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

### I. Conventional Projects

|          |   |  | Nos. | Capacity (MW) |
|----------|---|--|------|---------------|
| Projects | having cap  | Iydro Power Potential from Hydroelectric pacity above 25 MW)       | 32   | 12264.5       |
| Bre      | eakup of F  | Hydro Power Potential (2017-23 Study)                              |      |               |
| A        | Projects i  | in operation   | 10   | 3360          |
| В        | Projects 1  | under active construction  | 5    | 3051.5        |
| С        | Projects of   | on which construction is held up                                   | 1    | 48            |
| D        | Projects a  | allotted by States for development                                 |      |               |
|          | D-I   | DPR Prepared   |      |               |
|          | (i)   | Projects concurred by CEA and yet to be taken up for construction# | 4    | 3119          |
|          | (ii)  | Projects returned to project authorities                           | 1    | 390           |
|          | D-II  | DPR Under Preparation  |      |               |
|          | (i)   | Projects under S&I   | 2    | 1060          |
|          | Projects allotted for development on which S&I is held up/ yet to be taken up |  | 1    | 370           |
| E        | Balance (   | Capacity*  | 7    | 710           |

<sup>\*</sup>Balance Capacity 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.

<sup>#</sup> In addition to this ,DPR of one project namely Ujh Multipurpose Project (196 MW) is accepted by 148th meeting of Advisory Committee of DOWR, RD&GR on Irrigation, Flood Control & Multipurpose on 17.01.2022 but the PIB doesn't support proposal of Department of Water Resources, River Department and Ganga Rejuvenation in respect of Ujh Multipurpose project.

#### **Details of Exploitable Large Hydro Power Projects**

| 1  | S.no | Name              | River        | Туре  | Installed Capacity |
|--|------|-------------------|--------------|-------|--------------------|
| 2  | 1    |                   | Jhelum       | R     | 480                |
| 4         Upper Sindh II & Est.         Sindh nallah         R(P)         105           5         Kishanganga (Karalpur)         Kishanganga (Karalpur)         R(P)         330           6         Dulhasti         Chenab         R(P)         390           7         Salal I & II (Salal)         Chenab         R         690           8         Baghilhar-I (Baglihar)         Chenab         R(P)         450           9         Baghilhar-I (Baglihar)         Chenab         R(P)         450           10         Sewa-II (Sewa)         Sewa         R(P)         120           11         Parnai         Suran         R         37.5           12         Ratle         Chenab         R (P)         850           13         Lower Kalnai         Kalnai         R (P)         850           15         Kiru         Chenab         R (P)         93           16         Kwar         Chenab         R (P)  | 2    |                   | Jhelum       | R     | 240                |
| Six  | 3    | Lower Jhelum      | Jhelum       | R(P)  | 105                |
| Salat   & II   Chenab   R(P)   390   | 4    |                   | Sindh nallah | R(P)  | 105                |
| 7         Salal I & II (Salal)         Chenab         R         690           8         Baghlihar-I (Bagilhar)         Chenab         R(P)         450           9         Baghlihar-II (Bagilhar)         Chenab         R(P)         450           10         Sewa-II (Sewa)         Sewa         R(P)         120           11         Parnai         Suran         R         37.5           12         Ratle         Chenab         R (P)         850           13         Lower Kalnai         Kalnai         R         48           14         Pakadolu         Marusudar         S         1000           15         Kiru         Chenab         R (P)         540           16         Kwar         Chenab         R (P)         540           17         Kirthai-II (Naunut)         Chenab         R (P)         930           18         Sawalkot         Chenab         R (P)         1856           19         New Ganderbal         Sindh Nallah         R (P)         93           20         Uri-I Stage-II (Wri)         Jhelum         R         240           21         Kishanganga-II (Wangam)         Kishanganga         R         42 <td>5</td> <td></td> <td>Kishanganga</td> <td>R(P)</td> <td>330</td>  | 5    |                   | Kishanganga  | R(P)  | 330                |
| Republicant   Chenab   Republicant   Repub | 6    | Dulhasti          | Chenab       | R(P)  | 390                |
| Social Color   | 7    |                   | Chenab       | R     | 690                |
| Sewa-II  | 8    |                   | Chenab       | R(P)  | 450                |
| 10   | 9    |                   | Chenab       | R(P)  | 450                |
| 12   | 10   |                   | Sewa         | R(P)  | 120                |
| 13   | 11   | Parnai            | Suran        | R     | 37.5               |
| 13   | 12   | Ratle             | Chenah       | R (P) | 850                |
| 14         Pakaldul         Marusudar         S         1000           15         Kiru         Chenab         R         624           16         Kwar         Chenab         R (P)         540           17         Kirthai-II (Naunut)         Chenab         R (P)         930           18         Sawalkot         Chenab         R (P)         1856           19         New Ganderbal         Sindh Nallah         R (P)         93           20         Uri-I Stage-II (Uri)         Jhelum         R         240           21         Kishanganga-II (Wangam)         Kishanganga         R         42           22         Chandanwari-Laripura         Chandanwari         R         81           23         Gangbal         Kanknang         S         48           24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti)         Chenab         R         260           28         Shamnot         Chenab         R         180   |      |                   |              |       |                    |
| 15   |      |                   |              |       |                    |
| 16         Kwar         Chenab         R (P)         540           17         Kirthai-II (Naunut)         Chenab         R (P)         930           18         Sawalkot         Chenab         R (P)         1856           19         New Ganderbal         Sindh Nallah         R (P)         93           20         Uri-I Stage-II (Uri)         Jhelum         R         240           21         Kishanganga-II (Wangam)         Kishanganga         R         42           22         Chandanwari- Laripura         Chandanwari         R         81           23         Gangbal         Kanknang         S         48           24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64 <td></td> <td></td> <td></td> <td></td> <td></td>  |      |                   |              |       |                    |
| 17   |      | Kwar              |              |       |                    |
| 19         New Ganderbal         Sindh Nallah         R (P)         93           20         Uri-I Stage-II (Uri)         Jhelum         R         240           21         Kishanganga-II (Wangam)         Kishanganga         R         42           22         Chandanwari-Laripura         Chandanwari         R         81           23         Gangbal         Kanknang         S         48           24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti)         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40  | 17   | Kirthai-II        | Chenab       |       | 930                |
| 20         Uri-I Stage-II (Uri)         Jhelum         R         240           21         Kishanganga-II (Wangam)         Kishanganga         R         42           22         Chandanwari- Laripura         Chandanwari         R         81           23         Gangbal         Kanknang         S         48           24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 18   | Sawalkot          | Chenab       | R (P) | 1856               |
| Curi    | 19   | New Ganderbal     | Sindh Nallah | R (P) | 93                 |
| 21         (Wangam)         Kishanganga         R         42           22         Chandanwari-Laripura         Chandanwari         R         81           23         Gangbal         Kanknang         S         48           24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40  | 20   |                   | Jhelum       | R     | 240                |
| 22         Laripura         Chandanwari         R         81           23         Gangbal         Kanknang         S         48           24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 21   |                   | Kishanganga  | R     | 42                 |
| 24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 22   |                   | Chandanwari  | R     | 81                 |
| 24         Kirthai-I (Sho)         Chenab         R (P)         390           25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 23   | Gangbal           | Kanknang     | S     | 48                 |
| 25         Bursar MPP         Marusudar         S         800           26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 24   |                   |              |       | 390                |
| 26         Ujh         Ujh         S         196           27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 25   | Bursar MPP        | Marusudar    | S     | 800                |
| 27         Dulhasti-Stage-II (Dulhasti )         Chenab         R         260           28         Shamnot         Chenab         R         330           29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40  |      |                   |              |       |                    |
| 29         Barinium         Chenab         R         180           30         Bichlari         Bichlari         R         64           31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40  |      | Dulhasti-Stage-II |              |       |                    |
| 30 Bichlari Bichlari R 64  31 Warddwan Bursar Wardwan S 255  32 Ans I Ans R 40   | 28   | Shamnot           | Chenab       | R     | 330                |
| 31         Warddwan Bursar         Wardwan         S         255           32         Ans I         Ans         R         40   | 29   | Barinium          | Chenab       | R     | 180                |
| 32 Ans I Ans R 40  | 30   | Bichlari          | Bichlari     | R     | 64                 |
|  | 31   | Warddwan Bursar   | Wardwan      | S     | 255                |
|  | 32   | Ans I             | Ans          | R     | 40                 |
|  | 32   |                   |              |       | 12264.5            |

