | 36            | S | 1957-1964 |
| 16        | HAMPI *                       | 1         | (4X9) | TUNGABHADRA | EFR | BELLARI | 36            | S | 1958-1964 |
|           | <b>SUB-TOTAL<br/>APGENCO</b>  | <b>2</b>  |       |             |     |         | <b>72</b>     |   |           |
| <b>16</b> | <b>TOTAL<br/>KARNATAKA</b>    | <b>16</b> |       |             |     |         | <b>3689.2</b> |   |           |

\* Utilities are in Andhra Pradesh

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

### 3. Hydro Projects Returned to Project Authorities for re-submission after compliance of observations:

| Sl. No. | Name of Project             | Agency | I.C.(MW)   | Reason of Return   |
|---------|-----------------------------|--------|------------|--|
| 1       | Sivasamudram [Cauvery PH-I] | KPCL   | 345        | Presentation meeting held on 16.5.2012 as it involves interstate issues; DPR could not be processed and returned the same for resubmission after resolution of interstate aspects. |
| 2       | Mahadayi [Krishnapur]       | KPCL   | 320        | Returned due to non-tie up of inputs/clearances, the project involves interstate aspects.  |
| 2       | <b>Total</b>                |        | <b>665</b> |  |

Note : In addition to above, two pumped storage projects, namely Sharavathy (8x250 =2000 MW) and Saundatti (4x252+2x126= 1260 MW) are under S&I .

### 4. H.E. Projects held up due to Inter-State aspects:

| Sl. No. | Name of Project                                  | I.C. ( MW) | Location (State) | States Involved      | Status  |
|---------|--|------------|------------------|----------------------|---|
| 1       | Cauvery Power Projects- Mekadatu [Cauvery PH-II] | 400        | Karnataka        | Kerala/TN/ Karnataka | <ul style="list-style-type: none"> <li>• Preliminary report of Stage-I was returned in 10/1996.</li> <li>• Sharing of Cauvery water awarded by CWDI.</li> <li>• With the consent of GOTN and GOK, NHPC took up S&amp;I and preparation of DPR.</li> <li>• In the Core Group Meeting taken by secretary (Power) on 27.10.2004, it was agreed by GOK and GOTN that Shivasamudram (Karnataka) and Hogenekkal (T.N.) should be taken up simultaneously in the first phase and remaining two projects viz. Mekadatu and Rasimanal in the next phase.</li> <li>• In the Core Group Meeting taken by Secretary (Power) on 21.06.2006, it was agreed that execution of these four projects through NHPC would be most viable proposition. It was decided that representatives of both the Govts. would take up the matter with their respective Govts. and seek their approval and thereafter necessary agreement will be signed between NHPC and the two State Govts. Consent by both the State Govts. was to be communicated to MOP by 31.07.2006. The State of Karnataka in June, 2007 informed that Shivasamudram and Mekadatu will be executed by them in State sector.</li> <li>• KPCL informed in April, 2009 that the tribunal award is with Supreme Court.</li> <li>• Subsequently, a meeting was held on 08.07.2009 under the chairmanship of Secretary (Power) to discuss the pending issue of development of Hydroelectric Projects in Cauvery Basin. Secretary (Power) expressed that Shivasamudram being a Run of River Project with in the territory of Karnataka, Tamil Nadu should not have any objection to the development of the Project by the State Government. He further opined that there should not be any problem in taking up Shivasamudram Project by the State of Karnataka provided there is joint mechanism for monitoring the water level/releases of water to Tamil Nadu. He suggested that the CWC could act as an observer in this regard and directed that the GOK would provide/share all the technical details of the Project to/with Tamil Nadu. Both the States Government were advised to consult CEA and CWC before finalization of designing of the Project.</li> <li>• As regards other projects located in Tamil Nadu but whose submergence area partly falls in Karnataka, it was suggested the two Governments need to arrive at an arrangement for power sharing.</li> </ul> |
| 1       | <b>Total</b>                                     | <b>400</b> |                  |                      |   |

### 5. Projects dropped due to Basin studies/ Other reasons:

| Sl. No. | Name of Project                   | I.C. (MW)   | River      | Basin | Remarks  |
|---------|-----------------------------------|-------------|------------|-------|--|
| 1       | Gundia                            | 200         | Gundia     | WFR   | Due to implementation of Yethnabale Drinking water Project in same catchment area, the project is stalled. |
| 2       | Bennehole (Bannehole)             | 55          | Bannehole  | WFR   | Environmental Issue  |
| 3       | Barapole I                        | 335         | Barapole   | WFR   | Environmental Issue  |
| 4       | Kalinadi III [Kalinadi I (Mardi)] | 300         | Kalinadi   | WFR   | Environmental Issue  |
| 5       | Bedthi [Gangavali (Bedti) St.I]   | 380         | Gangavali  | WFR   | Environmental Issue  |
| 6       | Aghnashini                        | 600         | Aghnashini | WFR   | Environmental Issue  |
| 6       | <b>Total</b>                      | <b>1870</b> |            |       |  |

**6. H. E. Projects yet to be allotted by the State for development:**

| Sl.No.    | Name of Project                                    | River                      | Type | I.C.(MW)    |
|-----------|--|----------------------------|------|-------------|
| 1         | Machchattu   | Varahi                     | R    | 35          |
| 2         | Netravathy   | Netravathy                 | S    | 60          |
| 3         | Sirpadi  | Netravathy                 | R    | 38          |
| 4         | Kumaradhari  | Kumaradhari                | S    | 49          |
| 5         | Kalinadi II (Dandeli<br>[Kalinadi I (Dandeli II)]) | Kalinadi                   | R    | 60          |
| 6         | Gangavali St.II<br>[Gangavali (Sonda) St.II]       | Gangavali                  | S    | 400         |
| 7         | Tamankal [Narayanpur]                              | Krishna                    | R    | 70          |
| 8         | Shivapur [Shivpur]                                 | Tungabhadra                | R    | 26          |
| 9         | Krishnarajasagar                                   | Cauvery                    | S    | 55          |
| 10        | Shimsa [Shimsa PH-I]                               | Cauvery                    | R    | 31          |
| 11        | Shimsa [Shimsa PH-II]                              | Shimsha                    | R    | 42          |
| 12        | Arkavathy [Arkavathi]                              | Arkavathi                  | R    | 42          |
| 13        | Jaldurg  | Krishna                    | R    | 270         |
| <b>13</b> | <b>Total</b>                                       | <b>13 Nos. of Projects</b> |      | <b>1178</b> |

Note: R –Run of the River & S- Storage

## Status of Large Hydro Power Development in Kerala

|  |   | Nos.      | Capacity (MW) |
|--|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 28        | 3378          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |   | 5         | 1090          |
| Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)                                      |   | 2         | 145           |
| Change in Projects due to merging of projects (identified during reassessment study in 1978-87)  |   | -1        | 85            |
| Project(s) Identified in this State but developed/being developed in other State(s) #  |   | -1        | -80           |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity                                       |   | -2        | -185          |
| <b>Total</b>   |   | <b>31</b> | <b>4433</b>   |
| I  | Projects in operation                                     | 14        | 1856.5        |
| II   | Projects under active construction                        | 2         | 100           |
| III  | Under S&I   | 1         | 800           |
| IV   | Projects held up due to Inter-State aspects               | 4         | 520           |
| V  | Projects dropped due to Basin studies/ Other reasons      | 4         | 644           |
|  | Projects yet to be allotted by the State for development* | 6         | 338           |

# The project, Cholathipuzha (80 MW) is in Inter-State issue in Tamil Nadu State

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects and merger of two projects into one etc.

**1 (A). Identified Projects during Reassessment study**

| Sl.No.    | Name of Project   | River         | IC          |
|-----------|---|---------------|-------------|
| 1         | Baraple II  | Barapole      | 85          |
| 2         | Kuttiyadi, Kuttityadi Ext & Kuttityadi Add. Ext. (Kuttityadi) | Kuttityadi    | 80          |
| 3         | Chalipuzha  | Baypore       | 50          |
| 4         | Cholathipuzha #   | Baypore       | 80          |
| 5         | Pandiyar Punnapuzha Tail Race (Pandiyar Punnapuzha II)        | Pandiyar      | 85          |
| 6         | Silent Valley   | Kundipuzha    | 130         |
| 7         | Idukki (Idukki I & II)  | Periyar       | 565         |
| 8         | Idukki (Iddukki III)  | Periyar       | 130         |
| 9         | Lower Periyar   | Periyar       | 145         |
| 10        | Pallivasal (Pallivasal Replacement)                           | Mudirapuzha   | 190         |
| 11        | Sengulam  | W. Kallar     | 55          |
| 12        | Panniar   | Panniar       | 40          |
| 13        | Neriamangalam   | Mudirapuzha   | 65          |
| 14        | Perinjankutty   | Perinjankutty | 120         |
| 15        | Manali  | Idamlayar     | 36          |
| 16        | Kudal   | Idamlayar     | 47          |
| 17        | Puyanukutty   | Puyanukutty   | 285         |
| 18        | Idamalayar  | Idamalayar    | 55          |
| 19        | Sholayar [Sholaiyar]  | Sholaiyar     | 75          |
| 20        | Kuriarkutty (Kuriakutty)                                      | Kuriakutty    | 65          |
| 21        | Poringalkuthu(R.B)  | Chalakuudi    | 65          |
| 22        | Poringalkutty (Poringalkuthu(L.B))                            | Chalakuudi    | 60          |
| 23        | Athirappilly (Adirapally)                                     | Chalakuudi    | 65          |
| 24        | Sabarigiri  | Pamba         | 410         |
| 25        | Kakkad  | Kakkad        | 75          |
| 26        | Lower Sabarigiri  | Kakkad        | 55          |
| 27        | Twin-Kallar (Twin Kallar Multipurpose)                        | Achankovil    | 65          |
| 28        | Mananthavady (Manthavadi)                                     | Kabini        | 200         |
| <b>28</b> | <b>Total</b>  |               | <b>3378</b> |

# This project is in Inter-State issue in Tamil Nadu State

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project         | River                       | I.C. (MW)   | Status                    |
|----------|-------------------------|-----------------------------|-------------|---------------------------|
| 1        | Kerala Bhavani MPP      |                             | 150         | Inter-State               |
| 2        | Pambar                  |                             | 40          | Inter-State               |
| 3        | Pallivasal Ext.         | Mudirapuzha/Periyar/Baypore | 60          | Under Active Construction |
| 4        | Thottiyar               | Thottiyar                   | 40          | Under Active Construction |
| 5        | Idukki Extension Scheme | Periyar                     | 800         | Under S&I                 |
| <b>5</b> | <b>Sub Total</b>        |                             | <b>1090</b> |                           |

**1 (C). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting       |                  |           |            |            | After Splitting |                     |           |            |              |
|------------------------|------------------|-----------|------------|------------|-----------------|---------------------|-----------|------------|--------------|
| Sl.No.                 | Name of Project  | River     | I.C. (MW)  | Status     | Sl.No.          | Name of Project     | River     | I.C. (MW)  | Status       |
| 1                      | Kuttiyadi        | Kuttiyadi | 80         | Identified | 1               | Kuttiyadi           | Kuttiyadi | 75         | In Operation |
|                        |                  |           |            |            | 2               | Kuttiyadi Ext.      | Kuttiyadi | 50         | In Operation |
|                        |                  |           |            |            | 3               | Kuttiyadi Add. Ext. | Kuttiyadi | 100        | In Operation |
| <b>1</b>               | <b>Sub Total</b> |           | <b>80</b>  |            | <b>3</b>        | <b>Sub Total</b>    |           | <b>225</b> |              |
| Net Change in Numbers  |                  |           | <b>2</b>   | Increase   |                 |                     |           |            |              |
| Net Change in Capacity |                  |           | <b>145</b> | Increase   |                 |                     |           |            |              |

**1 (D). Change in Projects due to merging of projects (identified during reassessment study in 1978-87)**

| Before Merging         |                  |         |            |            | After Merging |                  |         |            |              |
|------------------------|------------------|---------|------------|------------|---------------|------------------|---------|------------|--------------|
| Sl.No.                 | Name of Project  | River   | I.C. (MW)  | Status     | Sl.No.        | Name of Project  | River   | I.C. (MW)  | Status       |
| 1                      | Idukki I&II      | Periyar | 565        | Identified | 1             | Idukki           | Periyar | 780        | In Operation |
| 2                      | Idukki III       | Periyar | 130        | Identified |               |                  |         |            |              |
| <b>2</b>               | <b>Sub Total</b> |         | <b>695</b> |            | <b>1</b>      | <b>Sub Total</b> |         | <b>780</b> |              |
| Net Change in Numbers  |                  |         | <b>-1</b>  | Decrease   |               |                  |         |            |              |
| Net Change in Capacity |                  |         | <b>85</b>  | Increase   |               |                  |         |            |              |

**1(E) Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Name of Project    | State  | River         | Type | I.C. (MW)  | Status                |
|----------|--------------------|--------|---------------|------|------------|-----------------------|
| 1        | Perinjankutty      | Kerala | Perinjankutty | S    | 120        | Developed below 25 MW |
| 2        | Poringalkuthu(R.B) | Kerala | Chalakuudi    | S    | 65         | Developed below 25 MW |
| <b>2</b> | <b>Total</b>       |        |               |      | <b>185</b> |                       |

## 2. Hydro Electric Projects in Operation:

| S. No.      | Utility/Stations                      | No. of Stns. | No. of units x Capacity (MW) | River / Basin* | District       | I.C. (MW)     | Type (R/S/R(P)) | Year of commissioning |
|-------------|---------------------------------------|--------------|------------------------------|----------------|----------------|---------------|-----------------|-----------------------|
| <b>KSEB</b> |                                       |              |                              |                |                |               |                 |                       |
| 1           | IDAMALAYAR                            | 1            | (2X37.5)                     | IDAMALAYAR     | ERNAKULAM      | 75            | S               | 1987                  |
| 2           | IDUKKI [Idukki I & II + Idukki - III] | 1            | (6X130)                      | PERIYAR        | IDUKKI         | 780           | S               | 1976-1986             |
| 3           | KAKKAD                                | 1            | (2X25)                       | PAMBA          | PATHANAMTHITTA | 50            | R(P)            | 1999                  |
| 4           | KUTTIYADI [Kuttiyadi]                 | 1            | (3X25)                       | KUTTIYADI      | KOZHICODE      | 75            | S               | 1972                  |
| 5           | KUTTIYADI EXTN. [Kuttiyadi]           | 1            | (1X50)                       | KUTTIYADI      | KOZHICODE      | 50            | S               | 2001                  |
| 6           | KUTTIYADI ADDN EXTN [Kuttiyadi]       | 1            | (2X50)                       | KUTTIYADI      | KOZHICODE      | 100           | S               | 2010                  |
| 7           | LOWER PERIYAR                         | 1            | (3X60)                       | PERIYAR        | IDUKKI         | 180           | R(P)            | 1997                  |
| 8           | NERIAMANGLAM                          | 1            | (3X15)                       | MUTHIRAPUZHA   | IDUKKI         | 45            | S               | 1961-63               |
| 9           | PALLIVASAL [Pallivasal Replacement]   | 1            | (3X5) + (3X7.5)              | MUTHIRAPUZHA   | IDUKKI         | 37.5          | S               | 1948-2001             |
| 10          | PANNIAR                               | 1            | (2X15)                       | PANNIAR        | IDUKKI         | 30            | S               | 1963-2001             |
| 11          | PORINGALKUTTU                         | 1            | (4X8)                        | CHALAKUDY      | COIMBATORE     | 32            | S               | 1957-1960             |
| 12          | SABARIGIRI                            | 1            | (6X50)                       | PAMBA          | PATHANAMTHITTA | 300           | S               | 1960-1967             |
| 13          | SENGULAM                              | 1            | (4X12)                       | MUTHIRAPUZHA   | IDUKKI         | 48            | S               | 1954-2001             |
| 14          | SHOLAYAR [Sholaiyar]                  | 1            | (3X18)                       | SHOLAYAR       | COIMBATORE     | 54            | S               | 1956-1968             |
| 14          | <b>TOTAL KSEB</b>                     | <b>14</b>    |                              |                |                | <b>1856.5</b> |                 |                       |

\* All projects are in WFR Basin

## 3 H.E. Schemes under active Construction:

| Sl. No. | Name of Project | Agency | District | River /Sub-Basin/ Basin           | I.C. (MW)  | Type (R/S/R(P)) | Likely Commissioning |
|---------|-----------------|--------|----------|-----------------------------------|------------|-----------------|----------------------|
| 1       | Pallivasal      | KSEB   | Idukki   | Mudirapuzha/ Baypore Periyar/ WFR | 60         | R               | 2022-23 (Mar.'23)    |
| 2       | Thottiyar       | KSEB   | Idukki   | Thottiyar/ Baypore Periyar / WFR  | 40         | R               | 2022-23 (Mar.'23)    |
| 2       | <b>Total</b>    |        |          |                                   | <b>100</b> |                 |                      |

Note: R= Run of River, S=Storage &amp; R(P)= Run of River with Pondage

**4. H.E. Projects under Survey & Investigation:**

| Sl. No. | Name of Project         | Basin/River  | I.C. (MW)  | Agency | Type (R/S/R(P)) | Target date of preparation of DPR |
|---------|-------------------------|--------------|------------|--------|-----------------|-----------------------------------|
| 1       | Idukki Extension Scheme | WFR/ Periyar | 800        | KSEB   | S               | Dec-23                            |
| 1       | TOTAL                   |              | <b>800</b> |        |                 |                                   |

**5. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No. | Name of Project          | Agency | District | River / Basin    | I.C. (MW)  | Type (R/S/R(P)) | Status  |
|---------|--------------------------|--------|----------|------------------|------------|-----------------|---|
| 1       | Athirapally [Adirapally] | KSEB   | Thrishur | Chalakkudy / WFR | 163        | R               | MoEF&CC informed that validity of EC for the project has approved and advised to process for fresh FC. The project is likely to be dropped due to ecological constraints. |
| 2       | Silent Valley            |        |          | Kundipuzha/ WFR  | 130        |                 | Environmental Issue   |
| 3       | Puyanukutty              |        |          | Puyanukutty/ WFR | 285        |                 | Environmental Issue   |
| 4       | Kuriarkutty (Kuriakutty) |        |          | Kuriakutty/ WFR  | 66         |                 | Environmental Issue   |
| 4       | <b>Total</b>             |        |          |                  | <b>644</b> |                 |   |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**



## 6. H.E. Projects held up due to Inter-State aspects:

| Sl. No. | Name of Project/Installed Capacity                             | I.C. (MW)  | Location (State) | States Involved           | Status  |
|---------|--|------------|------------------|---------------------------|---|
| 1*      | Kerala Bhavani (MPP)<br>(3x50= 150 MW)                         | 150        | Kerala           | Kerala/T.N.<br>/Karnataka | <ul style="list-style-type: none"> <li>· DPR with estimated cost of Rs 168.75 crores (1990-91 PL) returned in 01/1992.</li> <li>• Final award of CWDT stated that the Project involves trans-basin diversion of water of Bhavani, therefore it is not possible to allocate water for this project.</li> <li>• Since the tribunal has ruled out trans-basin transfer (from interstate rivers), this project remains a non-starter.</li> <li>• The final award of CWDT has been challenged by Kerela State before the Hon'ble Supreme Court of India.</li> </ul>          |
| 2*      | Mananthvady MPP<br>(Manthavadi)<br>(5x45 =225MW)               | 225        | Kerala           | Kerala/T.N.<br>/Karnataka | <ul style="list-style-type: none"> <li>· Earlier DPR with estimated cost of Rs 69.17 crores (1980 PL) returned in 07/1980.</li> <li>• Final award of CWDT stated that the Project involves trans-basin diversion of water of Kabini, therefore it is not possible to allocate water for this project.</li> <li>• Since the tribunal has ruled out transbasin transfer (from interstate rivers), this project remains as a non-starter.</li> <li>• The final award of CWDT has been challenged by Kerela State before the Honourable Supreme Court of India.</li> </ul>  |
| 3       | Pandiar Punnapuzha<br>Tail Race<br>[Pandiyar Punnapuzha<br>II] | 105        | Kerala           | TN/Kerala                 | <ul style="list-style-type: none"> <li>· Earlier DPR with estimated cost of Rs 22.00 crores (12/1972 PL) returned in 07/82</li> <li>• Project envisages utilisation of tailrace waters of the proposed Pandiar Punnapuzha HEP of Tamil Nadu.</li> <li>• The project would be taken up if GOTN and Kerala come to a mutual agreement.</li> <li>• Inter-state issue is not resolved.</li> </ul>   |
| 4*      | Pambar<br>(40 MW)  | 40         | Kerala           | T.N./Kerala<br>/Karnataka | <ul style="list-style-type: none"> <li>· Earlier DPR for 30 MW with estimated cost of Rs.65.46 crores (1989 PL) returned in 03/1990.</li> <li>• The project is also entangled with Cauvery Waters Disputes Tribunal (CWDT).</li> <li>• KSEB revised the Project from earlier proposal of storage Project to run-of-river Project.</li> <li>• Non-Consumptive use of 5.6 TMC was proposed for power generation, which has been allowed by Tribunal subject to agreement with Tamil Nadu for schedule of water release.</li> <li>• DPR is yet to be finalized.</li> </ul> |
| 4       | <b>Total</b>   | <b>520</b> |                  |                           |   |

(\*) Projects located in Cauvery basin.