| Sl.No. | UTILITY/STATIONS | NO. OF<br>STATIONS | NO. OF UNITS<br>X CAPACITY<br>(MW) | RIVER/BASIN* | DISTRICT           | CAPACITY<br>(MW) | Type<br>(R/S/R(P)) | YEAR OF COMMISSIONING |  |
|--------|------------------|--------------------|------------------------------------|--------------|--------------------|------------------|--------------------|-----------------------|--|
|        | JKSPDC           |                    |                                    |              |                    |                  |                    |                       |  |
| 1      | BAGLIHAR-I       | 1                  | (3X150)                            | CHENAB       | RAMBAN             | 450              | R(P)               | 2008                  |  |
| 2      | BAGLIHAR II      | 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             |  |
|        | TOTAL JKSPDC     | 4                  |                                    |              |                    | 1110             |                    |                       |  |
|        | NHPC             |                    |                                    |              |                    |                  |                    |                       |  |
| 1      | DULHASTI         | 1                  | (3X130)                            | CHENAB       | KISTWAR            | 390              | R(P)               | 2007                  |  |
| 2      | SALAL - I&II     | 1                  | (6X115)                            | CHENAB       | REASI &<br>UDAMPUR | 690              | R                  | 1987-95               |  |
| 3      | URI-I            | 1                  | (4X120)                            | JHELUM       | BARAMULA           | 480              | R                  | 1996-1997             |  |
| 4      | URI-II           | 1                  | (4X60)                             | JHELUM       | BARAMULA           | 240              | R                  | 2013-14               |  |
| 5      | SEWA-II          | 1                  | (3X40)                             | SEWA         | MAHSKA             | 120              | R(P)               | 2010-11               |  |
| 6      | KISHENGANGA      | 1                  | (3X110)                            | KISHENGANGA  | BANDIPORA          | 330              | R(P)               | 2018                  |  |
|        | SUB-TOTAL NHPC   | 6                  |                                    |              |                    | 2250             |                    |                       |  |
| 10     | TOTAL J&K        | 10                 |                                    | _            |                    | 3360             | _                  |                       |  |

<sup>\*</sup> ALL PROJECTS ARE IN INDUS BASIN.

#### **B.** H.E. Projects Under Active Construction:

| Sl.No. | Name of Project | Agency          | District | I.C. (MW) | River     | Basin | Type<br>(R/S/R(P)) | Likely Commissioning |
|--------|-----------------|-----------------|----------|-----------|-----------|-------|--------------------|----------------------|
| 1      | Pakal Dul       | CVPPL           | Kishtwar | 1000      | Marusadar | Indus | S                  | 2026-27<br>(Sept'26) |
| 2      | Parnai          | JKSPDC          | Poonch   | 37.5      | Suran     | Indus | R                  | 2024-25<br>(Jun'24)  |
| 3      | Kiru            | CVPPL           | Kishtwar | 624       | Chenab    | Indus | R                  | 2025-26<br>(Mar'26)  |
| 4      | Ratle           | RHEPPL/<br>NHPC | Kishtwar | 850.00    | Chenab    | Indus | R(P)               | 2025-26 (Feb'26)     |
| 5      | Kwar            | CVPPL           | Kishtwar | 540.00    | Chenab    | Indus | R(P)               | 2026-27<br>(Nov'26)  |
| 5      | 5 Total         |                 |          | 3051.5    |           |       |                    |                      |

### C. H.E. Projects on which Construction is held up:

| Sl.No. | Name of Project | Agency | District | I.C. (MW) | River  | Basin | Type<br>(R/S/R(P)) | Status & Likely Commissioning   |
|--------|-----------------|--------|----------|-----------|--------|-------|--------------------|---|
| 1      | Lower Kalnai    | JKSPDC | Kishtwar | 48        | Kalnai | 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. The Balance Work stands tendered out by JKSPDC in EPC mode vide E-NIT on 24.03.2022. |
| 1      | Total           |        |          | 48        |        |       |                    |   |

<sup>\*</sup> The Project is presently stalled.Commissioning is subject to restart of works

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

| SI No. | Name of<br>Project           | Agency | River        | District             | I.C. (MW) | Date of CEA<br>Concurrence | Type<br>(R/S/R(P)) | Status  |
|--------|------------------------------|--------|--------------|----------------------|-----------|----------------------------|--------------------|---|
| 1      | New<br>Ganderwal             | JKSPC  | Sindh Nallah | Ganderwal            | 93        | 10.06.14                   | R(P)               | EC accorded on 27.9.13 & FC accorded on 02.04.2012 #  |
| 2      | Kirthai-II                   | CVPPL  | Chenab       | Kishtwar             | 930       | 14.06.2019                 | R(P)               | EC recommended by MoEF&CC on 15.04.2021. FC yet to be obtained by developer ###   |
| 3      | Sawalkote                    | NHPC   | Chenab       | Ramban &<br>Udhampur | 1856      | 18.04.18                   |                    | 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. #### |
| 4      | Uri-I Stage-II<br>HE Project | NHPC   | Jhelum       | Baramula             | 240       | 16.02.2023                 | R                  | EC & FC yet to be obtained by developer   |
| 4      | 4 Total                      |        |              |                      | 3119      |                            |                    |   |

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

### Survey under process. The projet was handed over to NHPC vide MoU signed on 03.01.21. The project will be executed by CVPPL (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. CVPPL. CEA vide letter dated 29.08.2022 extended the validity of appraisal upto 13.06.2024.

####The project was handed over to NHPC vide MoU signed on 03.01.21. The project will be executed by NHPC on BOOT basis. 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.

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

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

### F. H.E. Projects Under Survey & Investigation:

| Sl. No. | Name of Project | Basin/River      | Agency for<br>DPR | District | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Date of MoA | Target date pf<br>preparation of<br>DPR |
|---------|-----------------|------------------|-------------------|----------|--------------|--------------------|-------------|---|
| 1       | Dulhasti St-II  | Indus/ Chenab    | NHPC              | Kishtwar | 260          | R                  | 03.01.2021  | 10/23                                   |
| 2       | Bursar          | Indus/ Marusudar | NHPC              | Kishtwar | 800          | S                  |             |   |
| 2       | Total           |                  |                   |          | 1060         |                    |             |   |

### G. 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 | District | Date of Allotment/ MoA | Status   |
|---------|---------|------------|--------|----------|------------------------|--|
| 1       | Shamnot | 370        | NHPC   | Doda     |                        | S&I held up as the project will submerge National Highway. |
| 1       | Total   | 370        |        |          |                        |  |

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

# **H.** Balance Capacity

| Sl.No. | Name of Project            | River       | Туре | I.C. (MW) | District  |
|--------|----------------------------|-------------|------|-----------|-----------|
| 1      | Bichlari                   | Bichlari    | R    | 64        | Doda      |
| 2      | Kishenganga-II<br>(Wangam) | Kishanganga | R    | 42        | Bandipora |
| 3      | Barinium<br>(Shaus)        | Chenab      | R    | 180       | Doda      |
| 4      | Chandanwari Laripora       | Chandanwari | R    | 81        | Anantnang |
| 5      | Gangbal                    | Kanknang    | S    | 48        | Ganderbal |
| 6      | Wardwan Bursar             | Wardwan     | S    | 255       | Kisthwar  |
| 7      | Ans-I Ans                  |             | R    | 40        | Reasi     |
| 7      |                            | Total       | 710  |           |           |

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

# Status of Large Hydro Power Development in Ladakh

I. Conventional Projects

|   |             |   | Nos. | Capacity (MW) |
|---|-------------|---|------|---------------|
| _ | having cap  | ydro Power Potential from Hydroelectric Projects acity above 25 MW) | 10   | 707           |
|   | Breakup (   | of Hydro Power Potential (2017-23 Study)                            |      |               |
| A | Projects in | n operation   | 2    | 89            |
| В | Projects a  | llotted by States for development                                   |      |               |
|   | B-I         | DPR Under Preparation   |      |               |
|   | (i)         | Projects under S&I  | 1    | 95            |
| С | Balance C   | Capacity*   | 8    | 618           |

<sup>\*</sup>Balance Capacity 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.

### **Details of Exploitable Large Hydro Power Projects**

| S.no | Name   | River  | Туре | Installed<br>Capacity |  |  |  |
|------|--|--------|------|-----------------------|--|--|--|
| 1    | Nimu Bazgo<br>(Nimu)                           | Indus  | R(P) | 45                    |  |  |  |
| 2    | Chutak   | Suru   | R    | 44                    |  |  |  |
| 3    | Leh  | Indus  | R    | 67                    |  |  |  |
| 4    | Dumkhar  | Indus  | R    | 28                    |  |  |  |
| 5    | Khalsti  | Indus  | R    | 60                    |  |  |  |
| 6    | Achinthang-Sanjak<br>(Achingthang + Kanyunche) | Indus  | R    | 108                   |  |  |  |
| 7    | Parfila  | Zaskar | S    | 102                   |  |  |  |
| 8    | Tahanus  | Shingo | R    | 49                    |  |  |  |
| 9    | Ulitopo (Nurla)                                | Indus  | R    | 48                    |  |  |  |
| 10   | Sunit (Batalik)                                | Indus  | R    | 156                   |  |  |  |
| 10   |  | TOTAL  |      |                       |  |  |  |

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

### B. H.E. Projects Under Survey & Investigation:

| Sl. No. | Name of Project         | Basin/River         | Basin/River Agency for DPR |        | I.C.<br>(MW) | Type<br>(R/S/R(P)) |
|---------|-------------------------|---------------------|----------------------------|--------|--------------|--------------------|
| 1       | Drass Suru Link Project | Indus/Drass<br>Suru | JKPDCL                     | Kargil | 95           | Type (R/S/R(P))    |
| 1       |                         | 95                  |                            |        |              |                    |

### C. Balance Capacity

| Sl.No. | Name of Project                                | River  | Туре    | I.C. (MW) | District |
|--------|--|--------|---------|-----------|----------|
| 1      | Parfila  | Zaskar | S       | 102       | Leh      |
| 2      | Ulitopo (Nurla)                                | Indus  | R       | 48        | Leh      |
| 3      | Khalsti (Khalsi)                               | Indus  | R       | 60        | Leh      |
| 4      | Dumkhar  | Indus  | R       | 28        | Leh      |
| 5      | Achinthang-sanjak (Achingthang<br>+ Kanyunche) | Indus  | R       | 108       | Leh      |
| 6      | Sunit (Batalik)                                | Indus  | R       | 156       | Kargil   |
| 7      | Tahanus  | Shingo | R       | 49        | Kargil   |
| 8      | Leh  | Indus  | Indus R |           | Leh      |
| 8      | Total  |        |         | 618       |          |

 $Note: R=Run \ of \ River, S=Storage \ \& \ R(P)=Run \ of \ River \ with \ Pondage, MPP=Multipurpose \ project$ 

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

### **I. Conventional Projects**

|   |             |   | Nos. | Capacity (MW) |
|---|-------------|---|------|---------------|
|   | having cap  | Hydro Power Potential from Hydroelectric Projects pacity above 25 MW)         | 72   | 18305         |
|   | Bre         | akup of Hydro Power Potential (2017-23 Study)                                 |      |               |
| A | Projects i  | in operation  | 29   | 10263         |
| В | Projects 1  | under active construction   | 9    | 2446          |
| C | Projects of | on which construction is held up  | 1    | 44            |
| D | Projects a  | allotted by States for development  |      |               |
|   | D-I         | DPR Prepared  |      |               |
|   | (i)         | Projects concurred by CEA and yet to be taken up for construction             | 4    | 937           |
|   | (ii)        | Projects returned to project authorities                                      | 1    | 400           |
|   | D-II        | DPR Under Preparation   |      |               |
|   | (i)         | Projects under S&I  | 6    | 1584          |
|   | (ii)        | Projects allotted for development on which S&I is held up/ yet to be taken up | 5    | 2260          |
| E | Balance (   | Capacity*   | 17   | 1037          |

<sup>\*</sup>Balance Capacity 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.

### **Details of Exploitable Large Hydro Power Projects**

| S.no | Name   | River             | Туре  | IC (MW) |
|------|--|-------------------|-------|---------|
| 1    | Budhil                                       | Budhil            | R (P) | 70      |
| 2    | Bairasiul                                    | Siul              | R (P) | 180     |
| 3    | Chamera-I<br>(Chamera)                       | Ravi              | S     | 540     |
| 4    | Chamera-II<br>(Gwar)                         | Ravi              | R(P)  | 300     |
| 5    | Chamera-III<br>(Hibra)                       | Ravi              | R (P) | 231     |
| 6    | Chanju-I                                     | Chanju nallah     | R (P) | 36      |
| 7    | Bajoli Holi                                  | Ravi              | R     | 180     |
| 8    | Allain Duhangan<br>(Allain Nallah +Duhangan) | Allain            | R (P) | 192     |
| 9    | Malana                                       | Mallana Nallah    | R (P) | 86      |
| 10   | Dehar<br>( Pandoh Diversion Dam)             | Beas              | R (P) | 990     |
| 11   | Pong<br>(Pong Dam)                           | Beas              | S     | 396     |
| 12   | Malana-II                                    | Malana            | R (P) | 100     |
| 13   | Parbati-III<br>(Sainj-IV)                    | Sainj             | R (P) | 520     |
| 14   | Sainj<br>(Sainj Kartha-II+Sainj)             | Sainj             | R (P) | 100     |
| 15   | Larji  | Beas              | R (P) | 126     |
| 16   | Bassi & Extn.                                | Uhl               | R (P) | 66      |
| 17   | Shanan Ext.<br>(Uhl at Joginder Nagar)       | Uhl               | R(P)  | 110     |
| 18   | Baspa( Baspa-II)                             | Baspa             | R (P) | 300     |
| 19   | Karcham Wangtoo                              | Satluj            | R (P) | 1045    |
| 20   | Sanjay<br>(Bhabha (Sanjay))                  | Bhabha Khad       | R(P)  | 120     |
| 21   | Integrated Kashang                           | Kashang/Kirankhar | R (P) | 195     |
| 22   | Nathpa Jhakri                                | Satluj            | R (P) | 1500    |
| 23   | Rampur<br>(Rampur Nanjah)                    | Satluj            | R     | 412     |
| 24   | Kol Dam                                      | Satluj            | S     | 800     |
| 25   | Bhakra Left                                  | Satluj            | S     | 612     |

|    | Bahkra right   |                 |         |     |
|----|--|-----------------|---------|-----|
| 26 | Bahkra right<br>(Bhakra Nangal)                        | Satluj          | S       | 785 |
| 27 | Sorang   | Sorang khar     | R       | 100 |
| 28 | Giri& Bata   | Giri            | R(P)    | 60  |
| 29 | Sawara kudu  | Pabar           | R       | 111 |
| 30 | Kutehr<br>(Machhetri)                                  | Ravi            | R       | 240 |
| 31 | Uhl III<br>(Rana Khad)                                 | Rana & Nerikhar | R       | 100 |
| 32 | Parbati-II   | Parbati         | R       | 800 |
| 33 | Dhaulasidh   | Beas            | R       | 66  |
| 34 | Tindong-I  | Tidong          | R       | 150 |
| 35 | Shongtong Kharcham                                     | Satluj          | R       | 450 |
| 36 | Luhri St-I<br>(Luhri)                                  | satluj          | R       | 210 |
| 37 | Chhatru  | Chandra         | R (P)   | 126 |
| 38 | Miyar<br>(Udaipur)                                     | Miyar Nallah    | R (P)   | 120 |
| 39 | Dugar  | Chenab          | R (P)   | 500 |
| 40 | Thana Plaun  | Beas            | R cum S | 191 |
| 41 | Baggi  | Beas            | R       | 42  |
| 42 | Chango Yangthang                                       | Spiti           | R       | 180 |
| 43 | Sunni (Sunni Chaba Dam)                                | Satluj          | R(P)    | 382 |
| 44 | Reoli Dugli<br>(Raoli)                                 | Chenab          | R       | 456 |
| 45 | Seli   | Chenab          | R (P)   | 400 |
| 46 | Purthi   | Chenab          | R       | 232 |
| 47 | Bardang  | Chenab          | R       | 175 |
| 48 | Sach Khas  | Sarchu          | R       | 288 |
| 49 | Gyspa  | Bhaga           | S       | 350 |
| 50 | Kulu   | Beas            | R       | 52  |
| 51 | Sainj-I  | Sainj           | R       | 68  |
| 52 | Triveni Mahadev  | Beas            | R       | 50  |
| 53 | Jangi thopan Powari<br>(Jangi Thopan+Thopan<br>Powari) | Satluj          | R       | 804 |
| 54 | Luhri StII<br>(Luhri-II)                               | Satluj          | R       | 172 |

| 55 | Sumte Kothang<br>(Thibda)     | Spiti            | R | 50    |
|----|-------------------------------|------------------|---|-------|
| 56 | Lara Sumte (kyurik)           | Spiti            | R | 40    |
| 57 | Yangthang khab                | Spiti            | R | 158   |
| 58 | Khab-I                        | Satluj           | R | 310   |
| 59 | Khab-II                       | Satluj           | R | 150   |
| 60 | Kashang Stage IV<br>(Taiti-I) | Kashang & kerang | R | 48    |
| 61 | Shangling<br>(Khoskar)        | Chandra          | R | 35    |
| 62 | Telling<br>(Railing)          | Chandra          | S | 65    |
| 63 | Tandi Rashil<br>(Jhalma)      | Chenab           | R | 166   |
| 64 | Chota Dara                    | Chandra          | R | 52    |
| 65 | Lujai                         | Lujai Nallah     | R | 49    |
| 66 | Tandi Rashil<br>(Rashil)      | Chenab           | R | 75    |
| 67 | Chanju-III                    | Chanju nallah    | R | 48    |
| 68 | Deothal Chanju                | Chanju nallah    | R | 30    |
| 69 | Surgani Sundla                | Suil             | R | 48    |
| 70 | Tangnu Romai-I                | Pabar            | R | 44    |
| 71 | Renukaji Dam                  | Giri             | S | 40    |
| 72 | Baroti Suil                   |                  | S | 30    |
| 72 | тота                          | L                |   | 18305 |