**7. H. E. Projects yet to be allotted by the State for development**

| <b>Sl. No.</b> | <b>Name of Project</b>                    | <b>River</b>              | <b>Type</b> | <b>Probable I.C.(MW)</b> |
|----------------|---|---------------------------|-------------|--------------------------|
| 1              | Chalipuzha                                | Baypore                   | S           | 50                       |
| 2              | Manali                                    | Idamlayar                 | S           | 36                       |
| 3              | Kudal                                     | Idamlayar                 | S           | 47                       |
| 4              | Lower Sabarigiri                          | Kakkad                    | S           | 55                       |
| 5              | Twin-Kallar<br>(Twin Kallar Multipurpose) | Achankovil                | S           | 65                       |
| 6              | Baraple II                                | Barapole                  | R           | 85                       |
| <b>6</b>       | <b>Total</b>                              | <b>6 Nos. of Projects</b> |             | <b>338</b>               |

**Note: R - Run of the River & S- Storage**

### Status of Large Hydro Power Development in Tamil Nadu

|   |   | Nos.      | Capacity (MW) |
|---|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 23        | 1693          |
| Projects identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity                                   |   | 4         | 220           |
| Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)                                   |   | 5         | -20           |
| Change in Project due to merging of projects (identified during reassessment study in 1978-87)                                      |   | -1        | 354           |
| Projects Identified in other State(s) but developed/being developed in this State #   |   | 3         | 206           |
| Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW   |   | -1        | -34           |
| <b>Total</b>  |   | <b>33</b> | <b>2419</b>   |
| I   | Projects in operation                                     | 26        | 1778.2        |
| II  | Projects held up due to Inter-State aspects               | 4         | 690           |
| III   | Projects dropped due to Basin studies/ Other reasons      | 1         | 33            |
| IV  | Projects yet to be allotted by the State for development* | 4         | 132           |

# Rasi Manal [Cauvery PH-III] (90 MW) & Hogenekkal [Cauvery PH-IV] (36 MW) in Karnataka and Cholathipuzha (80 MW) in Kerala are in Inter-State issue in Tamil Nadu State

Note : In addition to above, one pumped storage project, namely Kadamparai (4x100 = 400 MW)

\*The capacity yet to be allotted by the State for development is different from arithmetic

**1 (A). Identified Projects during Reassessment study:**

| <b>Sl.No.</b> | <b>Name of Project</b>                                     | <b>River</b> | <b>I. C.<br/>(MW)</b> |
|---------------|--|--------------|-----------------------|
| 1             | Pandiyar Punnapuzha (Pandiyar-Punnapuzha I)                | Pandiyar     | 125                   |
| 2             | Aliyar (Upper Aliyar)                                      | Bharatpuzha  | 90                    |
| 3             | Periyar (Periyar Lake)                                     | Periyar      | 145                   |
| 4             | Nirar  | Idamalayar   | 26                    |
| 5             | Sholayar- I [Sholaiyar- I]                                 | Sholaiyar    | 75                    |
| 6             | Sarkarpathy [Sarkarpathi]                                  | Periyar      | 33                    |
| 7             | Kodayar I  | Kodayar      | 65                    |
| 8             | Kodayar II   | Kodayar      | 30                    |
| 9             | Paraliyar  | Paraliyar    | 39                    |
| 10            | Mettur Dam (Mettur Dam PH)                                 | Cauvery      | 32                    |
| 11            | Mettur Tunnel (Mettur Tunnel PH)                           | Cauvery      | 100                   |
| 12            | Lower Mettur I, II, III & IV (Lower Mettur)                | Cauvery      | 115                   |
| 13            | Bhavani Kattalai Barrage I, II & III<br>(Bhawani Kattalai) | Cauvery      | 115                   |
| 14            | Lower Bhavani (Lower Bhawani)                              | Bhavani      | 34                    |
| 15            | Lower Moyar  | Moyar        | 33                    |
| 16            | Moyar  | Moyar        | 75                    |
| 17            | Pykara (Pykara (Singara))                                  | Moyar        | 115                   |
| 18            | Pykara Ultimate (Pykara (Ultimate))                        | Moyar        | 60                    |
| 19            | Kundah I (Avalanche Em'ld (Kundah-I))                      | Kundah       | 70                    |
| 20            | Kundah II (Kundapallam (Kundah-II))                        | Kundah       | 160                   |
| 21            | Kundah III (Pengumbahalla (Kundah-III))                    | Kundah       | 95                    |
| 22            | Suruliyar (Surullar)                                       | Suruliar     | 30                    |
| 23            | Papanasam  | Tambraparni  | 31                    |
| <b>23</b>     | <b>TOTAL</b>   |              | <b>1693</b>           |

**1 (B). Project identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity**

| Sl.No.   | Name of Project             | River   | I.C. (MW)  | Status       | Remarks                 |
|----------|-----------------------------|---------|------------|--------------|-------------------------|
| 1        | Kundah-IV                   | Bhavani | 100        | In Operation | Pillur - 25 MW          |
| 2        | Kundah-V                    | Bhavani | 40         | In Operation | Upper Bhavani - 16 MW   |
| 3        | Kundah-VI (Parson's Valley) | Bhavani | 30         | In Operation | Parson's Valley - 12 MW |
| 4        | Nellithorai                 |         | 50         | Inter-State  | Nellithorai - 13 MW     |
| <b>4</b> | <b>Sub Total</b>            |         | <b>220</b> |              |                         |

**1 (C). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting       |                  |         |            |            | After Splitting |                              |         |            |              |
|------------------------|------------------|---------|------------|------------|-----------------|------------------------------|---------|------------|--------------|
| Sl.No.                 | Name of Project  | River   | I.C. (MW)  | Status     | Sl.No.          | Name of Project              | River   | I.C. (MW)  | Status       |
| 1                      | Lower Mettur     | Cauvery | 115        | Identified | 1               | Lower Mettur I               | Cauvery | 30         | In Operation |
|                        |                  |         |            |            | 2               | Lower Mettur II              | Cauvery | 30         | In Operation |
|                        |                  |         |            |            | 3               | Lower Mettur III             | Cauvery | 30         | In Operation |
|                        |                  |         |            |            | 4               | Lower Mettur IV              | Cauvery | 30         | In Operation |
| 2                      | Bhawani Kattalai | Cauvery | 115        | Identified | 5               | Bhavani Kattalai Barrage-I   | Cauvery | 30         | In Operation |
|                        |                  |         |            |            | 6               | Bhavani Kattalai Barrage-II  | Cauvery | 30         | In Operation |
|                        |                  |         |            |            | 7               | Bhavani Kattalai Barrage-III | Cauvery | 30         | In Operation |
| <b>2</b>               | <b>Sub Total</b> |         | <b>230</b> |            | <b>7</b>        | <b>Sub Total</b>             |         | <b>210</b> |              |
| Net Change in Numbers  |                  |         | <b>5</b>   | Increase   |                 |                              |         |            |              |
| Net Change in Capacity |                  |         | <b>-20</b> | Decrease   |                 |                              |         |            |              |

**1 (D). Change in Projects due to merging of projects (identified during reassessment study in 1978-87)**

| Before Merging         |                            |         |            |                         | After Merging |                        |         |            |                           |
|------------------------|----------------------------|---------|------------|-------------------------|---------------|------------------------|---------|------------|---------------------------|
| Sl.No.                 | Name of Project            | River   | I.C. (MW)  | Status                  | Sl.No.        | Name of Project        | River   | I.C. (MW)  | Status                    |
| 1                      | Hogenekkal (Cauvery PH-IV) | Cauvery | 36         | Identified in Karnataka | 1             | Cauvery Power Projects | Cauvery | 480        | Inter-State in Tamil Nadu |
| 2                      | Rasimanal (Cauvery PH-III) | Cauvery | 90         | Identified in Karnataka |               |                        |         |            |                           |
| <b>2</b>               | <b>Sub Total</b>           |         | <b>126</b> |                         | <b>1</b>      | <b>Sub Total</b>       |         | <b>480</b> |                           |
| Net Change in Numbers  |                            |         | <b>-1</b>  | Decrease                |               |                        |         |            |                           |
| Net Change in Capacity |                            |         | <b>354</b> | Increase                |               |                        |         |            |                           |

**1 (E). Project identified above 25 MW capacity in Reassessment Study but developed below 25 MW capacity**

| Sl. No.  | Name of Project               | State      | River   | Type | I.C. (MW) | Status                |
|----------|-------------------------------|------------|---------|------|-----------|-----------------------|
| 1        | Lower Bhavani (Lower Bhawani) | Tamil Nadu | Bhavani | S    | 34        | developed below 25 MW |
| <b>1</b> | <b>Total</b>                  |            |         |      | <b>34</b> |                       |

## 2. H.E. Projects in Operation:

| S. No.          | Utility/<br>Stations                                  | No. Of<br>stns. | No. of units<br>x Capacity<br>(MW) | River              | Basin | District    | Capacity<br>(MW) | Type<br>(R/S/R(P)) | Year of<br>commissioning |
|-----------------|---|-----------------|------------------------------------|--------------------|-------|-------------|------------------|--------------------|--------------------------|
| <b>TANGEDCO</b> |   |                 |                                    |                    |       |             |                  |                    |                          |
| 1               | ALIYAR<br>[Upper Aliyar]                              | 1               | (1X60)                             | MASONARY<br>DAM    | WFR   | COIMBATORE  | 60               | S                  | 1970                     |
| 2               | BHAVANI KATTALAI<br>BARRAGE-I<br>[Bhawani Kattalai]   | 1               | (2X15)                             | CAUVERY            | EFR   | ERODE       | 30               | R(P)               | 2006                     |
| 3               | BHAVANI KATTALAI<br>BARRAGE-II<br>[Bhawani Kattalai]  | 1               | (2X15)                             | CAUVERY            | EFR   | ERODE       | 30               | R(P)               | 2013                     |
| 4               | BHAVANI KATTALAI<br>BARRAGE-III<br>[Bhawani Kattalai] | 1               | (2X15)                             | CAUVERY            | EFR   | ERODE       | 30               | R(P)               | 2012                     |
| 5               | KODAYAR-I   | 1               | (1X60)                             | KODAYAR            | WFR   | KANYAKUMARI | 60               | S                  | 1970                     |
| 6               | KODAYAR-II  | 1               | (1X40)                             | KODAYAR            | WFR   | KANYAKUMARI | 40               | S                  | 1971                     |
| 7               | KUNDAH-I<br>[Avalanche Em'ld<br>(Kundah-I)]           | 1               | (3X20)                             | AVLANCHE<br>STREAM | EFR   | NILGRIS     | 60               | S                  | 1960-1964                |
| 8               | KUNDAH-II<br>[Kundapallam (Kundah-<br>II)]            | 1               | (5X35)                             | KUNDAH             | EFR   | NILGRIS     | 175              | S                  | 1960-1965                |
| 9               | KUNDAH-III<br>[Pengumbahalla<br>(Kundah-III)]         | 1               | (3X60)                             | PENGUNBA<br>HALLAH | EFR   | COIMBATORE  | 180              | S                  | 1965-1978                |
| 10              | KUNDAH-IV   | 1               | (2X50)                             | BHAVANI            | EFR   | COIMBATORE  | 100              | S                  | 1966-1978                |
| 11              | KUNDAH-V  | 1               | (2X20)                             | BHAVANI            | EFR   | NILGRIS     | 40               | S                  | 1964-1988                |
| 12              | LOWER METTUR-I<br>[Lower Mettur]                      | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1988                     |
| 13              | LOWER METTUR-II<br>[Lower Mettur]                     | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1988                     |
| 14              | LOWER METTUR-III<br>[Lower Mettur]                    | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1987-1988                |
| 15              | LOWER METTUR-IV<br>[Lower Mettur]                     | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1988-1999                |
| 16              | METTUR DAM<br>[Mettur Dam PH]                         | 1               | (4X12.5)                           | CAUVERY            | EFR   | SALEM       | 50               | S                  | 1937-1946                |
| 17              | METTUR TUNNEL<br>[Mettur Tunnel PH]                   | 1               | (4X50)                             | CAUVERY            | EFR   | SALEM       | 200              | S                  | 1965-1966                |
| 18              | MOYAR   | 1               | (3X12)                             | MOYAR              | EFR   | NILGRIS     | 36               | S                  | 1952-1953                |
| 19              | PAPANASAM   | 1               | (4X8)                              | THAMBRAP<br>ARANI  | EFR   | TIRUNELVELI | 32               | S                  | 1944-1951                |
| 20              | PARSON'S VALLEY                                       | 1               | (1X30)                             | BHAVANI            | EFR   | NILGIRIS    | 30               | S                  | 2000                     |
| 21              | PERIYAR<br>[Periyar Lake]                             | 1               | (3X42)+<br>(1X35)                  | PERIYAR            | WFR   | IDUKKI      | 161              | S                  | 1958-1965                |

|           |                                       |           |                               |                           |     |             |               |      |           |
|-----------|---------------------------------------|-----------|-------------------------------|---------------------------|-----|-------------|---------------|------|-----------|
| 22        | PYKARA<br>[Pykara (Singara)]          | 1         | (3X7)+<br>(2X13.6)+<br>(1X11) | Glenmorgan<br>Forebay dam | EFR | NILGRIS     | 59.2          | S    | 1932-2005 |
| 23        | PYKARA ULTMATE<br>[Pykara (Ultimate)] | 1         | (3X50)                        | PYKARA                    | EFR | NILGRIS     | 150           | S    | 2005      |
| 24        | SARKARPATHY<br>[Sarkarpathi]          | 1         | (1X30)                        | PARABIKUL<br>AM           | WFR | KOZHICODE   | 30            | R(P) | 1966      |
| 25        | SHOLAYAR I<br>[Sholaiyar- I]          | 1         | (2X35)                        | SHOLAYAR                  | WFR | COIMBATORE  | 70            | S    | 1971      |
| 26        | SURULIYAR<br>[Surullar]               | 1         | (1X35)                        | ERAVANGA<br>LAR           | EFR | TIRUNELVELI | 35            | S    | 1978      |
| <b>26</b> | <b>TOTAL TANGEDCO</b>                 | <b>26</b> |                               |                           |     |             | <b>1778.2</b> |      |           |

Note : In addition to above, one pumped storage project, namely Kadamparai (4x100 = 400 MW) is constructed & working in pumping mode, one pumped storage project, namely Kundah Pump Storage (Stage I,II,III&IV) (4x125= 500 MW) is under active construction [likely commissioning by 2023-24 (Apr. 2023)] and two pumped storage projects, Kodayar (4x125= 500 MW) and Sillahalla St.-I (4x250=1000 MW) are under S&I .

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**3. H.E. Projects held up due to Inter-State aspects:**

| Sl. No.  | Name of Project   | I.C. (MW)  | Location (Site) | States Involved       | Status  |
|----------|---|------------|-----------------|-----------------------|---|
| 1        | Nelliuthorai  | 50         | T.N.            | TN/ Kerala            | <ul style="list-style-type: none"> <li>Sanctioned by Planning Commission in 1974 at an estimated cost of Rs.10.04 crores.</li> <li>Concurrence not issued by CEA due to objections received from Govt. of Kerala.</li> </ul>  |
| 2        | Cauvery Power Projects [Rasimanal(90 MW) & Hogenekkal (36 MW) (from Karnataka)] | 480        | T.N.            | Kerala/ TN/ Karnataka | <ul style="list-style-type: none"> <li>Returned in 2/1997.</li> <li>In the Core Group Meeting taken by Secretary (Power) on 27.10.2004, it was agreed by GOK and GOTN that Shivasamudram (in Karnataka) and Hogenekkal (in TN) should be taken up simultaneously in the first phase and remaining two projects viz. Mekadatu (in Karnataka) and Rasimanal (in TN) in the next phase.</li> <li>In the Core Group Meeting taken by Secretary (Power) on 21.06.2006, it was agreed that execution of these four projects through NHPC would be most viable proposition. It was decided that representatives of both the Govts. would take up the matter with their respective Govts. and seek their approval and thereafter necessary agreement will be signed between NHPC and the two State Govts. Consent by both the State Govts. was to be communicated to MOP by 31.07.2006. Tripartite agreement between Govt. of Tamil Nadu, Govt. of Karnataka and NHPC was to be signed. However, in June, 2007 the State of Karnataka informed that Shivasamudram and Mekadatu will be executed by Karnataka in State Sector.</li> <li>TNEB informed in April, 2009 that Tamil Nadu has given its concurrence to MOP's draft tripartite agreement and sent it to MOP, GOI on 15.12.2008. Tamil Nadu insists the execution of the projects by neutral agency under Govt. of India. Final award of CWDT is yet to be notified in the Gazette of Govt. of India, as the case has been filed in the Supreme Court of India.</li> <li>Subsequently, a meeting was held on 08.07.2009 under the chairmanship of Secretary (Power) to discuss the pending issue of development of Hydroelectric Projects in Cauvery Basin. Secretary (Power) expressed that Shivasamudram being a Run of River Project with in the territory of Karnataka, Tamil Nadu should not have any objection to the development of the Project by the State Government. He further opined that there should not be any problem in taking up Shivasamudram Project by the State of Karnataka provided there is joint mechanism for monitoring the water level/releases of water to Tamil Nadu. He suggested that the CWC could act as an observer in this regard and directed that the GOK would provide/share all the technical details of the Project to/with Tamil Nadu. Both the States Governments were advised to consult CEA and CWC before finalization of designing of the Project.</li> <li>As regards other projects located in Tamil Nadu but whose submergence area partly falls in Karnataka, it was suggested that the two Governments need to arrive at an arrangement for power sharing.</li> </ul> |
| 3        | Pandiyar Punnapuzha [Pandiyar-Punnapuzha I]                                     | 100        | T.N.            | TN/ Kerala            | <ul style="list-style-type: none"> <li>DPR with estimated cost of Rs 73.90 crores (11/1976 PL) returned in 07/1982.</li> <li>Project is located in TN on West flowing Pandiar Punnapuzha river (Chaliyar river).</li> <li>Concurrence of Govt. of Kerala is required, as per agreement in 1965, for revised project proposal, which is yet to be communicated by Govt. of Kerala.</li> <li>Based on Ministerial level meeting between Kerala and Tamil Nadu on 10.06.2002, modified proposal was evolved by TNEB and has been sent to Govt. of Kerala on 10.04.2007 for its consideration.</li> <li>Concurrence of Govt. of Kerala is yet to be received.</li> </ul>  |
| 4        | Cholatipuzha (from Kerala)  | 60         | T.N.            | TN/ Kerala            | <ul style="list-style-type: none"> <li>DPR with estimated cost of Rs7.39 crores (1976 PL) returned in 07/1982</li> <li>As per agreement between Tamil Nadu &amp; Kerala reached in Oct., 1965, cost and benefits from the project located on their border are to be shared equally by the two States.</li> <li>Kerala has not communicated its concurrence to the project investigated by TNEB.</li> <li>This Project will be finalized while finalizing the Project of Pandiar- Punnapuzha with Kerala.</li> </ul>   |
| <b>4</b> | <b>Total</b>  | <b>690</b> |                 |                       |   |

**4. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No. | Name of Project | Agency | River / Basin | I.C. (MW) | Status              |
|---------|-----------------|--------|---------------|-----------|---------------------|
| 1       | Lower Moyar     |        | Moyar         | 33        | Environmental issue |

**5. H. E. Projects yet to be allotted by the State for development**

| Sl. No.  | Name of Project               | River                     | Type | I.C.(MW)   |
|----------|-------------------------------|---------------------------|------|------------|
| 1        | Nirar                         | Idamalar                  | R    | 26         |
| 2        | Paraliyar                     | Paraliyar                 | R    | 39         |
| 3        | Lower Bhavani (Lower Bhawani) | Bhavani                   | S    | 34         |
| 4        | Lower Moyar                   | Moyar                     | S    | 33         |
| <b>4</b> | <b>Total</b>                  | <b>4 Nos. of Projects</b> |      | <b>132</b> |

Note: R –Run of the River; S- Storage



### Status of Large Hydro Power Development in Telangana

|  |  | Nos.     | Capacity (MW) |
|--|--|----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |  | 7        | 1099          |
| Large Project Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)                |  | 1        | 240           |
| <b>Total</b>   |  | <b>8</b> | <b>1339</b>   |
| I  | Projects in operation                                    | 6        | 800           |
| II   | Projects returned to project authorities                 | 1        | 320           |
| III  | Project yet to be allotted by the State for development* | 1        | 250           |

Note : In addition to above, two pumped storage projects, namely Nagarjuna Sagar (7x100.80 = 705.60 MW) and Srisailem LBPH (6x150= 900 MW) are constructed & working in pumping mode.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects etc.

**1 (A). Identified Projects during Reassessment study:**

| Sl.No.   | Name of Project                        | River    | I. C. (MW)  |
|----------|--|----------|-------------|
| 1        | Pochampad                              | Godavari | 47          |
| 2        | Singareddi                             | Godavari | 250         |
| 3        | Dummugudem (Dummagudem)                | Godavari | 360         |
| 4        | Pulichintala                           | Krishna  | 180         |
| 5        | Nagarjunasagar LBC                     | Krishna  | 42          |
| 6        | Nagarjunasagar (Nagarjunasagar Dam PH) | Krishna  | 115         |
| 7        | Priyadarshini Jurala (Priyadarshini )  | Krishna  | 105         |
| <b>7</b> | <b>TOTAL</b>                           |          | <b>1099</b> |

# Inchampalli is under Inter-State issue in the State of Andhra Pradesh for 975 MW.

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River   | I.C. (MW)  | Status       |
|----------|------------------|---------|------------|--------------|
| 1        | Lower Jurala     | Krishna | 240        | In Operation |
| <b>1</b> | <b>Sub Total</b> |         | <b>240</b> |              |

**2. H.E. Projects in Operation:**

| S. No.         | Utility/<br>Stations                       | No. of<br>Stns. | No. of<br>units x<br>Capacity<br>(MW) | River<br>/ Basin* | District          | Capacity<br>(MW) | Type<br>(R/S/R(P)) | Year of<br>commissioning |
|----------------|--|-----------------|---------------------------------------|-------------------|-------------------|------------------|--------------------|--------------------------|
| <b>TSGENCO</b> |  |                 |                                       |                   |                   |                  |                    |                          |
| 1              | PRIYADARSHNI<br>JURALA<br>(PRIYADARSHNI)   | 1               | (6X39)                                | KRISHNA           | MAHABOOB<br>NAGAR | 234              | R(P)               | 2008-2011                |
| 2              | POCHAMPAD                                  | 1               | (4X9)                                 | GODAVARI          | NIZAMABAD         | 36               | S                  | 1987-1988, 2010          |
| 3              | NAGARJUNA SGR<br>(NAGARJUNA SGR<br>DAM PH) | 1               | (1X110)                               | KRISHNA           |                   | 110              | S                  | 1978-85                  |
| 4              | NAGARJUNA SGR<br>LBC                       | 1               | (2X30)                                | KRISHNA           | GUNTUR            | 60               | R                  | 1983                     |
| 5              | LOWER JURALA                               | 1               | (6X40)                                | KRISHNA           | WANPARTHY         | 240              | R(P)               | 2015-16                  |
| 6              | PULINCHINTHALA                             | 1               | (4X30)                                | KRISHNA           | SURAPETA          | 120              | R(P)               | 2016-17                  |
| <b>6</b>       | <b>TOTAL TSGENCO</b>                       | <b>6</b>        |                                       |                   |                   | <b>800</b>       |                    |                          |

\* All projects are in EFR Basin

Note : In addition to above, two pumped storage projects, namely Nagarjuna Sagar (7x100.80 = 705.60 MW) and Srisailem LBPH (6x150= 900 MW) are constructed & working in pumping mode.

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**3. H.E. Projects Returned to project Authorities:**

| Sl. No.  | Name of Project            | I.C.<br>(MW) | Agency  | Month of<br>Return | Reason for Return  |
|----------|----------------------------|--------------|---------|--------------------|--|
| 1        | Dummugudem<br>(Dummagudem) | 320          | APGENCO | Mar-06             | Returned due to non-replying of various comments such as hydro planning, cost of E&M works, hydel civil Engineering, geological aspects etc. |
| <b>1</b> | <b>Total</b>               | <b>320</b>   |         |                    |  |

**4. H. E. Projects yet to be allotted by the State for development**

| Sl. No.  | Name of Project | River                   | Type | I.C.<br>(MW) |
|----------|-----------------|-------------------------|------|--------------|
| 1        | Singareddi      | Godavari                | R    | 250          |
| <b>1</b> | <b>Total</b>    | <b>1 No. of Project</b> |      | <b>250</b>   |

Note: R –Run of the River

## Status of Large Hydro Power Development in Bihar

|   | Nos.     | I.C.<br>(MW) |
|---|----------|--------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) | 1        | 40           |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                | 1        | 130.1        |
| Project identified above 25 MW capacity in Reassessment Study and developed below 25 MW capacity                                    | -1       | -40          |
| <b>Total</b>  | <b>1</b> | <b>130.1</b> |
| Projects Returned   | 1        | 130.1        |
| Multi Purpose projects  | 1        | 150          |

Note: Identified project namely East Gandak Canal has been developed with installed capacity below 25 MW. In addition to above, two pumped storage projects namely Sinafdar (3 x 115=345 MW) and Panchgotia (3 x 75=225 MW) are under PFR prepared category

### 1 (A). Identified Projects during Reassessment study:

| Sl.No.       | Name of Project      | River     | I. C.<br>(MW) |
|--------------|----------------------|-----------|---------------|
| 1            | Eastern Gandak Canal | Gandak    | 40            |
| <b>TOTAL</b> |                      | <b>40</b> |               |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River | I.C. (MW)    | Status   |
|----------|------------------|-------|--------------|----------|
| 1        | Dagmara          | Kosi  | 130.1        | Returned |
| <b>1</b> | <b>Sub Total</b> |       | <b>130.1</b> |          |

**1 (C). Project identified above 25 MW capacity in Reassessment Study and developed below 25 MW capacity**

| Sl. No.  | Naome of Project     | State | River  | Type | I.C. (MW) | Status                |
|----------|----------------------|-------|--------|------|-----------|-----------------------|
| 1        | Eastern Gandak Canal | Bihar | Gandal | R    | 40        | Developed below 25 MW |
| <b>1</b> | <b>Total</b>         |       |        |      | <b>40</b> |                       |

**2. Hydroelectric Projects in operation in Bihar (above 25 MW):**

At present, no hydroelectric project (above 25 MW) is under operation in Bihar. Four H.E. Projects having installed capacity of 44.9MW, consisting of Kosi (20MW), Sone Western Canal (6.6MW), Sone Eastern Canal (3.3MW) and Eastern Gandak (15MW), are in operation in Bihar which are all below 25MW capacity each.

**3. Projects under Construction:**

At present no hydro scheme is under construction in Bihar.

**4. Projects Returned:**

| Sl. No. | Name of Scheme | Agency | I.C. (MW)    | Month of Return |
|---------|----------------|--------|--------------|-----------------|
| 1       | Dagmara        | NHPC   | 130.1        | Jan-22          |
|         | <b>Total</b>   |        | <b>130.1</b> |                 |

**5. Multi purpose projects**

| Sl.No.   | Name of Project                      | River | Type | I.C.(MW)   |
|----------|--------------------------------------|-------|------|------------|
| 1        | Indrapuri Reservoir Scheme (Khadwan) | Sone  | S    | 150        |
| <b>1</b> | <b>Total</b>                         |       |      | <b>150</b> |

### Status of Large Hydro Power Development in Jharkhand

|   |   | Nos.     | Capacity (MW) |
|---|---|----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 8        | 582           |
| Project identified below 25 MW capacity in Reassessment Study and developed above 25 MW capacity                                    |   | 2        | 130           |
| Project identified above 25 MW capacity in Reassessment Study and developed below 25 MW capacity                                    |   | -1       | -30           |
| Projects Identified in this State but developed/being developed in other State(s) #   |   | -1       | -60           |
| <b>Total</b>  |   | <b>8</b> | <b>622</b>    |
| I   | Projects in operation                                     | 3        | 210           |
| II  | Projects dropped due to Basin studies/ Other reasons      | 1        | 710           |
| III   | Projects yet to be allotted by the State for development* | 3        | 147           |

# Maithon is in operation in West Bengal State

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the schemes, addition/deletion of the schemes, etc.

#### 1 (A). Identified Projects during Reassessment study:

| Sl.No.   | Name of Project                                 | River       | I. C. (MW) |
|----------|---|-------------|------------|
| 1        | Panchet (Panchet Hill)                          | Damodar     | 40         |
| 2        | Maithon #                                       | Damodar     | 60         |
| 3        | Subernrekha MPP ##                              | Subernrekha | 30         |
| 4        | Koel Karo (Koel Karo St-I ### (Lumpungkhel PH)) | N.Koel      | 145        |
| 5        | Serengada                                       | N.Koel      | 37         |
| 6        | Sankh-II (Upper Sankh St-II)                    | Sankh       | 55         |
| 7        | Lower Sankh                                     | Sankh       | 55         |
| 8        | Indrapuri (Khadwan)                             | Sone        | 160        |
| <b>8</b> | <b>TOTAL</b>                                    |             | <b>582</b> |

# Maithon is in operation in West Bengal State

## Subernrekha MPP has been developed below 25 MW.

### Koel Karo H.E. Project (4x172.5 + 1x20 = 710 MW), located in Ranchi, Gumla & Singhbhum Districts of Jharkhand ( in the erstwhile unified State of Bihar), envisages utilization of waters of the South Koel and North Karo rivers. Koel Karo H.E. Project was entrusted to NHPC in August 1980 for execution under central sector. The project was sanctioned by Govt. of India as a NHPC project in June 1981 at an estimated cost of Rs. 444.67 crores (gross) including cost of associated transmission line and interest during construction (IDC).

Ministry of Power vide their letter dated 30-09-2005 informed the closure of project due to non-finalization of power purchase agreement.

**1 (B). Change in Projects which were identified upto 25 MW and being developed above 25 MW**

| Sl.No.   | Name of Project  | River        | I.C. (MW)  | Status       | Remarks                    |
|----------|------------------|--------------|------------|--------------|----------------------------|
| 1        | Subernarekha-I   | Subernarekha | 65         | In Operation | Subernarekha St.I - 24 MW  |
| 2        | Subernarekha-II  | Subernarekha | 65         | In Operation | Subernarekha St.II - 12 MW |
| <b>2</b> | <b>Sub Total</b> |              | <b>130</b> |              |                            |

**1 (C). Project identified above 25 MW capacity in Reassessment Study and developed below 25 MW capacity**

| Sl. No.  | Naome of Project | State     | River        | Type | I.C. (MW) | Status                |
|----------|------------------|-----------|--------------|------|-----------|-----------------------|
| 1        | Subernarekha MPP | Jharkhand | Subernarekha | S    | 30        | Developed below 25 MW |
| <b>1</b> | <b>Total</b>     |           |              |      | <b>30</b> |                       |



**2. H.E. Projects in Operation:**

| S. NO.               | UTILITY / STATIONS     | NO. OF STNS. | NO. OF UNITS X CAPACITY (MW) | RIVER / BASIN* | DISTRICT | I.C. (MW)  | Type (R/S/R(P)) | YEAR OF COMMISSIONING |
|----------------------|------------------------|--------------|------------------------------|----------------|----------|------------|-----------------|-----------------------|
| <b>DVC</b>           |                        |              |                              |                |          |            |                 |                       |
| 1                    | PANCHET                | 1            | (2X40)                       | DAMODAR        | DHANBAD  | 80         | S               | 1990                  |
| <b>SUB-TOTAL DVC</b> |                        | <b>1</b>     |                              |                |          | <b>80</b>  |                 |                       |
| <b>JUUNL</b>         |                        |              |                              |                |          |            |                 |                       |
| 1                    | SUBERNREKHA -I         | 1            | (1X65)                       | SUBERNAR EKHA  | RANCHI   | 65         | S               | 1977                  |
| 2                    | SUBERNREKHA -II        | 1            | (1X65)                       | SUBERNAR EKHA  | RANCHI   | 65         | R(P)            | 1980                  |
| <b>TOTAL JUUNL</b>   |                        | <b>2</b>     |                              |                |          | <b>130</b> |                 |                       |
| <b>3</b>             | <b>TOTAL JHARKHAND</b> | <b>3</b>     |                              |                |          | <b>210</b> |                 |                       |

\* Panchet is in Ganga and Subernrekha-I & II are in CIR Basin.

Note : In addition to above, one pumped storage project, namely Panchet (1x40 = 40 MW) was constructed but not working in pumping mode as tail pool dam was not constructed and as per meeting held on 16th August , 2021 it was decided to remove the project from CEA's list of Pumped storage project .

**3. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No.  | Name of Project | River              | Type | I.C. (MW)  | Remarks |
|----------|-----------------|--------------------|------|------------|---------|
| 1        | Koel Karo       | N. Koel & S. Karto | S    | 710        | *       |
| <b>1</b> | <b>Total</b>    |                    |      | <b>710</b> |         |

\* Koel Karo H.E. Project (4x172.5 + 1x20 = 710 MW), located in Ranchi, Gumla & Singhbhum Districts of Jharkhand ( in the erstwhile unified State of Bihar), envisages utilization of waters of the South Koel and North Karo rivers. Koel Karo H.E. Project was entrusted to NHPC in August 1980 for execution under central sector. The project was sanctioned by Govt. of India as a NHPC project in June 1981 at an estimated cost of Rs. 444.67 crores (gross) including cost of associated transmission line and interest during construction (IDC). Ministry of Power vide their letter dated 30-09-2005 informed the closure of project due to non-finalization of power purchase agreement.

**4. H. E. Projects yet to be allotted by the State for development**

| Sl. No.  | Name of Project              | River                    | Type | I.C. (MW)  |
|----------|------------------------------|--------------------------|------|------------|
| 1        | Serengada                    | N.Koel                   | R    | 37         |
| 2        | Sankh-II (Upper Sankh St-II) | Sankh                    | R    | 55         |
| 3        | Lower Sankh                  | Sankh                    | S    | 55         |
| <b>3</b> | <b>Total</b>                 | <b>3 Nos. of Schemes</b> |      | <b>147</b> |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

### Status of Large Hydro Power Development in Odisha

|  |   | Nos.      | Capacity (MW) |
|--|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 13        | 2981          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |   | 2         | 128           |
| Projects Identified in other State(s) but developed/being developed in this State #  |   | 1         | 205           |
| <b>Total</b>   |   | <b>16</b> | <b>3314</b>   |
| I  | Projects in operation   | 7         | 2154.55       |
| II   | Projects allotted by States for development                     |           |               |
|  | (i) Projects on which S&I held up                               | 2         | 128           |
|  | (ii) Projects held up due to Inter-State aspects                | 1         | 320           |
|  | (iii) Projects dropped due to Basin studies/ Other reasons      | 1         | 287           |
| III  | H. E. Projects yet to be allotted by the State for development* | 5         | 881           |

# The Project, Machkund was identified in Andhra Pradesh (205 MW) but has been in operation in Odisha State for 114.75 MW

Note : In addition to above, three pumped storage projects, namely Upper Indravati (4x150 =600 MW), Upper Kolab (2x160 =320 MW) and Balimela (2x250= 500 MW) are under S&I

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

**1 (A). Identified Projects during Reassessment study:**

| Sl.No.    | Name of Project                    | River     | IC          |
|-----------|------------------------------------|-----------|-------------|
| 1         | Bhimkund                           | Baitarni  | 29          |
| 2         | Baljori                            | Baitarni  | 230         |
| 3         | Lodani                             | Brahmani  | 42          |
| 4         | Rengali                            | Brahmani  | 135         |
| 5         | Naraj                              | Mahanadi  | 215         |
| 6         | Tikkarpara                         | Mahanadi  | 205         |
| 7         | Sindol [Hirakud St-III]            | Mahanadi  | 175         |
| 8         | Hirakud (Chiplima) [Hirakud St-II] | Mahanadi  | 155         |
| 9         | Hirakud (Burla) [Hirakud St-I]     | Mahanadi  | 150         |
| 10        | Upper Indravati                    | Indravati | 585         |
| 11        | Upper Kolab                        | Sabari    | 280         |
| 12        | Lower Kolab                        | Sabari    | 375         |
| 13        | Balimela                           | Balimela  | 405         |
| <b>13</b> | <b>Total</b>                       |           | <b>2981</b> |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River  | I.C. (MW)  | Status  |
|----------|------------------|--------|------------|---------|
| 1        | Kharag           | Kharag | 63         | Held Up |
| 2        | Salki            | Salki  | 65         | Held Up |
| <b>2</b> | <b>Sub Total</b> |        | <b>128</b> |         |

## 2. H.E. Projects in Operation:

| S. NO.         | UTILITY/ STATIONS                         | NO. OF STNS. | NO. OF UNITS X CAPACITY (MW)           | RIVER     | DISTRICT   | I.C. (MW)      | Type (R/S/R(P)) | YEAR OF COMMISSIONING |
|----------------|---|--------------|--|-----------|------------|----------------|-----------------|-----------------------|
| <b>OHPC</b>    |   |              |  |           |            |                |                 |                       |
| 1              | BALIMELA                                  | 1            | (6X60)+<br>(2X75)                      | SILERU    | MALKANGIRI | 510            | S               | 1973-1977, 2008       |
| 2              | HIRAKUD<br>(BURLA)<br>[HIRAKUD ST- I]     | 1            | (2X43.65)+<br>(1X37.5)+(2X49.5)+(2X32) | MAHANADI  | SAMBALPUR  | 287.8          | S               | 1956-1990             |
| 3              | HIRAKUD<br>(CHIPLIMA)<br>[HIRAKUD ST- II] | 1            | (3X24)                                 | MAHANADI  | SAMBALPUR  | 72             | R(P)            | 1962-1964             |
| 4              | RENGALI                                   | 1            | (5X50)                                 | BRAHMANI  | ANGUL      | 250            | S               | 1985-1992             |
| 5              | UPPER<br>INDRAVATI                        | 1            | (4X150)                                | INDRAVATI | KALAHANDI  | 600            | S               | 1999-2001             |
| 6              | UPPER KOLAB                               | 1            | (4X80)                                 | KOLAB     | KORAPUT    | 320            | S               | 1988-1993             |
|                | <b>TOTAL OHPC</b>                         | <b>6</b>     |  |           |            | <b>2039.8</b>  |                 |                       |
| <b>APGENCO</b> |   |              |  |           |            |                |                 |                       |
| 1              | MACHKUND                                  | 1            | (3X17)+<br>(3X21.25)                   | MACHKUND  | KORAPUT    | 114.75         | S               | 1959                  |
|                | <b>SUB-TOTAL<br/>APGENCO</b>              | <b>1</b>     |  |           |            | <b>114.75</b>  |                 |                       |
| <b>7</b>       | <b>TOTAL ODISHA</b>                       | <b>7</b>     |  |           |            | <b>2154.55</b> |                 |                       |

Note: Hirakud (Burla & Chiplima) and Rengali are in CIR basin & others are in EFR Basin.