| S. NO. | UTILITY/STATIONS     | NO. OF<br>STNS. | NO. OF<br>UNITS | 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 |
|--------|----------------------|-----------------|-----------------|---------------------------------------|-----------------------|--------------------|------------------|--------------------|--------------------------|
|        | CENTRAL SECTOR       |                 |                 |                                       |                       |                    |                  |                    |                          |
|        | ВВМВ                 |                 |                 |                                       |                       |                    |                  |                    |                          |
| 1      | BHAKRA LEFT          | 1               | 5               | (1X108+<br>4x126)                     | SUTLEJ                | BILASPUR           | 612              | S                  | 1960-1961                |
| 2      | BHAKRA RIGHT         | 1               | 5               | (5X157)                               | SUTLEJ                | BILASPUR           | 785              | S                  | 1966-1968                |
| 3      | DEHAR                | 1               | 6               | (6X165)                               | BEAS                  | MANDI              | 990              | R(P)               | 1977-1983                |
| 4      | PONG                 | 1               | 6               | (6X66)                                | BEAS                  | KANGRA             | 396              | S                  | 1978-1983                |
|        | SUB-TOTAL BBMB       | 4               | 22              |                                       |                       |                    | 2783             |                    |                          |
|        | NHPC                 |                 |                 |                                       |                       |                    |                  |                    |                          |
| 5      | BAIRA SIUL           | 1               | 3               | (3X60)                                | SIUL                  | CHAMBA             | 180              | R(P)               | 1980-1981                |
| 6      | CHAMERA- I           | 1               | 3               | (3X180)                               | RAVI                  | Type<br>(R/S/R(P)) | 540              | S                  | 1994                     |
| 7      | CHAMERA- II          | 1               | 3               | (3X100)                               | RAVI                  | CHAMBA             | 300              | R(P)               | 2003-2004                |
| 8      | CHAMERA- III         | 1               | 3               | (3X77)                                | RAVI                  | CHAMBA             | 231              | R(P)               | 2012                     |
| 9      | PARBATI-III          | 1               | 4               | (4X130)                               | SAINJ                 | KULLU              | 520              | R(P)               | 2014                     |
|        | SUB-TOTAL NHPC       | 5               | 16              |                                       |                       |                    | 1771             |                    |                          |
|        | SJVNL                |                 |                 |                                       |                       |                    |                  |                    |                          |
| 10     | NATHPA JHAKRI        | 1               | 6               | (6X250)                               | SATLUJ                | SHIMLA             | 1500             | R(P)               | 2003-2004                |
| 11     | RAMPUR               | 1               | 6               | (6X68.67)                             | SATLUJ                | SHIMLA             | 412              | R                  | 2014-15                  |
|        | SUB-TOTAL SJVNL      | 2               | 12              |                                       |                       |                    | 1912             |                    |                          |
|        | NTPC LTD.            |                 |                 |                                       |                       |                    |                  |                    |                          |
| 12     | KOLDAM               | 1               | 4               | (4X200)                               | SATLUJ                | BILASPUR           | 800              | S                  | 2015                     |
|        | SUB-TOTAL NTPC LTD.  | 1               | 4               |                                       |                       |                    | 800              |                    |                          |
|        | TOTAL CENTRAL SECTOR | 12              | 54              |                                       |                       |                    | 7266             |                    |                          |
|        | STATE SECTOR         |                 |                 |                                       |                       |                    |                  |                    |                          |
|        | HPSEBL               |                 |                 |                                       |                       |                    |                  |                    |                          |
| 13     | BASSI                | 1               | 4               | (4X16.5)                              | UHL                   | MANDI              | 66               | R(P)               | 1970-1981                |
| 14     | GIRI BATA *          | 1               | 2               | (2X30)                                | GIRI                  | SIRMAUR            | 60               | R(P)               | 1978                     |
| 15     | LARJI                | 1               | 3               | (3X42)                                | BEAS                  | KULLU              | 126              | R(P)               | 2006                     |
| 16     | SANJAY               | 1               | 3               | (3X40)                                | Bhabha Khad           | KINNAUR            | 120              | R(P)               | 1989                     |
|        | TOTAL HPSEBL         | 4               | 12              |                                       |                       |                    | 372              |                    |                          |
|        | HPPCL                |                 |                 |                                       |                       |                    |                  |                    |                          |
| 17     | INTEGRATED KASHANG   | 1               | 3               | (3X65)                                | Kashang/Kirank<br>har | KINNAUR            | 195              | R (P)              | 2016-17                  |
| 18     | SAINJ                | 1               | 2               | (2X50)                                | SAINJ                 | KULLU              | 100              | R(P)               | 2017                     |

| 19 | SWARA KUDDU                              | 1  | 3   | (3X37)            | Pabbar/Tons/<br>Yamuna   | SHIMLA  | 111   | R    | 2020           |
|----|--|----|-----|-------------------|--------------------------|---------|-------|------|----------------|
|    | TOTAL HPPCL                              | 3  | 8   |                   |                          |         | 406   |      |                |
|    | PSPCL                                    |    |     |                   |                          |         |       |      |                |
| 20 | SHANAN<br>(Uhl at Joginder Nagar)        | 1  | 5   | (1X50)+<br>(4X15) | UHL & Lamba<br>Dug River | MANDI   | 110   | R(P) | 1932-1982      |
|    | TOTAL PSPCL                              | 1  | 5   |                   |                          |         | 110   |      |                |
|    | TOTAL STATE SECTOR                       | 8  | 25  |                   |                          |         | 888   |      |                |
|    | PRIVATE SECTOR                           |    |     |                   |                          |         |       |      |                |
|    | MPCL                                     |    |     |                   |                          |         |       |      |                |
| 21 | MALANA                                   | 1  | 2   | (2X43)            | MALANA                   | KULLU   | 86    | R(P) | 2001           |
|    | TOTAL MPCL                               | 1  | 2   |                   |                          |         | 86    |      |                |
|    | GBHPPL                                   |    |     |                   |                          |         |       |      |                |
| 22 | BUDHIL                                   | 1  | 2   | (2X35)            | BUDHIL                   | CHAMBA  | 70    | R(P) | 2012           |
|    | TOTAL GBHPPL                             | 1  | 2   |                   |                          |         | 70    |      |                |
|    | EPPL                                     |    |     |                   |                          |         |       |      |                |
| 23 | MALANA-II                                | 1  | 2   | (2X50)            | MALANA                   | KULLU   | 100   | R(P) | 2011-12        |
|    | TOTAL EPPL                               | 1  | 2   |                   |                          |         | 100   |      |                |
|    | IA ENERGY                                |    |     |                   |                          |         |       |      |                |
| 24 | CHANJU-I                                 | 1  | 3   | (3X12)            | Chanju nallah            | СНАМВА  | 36    | R(P) | 2017           |
|    | TOTAL IA ENERGY                          | 1  | 3   |                   |                          |         | 36    |      |                |
| 25 | ALLAIN DUHANGAN                          | 1  | 2   | (2X96)            | ALLAIN<br>NALLAH         |         | 192   | R(P) | 2010-11        |
|    | TOTAL ADHPL                              | 1  | 2   |                   |                          |         | 192   |      |                |
|    | HBPCL                                    |    |     |                   |                          |         |       |      |                |
| 26 | BASPA                                    | 1  | 3   | (3X100)           | BASPA                    | KINNAUR | 300   | R(P) | 2003           |
| 27 | KARCHAM WANGTOO                          | 1  | 4   | (4X261.25)        | SATLAJ                   | KINNAUR | 1045  | R(P) | 2011 (1000 MW) |
|    | TOTAL JSWHEL                             | 2  | 7   |                   |                          |         | 1345  |      |                |
|    | HSPPL                                    |    |     |                   |                          |         |       |      |                |
| 28 | Sorang                                   | 1  | 2   | 2x50              | Sorang                   | Kinnaur | 100   | R    | 2021 (100 MW)  |
|    | GMR BAJOLI HOLI<br>HYDRO POWER PVT. LTD. |    |     |                   |                          |         |       |      |                |
| 29 | Bajoli Holi                              | 1  | 3   | 3x60              | Ravi                     | CHAMBA  | 180   | R    | 2022           |
|    | TOTAL PVT                                | 9  | 23  |                   |                          |         | 2109  |      |                |
| 29 | TOTAL HP                                 | 29 | 102 |                   |                          |         | 10263 |      |                |