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**3. H.E. Projects on which Survey & Investigation held up:**

| Sl. No.  | Name of Project | Basin/River | I.C. (MW)  | Agency |
|----------|-----------------|-------------|------------|--------|
| 1        | Salki           | Salki       | 65         | OHPCL  |
| 2        | Kharag          | Kharag      | 63         | OHPCL  |
| <b>2</b> | <b>Total</b>    |             | <b>128</b> |        |

Note : In addition to above, three pumped storage projects, namely Upper Indravati (4x150 =600 MW), Upper Kolab (2x160 =320 MW) and Balimela (2x250= 500 MW) are under S&I

**4. H.E. Projects involving Inter-State aspects:**

| Sl. No.  | Name of Project  | I.C. (MW)  | Location (State) | States Involved   | Status  |
|----------|--|------------|------------------|---|---|
| 1        | Sindol<br>[HIRAKUD ST- III]<br>320 MW=<br>(5x20+5x20+6x20) | 320        | Odisha           | MP/Chhatisgarh/<br>Bihar/ Jharkhand/<br>Odisha /<br>Maharashtra | DPR with estimated cost of Rs.2246.14 crores (1994 PL) returned in 07/96 due to non-resolution of interstate aspect. The consent of the upstream States viz. Jharkhand, Bihar, M.P, Chhatisgarh and Maharashtra is not available.DPR is being revised by reducing Installed Capacity. Revised DPR yet to be submitted to CEA. Revised hydrology of Sindol-I for 100 MW has been submitted to CWC for clearance. |
| <b>1</b> | <b>Total</b>   | <b>320</b> |                  |   |   |

**5. Projects dropped due to Basin studies/ Other reasons:**

| Sl.No.   | Name of Project | River                   | Type | I.C. (MW)  | Remarks             |
|----------|-----------------|-------------------------|------|------------|---------------------|
| 1        | Naraj           | Mahanadi                | S    | 287        | Environmental Issue |
| <b>1</b> | <b>Total</b>    | <b>1 No. of Project</b> |      | <b>287</b> |                     |

**6. H. E. Projects yet to be allotted by the State for development**

| Sl.No.   | Name of Project | River                     | Type | I.C. (MW)  |
|----------|-----------------|---------------------------|------|------------|
| 1        | Bhimkund        | Baitarni                  | S    | 29         |
| 2        | Baljori         | Baitarni                  | S    | 230        |
| 3        | Lodani          | Brahmani                  | S    | 42         |
| 4        | Tikkarpara      | Mahanadi                  | S    | 205        |
| 5        | Lower Kolab     | Kolab (Sabri)             | S    | 375        |
| <b>5</b> | <b>Total</b>    | <b>5 Nos. of Projects</b> |      | <b>881</b> |

Note: S- Storage

## Status of Large Hydro Power Development in Sikkim

|   |  | Nos.      | Capacity (MW) |
|---|--|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |  | 24        | 4248          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)               |  | 9         | 1132          |
| <b>Total</b>  |  | <b>33</b> | <b>5380</b>   |
| I   | Projects in operation  | 8         | 2282          |
| II A  | Projects under active construction   | 2         | 620           |
| II B  | Projects on which construction is held up  | 3         | 417           |
| III   | Projects allotted by States for development  |           |               |
|   | (i) Projects concurred by CEA and yet to be taken up for construction              | 1         | 520           |
|   | (ii) Projects allotted for development on which S&I is held up/ yet to be taken up | 2         | 92            |
| IV  | Projects dropped due to Basin studies/ Other reasons                               | 1         | 96            |
| V   | Projects yet to be allotted by the State for development*                          | 16        | 1914          |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of the projects, etc.

| <b>1 (A). Identified Projects during Reassessment study:</b> |                            |              |             |             |
|--|----------------------------|--------------|-------------|-------------|
| <b>Sl.No.</b>  | <b>Name of Project</b>     | <b>River</b> | <b>Type</b> | <b>IC</b>   |
| 1  | Kalep                      | Tista        | R           | 41          |
| 2  | Talem                      | Tista        | R           | 65          |
| 3  | Jedang                     | Lhonak       | R           | 185         |
| 4  | Teesta I (Zema)            | Tista        | R           | 125         |
| 5  | Serum                      | Sebokung     | R           | 50          |
| 6  | Lachung                    | Lachung      | R           | 30          |
| 7  | Ringpi                     | Ringpi       | R           | 160         |
| 8  | Lingza                     | Ringpi       | R           | 160         |
| 9  | Rukel                      | Tolung       | R           | 90          |
| 10   | Rangyong                   | Tolung       | R           | 175         |
| 11   | Dikchu                     | Dikchu       | R           | 90          |
| 12   | Chhota Pathing             | Rongpo       | R           | 55          |
| 13   | Rongnichu (Rongni Storage) | Rongni       | R           | 95          |
| 14   | Mana                       | G.Ranjit     | R           | 37          |
| 15   | Lethang (Yoksam)           | Rathong      | R           | 44          |
| 16   | Mamium                     | G.Ranjit     | R           | 175         |
| 17   | Gompa                      | G.Ranjit     | R           | 46          |
| 18   | Rangit-III (Ligship)       | G.Ranjit     | R           | 115         |
| 19   | Teesta St.II (Chunthang)   | Tista        | R           | 830         |
| 20   | Teesta-III (Singhik)       | Tista        | R           | 685         |
| 21   | Panan                      | Tolung       | R           | 230         |
| 22   | Teesta - IV (Mangan)       | Tista        | R           | 445         |
| 23   | Teesta-V (Samdong)         | Tista        | R           | 280         |
| 24   | Lower Lagyap               | Rongpi       | R           | 40          |
| <b>24</b>  | <b>Total</b>               |              |             | <b>4248</b> |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.        | Name of Project  | River                 | I.C.<br>(MW) | Status                    |
|---------------|------------------|-----------------------|--------------|---------------------------|
| <b>Sikkim</b> |                  |                       |              |                           |
| 1             | Kalez Khola      | Kalez Khoa            | 52           | Held Up                   |
| 2             | Suntaleyta       | Suntaleyta            | 40           | Held Up                   |
| 3             | Chujachen        | Rongli & Rangpo       | 110          | In Operation              |
| 4             | Jorethang Loop   | Rangit                | 96           | In Operation              |
| 5             | Tashiding        | Rathang Chu           | 97           | In Operation              |
| 6             | Bhasmey          | Rangpo/Teesta         | 51           | Construction is held up   |
| 7             | Rangit-II        | Greater Rangit/Teesta | 66           | Construction is held up   |
| 8             | Rangit-IV        | Rangit/Teesta         | 120          | Under Active Construction |
| 9             | Teesta St.VI     | Teesta                | 500          | Under Active Construction |
| <b>9</b>      | <b>Sub Total</b> |                       | <b>1132</b>  |                           |



## 2. H.E. Projects in Operation:

| S. NO.   | UTILITY/<br>STATIONS  | NO. OF<br>STNS. | NO. OF<br>UNITS X<br>CAPACITY<br>(MW) | RIVER / BASIN*                   | DISTRICT                  | I.C.<br>(MW) | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|--|-----------------------|-----------------|---------------------------------------|----------------------------------|---------------------------|--------------|--------------------|--------------------------|
| <b>NHPC</b>  |                       |                 |                                       |                                  |                           |              |                    |                          |
| 1  | RANGIT(Ligship)       | 1               | (3X20)                                | RANGIT                           | GANGTOK                   | 60           | R(P)               | 2000                     |
| 2  | TEESTA-V<br>(Samdong) | 1               | (3X170)                               | TEESTA                           | EAST SIKKIM               | 510          | R(P)               | 2008                     |
| <b>SUB-TOTAL NHPC</b>                                |                       | <b>2</b>        |                                       |                                  |                           | <b>570</b>   |                    |                          |
| <b>STATE</b>   |                       |                 |                                       |                                  |                           |              |                    |                          |
| <b>TEESTA URJA LTD. (TUL)</b>                        |                       |                 |                                       |                                  |                           |              |                    |                          |
| 3  | TEESTA-III (Singhik)  | 1               | (6X200)                               | TEESTA                           | NORTH<br>SIKKIM           | 1200         | R(P)               | 2017                     |
| <b>SUB-TOTAL TUL</b>                                 |                       | <b>1</b>        |                                       |                                  |                           | <b>1200</b>  |                    |                          |
| <b>PRIVATE</b>                                       |                       |                 |                                       |                                  |                           |              |                    |                          |
| <b>GIPL (GATI INFRA<br/>PRIVATE LTD.)</b>            |                       |                 |                                       |                                  |                           |              |                    |                          |
| 4  | CHUZACHEN             | 1               | (2*55)                                | RONGLI &<br>RANGPO               | EAST SIKKIM               | 110          | R(P)               | 2013                     |
| <b>SNEHA KINETIC POWER PROJECTS PVT LTD (SKPPPL)</b> |                       |                 |                                       |                                  |                           |              |                    |                          |
| 5  | DIKCHU                | 1               | (2*48)                                |                                  | EAST &<br>NORTH<br>SIKKIM | 96           | R(P)               | 2017                     |
| <b>SHIGA ENERGY PVT LTD (SEPL)</b>                   |                       |                 |                                       |                                  |                           |              |                    |                          |
| 6  | TASHIDING             | 1               | (2*48.50)                             | RATHANG CHU                      |                           | 97           | R(P)               | 2017                     |
| <b>DANS ENERGY PVT LTD. (DEPL)</b>                   |                       |                 |                                       |                                  |                           |              |                    |                          |
| 7  | JORETHANG LOOP        | 1               | (2*48)                                | RANGIT                           | SOUTH<br>/WEST            | 96           | R(P)               | 2015                     |
| <b>Madhya Bharat Pvt Company (MBPC)</b>              |                       |                 |                                       |                                  |                           |              |                    |                          |
| 8  | RONGNICHU             | 1               | 2*56.5                                | Rongnichu/<br>Teesta/Brahmaputra | EAST SIKKIM               | 113          | R                  | 2021                     |
| <b>SUB-TOTAL<br/>PRIVATE</b>                         |                       | <b>5</b>        |                                       |                                  |                           | <b>512</b>   |                    |                          |
| <b>8</b>   | <b>TOTAL SIKKIM</b>   | <b>8</b>        |                                       |                                  |                           | <b>2282</b>  |                    |                          |

\* All projects are in Brahmaputra Basin

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**3A. H.E. Projects under active Construction:**

| Sl. No. | Name of Project | Agency | District     | I.C. (MW)  | River/ Basin                   | Type (R/S/R(P)) | Likely Commissioning |
|---------|-----------------|--------|--------------|------------|--------------------------------|-----------------|----------------------|
| 1       | Teesta St. VI   | NHPC   | South Sikkim | 500        | Teesta/<br>Brahmaputra         | R               | 2023-24<br>(Mar.'24) |
| 2       | Rangit-IV       | NHPC   | West Sikkim  | 120        | Rangit/ Teesta/<br>Brahmaputra | R               | 2024-25(May'24)      |
| 2       | <b>Total</b>    |        |              | <b>620</b> |                                |                 |                      |

**3B. H.E. Projects on which Construction is held up:**

| Sl. No. | Name of Project | Agency              | District     | I.C. (MW)  | River/ Basin                             | Type (R/S/R(P)) | Status & Likely Commissioning  |
|---------|-----------------|---------------------|--------------|------------|--|-----------------|--|
| 1       | Bhasmey         | Gati Infrastructure | East Sikkim  | 51         | Rangpo/ Teesta<br>Brahmaputra            | R               | Works are stalled since Sept., 2016 due to funds constraints with developer. 2024-25*  |
| 2       | Rangit-II       | Sikkim Hydro        | West Sikkim  | 66         | Greater Rangit/<br>Teesta<br>Brahmaputra | R               | Works are stalled since December, 2017 due to funds constraints with developer. Project is in NCLT since 30.07.2020. 2024-25*          |
| 3       | Panan           | Himagiri            | North Sikkim | 300        | Rangyongchu/<br>Teesta<br>Brahmaputra    | R               | Issue of construction of bridge on Mantham Lake for accessebility of site is under discussion with the State Govt of Sikkim. 2025-26 * |
| 3       | <b>Total</b>    |                     |              | <b>417</b> |  |                 |  |

\* Subject to re-start of work in immediate future

Note: R= Run of River, S=Storage &amp; R(P)= Run of River with Pondage

**4. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl. No | Name of Project       | Agency       | District     | River/ Basin*       | I.C. (MW)  | Date of CEA Concurrence | Type (R/S/R(P)) | Status  |
|--------|-----------------------|--------------|--------------|---------------------|------------|-------------------------|-----------------|---|
| 1      | Teesta St-IV (Mangan) | NHPC         | North Sikkim | Teesta/ Brahamputra | 520        | 13.05.10                | R(P)            | EC accorded on 09.01.14.<br>FC-I accorded on 26.02.13. FC-II is yet to be obtained. # |
| 1      |                       | <b>Total</b> |              |                     | <b>520</b> |                         |                 |   |

- # NHPC on 21.8.2020 has requested DC (North), Sikkim to intervene into the matter of pending Gram Sabha meetings at remaining 3 GPU's for settlement of rights under FRA, 2006.
- NHPC vide letter dt. 15.03.2021 has again requested DC (North), Sikkim to intervene into the matter of pending Gram Sabha meetings at remaining 3 GPU's and completion of settlement of rights under FRA, 2006
  - CMD, NHPC along with Senior Officers of NHPC had a meeting with Chief Secretary & Addl. Chief Secretary of Sikkim on 02.03.2021 and with Sh. Prem Singh Tamang, Hon'ble CM of Sikkim on 20.03.21. During the meetings, various pending issues related to the project were discussed and they assured all possible cooperation and assistance of the State Government to NHPC
  - CMD, NHPC vide DO letter dated 24.05.2021 has requested Hon'ble Minister, Rural Development, Cooperation and Ecclesiastical department, Govt. of Sikkim for expeditious resolution of issues related Forest Clearance St-II and private land acquisition of Teesta-IV HEP.
  - NHPC vide letter dated 25.5.2021 has requested DC (North), Sikkim for completing the process under FRA, 2006 and for persuasion of early publication of Notice under section 11 (1) RFCTLARR act, 2013

**5. H.E. Projects on which Survey & Investigation held up:**

| Sl. No. | Name of Project | Basin/River         | Agency                        | Original I.C. (MW) | Date of MOA       | Remarks   |
|---------|-----------------|---------------------|-------------------------------|--------------------|-------------------|---|
| 1       | Kalez khola     | Kalez khola/ Rangit | CWC                           | 52                 | 12.2.2007         | Due to objection raised by local people against Topographical Survey. |
| 2       | Suntaleytar     | Rangpochu           | Hindustan Electric Power Ltd. | 40                 | LOI date 23.02.12 | S&I to be taken up after finalization of MOA.                         |
| 2       | <b>Total</b>    |                     |                               | <b>92</b>          |                   |   |

**6. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No. | Name of Project  | Agency | I.C. (MW) | Type (R/S/R(P)) | Remarks  |
|---------|------------------|--------|-----------|-----------------|--|
| 1       | Lethang (Yoksam) | KHCHPL | 96        | R               | DPR was not accepted for examination due to lacks of barrage v/s dam design, review of I.C. spillway capacity etc. The Government of Sikkim ordered the closure of Lethang HEP being undertaken in Yuksom, Tashiding constituency in West Sikkim in public interest. |
| 1       | <b>Total</b>     |        | <b>96</b> |                 |  |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

| <b>7. H.E. Projects yet to be allotted by the State for development:</b> |                        |              |                            |             |
|--|------------------------|--------------|----------------------------|-------------|
| <b>Sl.No.</b>  | <b>Name of Project</b> | <b>River</b> | <b>Type<br/>(R/S/R(P))</b> | <b>IC</b>   |
| 1  | Kalep                  | Tista        | R                          | 41          |
| 2  | Talem                  | Tista        | R                          | 65          |
| 3  | Jedang                 | Lhonak       | R                          | 185         |
| 4  | Teesta-I (Zema)        | Tista        | R                          | 125         |
| 5  | Serum                  | Sebokung     | R                          | 50          |
| 6  | Lachung                | Lachung      | R                          | 30          |
| 7  | Ringpi                 | Ringpi       | R                          | 160         |
| 8  | Lingza                 | Ringpi       | R                          | 160         |
| 9  | Rukel                  | Tolung       | R                          | 90          |
| 10   | Rangyong               | Tolung       | R                          | 175         |
| 11   | Chhota Pathing         | Rongpo       | R                          | 55          |
| 12   | Mana                   | G.Ranjit     | R                          | 37          |
| 13   | Mamium                 | G.Ranjit     | R                          | 175         |
| 14   | Gompa                  | G.Ranjit     | R                          | 46          |
| 15   | Lower Lagyap           | Rongpi       | R                          | 40          |
| 16   | Teesta St-II           | Teesta       | R                          | 480         |
| <b>16</b>  | <b>Total</b>           |              |                            | <b>1914</b> |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

## Status of Large Hydro Power Development in West Bengal

|  |   | Nos.     | Capacity (MW) |
|--|---|----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 6        | 2829          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |   | 2        | 203           |
| Projects Identified in other State(s) but developed/being developed in this State #  |   | 1        | 60            |
| <b>Total</b>   |   | <b>9</b> | <b>3092</b>   |
| I  | Projects in operation                                     | 5        | 441.2         |
| II   | Projects under active construction                        | 1        | 120           |
| III  | Projects on which S&I held up                             | 1        | 71            |
| IV   | Projects yet to be allotted by the State for development* | 2        | 103           |

# Maithon was identified in Jharkhand (60 MW) but is in operation in West Bengal State (63.2 MW)

Note : In addition to above, one pumped storage project, namely Purulia PSS (4x225 = 900 MW) is constructed & working in pumping mode while one project, namely Turga PSS (4x250= 1000 MW) is concurred by CEA and one project Bandhu (900 MW) is under PFR preparation category.

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition of projects, etc.

**1 (A). Identified Projects during Reassessment study**

| Sl.No.   | Name of Project                     | River    | I. C. (MW)  |
|----------|-------------------------------------|----------|-------------|
| 1        | Balason                             | Balason  | 33          |
| 2        | Teesta Low Dam-IV (Teesta High Dam) | Teesta   | 2505        |
| 3        | Rammam-I                            | Rammam   | 70          |
| 4        | Rammam-II                           | Rammam   | 85          |
| 5        | Rammam-III                          | Rammam   | 100         |
| 6        | Jaldhaka (Jaldhaka-I)               | Jaldhaka | 36          |
| <b>6</b> | <b>TOTAL</b>                        |          | <b>2829</b> |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project                 | River                      | I.C. (MW)  | Status       |
|----------|---------------------------------|----------------------------|------------|--------------|
| 1        | TLDP I&II (Teesta Low Dam I&II) | Teesta/Badi (Great Rangit) | 71         | Held Up      |
| 2        | Teesta Low Dam -III             | Teesta                     | 132        | In Operation |
| <b>2</b> | <b>Sub Total</b>                |                            | <b>203</b> |              |

**2. H.E. Projects in Operation:**

| Sl.No.   | Name of Project                     | Agency  | District     | River /Basin*                      | I. C.        | Type (R/S/R(P)) | Year of Commissioning |
|----------|-------------------------------------|---------|--------------|------------------------------------|--------------|-----------------|-----------------------|
| 1        | Jaldhaka (Jaldhaka-I)               | WBSEDCL | KALIMPONG    | Di chu, Ni chu & Bindu Khola River | 36           | R(P)            | 1967- 72,2012         |
| 2        | Rammam-II                           | WBSEDCL | DARJEELING   | Rammam                             | 50           | R               | 1995-96               |
| 3        | Teesta Low Dam-III                  | NHPC    | DARJEELING   | Teesta                             | 132          | R(P)            | 2013-14               |
| 4        | Maithon                             | DVC     | WEST DHANBAD | Basakar                            | 63.2         | S               | 1957-58               |
| 5        | Teesta Low Dam-IV (Teesta High Dam) | NHPC    | DARJEELING   | Teesta Kalikhola confluence        | 160          | R(P)            | 2016                  |
| <b>5</b> | <b>Total</b>                        |         |              |                                    | <b>441.2</b> |                 |                       |

\* Maithon is in Ganga and others are in Brahmaputra Basin.

Note : In addition to above, one pumped storage project, namely Purulia PSS (4x225 = 900 MW) is constructed & working in pumping mode while one project, namely Turga PSS (4x250= 1000 MW) is concurred by CEA.

**3. H.E. Projects under active Construction:**

| Sl. No.  | Name of Project | Agency | District   | River / Basin                                | I. C. (MW) | Type (R/S/R(P)) | Likely Commissioning |
|----------|-----------------|--------|------------|--|------------|-----------------|----------------------|
| 1        | Rammam-III      | NTPC   | Darjeeling | Rammam/<br>Rangit/<br>Teesta<br>/Brahmaputra | 120        | R               | 2022-23<br>(Nov'22)  |
| <b>1</b> |                 |        |            |  | <b>120</b> |                 |                      |

## 4. H.E Projects on which Survey &amp; Investigation held up:

| Sl.No. | Name of Project | Basin /River               | Agency | I.C. (MW) | Date of MOA | Remarks  |  |
|--------|-----------------|----------------------------|--------|-----------|-------------|--|--|
| 1      | TLDP-I&II       | Teesta/Badi (Great Rangit) | NHPC   | 71        | 30.07.15    | S&I held up due to withdrawal of consent for the project by Govt. of Sikkim on 30.01.2017. The project handed over to WBSEDCL, Govt. of West Bengal due to Non-availability of consent from Govt. of Sikkim and also due to commercial unviability. Project Concept note with revised capacity of 71 MW with an estimated cost of Rs. 800 Cr. prepared by WBSEDCL. |  |
| 1      | <b>Total</b>    |                            |        | <b>71</b> |             |  |  |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage



**5. H. E. Projects yet to be allotted by the State for development:**

| <b>Sl.No.</b> | <b>Name of Project</b> | <b>River</b>      | <b>Type</b> | <b>I.C.(MW)</b> |
|---------------|------------------------|-------------------|-------------|-----------------|
| 1             | Balason                | Balason           | R           | 33              |
| 2             | Rammam-I               | Rammam            | R           | 70              |
| <b>2</b>      | <b>Total</b>           | <b>2 Projects</b> |             | <b>103</b>      |

**Note: R –Run of the River**

## Status of Large Hydro Power Development in Arunachal Pradesh

|  |  | Nos.       | Capacity (MW) |
|--|--|------------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |  | 87         | 50064         |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |  | 45         | 10889         |
| Change in Projects due to splitting of projects<br>(identified during reassessment study in 1978-87)                                   |  | 8          | -1506         |
| Change in Projects due to merging of projects<br>(identified during reassessment study in 1978-87)                                     |  | -2         | -2612         |
| <b>Total</b>   |  | <b>138</b> | <b>56836</b>  |
| I  | Projects in operation  | 3          | 1115          |
| II   | Projects under active construction   | 1          | 2000          |
| III  | Projects allotted by States for development  |            |               |
|  | (i) Projects concurred by CEA and yet to be taken up for construction              | 13         | 15858         |
|  | (ii) Projects returned to project authorities                                      | 13         | 5323          |
|  | (iii) Projects under S&I   | 3          | 1400          |
|  | (iv) Projects allotted for development on which S&I is held up/ yet to be taken up | 32         | 8696          |
| IV   | Projects dropped due to basin studies/other reasons                                | 21         | 4778          |
| V  | Projects stuck due to Inter-State/ Other Issues                                    | 4          | 1940          |
| VI   | Projects yet to be allotted by the State for development*                          | 47         | 16161.5       |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects and merger of two projects into one etc.

**1 (A). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.    | Name of Project             | River          | I.C.<br>(MW) | Status       |
|-----------|-----------------------------|----------------|--------------|--------------|
| 1         | Nafra                       | Bichom         | 120          | Concurred    |
| 2         | Nyamjang Chhu               | Nyamjang Chhu  | 780          | Concurred    |
| 3         | Talonga Londa               | Kameng         | 225          | Concurred    |
| 4         | Tawang-I                    | Tawang Chu     | 600          | Concurred    |
| 5         | Tawang-II                   | Tawang Chu     | 800          | Concurred    |
| 6         | Hirit Korong                | Siang          | 42           | Dropped      |
| 7         | Sipit Upper                 | Siang          | 45           | Dropped      |
| 8         | Siri Korong                 | Siang          | 58           | Dropped      |
| 9         | Soying Korong               | Siang          | 48           | Dropped      |
| 10        | Thingbu Chu                 | Tawang         | 60           | Dropped      |
| 11        | Tsa chu-I                   | Tawang         | 43           | Dropped      |
| 12        | Yemsing                     | Siang          | 38           | Dropped      |
| 13        | Anjaw                       | Anjaaw         | 270          | Held Up      |
| 14        | Dengser                     | Dengser        | 552          | Held Up      |
| 15        | Dinchang                    | Dinchanag      | 252          | Held Up      |
| 16        | Ithun I                     | Ithun-1        | 84           | Held Up      |
| 17        | Nalo                        | Nalo           | 635          | Held Up      |
| 18        | New Melling                 |                | 90           | Held Up      |
| 19        | Rho                         | Rho            | 93           | Held Up      |
| 20        | Subansiri Upper             |                | 1800         | Held Up      |
| 21        | Yamne-1                     | Yamne-1        | 111          | Held Up      |
| 22        | Pare                        | Brahmaputra    | 110          | In Operation |
| 23        | Kangtangshiri               |                | 80           | Returned     |
| 24        | Mago Chu                    |                | 96           | Returned     |
| 25        | Nyukcharong Chu             |                | 96           | Returned     |
| 26        | Pemashelphu                 |                | 90           | Returned     |
| 27        | Ranganadi St-II             |                | 130          | Returned     |
| 28        | Subansiri Middle<br>(Kamla) |                | 1800         | Returned     |
| 29        | Tagurshit                   |                | 74           | Returned     |
| 30        | Yamne St-II                 |                | 84           | Returned     |
| 31        | Marijingla                  |                | 39           | Held Up      |
| 32        | Marijingla Lower            |                | 37           | Held Up      |
| 33        | Pachuk-II                   | Kameng         | 61           | Held Up      |
| 34        | Panyor                      | Dikrong        | 80           | Held Up      |
| 35        | Rapum                       | Siang          | 66           | Held Up      |
| 36        | Rego                        | Siang          | 97           | Held Up      |
| 37        | Sippi                       | Siang          | 96           | Held Up      |
| 38        | Tidding-II                  | Lohit          | 75           | Held Up      |
| 39        | Tsa Chu -II                 | Tawang         | 67           | Held Up      |
| 40        | Tsa chu-I Lower             | Tawang         | 77           | Held Up      |
| 41        | Kameng                      | Bichom/ Kameng | 600          | In Operation |
| 42        | Gongri#                     |                | 144          | Yet to be    |
| 43        | Jameri                      |                | 60           | Yet to be    |
| 44        | Meyong                      |                | 38           | Yet to be    |
| 45        | Digin                       | Sangti         | 46           | Yet to be    |
| <b>45</b> | <b>Sub Total</b>            |                | <b>10889</b> |              |

# State Govt. terminated the agreement with developer for execution of Gongri project from under construction stage.

**1 (B). Change in Projects due to splitting of projects (identified during reassessment study in 1978-87)**

| Before Splitting |                        |        |                |            | After Splitting |                      |       |                |              |
|------------------|------------------------|--------|----------------|------------|-----------------|----------------------|-------|----------------|--------------|
| Sl.No.           | Name of Project        | River  | I.C. (MW)      | Status     | Sl.No.          | Name of Project      | River | I.C. (MW)      | Status       |
| 1                | Passighat              | Dihang | 14685          | Identified | 1               | Upper Siang I        | Siang | 6000           | Yet to be    |
|                  |                        |        |                |            | 2               | Upper Siang II       | Siang | 3750           | Yet to be    |
|                  |                        |        |                |            | 3               | Siyom (Middle Siang) | Siang | 1000           | Other issues |
|                  |                        |        |                |            | 4               | Lower Siang          | Siang | 2700           | Concurred    |
| 2                | Hutong                 | Luhit  | 950            | Identified | 5               | Hutong Stage I       |       | 750            | Dropped      |
|                  |                        |        |                |            | 6               | Hutong-II            |       | 1200           | Returned     |
| 3                | Kalai                  | Luhit  | 2550           | Identified | 7               | Kalai I              | Lohit | 1352           | Returned     |
|                  |                        |        |                |            | 8               | Kalai II             | Lohit | 1200           | Concurred    |
| 4                | Demwe                  | Luhit  | 3765           | Identified | 9               | Demwe Upper St-I     | Lohit | 270            | S&I          |
|                  |                        |        |                |            | 10              | Demwe Upper St-II    | Lohit | 270            | Yet to be    |
|                  |                        |        |                |            | 11              | Demwe Upper St-III   | Lohit | 202.5          | Yet to be    |
|                  |                        |        |                |            | 12              | Demwe Lower          | Lohit | 1750           | Concurred    |
| <b>4</b>         | <b>Sub Total</b>       |        | <b>21950</b>   |            | <b>12</b>       |                      |       | <b>20444.5</b> |              |
|                  | Net Change in Numbers  |        | <b>8</b>       | Increase   |                 |                      |       |                |              |
|                  | Net Change in Capacity |        | <b>-1505.5</b> | Decrease   |                 |                      |       |                |              |

**1 (C). Change in Projects due to merging of projects (identified during reassessment study in 1978-87)**

| Before Merging |                        |           |              |            | After Merging |                  |           |             |         |
|----------------|------------------------|-----------|--------------|------------|---------------|------------------|-----------|-------------|---------|
| Sl.No.         | Name of Project        | River     | I.C. (MW)    | Status     | Sl.No.        | Name of Project  | River     | I.C. (MW)   | Status  |
| 1              | Oju-I                  | Subansiri | 1925         | Identified | 1             | Oju              | Subansiri | 1878        | Held Up |
| 2              | Oju-II                 | Subansiri | 2580         | Identified |               |                  |           |             |         |
| 3              | Kurung Dam-I           | Kurung    | 200          | Identified | 2             | Kurung           | Kurung    | 330         | Held Up |
| 4              | Kurung Dam-II          | Kurung    | 115          | Identified |               |                  |           |             |         |
| <b>4</b>       | <b>Sub Total</b>       |           | <b>4820</b>  |            | <b>2</b>      | <b>Sub Total</b> |           | <b>2208</b> |         |
|                | Net Change in Numbers  |           | <b>-2</b>    | Decrease   |               |                  |           |             |         |
|                | Net Change in Capacity |           | <b>-2612</b> | Decrease   |               |                  |           |             |         |

**2. H.E. Projects in Operation:**

| S. No.        | Name of Project            | No. Of units | No. of units x capacity (MW) | River                   | District        | Capacity (MW) | Type (R/S/R(P)) | Year of commissioning |
|---------------|----------------------------|--------------|------------------------------|-------------------------|-----------------|---------------|-----------------|-----------------------|
| <b>NEEPCO</b> |                            |              |                              |                         |                 |               |                 |                       |
| 1             | RANGANADI [Yazali Div.-II] | 3            | (3X135)                      | RANGANADI               | LOWER SUBANSIRI | 405           | R(P)            | 2002                  |
| 2             | PARE                       | 2            | (2X55)                       | BRAHAMPUTRA             |                 | 110           | R (P)           | 2018                  |
| 3             | Kameng                     | 4            | (4x150)                      | Bichom & Tenga / Kameng | West Kameng     | 600           | R (P)           | 2020-21               |
| <b>3</b>      | <b>Total</b>               | <b>9</b>     |                              |                         |                 | <b>1115</b>   |                 |                       |

Note: All projects are in Brahmaputra Basin

**3. H.E. Projects Under Active Construction:**

| Sl. No.  | Name of Project                 | Agency | District             | I.C. (MW)   | River     | Type (R/S/R(P)) | Likely Commissioning |
|----------|---------------------------------|--------|----------------------|-------------|-----------|-----------------|----------------------|
| 1        | Subansiri Lower [Subansiri Dam] | NHPC   | L.Subansiri/ Dhemaji | 2000        | Subansiri | R(P)            | 2022-24* (Aug.'23)   |
| <b>1</b> | <b>Total</b>                    |        |                      | <b>2000</b> |           |                 |                      |

Note: All projects are in Brahmaputra Basin

\* 2 units (500 MW) likely during 2022-23 & 6 units (1500 MW) during 2023-24

Note :R= Run of River, S=Storage & R(P)= Run of River with Pondage

**4. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl No.    | Name of Project         | Agency    | District            | River        | I.C. (MW)    | Date of CEA Concurrence | Type (R/S/R(P)) | Status  |
|-----------|-------------------------|-----------|---------------------|--------------|--------------|-------------------------|-----------------|---|
| 1         | Lower Siang             | JAVL      | East Siang          | Siang        | 2700         | 16.02.10                | R(P)            | EC & FC yet to be obtained by developer.<br>MoEF&CC in Jan'2016 closed the proposal due to non-response of developer. Developer is required to carry out fresh EIA/EMP studies. #   |
| 2         | Tawang St-I             | NHPC      | Tawang              | Tawang Chu   | 600          | 10.10.11                | R               | EC accorded on 10.06.2011 (Valid till June 2021). EAC in its 13th meeting held on 16.06.2021 has recommended an extension of validity of EC for 3 years. FC-I & FC-II are pending. ##   |
| 3         | Tawang St-II            | NHPC      | Tawang              | Tawang Chu   | 800          | 22.09.11                | R               | EC accorded on 10.06.2011 (valid till June 2021). MoEF&CC vide letter dated 18.10.2021 accorded extension of validity of EC for 3 years till 09.06.2024. FC-I accorded on 08.01.2014. FC-II yet to be obtained. .###  |
| 4         | Demwe Lower             | ADPL      | Lohit               | Lohit        | 1750         | 20.11.09                | R(P)            | EC accorded on 12.02.2010. EC extended till 11.02.2023. FC-I accorded on 01.03.2012. FC-II accorded on 03.05.2013. .####  |
| 5         | Hirong                  | JAPL      | West Siang          | Siang        | 500          | 10.04.2013              | R               | EC & FC yet to be obtained by developer.<br>EIA/EMP report being revised as per Siang BSR. FC-I under process at state level.<br>However, as per MoEF&CC, matter of FC is closed vide letter dated 02.12.2015. #####  |
| 6         | Talonga Londa           | GMR       | East Kameng         | Kameng       | 225          | 16.08.2013              | R(P)            | EC accorded on 07.08.2015. FC-I & FC-II yet to be obtained. #####   |
| 7         | Etalin                  | EHEPCL    | Dibang Valley       | Dri & Tangon | 3097         | 12.07.2013              | R               | EC recommended by EAC on 31.01.2017. Letter will be issued after FC-I. FC-I & FC-II yet to be obtained. #####   |
| 8         | Naying HEP              | NDSCLP    | West Siang          | Siang        | 1000         | 11.09.2013              | R               | EC & FC yet to be obtained by developer. \$   |
| 9         | Kalai -II               | Kalai PPL | Anjaw               | Lohit        | 1200         | 27.3.2015               | R(P)            | EC accorded 20.05.2015. Final order will be issued after obtaining FC-I. FC-I and FC-II yet to be obtained.<br>Land acquisition under process. Validity of Concurrence to the project expired on 27.03.2018. MOP vide letter dated 22.12.2021 indicated Kalai-II HEP to be pursued by THDC  |
| 10        | Heo                     | HHPPL     | West Siang          | Yarjep       | 240          | 28.07.2015              | R               | EC accorded on 10.11.2015. FC-I accorded on 27.10.2015. FC-II yet to be obtained.<br>The issue of shifting of quarry is pending with FAC which is linked with Pauk, Heo and Tato-I and needs to be resolved for accord of FC-II. Observations of Regional Office awaited. Land acquisition is in progress. Validity of Concurrence to the project expired on 29.07.2020. MOP vide letter dated 22.12.2021 indicated that Heo HEP to be pursued by NEEPCO.     |
| 11        | Tato-I                  | SHPPL     | West Siang          | Yarjep       | 186          | 28.10.2015              | R               | EC accorded on 10.11.2015. FC-I accorded on 27.10.2015. FC-II yet to be obtained.<br>MoEF&CC stated that the matter of shifting of quarry area was considered by FAC and observations of Regional office are being sought & thereafter it will be again considered by FAC. Land acquisition is in progress. Validity of Concurrence to the project expired on 29.10.2020. MOP vide letter dated 22.12.2021 indicated that Tato-I HEP to be pursued by NEEPCO. |
| 12        | Dibang [Dibang Storage] | NHPC      | lower Dibang Valley | Dibang       | 2880         | 18.09.2017              | S               | EC accorded on 19.05.2015. FC-I accorded on 15.04.2015. FC-II: 12.03.2020<br>CCEA at its meeting held on 17.07.2019 has accorded approval for incurring expenditure of Rs. 1600 crore on Pre-investment activities for the project including NPV, CA, CAT Plan and Wildlife Management.   |
| 13        | Attunli                 | AHEPCL    | Dibang Valley       | Tangon       | 680          | 15.03.18                | R(P)            | Both EC and FC are yet to be obtained.<br>MoEF&CC stated that fresh ToR was issued in May'2019. Forest survey under progress. DISCOMS are reluctant to sign long term PPA's for the Hydro Projects. Land Acquisition under process. MOP vide letter dated 22.12.2021 indicated that Attunli HEP to be pursued by SJVNL.   |
| <b>13</b> | <b>Total</b>            |           |                     |              | <b>15858</b> |                         |                 |   |

**Note: All projects are in Brahmaputra Basin**

# As per Cumulative Impact Assessment recommendations for Siang basin, parameter of Lower Siang HEP has been suggested to be altered and enhance the e-flows which has great impact on design and installation capacity of this project. The final decision on the parameters of the project and norms for e-flows needs to be taken by State Government and Government of India. Validity of Concurrence to the project expired on 16.02.2019. MoP vide letter dated 22.12.2021 indicated that Lower Siang HEP to be pursued by NHPC.