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

| Sl.<br>No. | Name of<br>Project  | Agency  | District            | River              | Basin | I.C.<br>(MW) | Type (R/S/R(P)) | Likely Commissioning  |
|------------|---------------------|---|---------------------|--------------------|-------|--------------|-----------------|-----------------------|
| 1          | Parbati StII        | NHPC  | Kullu               | Parbati/Beas       | Indus | 800          | R               | 2024-25<br>(June'24)  |
| 2          | Uhl- III            | Beas Valley Power<br>Corp. Ltd. (BVPC)        | Mandi               | Rana &<br>Nerikhar | Indus | 100          | R               | 2024-25<br>(Dec'24)   |
| 3          | Tidong-I            | M/s NSL Tidong                                | Kinnaur             | Tidong             | Indus | 150          | R               | 2024-245<br>(June'24) |
| 4          | Shontong<br>Karcham | HPPCL   | Kinnaur             | Satluj             | Indus | 450          | R               | 2026-27<br>(Nov'26)   |
| 5          | Kutehr              | JSW Energy (Kutehr)<br>Power Ltd.<br>(JSWEPL) | Chamba              | Ravi               | Indus | 240          | R               | 2025-26<br>(Nov'25)   |
| 6          | Luhri St.I          | SJVNL   | Shimla/Kullu        | Satluj             | Indus | 210          | R               | 2025-26<br>(Jan'26)   |
| 7          | Dhaulasidh          | SJVNL   | Hamirpur/<br>Kangra | Beas               | Indus | 66           | R               | 2025-26<br>(Nov'25)   |
| 8          | Sunni Dam           | SJVNL   | Shimla/Mandi        | Satluj             | Indus | 382          | R(P)            | 2027-28 (March'28)    |
| 9          | Chanju-III          | HPPCL   | Chamba              | Chanju Nallah      | Indus | 48.00        | R               | 2027-28 (June'27)     |
| 9          |                     | 1   | otal                |                    | 2446  |              |                 |                       |

### C. H.E. Projects on which Construction is held up:

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

<sup>\*</sup> The Project is presently stalled. Commissioning is subject to restart of works

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

| Sl. No. | Name of<br>Project | Agency | River           | District      | I.C. (MW) | Date of CEA<br>Concurrence | Type<br>(R/S/R(P)) | Status  |
|---------|--------------------|--------|-----------------|---------------|-----------|----------------------------|--------------------|---|
| 1       | Miyar              | NTPC   | Miyar<br>Nallah | Lahul & Spiti | 120       | 07.02.2013                 | R(P)               | EC accorded on 30.07.12.<br>FC-I accorded on 27.07.12. FC-II yet to be obtained. FRA compliance under process #   |
| 2       | Chhatru            | DSIL   | Chandra         | Lahaul-Spiti  | 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 ###  |
| 3       | Thana Plaun        | HPPCL  | Beas            | Mandi         | 191       | 07.09.2021                 | R cum S            | EAC in its meeting dated 27.11.2018 has recommended Environmental Clearance (EC) to MoEF&CC subject to condition of Stage-I FC and adherance to the condition of Cumulative EIA study of Beas Basisn . FC yet to be obtained.#### |
| 4       | Dugar              | NHPC   | Chenab          | Chamba        | 500       | 26.04.22                   | R(P)               | EC recommended by EAC on 06.09.2022. FC yet to be obtained  |
| 4       | Total              |        |                 |               | 937       |                            |                    |   |

Note: All projects are in Indus basin

#MoU was signed between Government of Himachal Pradesh and NTPC Ltd. on 25.10.2019 to set-up the hydro project. Validity of Concurrence to the project expired on 07.02.2016. GoHP vide letter dated 25.07.2022 cancelled allotment of the project to NTPC.

###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- ImplementationAgreement (PIA) signed on 15.2.2008. Further, validity of Concurrence to project expired on 15.01.2020

#### 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 notofication dated 16.12.2020.

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

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

| Sl. No. | Name of<br>Project | Agency | I.C. (MW) | Type | Month of<br>Return |
|---------|--------------------|--------|-----------|------|--------------------|
|         | Ravi Basin         |        |           |      |                    |
| 1       | Seli               | SHPCL  | 400       | R(P) | May-19             |
| 1       | Total              |        | 400       |      |                    |

### F. H.E. Projects Under Survey & Investigation:

| Sl. No. | Name of Project  | Basin*/River | Agency for DPR | I.C.<br>(MW) | District       | Type<br>(R/S/R(P)) | Date of MoA | Target date of<br>Preparation of<br>DPR |
|---------|------------------|--------------|----------------|--------------|----------------|--------------------|-------------|---|
| 1       | Luhri StII       | Satluj       | SJVNL          | 172          | Mandi & Kullu  | R                  | 25.09.2019  | 09/24                                   |
| 2       | Purthi           | Chenab       | SJVNL          | 234          | Lahaul & Spiti | R                  | 25.09.2019  | 12/24                                   |
| 3       | Bardang          | Chenab       | SJVNL          | 166          | Lahaul & Spiti | R                  | 25.09.2019  | 03/24                                   |
| 4       | Sach khas        | Sarchu       | SJVNL          | 288          | Chamba         | R                  | 05.01.21    | 07/24                                   |
| 5       | Tandi Rashil HEP | Chenab       | SJVN Ltd.      | 268          | Lahaul & Spiti | R                  | 30.09.2022  | 03/25                                   |
| 6       | Reoli Dugli HEP  | Chenab       | SJVN Ltd.      | 456          | Lahaul & Spiti | R                  | 18.03.2021  | 12/23                                   |
| 6       | Total            |              |                | 1584         |                |                    |             |   |

<sup>\*</sup> All projects are in Indus Basin

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

| <b></b> | I                   | ı         | 1                          | 1                            |  |         | T  |  |
|---------|---------------------|-----------|----------------------------|------------------------------|--|---------|--|--|
| Sl. No. | Project             | I.C. (MW) | Agency                     | Date of<br>Allotment/<br>MoA | Dist   | trict   | s  | tatus  |
|         | Satluj Basin        |           |                            |                              |  |         |  |  |
| 1       | Khab                | 636       | HPPCL                      | 22.09.2009                   | Kin  | naur    | i.e. Yangthang Khab and FF<br>Jhangi Thopan vide letter da   | ated 15.06.2017. Accordingly a is being prepared considering e RoR and considering the |
| 2       | Tidong-II           | 60        | Tidong Hydro<br>Power Ltd. | 20.01.2012                   | Kin  |         | S&I is held up due to local public agitation & there is progress in the S&I activities of the project for a long |  |
| 3       | Jangi Thopan Powari | 804       | SJVN Ltd.                  | 25.09.2019                   | Kinı   | naur    |  | after there is no progress in the by the developer                                     |
|         | Sub Total           | 1500      |                            | l .                          |  |         |  |  |
|         | Chenab Basin        | •         | ·                          |                              |  |         |  |  |
| 4       | Gyspa Dam           | 300       | HPPCL                      | 22.09.2009                   | Lahaul   | & Spiti | S&I held up due to sustaine  | d opposition from local people.  |
|         | Sub Total           | 300       |                            |                              |  |         |  |  |
|         | Beas Basin          |           |                            | ı                            |  |         |  |  |
| 5       | Nakhtan (Parbati-I) | 460       | HPPCL                      | 22.09.2009                   | Request of HPPCL for monitoring of Nakthan HEF put on hold received on 31.12.18 on account of CE study of Beas Basin & Hearing of court case on reg basis. |         | 12.18 on account of CEIA   |  |
|         | Sub-Total           | 460       |                            | •                            |  |         |  |  |
| 5       | Total               | 2260      |                            |                              |  |         |  |  |

### H. Balance Capacity

| Sl.No.          | Name of Project               | River         | Туре | I.C.<br>(MW)      | Reamrks  |
|-----------------|-------------------------------|---------------|------|-------------------|--|
| 1               | Kashang Stage-IV<br>(Taiti-I) | Chenab        | R    | 48                |  |
| 2               | Baroti                        | Siul          | S    | 30                |  |
| 3               | Chhota Dara                   | Chandra       | R    | 52                |  |
| 4               | Shangling<br>(Khoskar)        | Chandra       | R    | 35                |  |
| 5               | Telling<br>(Railing)          | Chandra       | s    | 65                |  |
| 6               | Kulu                          | Beas          | R    | 52                |  |
| 7               | Sainj-I                       | Sainj         | R    | 68                |  |
| 8               | Yangthang Khab                | Spiti         | R    | 158               |  |
| 9               | Lujai                         | Lujai Nallah  | R    | 49                |  |
| 10              | Renukaji Dam                  | Giri          | S    | 40                |  |
| 11              | Triveni Mahadev               | Beas          | R    | 50                |  |
| 12              | Baggi                         | Beas          | R    | 42                |  |
| 13              | Deothal Chanju                | Chanju Nallah | R    | 30                |  |
| 14              | Sugani Sundla                 | Suil          | R    | 48                |  |
| 15              | Chango Yangthang              | Spiti         | R    | 180               |  |
| 16              | Sumte Khotang                 | Spiti         | R    | 50                | *Intially alloted to Reliance Power Ltd.<br>(M/s Sumte Kothang HPPL)<br>*Project was in S&I held up due to<br>opposition from locals and NGOs.<br>*Project stands terminated on<br>28.07.2017. |
| 17<br><b>17</b> | Lara Sumte                    | Spiti         | R    | 40<br><b>1037</b> | •Intially alloted to Reliance Power Ltd.<br>(M/s Sumte Kothang HPPL)<br>•Project was in S&I held up due to<br>opposition from locals and NGOs.<br>•Project stands terminated on<br>28.07.2017. |

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

# Status of Large Hydro Power Development in Punjab

### I. Conventional Projects

|         |   | Nos. | Capacity<br>(MW) |
|---------|---|------|------------------|
| (Projec | table Large Hydro Power Potential from Hydroelectric Projects ts having capacity above 25 MW) 23 Study) | 10   | 1300.73          |
|         | Breakup of Hydro Power Potential (2017-23 Study)  |      |                  |
| I       | Projects in operation   | 9    | 1096.3           |
| II      | Projects under active construction  | 1    | 206              |

| Details of E | Details of Exploitable Large Hydro Power Projects |                        |      |                    |  |  |  |  |  |  |
|--------------|---|------------------------|------|--------------------|--|--|--|--|--|--|
| S.no         | Name  | River                  | Туре | Installed Capacity |  |  |  |  |  |  |
| 1            | Ranjit Sagar Dam<br>(Thein)                       | Ravi                   | S    | 600                |  |  |  |  |  |  |
| 2            | Shahpurkhandi<br>(Shahpur)                        | Ravi                   | R    | 206                |  |  |  |  |  |  |
| 3            | Mukerian Phase I                                  | Tail water of pong dam | R    | 45                 |  |  |  |  |  |  |
| 4            | Mukerian Phase II                                 | Tail water of pong dam | R    | 45                 |  |  |  |  |  |  |
| 5            | Mukerian Phase III                                | Tail water of pong dam | R    | 58.5               |  |  |  |  |  |  |
| 6            | Mukerian Phase IV                                 | Tail water of pong dam | R    | 58.5               |  |  |  |  |  |  |
| 7            | Anandpur Sahib-I                                  | AHC<br>(Canala)        | R    | 67                 |  |  |  |  |  |  |
| 8            | Anandpur Sahib-II                                 | AHC<br>(Canala)        | R    | 67                 |  |  |  |  |  |  |
| 9            | Kotla   | Satluj                 | R    | 77.34              |  |  |  |  |  |  |
| 10           | Ganguwal  | Satluj                 | R    | 76.39              |  |  |  |  |  |  |
| 10           |   | TOTAL                  |      | 1300.73            |  |  |  |  |  |  |

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

#### \* ALL PROJECTS ARE IN INDUS BASIN

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

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

| Sl. No. | Name of Project | Implementing<br>Agency | District  | River<br>/Basin | I. C.<br>(MW) | Type<br>(R/S/R(P)) | Likely<br>Commissioni<br>ng |
|---------|-----------------|------------------------|-----------|-----------------|---------------|--------------------|-----------------------------|
| 1       | Shahpurkandi    | Irr. Deptt. & PSPCL    | Gurdaspur | Ravi<br>/Indus  | 206           | R                  | 2025-26<br>(Oct.'25)        |
| 1       | Total           |                        |           |                 | 206           |                    |                             |

### Status of Large Hydro Power Development in Haryana

I. Conventional Projects

|  | Nos. | Capacity (MW) | River | Туре |
|--|------|---------------|-------|------|
| Exploitable Large Hydro Power Potential from Hydroelectric Projects (Projects having capacity above 25 MW) (2017-23 Study) | -    | -             | -     | -    |

#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 Rajasthan

### I. Conventional Projects

|    |   | Nos. | Capacity (MW) |
|----|---|------|---------------|
|    | Large Hydro Power Potential from Hydroelectric Projects aving capacity above 25 MW) audy) | 4    | 411           |
| Bı | reakup of Hydro Power Potential (2017-23 study)   |      |               |
| A  | Projects in operation   | 4    | 411           |

### **II. Pumped Storage Projects**

|   |                    | Nos. | Capacity (MW) |
|---|--------------------|------|---------------|
| A | Projects Under S&I | 3    | 5560          |

| Details of Exploitable | Details of Exploitable Large Hydro Power Projects |         |       |     |  |  |  |  |  |  |
|------------------------|---|---------|-------|-----|--|--|--|--|--|--|
| S.No.                  | Name  | River   | Туре  | IC  |  |  |  |  |  |  |
| 1                      | Rana Pratap Sagar                                 | Chambal | S     | 172 |  |  |  |  |  |  |
| 2                      | Jawahar Sagar                                     | Chambal | R(P)  | 99  |  |  |  |  |  |  |
| 3                      | Mahi Bajaj-I                                      | Mahi    | S     | 50  |  |  |  |  |  |  |
| 4                      | Mahi Bajaj-II                                     | Mahi    | R (P) | 90  |  |  |  |  |  |  |
| 4                      | Total   |         |       | 411 |  |  |  |  |  |  |

|   | UTILITY/<br>STATIONS | NO. OF<br>STATIONS | NO. OF<br>UNITS X<br>CAPACITY<br>(MW) | RIVER   | BASIN | DISTRICT    | I.C. (MW) | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|---|----------------------|--------------------|---------------------------------------|---------|-------|-------------|-----------|--------------------|--------------------------|
| 1 | JAWAHAR SAGAR        | 1                  | (3X33)                                | CHAMBAL | GANGA | BUNDI       | 99        | R(P)               | 1972-1973                |
| 2 | R P SAGAR            | 1                  | (4X43)                                | CHAMBAL | GANGA | CHITTORGARH | 172       | S                  | 1968                     |
| 3 | Mahi Bajaj-I         | 1                  | 2                                     | Mahi    | CIR   | BANSWARA    | 50.00     | MP                 | 1986 (50 MW)             |
| 4 | Mahi Bajaj-II        | 1                  | 2                                     | Mahi    | CIR   | BANSWARA    | 90.00     | R(P)               | 1989 (90 MW)             |
| 4 |                      |                    |                                       |         |       |             | 411       |                    |                          |

Note-Gandhi Sagar (115 MW) is In Operation in the state of Madhya Pradesh

B. Pumped Storage:

| S.No.  | SCHEMES             | INSTALLE                           | D CAPACITY | River   | Status   |  |
|--------|---------------------|------------------------------------|------------|---|--|--|
| 5.110. | SCHEMES             | No. of units x Unit MW size(MW)    |            | Auti  | Statas   |  |
| 1      | Sukhpura Off-Stream | oura Off-Stream 7x320 + 2x160 2560 |            | UR &LR-Off stream,<br>Both Upper Reservoir &<br>Lower Reservoirs are to<br>be contructed  | •Under S&I •Target date for preparation of DPR – 11/2023 •Agency- Greenco •Date of MOA-24.01.2023                                      |  |
| 2      | Shahpur             | 5x300<br>+2x150 1800               |            | Upper Reservoir<br>&Lower Reservoir -off<br>stream  | •Under S&I •Target date of preparation of DPR- 12/2023 •Agency-Greenko •Date of MOA-18.12.2021   |  |
| 3      | Sirohi              | 3x400                              | 1200       | Upper Reservoir- off<br>stream<br>Lower Reservoir-<br>located across a minor<br>rivulet draining into Sili<br>Nallah, a tributary of<br>Sipu river in West Banas<br>river basin | Under S&I     Target date of preparation of DPR-11/23     Agency- JSW Energy     Date of MOA-24.01.2022 (acknowledgment letter to LOI) |  |

### Status of Large Hydro Power Development in Uttarakhand

#### I. Conventional Projects

|                  |         |   | Nos. | Capacity (MW) |  |  |
|------------------|---------|---|------|---------------|--|--|
| Projects         | _       | Hydro Power Potential from Hydroelectric Projects apacity above 25 MW)        | 55   | 13481.35      |  |  |
|                  | Brea    | akup of Hydro Power Potential (2017-23 Study)                                 |      |               |  |  |
| A                | Project | s in operation  | 18   | 3975.35       |  |  |
| В                | Project | s under active construction   | 4    | 1324          |  |  |
| C                | Project | s on which construction is held up  | 2    | 247           |  |  |
| D                | Project | s allotted by States for development  |      |               |  |  |
| D-I DPR Prepared |         | DPR Prepared  |      |               |  |  |
|                  | (i)     | Projects concurred by CEA/State Govt. #                                       | 3    | 815           |  |  |
|                  | (ii)    | Projects returned to project authorities                                      | 7    | 939           |  |  |
|                  | D-II    | DPR Under Preparation   |      |               |  |  |
|                  | (i)     | Projects under S&I  | 2    | 732           |  |  |
|                  | (ii)    | Projects allotted for development on which S&I is held up/ yet to be taken up | 4    | 628           |  |  |
| E                | Balance | e Capacity*   | 15   | 2979          |  |  |

<sup>\*</sup>Balance Capacity 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.