##FRA is under process. In the review meeting held on 29.05.2019 in CEA, Developer stated that FC-II of Tawang-I will be taken up after obtaining FC-II of Tawang-II. There is issue of habitation of Black Necked Crane in the project area. MoEF&CC informed that the report of WII on Black Necked Crane for the project is submitted to MoEF&CC and is under review. MOP vide letter dated 22.12.2021 indicated that Tawang-I HEP to be pursued by NEEPCO. Proposal for Revalidation of Concurrence submitted By M/s NHPC Ltd vide their Letter dated 15.06.2021 for another two years i.e. up to 10.10.2023 has been return on 25.04.2022 due to non-submission of desired information sought vide this office letter dated 06.09.2021.

|  |
|--|
| <p>###For FC-II, additional information sought by MoEF&amp;CC vide letter 23.02.2017. NHPC informed that local resident are not cooperating. Minister of State (I/C), MOP through DO letter dated 02.02.2018 requested Hon'ble CM, Ar. Pr. to intervene in the matter for submitting compliance report under FRA 2006 by State Govt. to MoEF for accord of FC-II. CMD NHPC vide DO letter dated 28.10.19 and 2.12.2020 had again requested Chief Secretary, Govt. of Arunachal Pradesh to intervene in the matter. Matter is being pursued with District Administration. NHPC vide letter dated 11.12.2020 has again requested IG (FC), MoEF&amp;CC to extend the validity of FC-I clearance of the project by another 5 years. MOP vide letter dated 22.12.2021 indicated that Tawang-II HEP to be pursued by NEEPCO. Proposal for Revalidation of Concurrence submitted By M/s NHPC Ltd vide their Letter dated 15.06.2021 for another two years i.e. up to 22.09.2023 has been return on 28.04.2022 due to non-submission of desired information sought vide this office letter dated.07.09.2021.</p> |
| <p>#### Hon'ble NGT vide its Order dated 24th October, 2017 dismissed the Forest Clearance appeal of the project and directed the Standing Committee of NBWL to reconsider the issue relating to Demwe Lower HEP and pass appropriate orders. Till such orders are passed, the forest clearance of the project stands suspended. Developer informed that the project is under NCLT since 2017 and fate of project will be decided after NCLT proceedings are over. Validity of Concurrence to the project expired on 19.05.2017. MOP vide letter dated 22.12.2021 indicated that Demwe lower HEP to be pursued by THDC.</p>  |
| <p>##### As per Cumulative Impact Assessment recommendations for Siang basin, parameter of Hirong HEP has been suggested to be altered and enhance the e-flows which has great impact on design and installation capacity of this project. The final decision on the parameters of the project and norms for e-flows needs to be taken by State Government and Government of India. Government of Arunachal Pradesh vide letter dated 09.07.201 informed CEA that allotment of Hirong HEP to M/s. JAPL has been withdrawn/ cancelled vide GoAP letter dated 21.04.2021 . Further, validity of Concurrence to project expired on 10.04.2016. MOP vide letter dated 22.12.2021 indicated that Hirong HEP to be pursued by NEEPCO.</p>  |
| <p>##### The Environmental Clearance (EC) is approved in-principle by MoEF&amp;CC, but its formal issuance is pending for want of Stage-1 Forest Clearance, which is under process. (GOAP has been requested for necessary recommendation to MOEF&amp;CC to grant the Forest clearance vide developer's submission dated 29.6.2020.) Subsequently, request for grant of FC- stage- 1 was made to MOEF&amp;CC, Arunachal Pradesh by developer vide its letter dated 08th Dec'20. MOP vide letter dated 22.12.2021 indicated that Talong Londa HEP to be pursued by NEEPCO.</p>  |
| <p>##### The Biodiversity studies have been completed by Wild Life Institute of India (WII) in July 2019 after which FAC considered it in October 2019 wherein it recommended that a Sub-Committee shall be formed who shall visit the project site and submit its report on grant of forest Clearance for the project considering various aspects. Sub-Committee submitted its report to MOEF&amp;CC and is available in their website. Sub-Committee recommended for the forest clearance of the project. Further, As noted in the agenda note for meeting in respect of projects on PMG portal, FAC has raised certain observations to GoAP, MOP, NTCA and Environment division of MOEF&amp;CC during the meeting of 23rd April 2020, . GoAP has submitted replies to all the observations raised to them by FAC, in August 2020. MOP has submitted its observations, favorable to the project, in September'2020. Final recommendations of FAC are pending MOP vide letter dated 22.12.2021 indicated that Etalin HEP to be pursued by SJVNL.</p>  |

\$- EC is linked with Siang BSR, which is completed and accepted by MoEF&CC. FC-I pending with State Govt. MoEF&CC stated that developer needs to apply afresh for EC online as old proposal is not valid anymore. DISCOMs are reluctant to sign PPA. Government of Arunachal Pradesh vide letter dated 09.07.201 informed CEA that allotment of Naying HEP to M/s. NDSCPL has been withdrawn/ cancelled vide GoAP letter dated 27.04.2021 . Further, validity of Concurrence to project expired on 11.09.2019. MOP vide letter dated 22.12.2021 indicated that Naying HEP to be pursued by NEEPCO.

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**5. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:**

| Sl. No.   | Name of Project          | Agency        | I.C. (MW)   | Type (R/S/R(P)) | Month of Return/Reason of Return  |
|-----------|--------------------------|---------------|-------------|-----------------|---|
| 1         | Ranganadi St-II          | NEEPCO        | 130         |                 | Returned on 04/06 and NEEPCO has been asked to review the Project and resubmit DPR after cost and tariff are brought down. MOU with State Govt. yet to be signed.   |
| 2         | Yamne St-II              | SSYEVPL       | 84          | R               | DPR returned on 05/11 due to inadequate geological investigations at dam site, diversion tunnel, surge shaft & power house etc.   |
| 3         | Hutong –II               | MEIPL         | 1200        | R               | The DPR was returned on 5.12 as the Project is now to be developed as storage Project. Hydrology & PPS cleared on 9.5.2011 & 27.3.2012.   |
| 4         | Kalai-I                  | MFIPPL        | 1352        |                 | Returned on 05/12 and STC decided that M/S MFIPPL should carry out the detailed investigation for the revised DPR as per CEA's letter dt 24.5.2012.   |
| 5         | Pemashelphu HEP          | MHPL          | 90          | R               | Returned on 02/13 due to non-replying of the comments and likely change in location of Dams benefits from the project, DPR of project has been returned.  |
| 6         | Sissiri HEP [Sesseri]    | SSHPL         | 100         | S               | Returned on 06/13 reason being DPR could not be accepted to detailed examination as representation of State Govt. pointed out that irrigation and drinking water component should be internal part of two project and cost of same should be included in cost of project. DPR returned to developer for sort out the issue with State Govt. |
| 7         | Gimiliang                | SKI Pvt. Ltd. | 80          | R               | DPR returned on 06/13 during presentation meeting held on 03.5.2013 due to inadequate geological investigation. Developer was told to submit revised DPR after carrying out necessary investigation and IC got fixed by CEA.  |
| 8         | Raigam                   | SKI Pvt. Ltd. | 141         | R               | DPR returned on 06/13 during presentation meeting held on 03.5.2013 due to inadequate geological investigation. Developer was told to submit revised DPR after carrying out necessary investigation and IC got fixed by CEA.  |
| 9         | Kangtangshiri            | KHPPL         | 80          | R(P)            | Returned on 29.07.2013 due to inadequate investigation and in proper layout etc.  |
| 10        | Nyukcharong Chu          | SNCPCCL       | 96          | R               | Returned on 04/15 due to non-submission of investigation suggested by GSI.  |
| 11        | Subansiri Middle (Kamla) | KHEPCL        | 1800        |                 | Returned on 29.01.2018. All the partial clearances issued till date were rescinded as no progress has been made by the Developer towards resolving the issues pending with various appraising groups.   |
| 12        | Magochu                  | SMCPCL        | 96          | R               |   |
| 13        | Tagurshit                |               | 74          | R               | Returned in 06/19.  |
| <b>13</b> | <b>Total</b>             |               | <b>5323</b> |                 |   |

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**



**6. H.E. Projects Under Survey & Investigation:**

| Sl. No.  | Name of Project | Basin/River | Agency for DPR              | Original I.C. (MW) | Type (R/S/R(P)) | Date of MOA | Target date of Preparation of DPR |
|----------|-----------------|-------------|-----------------------------|--------------------|-----------------|-------------|-----------------------------------|
| 1        | Anjaw           | Lohit       | Athena Energy Ventures Ltd. | 270                | R               | 09.07.2007  | June'22                           |
| 2        | Demwe UpperSt-I | Lohit       | Lohit Urja Pvt Ltd          | 270                | R               | 09.07.2007  | June'22                           |
| 3        | Niare           | Subansiri   | Andra Power Private Limited | 860                | R               |             | Dec'22                            |
| <b>3</b> | <b>Total</b>    |             |                             | <b>1400</b>        |                 |             |                                   |

**7. H.E. Projects allotted for development on which Survey & Investigation is held up/ yet to be taken up:**

| Sl. No. | Name of Project | I.C. (MW) | Agency                           | Date of Allotment/ MoA | Status  |
|---------|-----------------|-----------|----------------------------------|------------------------|---|
| 1       | Papu            | 90        | CESC Ltd.                        | 16.05.2012             | Issue of interference of levels with the Upstream project of M/s Vensar Energy Ltd, i.e Papu Valley HEP (45MW) requires to be resolved. Both Vensar constructions and CESC Ltd clarified that there is no overlapping at ground vide letter dtd 29/12/16. Re-survey and DPR submission was targetted to be completed in May 2019, which is still awaited. |
| 2       | Kameng Dam      | 420       | KSK Energy Ventures Ltd.         | 25.01.2007             | MoEF did not issue ToR due to <b>proximity to Pakke Tiger Reserve</b> . All other possible alternative site(s) are in proximity of tiger reserve due to which the <b>project has been dropped</b> . The Developer had already written for refund of upfront premium for surrendering the project.   |
| 3       | Emra-I          | 275       | Athena Energy Ventures Pvt. Ltd. | 02.02.2008             | No proper approach road to the project site. No progress is shown till date. <b>Intent to Terminate by GoAP</b> under process since 25/07/2018.   |
| 4       | Rho             | 93        | SEW Energy                       | 2.3.2009               | First consultation meeting held on 30.10.2013. No visible progress since 2015. Drift Work pending. Letter issued to the developer to resolve issues with CEA/CWC/GSI on 17/9/19.  |
| 5       | Dardu           | 60        | KVK Energy & Infrastructure Ltd. | 26.12.2007             | No activity/progress in the project. Local public are demanding to hand over the project to CPSU. Dikrong basin study not yet finalised. <b>Intention to terminate by GoAP</b> is under process since 10/04/18.   |
| 6       | Naba            | 1000      | Abir Infrastructre Pvt. Ltd.     | 21.06.2010             | S&I held up due to unapproachable area/ difficult & inhospitable terrain and local law & order problem. There is no activity in the project. 2nd show cause notice was issued by GoAP on 26/06/2015. Water Availability Studies submitted by developer to CWC in Oct' 2021.   |
| 7       | Dengser         | 552       | Coastal Infrastructre Pvt. Ltd.  | 26.04.2011             | S&I held up due to unapproachable area/ difficult & inhospitable terrain and local law & order problem. No activity in the project. 1st show cause notice was issued on 12/05/2015.   |
| 8       | Emra-II         | 390       | Athena Energy Ventures Ltd.      | 02.02.2009             | No road connectivity to project site. Local issues, communication problems. <b>Intent to Terminate</b> under process since 25/07/2018.  |

|    |   |      |                               |   |   |
|----|---|------|-------------------------------|---|---|
| 9  | Yamne-I                                 | 111  | S.S. Yamne Power Pvt Ltd      | 05.03.2009  | First consultation meeting held on 30.07.2014. Local and law and order. Problems. <b>Under process for termination</b> since 18/05/18   |
| 10 | Dinchang                                | 252  | KSK Energy Ventures Ltd       | 11.9.2007   | Project <b>under process for termination</b> by GoAP since 13.03.2018.  |
| 11 | Ithun-I                                 | 84   | JVKIL Consortium              | 29.8.2008   | Non-operationalization of Hunli-Desali road. Very slow progress, hence under process for <b>Intent to Terminate by GoAP</b> since 19/07/2018  |
| 12 | Subansiri Upper                         | 1800 | KSK Energy Ventures Ltd.      | 18.03.2010  | S&I held up due to lack of clarity on funding of Flood Moderation cost. Second show cause notice was issued on 26/06/2015.  |
| 13 | Kurung [Kurung Dam - I + Kurung Dam-II] | 330  | NEEPCO                        | 27.01.2015  | S&I held up as the proposal for sanction of Pre-Investment expenditure is on hold. Meeting of Delegated Investment Board(DIB) for pre-investment approval held on 18/01/2018 wherein Secy(Power), MoP expressed concern over some of the clauses of MoA between NEEPCO and GoAP |
| 14 | Chomi                                   | 80   | Adveta Power                  | 14.2.2013   | MoA to be renewed.  |
| 15 | Chela                                   | 75   | Adveta Power                  | 14.2.2013   | MoA to be renewed.  |
| 16 | Para                                    | 45   | Coastal Projects Pvt. Ltd.    | 19.11.2008  | M/s Coastal projects Ltd (Developer of Para HE Project) are in the Resolution process under NCLT. DPR would be prepared after resolution Process is completed.  |
| 17 | Tidding-I                               | 84   | Sai Krishnodaya Ind. (P) Ltd. | 26.02.2009  | S&I is held up as there is in progress in the S&I activities of project. ToR has not been obtained and there is no progress in geotechnical investigations.   |
| 18 | Tidding-II                              | 75   | Sai Krishnodaya Ind. (P) Ltd. | 26.02.2009  | S&I is held up as there is in progress in the S&I activities of project. ToR has not been obtained and there is no progress in geotechnical investigations.   |
| 19 | Oju [Oju-I + Oju-II]                    | 1878 | Navayuga Engg. Co. Ltd.       | June 2010 for Oju-I & Oju-II, Revised MoU for Single Scheme is received in Apr'13 | S&I held up due to inaccessibility of the project site.   |
| 20 | Pauk                                    | 145  | Velcan Energy Pvt Ltd         | 30.06.2007 (rev MOA-31.07.09)   | S&I held up due to land disputes between clans and law & order problem.   |
| 21 | Pango (Minniying)                       | 96   | Meenakshi Power Ltd.          | 27.08.2010  | S&I held up due to lack of infrastructure, poor communication network and remoteness of site.   |
| 22 | Sippi                                   | 96   | Meenakshi Power Ltd.          | 20.7.2011   | S&I held up due to lack of infrastructure, poor communication network and remoteness of site.   |
| 23 | Jidu (Yangsang)                         | 92   | Meenakshi Power Ltd.          | 20.7.2011   | S&I held up due to lack of infrastructure, poor communication network and remoteness of site.   |
| 24 | Pachuk-II                               | 61   | Energy development Co. Ltd    | 27.08.2010  | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer.   |
| 25 | Tsa Chu - II                            | 67   | Energy development Co. Ltd    | 27.08.2010  | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer.   |
| 26 | Pachuk-II Lower [Kapak Leyak]           | 51   | Energy development Co. Ltd    | 27.8.2010   | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer.   |

|    |                         |             |                                   |                                  |   |
|----|-------------------------|-------------|-----------------------------------|----------------------------------|---|
| 27 | Marijingla              | 39          | Energy development Co. Ltd        | 12.1.2008 (Amended on 27.8.2010) | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 28 | Marijingla Lower        | 37          | Energy development Co. Ltd        | 27.8.2010                        | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 29 | Rego                    | 97          | Greenko Energies Ltd.             | 25.09.2012                       | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 30 | Rapum                   | 66          | Greenko Energies Ltd.             | 27.12.2007                       | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 31 | Panyor                  | 80          | Rajratna Energy Holding Pvt. Ltd. | 25.02.2009                       | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 32 | Lower Yamne St-I (Jaru) | 75          | Yamne Power Pvt. Ltd              | 29.11.2009                       | Project shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 32 | <b>Total</b>            | <b>8696</b> |                                   |                                  |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**8. Projects dropped due to basin studies/other reasons:**

| Sl. No.   | Name of Project                      | I.C. (MW)   | River             | Basin       | Type (R/S/R(P)) | Remarks   |
|-----------|--------------------------------------|-------------|-------------------|-------------|-----------------|---|
| 1         | Jarong                               | 90          | Siang             | Brahmaputra |                 | It is recommended not to allot the project again as this will ensure that 5.1 Km of Siyom river stretch between upstream Taiyong HEP and downstream Hirong HEP will remain a free flowing river stretch.  |
| 2         | Hirit Korong                         | 42          | Siang             | Brahmaputra |                 | Fish species like Mahseer( <i>Tor putitora</i> ) migrates for spawning and breeding. <i>Labeo pangusia</i> is another fish which prefers waters of Hirit river for spawning. All the projects in Hirit basin are in eco-sensitive zone i.e. within 10 km radius of Yordi rabe Supse Wildlife sanctuary.   |
| 3         | Soying Korong                        | 48          | Siang             | Brahmaputra |                 |   |
| 4         | Siri Korong                          | 58          | Siang             | Brahmaputra |                 |   |
| 5         | Sipit Upper                          | 45          | Siang             | Brahmaputra |                 | Dropped due to biodiversity richness of the basin.  |
| 6         | Gameng                               | 37          | Siang             | Brahmaputra |                 | Sike flow is not sufficient to sustain a project and still have adequate environment flow through out the year.   |
| 7         | Yemsing                              | 38          | Siang             | Brahmaputra |                 | This is in biodiversity rich area and would be affecting 8.8 Km of the river length for 38 MW.  |
| 8         | Tammu                                | 55          | Subansiri         | Brahmaputra |                 | Doesn't meet the requirement of minimum e-flow. Dropping of this project will keep free flowing of Siu tributary of subansiri basin and provide lateral connectivity for aquatic fauna and conserve migratory fish species.   |
| 9         | Nazong                               | 60          | Bichom            | Brahmaputra |                 | Dropped to ensure free flow of natural river.   |
| 10        | Hutong Stage-I                       | 750         | Lohit             | Brahmaputra |                 | Dropped as it is at the elevation where both <i>Mahaseer</i> and <i>Snow Trout</i> are observed. The dropping of the project will provide the free stretch of 19.1 km for migration of both these species. The site is also not geologically stable   |
| 11        | Kameng-I<br>[Bharela Lift Dam - I]   | 1120        | Kameng            | Brahmaputra |                 |   |
| 12        | Kameng-II<br>[Bharela Lift Dam - II] | 600         | Kameng            | Brahmaputra |                 | The project has been deleted from S&I Held up list as the project has been dropped as per Kameng Basin study report.  |
| 13        | Pakke                                | 110         | Kameng            | Brahmaputra |                 |   |
| 14        | Seba                                 | 80          | Kameng            | Brahmaputra |                 |   |
| 15        | Pasar                                | 32          | Kameng            | Brahmaputra |                 |   |
| 16        | Bichom St-I                          | 190         | Bichom/<br>Kameng | Brahmaputra |                 |   |
| 17        | Bichom-II                            | 205         | Bichom/<br>Kameng | Brahmaputra |                 |   |
| 18        | Malinye<br>[Mulinye]                 | 335         | Dibang            | Brahmaputra |                 | Falls within Dibang Wildlife Sanctuary.   |
| 19        | Tsa Chu-I                            | 43          | Tawang            | Brahmaputra |                 |   |
| 20        | Thingbu Chu                          | 60          | Tawang            | Brahmaputra |                 |   |
| 21        | Nyamjang Chhu                        | 780         | Tawang            | Brahmaputra | R(P)            | As per the NGT Order, MoEF&CC had undertaken a study on black neck crane through Wild Life Institute of India (WII), Dehradun. WII submitted the report and recommended for non-development of any hydro power project in Nyamjang Chhu Valley. GoAP terminated the memorandum of agreement (MoA) signed with Bhilwara Energy Limited (BEL) on 20.09.2019. The Hon'ble Supreme Court stayed the termination of MoA. The matter of arbitration is pending in Hon'ble Itanagar Bench of Gauhati High Court and hearings are going on. |
| <b>21</b> | <b>Total</b>                         | <b>4778</b> |                   |             |                 |   |

\* Part of Hutong (as per re-assessment) (For Sr. No 10)

**9. Projects stuck due to Inter-State/ Other Issues:**

| Sl. No. | Name of Project      | I.C. (MW)   | River      | Date of CEA Concurrence | Type (R/S/R(P)) | Remarks   |
|---------|----------------------|-------------|------------|-------------------------|-----------------|---|
| 1       | Tato-II              | 700         |            | 22.05.2012              | R(P)            | EC accorded on 27.6.2011. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF&CC. There is no need to change in IC but as per recommendations in BSR, FRL needs to be reduced for free flow stretch and hence there may be change in other parameters including shift in location of Dam/ Barrage etc. MOP vide letter dated 22.12.2021 indicated that Tato-II HEP will be pursued by NEEPCO.   |
| 2       | Dibbin               | 120         | Bichomchhu | 04.12.09                | R(P)            | EC accorded on 23.7.2012. FC-I accorded on 07.02.2012. FC-II yet to be obtained. Project is under consideration for transferr to State Govt./ NEEPCO. Installed capacity of the project is likely to be revised. Accordingly, DPR needs to be re-casted. MOP vide letter dated 22.12.2021 indicated that Dibbin HEP will be pursued by NEEPCO..   |
| 3       | Siyom (Middle Siang) | 1000        | Siang      | 17.12.13                | R(P)            | EC accorded 31.01.2008. FC is linked to Cumulative Impact Assessment Study of Siang Basin which has been carried out and accepted by MoEF&CC. There is no need to change in IC but as per recommendations in BSR, FRL needs to be reduced for free flow stretch and hence there may be change in other parameters including shift in location of Dam/ Barrage etc.  |
| 4       | Nafra                | 120         | Bichom     | 11.02.11                | R(P)            | EC accorded on 19.08.2013. FC-I accorded on 12.07.2011 & FC-II accorded on 26.06.2012. Government of Arunachal Pradesh vide letter dated 09.07.2021 informed CEA that allotment of Nafra HEP to M/s. SNEL has been withdrawn/ cancelled vide GoArP letter dated 23.12.2019. NEEPCO vide letter dated 23.08.2021 to HPA informed that it has signed MoA with GoArP on 14.08.2021 for Nafra HEP. Subsequently, HPA Division vide letter dated 31.08.2021 requested NEEPCO to submit allotment letter of GoArP and fresh DPR as per revised e-flows under Cumulative Basin Studies of Bichom Basin. NEEPCO vide letter dated 03.09.2021 submitted Allotment letter. MOP vide letter dated 22.12.2021 indicated that Nafra HEP will be pursued by NEEPCO. NEEPCO vide letter dated 10.01.2022 submitted updated hydrology chapter for vetting by CWC. |
| 4       | <b>Total</b>         | <b>1940</b> |            |                         |                 |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**10. H. E. Projects yet to be allotted by the State for development**

| Sl.No. | Name of Project              | River   | Type | I.C.(MW) | Remarks  |
|--------|------------------------------|---------|------|----------|--|
| 1      | Siang Upper St. I            | Siang   | S    | 6000     |  |
| 2      | Siang Upper St. II           | Siang   | S    | 3750     | Issue of interference of levels with the Upstream project of M/s Vensar Energy Ltd, i.e Papu Valley HEP (45MW) requires to be resolved. Both Vensar constructions and CESC Ltd clarified that there is no overlapping at ground vide letter dtd 29/12/16. Re-survey and DPR submission was targetted to be completed in May 2019,which is still awaited. |
| 3      | Agoline                      | Dibang  | R    | 235      |  |
| 4      | Elango                       | Ahi     | R    | 180      |  |
| 5      | Rigong                       | Rigong  | R    | 130      |  |
| 6      | Mirak                        | Sigong  | R    | 160      |  |
| 7      | Hegio                        | Kurung  | R    | 250      |  |
| 8      | Doimukh<br>[Dudmukh Storage] | Dikrong | S    | 170      | The project has been surrendered by developer to the State Govt.   |
| 9      | Kimi                         | Bichom  | R    | 535      |  |
| 10     | Chanda                       | Kameng  | R    | 110      |  |
| 11     | Pengging                     | Yamne   | R    | 60       |  |
| 12     | Milli                        | Kurung  | R    | 75       |  |
| 13     | Sape                         | Kurung  | R    | 38       |  |
| 14     | Nyepin                       | Payam   | R    | 32       |  |
| 15     | Hiya                         | Payam   | R    | 41       |  |
| 16     | Kamla (Tamen)                | Kamala  | R    | 175      |  |
| 17     | Turu (Par)                   | Dikrong | R    | 65       |  |
| 18     | Yazali Storage               | Ranga   | S    | 95       |  |
| 19     | Tago-I                       | Yarjap  | R    | 55       |  |
| 20     | Tenga                        | Tenga   | S    | 275      |  |

|    |                 |                 |   |     |   |
|----|-----------------|-----------------|---|-----|---|
| 21 | Rebby           | Kameng          | R | 30  |   |
| 22 | Satuk           | Pachuk          | R | 47  |   |
| 23 | Lachung         | Pachi           | R | 41  |   |
| 24 | Phanchung       | Pachi           | R | 90  |   |
| 25 | Utung           | Bichom          | R | 110 |   |
| 26 | Khuitam         | Digen           | R | 29  |   |
| 27 | But             | Digen           | R | 26  |   |
| 28 | Mathithing      | Digen           | R | 40  |   |
| 29 | Pichang         | Kuru            | S | 31  |   |
| 30 | Tarang Warang   | Pacha           | R | 65  |   |
| 31 | Sepla           | Pacha           | R | 46  |   |
| 32 | Yangman Storage | Burhi<br>Dihing | S | 60  |   |
| 33 | Tirap (Tipang)  | Tirap           | S | 80  |   |
| 34 | Jameri          | Tenga           | R | 60  | State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to KSK Energy Ventures                                      |
| 35 | Meyong          | Timkong<br>Rong | R | 38  | State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Patel Engineering Ltd.                                   |
| 36 | Gongri #        | Gongri          | R | 144 | State Govt. terminated the agreement with developer for execution of Gongri project which was earlier allotted to Patel Engineering Ltd. from under construction stage. |
| 37 | Badao           | Kameng          | R | 66  | State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Coastal Projects Pvt. Ltd.                               |
| 38 | Amulin          | Mathun          | R | 420 | State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Reliance Power Ltd.                                      |
| 39 | Emini           | Mathun          | R | 500 | State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Reliance Power Ltd.                                      |
| 40 | Mihumdon        | Dri             | R | 400 | State Govt. terminated the agreement with developer for execution of the project which was earlier allotted to Reliance Power Ltd.                                      |

|   |                              |                            |   |                |   |
|---|------------------------------|----------------------------|---|----------------|---|
| 41  | Digin                        | Sangti                     | R | 46             |   |
| 42  | Lower Yamne St-II<br>(Yapin) | Yamne                      | R | 87             |   |
| 43  | Nalo                         |                            | R | 635            | State Govt. vide their letter dated 09.07.21 has informed that project has been terminated. |
| 44  | New Melling                  |                            | R | 90             | State Govt. vide their letter dated 09.07.21 has informed that project has been terminated. |
| 45  | Tsa Chu-I Lower              |                            | R | 77             | State Govt. vide their letter dated 09.07.21 has informed that project has been terminated. |
| 46  | Demwe Upper St-II            |                            |   | 270            |   |
| 47  | Demwe Upper St-III           |                            |   | 202.5          |   |
| <b>47</b>   | <b>Total</b>                 | <b>47 Nos. of Projects</b> |   | <b>16161.5</b> |   |
| <b>Note: R –Run of the River &amp; S- Storage</b> |                              |                            |   |                |   |



**Status of Large Hydro Power Development in Assam**

|  |  | <b>Nos.</b> | <b>Capacity (MW)</b> |
|--|--|-------------|----------------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |  | 9           | 650                  |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                   |  | 1           | 120                  |
| <b>Total</b>   |  | <b>10</b>   | <b>770</b>           |
| I  | Projects in operation                                      | 3           | 350                  |
| II   | Projects Under Active Construction                         | 1           | 120                  |
| III  | Projects allotted by States for development                |             |                      |
|  | (i) Projects returned to project authorities               | 1           | 60                   |
| IV   | Projects yet to be allotted by the State for development * | 5           | 185                  |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition, etc.

**1 (A). Identified Projects during Reassessment study:**

| Sl.No.   | Name of Project                 | River   | I. C.<br>(MW) |
|----------|---------------------------------|---------|---------------|
| 1        | Dilli Stor.                     | Disang  | 33            |
| 2        | Jamuna Dam P/H                  | Jamuna  | 28            |
| 3        | Diyung Dam P/H                  | Diyung  | 47            |
| 4        | Langey                          | Borpani | 37            |
| 5        | Khondong [Kopili I]             | Kopili  | 50            |
| 6        | Kopili [Kopili II]              | Kopili  | 265           |
| 7        | Karbi Langpi<br>[Lower Borpani] | Borpani | 90            |
| 8        | Amring                          | Amring  | 40            |
| 9        | Karbi Langpi<br>[Upper Borpani] | Borpani | 60            |
| <b>9</b> | <b>TOTAL</b>                    |         | <b>650</b>    |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River  | I.C.<br>(MW) | Status                    |
|----------|------------------|--------|--------------|---------------------------|
| 1        | Lower Kopili     | Kopili | 120          | Under Active Construction |
| <b>1</b> | <b>Sub Total</b> |        | <b>120</b>   |                           |

**2. H.E. Projects in Operation:**

| S.No          | UTILITY/<br>STATIONS                  | NO. OF<br>STATIONS | No. of<br>Units | NO. OF UNITS<br>X CAPACITY<br>(MW) | RIVER/<br>BASIN* | DISTRICT      | CAPACITY (MW) | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|---------------|---------------------------------------|--------------------|-----------------|------------------------------------|------------------|---------------|---------------|--------------------|--------------------------|
| <b>NEEPCO</b> |                                       |                    |                 |                                    |                  |               |               |                    |                          |
| 1             | KOPILI<br>[Kopili-II]                 | 1                  | 4               | (4X50)                             | KOPILI           | DIMA HASAO    | 200           | S                  | 1988                     |
| 2             | KHONDONG<br>[Kopili-I]                | 1                  | 2               | (2X25)                             | KOPILI           | DIMA HASAO    | 50            | S                  | 1984                     |
|               | <b>SUB-TOTAL<br/>NEEPCO</b>           | <b>2</b>           | <b>6</b>        |                                    |                  |               | <b>250</b>    |                    |                          |
| <b>APGCL</b>  |                                       |                    |                 |                                    |                  |               |               |                    |                          |
| 3             | KARBI<br>LANGPI<br>[Lower<br>Borpani] | 1                  | 2               | (2X50)                             | BORPANI          | KARBI ANGLONG | 100           | R(P)               | 2007                     |
|               | <b>SUB-TOTAL<br/>APGCL</b>            | <b>1</b>           | <b>2</b>        |                                    |                  |               | <b>100</b>    |                    |                          |
| <b>3</b>      | <b>TOTAL<br/>ASSAM</b>                | <b>3</b>           | <b>8</b>        |                                    |                  |               | <b>350</b>    |                    |                          |

\* All projects are in Brahmaputra Basin

**3. H.E. Projects under active construction:**

| Sl No.   | Name of<br>Project | Agency | District                            | River / Basin*          | I.C.(MW)   | River  | Type<br>(R/S/R(P)) | Likely Commissioning |
|----------|--------------------|--------|-------------------------------------|-------------------------|------------|--------|--------------------|----------------------|
| 1        | Lower Kopili       | APGCL  | Karbi<br>Anglong &<br>Dima<br>Hasao | Kopili /<br>Brahmaputra | 120        | Kopili | R                  | 2024-25(Jun'24)      |
| <b>1</b> | <b>Total</b>       |        |                                     |                         | <b>120</b> |        |                    |                      |

**Note :R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**4. H.E. Projects Returned to Project Authorities for re-submission after compliance of observations:**

| Sl. No   | Name of Project              | Agency | I.C. (MW) | Month of Return/Reason of Return   |
|----------|------------------------------|--------|-----------|--|
| 1        | Karbi Langpi (Upper Borpani) | ASEB   | 60        | Returned on 12/08 due to involvement of interstate aspects with Meghalaya, updated hydrology not been utilized for carrying out power potential study, cost estimates not framed at current PL and inadequate geological investigations etc. |
| <b>1</b> | <b>Total</b>                 |        | <b>60</b> |  |

**5. H. E. Projects yet to be allotted by the State for development**

| Sl.No.   | Name of Project | River                     | Type | I.C.(MW)   |
|----------|-----------------|---------------------------|------|------------|
| 1        | Dilli Stor.     | Disang                    | S    | 33         |
| 2        | Jamuna Dam P/H  | Jamuna                    | S    | 28         |
| 3        | Diyung Dam P/H  | Diyung                    | S    | 47         |
| 4        | Langey          | Borpani                   | R    | 37         |
| 5        | Amring          | Amring                    | S    | 40         |
| <b>5</b> | <b>Total</b>    | <b>5 Nos. of Projects</b> |      | <b>185</b> |

Note: R –Run of the River & S- Storage

## Status of Large Hydro Power Development in Manipur

|   |   | Nos.      | Capacity (MW) |
|---|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 15        | 1761          |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                |   | 1         | 66            |
| Projects Identified in this State but developed/being developed in other State #  |   | -1        | -210          |
| <b>Total</b>  |   | <b>15</b> | <b>1617</b>   |
| I   | Projects in operation   | 1         | 105           |
| II  | Projects concurred by CEA and yet to be taken up for construction | 1         | 66            |
| III   | Projects dropped due to Basin studies/ Other reasons              | 1         | 1500          |
| IV  | Projects yet to be allotted by the State for development*         | 12        | 936           |

# Tuivai is being developed in Mizoram (presently in concurred stage)

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition/deletion of the projects, etc.

**1 (A). Identified Projects during Reassessment study:**

| Sl.No.    | Name of Project         | River    | I. C. (MW)  |
|-----------|-------------------------|----------|-------------|
| 1         | Laniye-II               | Laniye   | 27          |
| 2         | Laniye-I                | Laniye   | 34          |
| 3         | Khongnem Chakha-II      | Barak    | 90          |
| 4         | Khongnem Chakha-III     | Barak    | 48          |
| 5         | Nungnag (Nungnang)      | Irang    | 70          |
| 6         | Nunglieban (Nungliban)  | Leimatek | 85          |
| 7         | Khunou                  | Leimatek | 115         |
| 8         | Thinghat                | Tuivai   | 41          |
| 9         | Sinjal                  | Tuivai   | 39          |
| 10        | Bungpuilong             | Tuivai   | 80          |
| 11        | Tipaimukh               | Barak    | 510         |
| 12        | Irang                   | Irang    | 75          |
| 13        | Pabaram (Pabaram Stor.) | Barak    | 232         |
| 14        | Loktak                  | Loktak   | 105         |
| 15        | Tuivai*                 | Tuivai   | 210         |
| <b>15</b> | <b>TOTAL</b>            |          | <b>1761</b> |

\*Tuivai is being developed in Mizoram

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River    | I.C. (MW) | Status    |
|----------|------------------|----------|-----------|-----------|
| 1        | Loktak D/S       | Laimatak | 66        | Concurred |
| <b>1</b> | <b>Sub Total</b> |          | <b>66</b> |           |

**2. H.E. Projects in Operation:**

| Sl.No.      | Name of Project | Agency | I. C. (MW) | River/<br>Basin             | District          | Type<br>(R/S/R(P)) | Year of<br>Commissioning |
|-------------|-----------------|--------|------------|-----------------------------|-------------------|--------------------|--------------------------|
| <b>NHPC</b> |                 |        |            |                             |                   |                    |                          |
| 1           | Loktak          | NHPC   | 105        | Loktak Lake/<br>Brahmaputra | Churachan<br>dpur | S                  | 1983                     |
| <b>1</b>    | <b>Total</b>    |        | <b>105</b> |                             |                   |                    |                          |

**3. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl No    | Name of Project | Agency | River/<br>Basin          | District   | I.C.<br>(MW) | Date of<br>concurrence                     | Type<br>(R/S/R(P)) | Status  |
|----------|-----------------|--------|--------------------------|------------|--------------|--|--------------------|---|
| 1        | Loktak D/S      | LDHCL  | Leimatak/<br>Brahmaputra | Tamenglong | 66           | 4.11.2016<br>(concurrence<br>meeting date) | R                  | EC accorded on 16.01.2013. FC-I accorded on 03.03.2011 & FC-II accorded on 22.12.2014.<br># |
| <b>1</b> | <b>Total</b>    |        |                          |            | <b>66</b>    |  |                    |   |

# M/s. LDHCL informed the project could not take off due to delay in signing of PPA by State Govt. As per MoU executed between Govt. of Manipur and NHPC Ltd., Govt. of Manipur (GoM) was to purchase entire power from the project. PPA to purchase entire power has been signed on 31.08.2020 between LDHCL and Govt. of Manipur.

Govt. of Manipur vide letter dated 22.09.2020 has conveyed the approval of State Cabinet as decided in its meeting held on 06.08.2020 to arrange a grant of Rs. 400 crore out of which an amount of Rs. 99 crore is to be made available as budgetary support from the Ministry of Power as per its guidelines issued on 08.03.2019. Land acquisition is yet to start. High tariff and State Govt Grant issues preventing take-off of project.

**4. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No.  | Name of Project | I.C. (MW)   | River | Basin       | Remarks   |
|----------|-----------------|-------------|-------|-------------|---|
| 1        | Tipaimukh       | 1500        | Barak | Brahmaputra | MoEF&CC vide 29.08.2013 has declined diversion of 22777.50 ha to forest land falling in Manipur and vide letter dated 26.09.2013 has rejected diversion of 1551.30 ha of forest land falling in Mizoram for the project. <b>Project likely to be dropped.</b> |
| <b>1</b> | <b>Total</b>    | <b>1500</b> |       |             |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**5. H. E. Projects yet to be allotted by the State for development**

| Sl.No.    | Name of Project         | River                      | Type | I.C.(MW)   |
|-----------|-------------------------|----------------------------|------|------------|
| 1         | Laniye-II               | Laniye                     | R    | 27         |
| 2         | Laniye-I                | Laniye                     | S    | 34         |
| 3         | Khongnem Chakha-II      | Barak                      | S    | 90         |
| 4         | Khongnem Chakha-III     | Barak                      | R    | 48         |
| 5         | Nungnag (Nungnang)      | Irang                      | S    | 70         |
| 6         | Nunglieban (Nungliban)  | Leimatek                   | S    | 85         |
| 7         | Khunou                  | Leimatek                   | R    | 115        |
| 8         | Thinghat                | Tuivai                     | S    | 41         |
| 9         | Sinjal                  | Tuivai                     | S    | 39         |
| 10        | Bungpulong              | Tuivai                     | S    | 80         |
| 11        | Irang                   | Irang                      | S    | 75         |
| 12        | Pabaram (Pabaram Stor.) | Barak                      | S    | 232        |
| <b>12</b> | <b>Total</b>            | <b>12 Nos. of Projects</b> |      | <b>936</b> |

Note: R –Run of the River & S- Storage



### Status of Large Hydro Power Development in Meghalaya

|  |   | Nos.      | Capacity (MW) |
|--|---|-----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW) |   | 25        | 2298          |
| Large Projects Identified after Reassessment Study from Hydroelectric Projects<br>(Projects having capacity above 25 MW)               |   | 4         | 412           |
| <b>Total</b>   |   | <b>29</b> | <b>2710</b>   |
| I  | Projects in operation   | 5         | 322           |
| II   | Projects allotted by States for development   |           |               |
|  | (i) Projects concurred by CEA and yet to be taken up for construction               | 1         | 85            |
|  | (ii) Projects under S&I   | 1         | 210           |
|  | (iii) Projects allotted for development on which S&I is held up/ yet to be taken up | 2         | 620           |
| III  | Projects dropped due to Basin studies/ Other reasons                                | 1         | 210           |
| IV   | Projects stuck due to Inter-State/ Other Issues                                     | 1         | 270           |
| V  | Projects yet to be allotted by the State for development*                           | 18        | 1312          |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition, etc.