#In addition to above,for one project namely Sirkari Bhyol Rupsiabagar,it has been initmated by UJVNL that total cost has been estimated at Rs. 964.12crore at price level of March 2023 and as per Section 8(1) of Electricity Act ,M/S UJVNL is required to submit the DPR to State Government

### **II. Pumped Storage Projects**

|   |                           | Nos. | Capacity (MW) |
|---|---------------------------|------|---------------|
| A | Under Active Construction | 1    | 1000          |

| No. | Name of the Project                             | River       | Type  | IC(MW) |
|-----|---|-------------|-------|--------|
| 1   | Chibro  | Tons        | R (P) | 240    |
| 2   | Khodri  | Tons        | R (P) | 120    |
| 3   | Vyasi<br>(Lakhwar Vyasi-II)                     | Yamuna      | R (P) | 120    |
| 4   | Dhakrani  | Yamuna      | R     | 33.75  |
| 5   | Dhalipur  | Yamuna      | R     | 51     |
| 6   | Kulhal  | Tons        | R     | 30     |
| 7   | Maneri Bhalli-I                                 | Bagirathi   | R (P) | 90     |
| 8   | Maneri Bhalli-II                                | Bagirathi   | R (P) | 304    |
| 9   | Tehri   | Bagirathi   | S     | 1000   |
| 10  | Koteswar  | Bagirathi   | R(P)  | 400    |
| 11  | Chilla<br>(Rishikesh Hardwar)                   | Ganga       | R     | 144    |
| 12  | Vishnu Prayag                                   | Alaknanda   | R     | 400    |
| 13  | Singoli Bhatwari<br>(Mandakini)                 | Mandakini   | R     | 99     |
| 14  | Srinagar  | Alaknanda   | R (P) | 330    |
| 15  | Ramganga  | Ramganga    | S     | 198    |
| 16  | Tanakpur  | Sarda       | R     | 94.2   |
| 17  | Khatima   | Sarda       | R     | 41.4   |
| 18  | Dhauliganga<br>(Khet Tawaghat)                  | Dhauliganga | R (P) | 280    |
| 19  | Naitwar Mori                                    | Tons        | R (P) | 60     |
| 20  | Lata Tapovan                                    | Dhauliganga | R     | 171    |
| 21  | Tapovan Vishnugad<br>(Tapoban Chunar)           | Dhauliganga | R     | 520    |
| 22  | Vishnu Gad<br>Pipalkoti                         | Alaknanda   | R     | 444    |
| 23  | Phata Byung                                     | Mandakini   | R     | 76     |
| 24  | Jakhol Sankari                                  | Supin       | R     | 44     |
| 25  | Goriganga IIIA<br>(Devibagar Khartoli)          | Goriganga   | R     | 150    |
| 26  | Bowala Nand Prayag                              | Alaknanda   | R     | 300    |
| 27  | Pancheswar MPP<br>(Pancheshwar-I)               | Sarda       | S     | 2400   |
| 28  | Rupaligad<br>Regulating Dam<br>(Pancheshwar-II) | Sarda       | S     | 120    |
| 29  | Kishau Dam                                      | Tons        | S     | 660    |
| 30  | Lakhwar MPP<br>(Lakhwar Vyasi-I)                | Yamuna      | S     | 300    |
| 31  | Kuwa ford                                       | Yamuna      | R     | 106    |

| 32 | Arakot Tiuni<br>(Nakot Patlasu)   | Tons         | R     | 100      |
|----|-----------------------------------|--------------|-------|----------|
| 33 | Tiuni Plasu<br>(Tuini)            | Tons         | R     | 62       |
| 34 | Mori Hanol<br>(Ugmir)             | Tons         | R     | 26       |
| 35 | Hanol Tiuni                       | Tons         | R     | 62       |
| 36 | Nand Prayag<br>Langasu            | Alaknanda    | R     | 106      |
| 37 | Uttyasu Dam                       | Alaknanda    | S     | 720      |
| 38 | Bampa Kurkuti                     | Dhauli Ganga | R     | 31       |
| 39 | Jhelum Tamak                      | Dhauliganga  | R (P) | 135      |
| 40 | Tamak Lata                        | Dhauliganga  | R     | 130      |
| 41 | Tikh Kunwargarh<br>(Tikh Gurupha) | Pindar       | R     | 82       |
| 42 | Bagoli Dam                        | Pindar       | R     | 126      |
| 43 | Devasari Dam                      | Pindar       | R     | 164      |
| 44 | Garba Tawaghat                    | Sarda        | R     | 398      |
| 45 | Tawaghat Dharchula                | Sarda        | R     | 470      |
| 46 | Kalika Dantu                      | Sarda        | R     | 190      |
| 47 | Bokang Bailing                    | Dhauliganga  | R     | 192      |
| 48 | Chunger Chal                      | Dhauliganga  | R     | 130      |
| 49 | Sela Urthing                      | Dhauliganga  | R     | 126      |
| 50 | Urthing Sobla                     | Dhauli Ganga | R     | 228      |
| 51 | Sobala Jhimirigaon                | Dhauli Ganga | R     | 118      |
| 52 | Mapang Bogidiyar                  | Goriganga    | R     | 280      |
| 53 | Bogidiyar<br>Sirkaribbyol         | Goriganga    | R     | 100      |
| 54 | Sirkari Bhyol<br>Rupsiyabagar     | Goriganga    | R     | 135      |
| 55 | Ramganga Dam                      | Ram Ganga    | S     | 44       |
|    | TOTAL                             |              |       | 13481.35 |

| S. NO. | UTILITY/<br>STATIONS                                 | NO. OF STNS. | NO. OF UNITS<br>X CAPACITY<br>(MW)           | RIVER                                     | DISTRICT             | I.C. (MW)        | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|--------|--|--------------|--|---|----------------------|------------------|--------------------|--------------------------|
|        | CENTRAL SECTOR                                       |              |  |   |                      |                  |                    |                          |
|        | NHPC   |              |  |   |                      |                  |                    |                          |
| 1      | DHAULI GANGA   | 1            | (4X70)                                       | DHAULIGANGA                               | PITHORAGARH          | 280              | R(P)               | 2005                     |
| 2      | TANAKPUR   | 1            | (3X31.4)                                     | SARDA                                     | CHAMPAVAT            | 94.2             | R                  | 1992                     |
|        | SUB-TOTAL NHPC                                       | 2            |  |   |                      | 374.2            |                    |                          |
| 3      | THDC<br>TEHRI ST-I                                   | 1            | (4X250)                                      | BHAGIRATHI                                | TEHRI GARHWAL        | 1000             | S                  | 2006-2007                |
| 4      | KOTESHWAR  | 1            | (4X100)                                      | BHAGIRATHI                                | TEHRI GARHWAL        | 400              | R(P)               | 2010-12                  |
|        | TOTAL THDC   | 2            |  |   |                      | 1400             | ` ,                |                          |
|        | SUB TOTAL CENTRAL                                    | 4            |  |   |                      | 1774.2           |                    |                          |
|        | STATE SECTOR   |              |  |   |                      |                  |                    |                          |
|        | UJVNL  |              |  |   |                      |                  |                    |                          |
| 5      | CHIBRO (YAMUNA) 1 (4X60) Tons River at Ichari<br>Dam |              | DEHRADUN                                     | 240                                       | R(P)                 | 1975-1976        |                    |                          |
| 6      | CHILLA   | 1            | (4X36)                                       | GANGA                                     | HARIDWAR             | 144              | R                  | 1980-1981                |
| 7      | / IDHAKRANI       (3X11/25)                          |              | Tons & Yamuna Rivers<br>at Dakpathar Barrage | DEHRADUN                                  | 33.75                | R                | 1965-1970          |                          |
| 8      | DHALIPUR   | 1            | (3X17)                                       | Tons & Yamuna Rivers at Dakpathar 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                |
| 15     | VYASI  | 1            | (2x60)                                       | YAMUNA/GANGA                              | DEHRADUN             | 120              | R(P)               | 2022                     |
|        | TOTAL UJVNL  | 11           |  |   |                      | 1372.15          |                    |                          |
|        | PRIVATE<br>AHPC                                      |              |  |   |                      |                  |                    |                          |
| 16     | SHRINAGAR  | 1            | (4X82.50)                                    | ALAKNANDA                                 | TRHRI & PAURI        | 330              | R(P)               | 2015                     |
| 17     | JPPVL<br>VISHNU PRAYAG                               | 1            | (4X100)                                      | ALAKNANDA                                 |                      | 400              | R                  | 2006                     |
|        | ReNew Power  |              |  | n - 1                                     |                      |                  |                    |                          |
| 18     | SINGOLI BHATWARI SUB TOTAL PRIVATE                   | 3            | (3X33)                                       |   |                      | 99<br><b>829</b> | R                  | 2020                     |
| 18     | TOTAL<br>UTTARAKHAND                                 | 18           |  |   |                      | 3975.35          |                    |                          |

Note: ALL PROJECTS ARE IN GANGA BASIN

### **B.** H.E. Projects under active Construction:

| Sl.<br>No. | Name of<br>Project     | Agency | District                    | I.C.<br>(MW) | River           | Basin | Type<br>(R/S/R(P)/MPP) | Likely Commissioning |
|------------|------------------------|--------|-----------------------------|--------------|-----------------|-------|------------------------|----------------------|
| 1          | Vishnugad<br>Pipalkoti | THDC   | Chamoli                     | 444          | Alaknanada      | Ganga | R                      | 2026-27<br>(Jun'26)  |
| 2          | Naitwar Mori           | SJVNL  | Uttarkashi                  | 60           | Tons/<br>Yamuna | Ganga | R(P)                   | 2023-24<br>(Oct'23)  |
| 3          | Tapovan<br>Vishnugad   | NTPC   | Chamoli                     | 520          | Dhauliganga     | Ganga | R                      | 2025-26<br>(Dec'25)  |
| 4          | Lakhwar MPP            | UJVNL  | Dehradun &<br>Tehri Garhwal | 300          | Yamuna          | Ganga | MPP                    | 2028-29 (Oct'28)     |
| 4          | Total                  |        |                             | 1324         |                 |       |                        |                      |

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 2024-25 (Sept 24)

##Trial run of Unit-2 and Unit-1 completed during April'22 and May'22 respectively.