**1 (A). Identified Projects during Reassessment study**

| <b>Sl.No.</b> | <b>Name of Project</b>               | <b>River</b> | <b>I. C. (MW)</b> |
|---------------|--------------------------------------|--------------|-------------------|
| 1             | Umlamphang                           | Umiam        | 28                |
| 2             | Kyrdamkulai (Umiam Umtru-III)        | Umiam        | 41                |
| 3             | Umiam Umtru-IV                       | Umiam        | 38                |
| 4             | Umiam Umtru-V                        | Umiam        | 27                |
| 5             | Umiam Umtru-VI                       | Umiam        | 145               |
| 6             | Simsang Dam P.H.                     | Someshri     | 65                |
| 7             | Kynshi-I (Kynshi-I Stor.)            | Kynshi       | 295               |
| 8             | Sushen                               | Myntdu       | 150               |
| 9             | Selim                                | Myntdu       | 125               |
| 10            | Umjaut                               | Umjaut       | 85                |
| 11            | Umduna (Umduma)                      | Umtrew       | 95                |
| 12            | Mawhu (Manhu)                        | Umtru        | 90                |
| 13            | Umiew (Mawphu- II)<br>[Nonglyngkien] | Umtru        | 47                |
| 14            | Umngi Stage-I (Umngi Storage)        | Umngi        | 35                |
| 15            | Rangmaw                              | Umngi        | 42                |
| 16            | Nongkolait                           | Umngi        | 180               |
| 17            | Nongnam                              | Umngi        | 36                |
| 18            | Mawpat                               | Umngi        | 55                |
| 19            | Kynshi-II                            | Umrilang     | 175               |
| 20            | Nangmawlar (Nongmawlar)              | Kynshi       | 29                |
| 21            | Mawsyrpat                            | Kynshi       | 45                |
| 22            | Mawthaba                             | Kynshi       | 70                |
| 23            | Mawblei Storage                      | Kynshi       | 100               |
| 24            | Amagam Storage                       | Rongdi       | 35                |
| 25            | Umanghot (Umngot Stor.)              | Umngot       | 265               |
| <b>25</b>     | <b>TOTAL</b>                         |              | <b>2298</b>       |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| <b>Sl.No.</b> | <b>Name of Project</b> | <b>River</b> | <b>I.C.<br/>(MW)</b> | <b>Status</b> |
|---------------|------------------------|--------------|----------------------|---------------|
| 1             | Myntdu St. I           | Myntdu       | 126                  | In Operation  |
| 2             | New Umtru              | Umtru        | 40                   | In Operation  |
| 3             | Umiam St.I             | Umiam        | 36                   | In Operation  |
| 4             | Mytdu Leshka-II        | Myntdu       | 210                  | S&I           |
| <b>4</b>      | <b>Sub Total</b>       |              | <b>412</b>           |               |

**2. H.E. Projects in Operation:**

| S. No.        | Utility/Stations              | No. of Stns. | No. of units x Capacity (MW) | River / Basin*                             | District      | I.C. (MW)  | Type (R/S/R(P)) | Year of commissioning |
|---------------|-------------------------------|--------------|------------------------------|--|---------------|------------|-----------------|-----------------------|
| <b>MePGCL</b> |                               |              |                              |  |               |            |                 |                       |
| 1             | KYRDEMKULAI [Umiam Umtru-III] | 1            | (2X30)                       | Tail water of Umiam stage-II & Umtru river | RI-BHOI       | 60         | R(P)            | 1979                  |
| 2             | UMIAM ST-I                    | 1            | (4X9)                        | UMIAM                                      | RI-BHOI       | 36         | S               | 1965                  |
| 3             | NEW UMTRU                     | 1            | (2X20)                       | UMTRU                                      | RI-BHOI       | 40         | R(P)            | 2017                  |
| 4             | UMIAM ST-IV                   | 1            | (2X30)                       | Tail water of Stage-III PH & own catchment | RI-BHOI       | 60         | R(P)            | 1992                  |
| 5             | MYNTDU ST-I                   | 1            | (3X42)                       | MYNTDU                                     | JAINZIA HILLS | 126        | R(P)            | 2012                  |
| <b>5</b>      | <b>TOTAL MePGCL</b>           | <b>5</b>     |                              |  |               | <b>322</b> |                 |                       |

\* All projects are in Brahmaputra Basin

**3. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl No.   | Name of Project                       | Agency | District | River / Basin | I.C. (MW) | Date of CEA Concurrence | Type (R/S/R(P)) | Status  |
|----------|---------------------------------------|--------|----------|---------------|-----------|-------------------------|-----------------|---|
| 1        | Wah Umiam Satge-III (Mawphu Stage-II) | NEEPCO |          | /Brahmaputra  | 85        | 26.07.2021              | R               | EC recommended by EAC on 26.02.2018. FC-I & FC-II awaited.# |
| <b>1</b> | <b>Total</b>                          |        |          |               | <b>85</b> |                         |                 |   |

#EC recommended by EAC on 26.02.2018. However, EC will be issued immediately on submission of Stage-I Forest Clearance. FC yet to be obtained. Stage-II Forest Clearance (Final FC) will be issued only after compliance of Stage-I Forest Clearance by NEEPCO.

**5. Projects dropped due to Basin studies/ Other reasons:**

| Sl. No.  | Name of Project            | Agency | I.C. (MW)  | Type (R/S/R(P)) | Month of Return |
|----------|----------------------------|--------|------------|-----------------|-----------------|
| 1        | Umangot HEP [Umngot Stor.] | MePGCL | 210        | S               | Jan-18          |
| <b>1</b> | <b>Total</b>               |        | <b>210</b> |                 |                 |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**6. H.E. Projects Under Survey & Investigation:**

| Sl. No.  | Name of Project     | Basin /River | Agency | I.C. (MW)  | Type (R/S/R(P)) | Date of MOA | Target date of Preparation of DPR |
|----------|---------------------|--------------|--------|------------|-----------------|-------------|-----------------------------------|
| 1        | Myntdu Leshka st-II | Myntdu       | MePGCL | 210        | R               | 20.4.12     | Dec-22                            |
| <b>1</b> | <b>Total</b>        |              |        | <b>210</b> |                 |             |                                   |

**7. H.E. Projects allotted for development on which Survey & Investigation is held up/yet to be taken up:**

| Sl. No.  | Name of Project | I. C.(MW)  | Agency                                    | Date of Allotment/ MoA | Status  |
|----------|-----------------|------------|---|------------------------|---|
| 1        | Kynshi-II       | 450        | GoMe & Jaiprakash Power Venture Ltd. (JV) | 11.12.2007             | S&I held up on account of non-finalisation of dam location/height due to deposit of Uranium. I.C. revised to 325 MW. <b>GoMe informed vide their letter dated 28.11.2019 that project has been kept in abeyance since 2012 due to presence of Uranium deposits within the Dam &amp; Reservoir areas of the project.</b> |
| 2        | Selim           | 170        | MePGCL                                    | 2008                   | S&I held up due to irregular allocation/release of funds, the hostile terrain, non and non-availability of geologists from GSI, India. <b>MePGCL vide their letter dated 01.11.2019 informed that installed capacity is likely to be 60 MW.</b>   |
| <b>2</b> | <b>Total</b>    | <b>620</b> |   |                        |   |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

**8. Projects stuck due to Inter-State/ Other Issues:**

| Sl. No. | Name of Project              | I.C. (MW)  | River  | Date of CEA Concurrence | Remarks  |
|---------|------------------------------|------------|--------|-------------------------|--|
| 1       | Kynshi-I<br>[Kynshi-I Stor.] | 270        | Kynshi | 31.3.2015               | EC: EIA/EMP studies are under process.<br>FC-I & FC-II: Pending.<br>AKPPL vide letter dated 05.08.2021 to HPA Division informed that the revised DPR based on e-flows under revised ToR of EIA/ EMP will be submitted within three months. |
| 1       | <b>TOTAL</b>                 | <b>270</b> |        |                         |  |

**9. H. E. Projects yet to be allotted by the State for development**

| Sl.No.    | Name of Project               | River                      | Type | I.C. (MW)   |
|-----------|-------------------------------|----------------------------|------|-------------|
| 1         | Umlamphang                    | Umiam                      | R    | 28          |
| 2         | Umiam Umtru-V                 | Umiam                      | R    | 27          |
| 3         | Umiam Umtru-VI                | Umiam                      | S    | 145         |
| 4         | Simsang Dam P.H.              | Someshri                   | S    | 65          |
| 5         | Sushen                        | Myntdu                     | R    | 150         |
| 6         | Umjaut                        | Umjaut                     | R    | 85          |
| 7         | Umduna (Umduma)               | Umtrew                     | R    | 95          |
| 8         | Mawhu (Manhu)                 | Umtru                      | R    | 90          |
| 9         | Umngi Stage-I (Umngi Storage) | Umngi                      | S    | 35          |
| 10        | Rangmaw                       | Umngi                      | R    | 42          |
| 11        | Nongkolait                    | Umngi                      | R    | 180         |
| 12        | Nongnam                       | Umngi                      | R    | 36          |
| 13        | Mawpat                        | Umngi                      | R    | 55          |
| 14        | Nangmawlar (Nongmawlar)       | Kynshi                     | R    | 29          |
| 15        | Mawsyrpat                     | Kynshi                     | R    | 45          |
| 16        | Mawthaba                      | Kynshi                     | S    | 70          |
| 17        | Mawblei Storage               | Kynshi                     | S    | 100         |
| 18        | Amagam Storage                | Rongdi                     | S    | 35          |
| <b>18</b> | <b>Total</b>                  | <b>18 Nos. of Projects</b> |      | <b>1312</b> |

Note: R –Run of the River &amp; S- Storage

## Status of Large Hydro Power Development in Mizoram

|   |   | Nos.     | Capacity (MW) |
|---|---|----------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 7        | 2131          |
| Large Project Identified after Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW)                |   | 1        | 460           |
| Projects Identified in other State but developed/being developed in this State #  |   | 1        | 210           |
| <b>Total</b>  |   | <b>9</b> | <b>2801</b>   |
| I   | Projects in operation   | 1        | 60            |
| II  | Projects dropped due to Basin studies/ Other reasons              | 1        | 460           |
| III   | Projects concurred by CEA and yet to be taken up for construction | 1        | 210           |
| IV  | H. E. Projects yet to be allotted by the State for development*   | 6        | 2076          |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects, addition, etc.

**1 (A). Identified Projects during reassessment study.**

| S. No.   | Name of Project           | River       | I.C. (MW)   |
|----------|---------------------------|-------------|-------------|
| 1        | Lungleng (Lunglang Stor.) | Tyao        | 690         |
| 2        | Boinu (Boinu Stor.)       | Kaldan      | 635         |
| 3        | Mat                       | Mat         | 90          |
| 4        | Tuirial [Sonai]           | Sonai       | 55          |
| 5        | Deh                       | Deh         | 26          |
| 6        | Bhairabi                  | Dhaleshwari | 90          |
| 7        | Kaldan (Kaldan Stor.)     | Kaldan      | 545         |
| <b>7</b> | <b>TOTAL</b>              |             | <b>2131</b> |

**1 (B). Additional Projects (Identified after Re-Assessment Studies)**

| Sl.No.   | Name of Project  | River    | I.C. (MW)  | Status  |
|----------|------------------|----------|------------|---------|
| 1        | Kolodyne St.II   | Kolodyne | 460        | Dropped |
| <b>1</b> | <b>Sub Total</b> |          | <b>460</b> |         |



**2. H.E. Projects in Operation:**

| S. No.        | Utility/Stations     | No. of stns. | No. of units x Capacity (MW) | River / Basin*       | District | I.C. (MW) | Type (R/S/R(P)) | Year of commissioning |
|---------------|----------------------|--------------|------------------------------|----------------------|----------|-----------|-----------------|-----------------------|
| <b>NEEPCO</b> |                      |              |                              |                      |          |           |                 |                       |
| 1             | TUIRIAL [Sonai]      | 1            | (2X30)                       | TUIRIAL/ BRAHAMPUTRA | KOLASIB  | 60        | S               | 2017                  |
| <b>1</b>      | <b>TOTAL MIZORAM</b> | <b>1</b>     |                              |                      |          | <b>60</b> |                 |                       |

**3. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl No.   | Name of      | Agency | District | River / Basin | I.C. (MW)  | Date of CEA | Status |
|----------|--------------|--------|----------|---------------|------------|-------------|--------|
| 1        | Tuivai*      |        |          |               | 210        |             |        |
| <b>1</b> | <b>Total</b> |        |          |               | <b>210</b> |             |        |

\*: Tuivai scheme (210 MW) was identified in Manipur during the reassessment study. The scheme was concurred by CEA during 1999. The scheme is yet to be taken up under construction.

**4. H.E. Projects dropped due to Basin studies/ Other reasons**

| Sl. No.  | Name of Scheme | I.C. (MW)  | River    | Basin       | Type (R/S/R(P)) | Remarks  |
|----------|----------------|------------|----------|-------------|-----------------|--|
| 1        | Kolodyne St-II | 460        | Kolodyne | Brahmaputra | S               | Forest proposal submitted to State Govt. on 20.12.2010. <b>The project is likely to be drooped due to high tariff.</b> |
| <b>1</b> | <b>Total</b>   | <b>460</b> |          |             |                 |  |

**5. H. E. Projects yet to be allotted by the State for development**

| Sl.No.   | Name of Project           | River                     | Type | I.C.(MW)    |
|----------|---------------------------|---------------------------|------|-------------|
| 1        | Lungleng (Lunglang Stor.) | Tyao                      | S    | 690         |
| 2        | Boinu (Boinu Stor.)       | Kaldan                    | S    | 635         |
| 3        | Kaldan (Kaldan Stor.)     | Kaldan                    | S    | 545         |
| 4        | Bhairabi                  | Dhaleshwari               | S    | 90          |
| 5        | Mat                       | Mat                       | S    | 90          |
| 6        | Deh                       | Deh                       | S    | 26          |
| <b>6</b> | <b>Total</b>              | <b>6 Nos. of Projects</b> |      | <b>2076</b> |

Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage

## Status of Large Hydro Power Development in Nagaland

|   |   | Nos. | Capacity (MW) |
|---|---|------|---------------|
| Identified Large Hydro Power Potential as per Reassessment Study from Hydroelectric Projects (Projects having capacity above 25 MW) |   | 11   | 1452          |
| <b>I</b>  | Capacity in operation   | 1    | 75            |
| <b>II</b>   | Projects concurred by CEA and yet to be taken up for construction | 1    | 186           |
| <b>III</b>  | H. E. Projects yet to be allotted by the State for development*   | 9    | 1272          |

\*The capacity yet to be allotted by the State for development is different from arithmetic calculation from the potential accessed due to change in capacity of the projects.

**1. Identified Projects during Reassessment study:**

| <b>Sl.No.</b> | <b>Name of Project</b>     | <b>River</b> | <b>I. C.<br/>(MW)</b> |
|---------------|----------------------------|--------------|-----------------------|
| 1             | Dikhu (Dikhu Lift Dam)     | Dikhu        | 125                   |
| 2             | Yangnyu<br>(Yangnyu Stor.) | Dikhu        | 135                   |
| 3             | Jhanji storage             | Jhanji       | 75                    |
| 4             | Doyang (Doyang-V)          | Doyang       | 55                    |
| 5             | Dikhu Dam P.H.             | Dikhu        | 470                   |
| 6             | Sakhai-II                  | Tizu         | 31                    |
| 7             | Khuzami                    | Tizu         | 32                    |
| 8             | Rurrur                     | Zangki       | 36                    |
| 9             | Zungki                     | Zangki       | 48                    |
| 10            | Laruri                     | Tizu         | 80                    |
| 11            | Tizu                       | Tizu         | 365                   |
| <b>11</b>     | <b>TOTAL</b>               |              | <b>1452</b>           |

**2. H.E. Projects in Operation:**

| S. No. | Utility/Stations      | No. of Stns. | No. of units x Capacity (MW) | River / Basin        | District | I.C.(MW)  | Type (R/S/R(P)) | Year of commissioning |
|--------|-----------------------|--------------|------------------------------|----------------------|----------|-----------|-----------------|-----------------------|
|        | <b>NEEPCO</b>         |              |                              |                      |          |           |                 |                       |
| 1      | DOYANG (Doyang-V)     | 1            | (3X25)                       | DOYANG / Brahamputra | WOKHA    | 75        | S               | 2000                  |
| 1      | <b>TOTAL NAGALAND</b> | <b>1</b>     |                              |                      |          | <b>75</b> |                 |                       |

**3. H.E. Projects concurred by CEA and yet to be taken up for construction:**

| Sl No. | Name of Project        | Agency | District | River / Basin                   | I.C. (MW)  | Date of CEA Concurrence | Type (R/S/R(P))  | Status   |
|--------|------------------------|--------|----------|---------------------------------|------------|-------------------------|------------------|--|
| 1      | Dikhu (Dikhu Lift Dam) | NMPPL  | Longleng | Dikhu and Yangnyu / Brahamputra | 186        | 31.03.2014              | Seasonal S cum R | EC yet to be obtained by developer. TOR issued on 27/12/2018. FC not applicable as forest land is not involved.# |
| 1      | <b>Total</b>           |        |          |                                 | <b>186</b> |                         |                  |  |

# EIA/EMP studies are in progress and are likely to be completed soon. Consent of PPA as per CERC Tariff is obtained. Govt. of Nagaland has forwarded PPA tariff calculations for the approval of Nagaland Regulatory Commission.

**Note: R= Run of River, S=Storage & R(P)= Run of River with Pondage**

**4. H. E. Projects yet to be allotted by the State for development**

| <b>Sl.No.</b> | <b>Name of Scheme</b>      | <b>River</b>              | <b>Type</b> | <b>I.C.(MW)</b> |
|---------------|----------------------------|---------------------------|-------------|-----------------|
| 1             | Yangnyu<br>(Yangnyu Stor.) | Dikhu                     | S           | 135             |
| 2             | Jhanji storage             | Jhanji                    | S           | 75              |
| 3             | Sakhai-II                  | Tizu                      | R           | 31              |
| 4             | Khuzami                    | Tizu                      | S           | 32              |
| 5             | Rurrur                     | Zangki                    | S           | 36              |
| 6             | Zungki                     | Zangki                    | S           | 48              |
| 7             | Laruri                     | Tizu                      | R           | 80              |
| 8             | Tizu                       | Tizu                      | S           | 365             |
| 9             | Dikhu Dam P.H.             | Dikhu                     | R           | 470             |
| <b>9</b>      | <b>Total</b>               | <b>9 Nos. of Projects</b> |             | <b>1272</b>     |

**Note: R –Run of the River & S- Storage**

## Status of Large Hydro Power Development in Tripura

No Large Hydroelectric Project has been identified in the Tripura State. However, a small Hydel power station in south Tripura named Gumti Hydel project having only 3x5 MW capacities. The details are as under:

| <b>Name of Project</b> | <b>Unit</b> | <b>Installed Capacity (MW)</b> | <b>Year of Installation</b> | <b>Phase</b> |
|------------------------|-------------|--------------------------------|-----------------------------|--------------|
| Gumti H.E. Project     | Unit-I      | 5.00 MW                        | 1976                        | Phase I      |
|                        | Unit-II     | 5.00 MW                        | 1976                        |              |
|                        | Unit-III    | 5.00 MW                        | 1984                        | Phase II     |