### C. H.E. Projects on which Construction is held up:

|            |                    | The Trojects on which construction is near up. |             |              |             |                        |                    |   |  |  |  |  |
|------------|--------------------|--|-------------|--------------|-------------|------------------------|--------------------|---|--|--|--|--|
| Sl.<br>No. | Name of<br>Project | Agency   | District    | I.C.<br>(MW) | River       | Type<br>(R/S/R(P<br>)) | Type<br>(R/S/R(P)) | Status & Likely Commissioning   |  |  |  |  |
| 1          | Lata Tapovan       | NTPC   | Chamoli     | 171          | Dhauliganga | Ganga                  | R                  | Infrastructure works almost completed. As per Hon'ble Supreme Court vide its order dated 07.05.2014 stayed the construction of 24 Hydro projects in Uttrakhand including Lata Tapovan HEPP. According all construction activities stopped since 08.05.14. Main works to re-start after clearance from Hon'ble Supreme Court.  |  |  |  |  |
| 2          | Phata Byung        | LANCO  | Rudraprayag | 76           | Mandakini   | 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 initiated the process for inviting prospective investors for the project. On 25.02.2022, the CoC approved the Final Statkraft IH Holding AS Resolution Plan by a majority of 100%. The Resolution Professional has filed for approval of the resolution Plan Application before the Hon'ble NCLT. Once the Resolution Plan is approved by the NCLT, the successful Resolution Applicant will take over the company and revive the project. |  |  |  |  |
| 2          | Total              |  |             | 247          |             |                        |                    |   |  |  |  |  |

 $<sup>\</sup>ensuremath{^*}$  The Project is presently stalled. Commissioning is subject to restart of works

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

#### D. 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<br>(R/S/R(P)) | Status  |
|---------|---------------------------|------------|--------|-----------------------------|-----------|--------------------|---|
| 1       | Kotlibhel St-IA           | Bhagirathi | NHPC   | Tehri<br>Garhwal            | 195       |                    | 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           | Alaknanda  | NHPC   | Pauri &<br>Tehri<br>Garhwal | 320       | R                  | EC accorded earlier by MoEF&CC on 14.08.07 was quashed by NEEA on 15.09.2010. Thereupon MoEF&CC withdrew the EC on 22.11 2010. MoEF&CC declined FC-I on 7.07.11##   |
| 3       | Alaknanda<br>(Badri Nath) | Alaknanda  | GMR    | Chamoli                     | 300       |                    | 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 expried on 07.08.2019.  |
| 3       | Total                     |            |        |                             | 815       |                    |   |

# 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 Uttrakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttrakhand 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 Uttrakhand not to grant any further Environmental Clearance for any hydropower projects in the State of Uttrakhand 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.

### E. 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              | Tons        | KKHPL  | Private |                    | 63        | Feb-10          |
| 3       | Bogudiyar Sirkari Bhyol | Gori Ganga  | GGHPL  | Private | R                  | 146       | Sep-10          |
| 4       | Tiuni Plasu             | Tons        | UID    | State   | R                  | 72        | Oct-10          |
| 5       | Jhelum Tamak            | Dhauliganga | THDCIL | Central | R(P)               | 108       | Aug-19          |
| 6       | Bowala Nand Prayag      | Alaknanda   | UJVNL  | State   | R                  | 300       | Sep-22          |
| 7       | Goriganga-IIIA          | Goriganga   | NHPC   | Central | R                  | 150       | Jan-23          |
| 7       | Total                   |             |        |         |                    | 939       |                 |

### F. H.E. Projects under Survey & Investigation:

| Sl. No. | Name of Project   | Basin/River | I.C.<br>(MW) | Agency | District   | Type<br>(R/S/R(P)) | Date of MOA | Target date of preparation of DPR |
|---------|-------------------|-------------|--------------|--------|------------|--------------------|-------------|-----------------------------------|
| 1       | Kishau MPP        | Ganga/Tone  | 660          | UJVNL  | Dehradun   | MPP                |             |                                   |
| 2       | Arakot -Tiuni HEP | Tons        | 72           | UJVNL  | Uttarkashi | R                  | 2003        | 06/24                             |
| 2       | Total             |             | 732          |        |            |                    |             |                                   |

### $\textbf{G.} \ \ \textbf{H.E. Projects allotted for development on which Survey \& Investigation is held up/yet to be taken up:}$

| Sl. No. | Project         | River       | I. C. (MW) | Agency    | District    | Date of<br>Allotment/ MoA | Status   |  |
|---------|-----------------|-------------|------------|-----------|-------------|---------------------------|--|--|
| 1       | Chhunger - Chal | Dhauliganga | 120        | NHPC      | Pithoragarh | 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. |  |
| 2       | Devsari         | Pinder      | 194        | SJVN Ltd. | Chamoli     | Nov., 2005                | Pre-DPR Chapters returned after there is no progress in the S&I activities by the developer  |  |
| 3       | Sela Urthing    | Dhauliganga | 114        | UJVNL     | Pithoragarh |                           | S&I held up due to MOJS is not in favour of consutruction of any other HE Ganga Basin  |  |
| 4       | Bokang Bailing  | Dhauliganga | 200        | THDC      |             |                           | S&I held up due to MOJS is not in favour of consutruction of any other HEP in Ganga Basin  |  |
| 4       | Total           |             | 628        |           |             |                           |  |  |

### H. Balance Capacity

| Sl.No. | Name of Project                    | River        | Type | I.C.(MW) | District    | Remarks   |
|--------|------------------------------------|--------------|------|----------|-------------|---|
| 1      | Ram Ganga Dam                      | Ram Ganga    | S    | 44       | Pithoragarh |   |
| 2      | Kuwa ford                          | Yamuna       | R    | 106      | Uttarkashi  |   |
| 3      | Bampa Kurkuti                      | Dhauli Ganga | R    | 31       | Chamoli     |   |
| 4      | Tikh Kunwargarh<br>( Tikh Gurupha) | Pindar       | R    | 82       | Bageshwar   |   |
| 5      | Uttyasu Dam                        | Alaknanda    | S    | 720      | Rudraprayag |   |
| 6      | Sobla Jhimirigaon                  | Dhauli Ganga | R    | 118      | Pithoragarh |   |
| 7      | Tawaghat Dharchula                 | Sarda        | R    | 470      | Pithoragarh |   |
| 8      | Kalika Dantu                       | Sarda        | R    | 140      | Pithoragarh |   |
| 9      | Hanol tiuni                        | tons         | R    | 62       | Uttarkashi  |   |
| 10     | Bagoli Dam                         | Pindar       | R    | 126      | chamoli     |   |
| 11     | Jakhol sankari                     | Supin        | R    | 44       | Uttarkashi  |   |
| 12     | Urthing Sobla                      | Dhauliganga  | R    | 228      | Pithoragarh |   |
| 13     | Mapang Bogidiyar                   | Goriganga    | R    | 280      | Pithoragarh |   |
| 14     | Garba Tawaghat                     | MahaKali     | R    | 398      | Pithoragarh | Intially alloted to NHPC     MoEF&CC has issued draft notification on 29.01.2019 regarding proposed ESZ of Askot Wildlife Sancutary. 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. |
| 15     | Tamak Lata                         | Dhauliganga  | R    | 130      | Chamoli     | •Initially alloted to UJVNL •Project included in the list of 24 HE project named in PIL under consideration by Hon'ble Supreme Court.   |
| 15     | Total                              |              |      | 2979     |             | <u> </u>  |

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

#### I. Pumped Storage

|       |            | INSTALLED CAPACITY           |      |                  |  |  |
|-------|------------|------------------------------|------|------------------|--|--|
| S.No. | SCHEMES    | No. of units x Unit size(MW) | MW   | River            | Status   |  |
| 1     | Tehri StII | 4x250                        | 1000 | Lower recervoir- | •Under Active Construction •Likely commissioning by 2024-25(Sept'24) |  |

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

#### I. Conventional Projects

|      |   | Nos. | Capacity (MW) |  |  |  |
|------|---|------|---------------|--|--|--|
| (Pro | loitable Large Hydro Power Potential from Hydroelectric Projects<br>ejects having capacity above 25 MW)<br>17-23 Study) | 4    | 501.6         |  |  |  |
| Brea | Breakup of Hydro Power Potential (2017-23 Study)  |      |               |  |  |  |
| A    | Projects in operation   | 4    | 501.6         |  |  |  |

### II. Pumped Storage Projects

|   |           | Nos. | Capacity (MW) |
|---|-----------|------|---------------|
| A | Under S&I | 2    | 5340          |

| Deta | Details of Exploitable Large Hydro Power Projects |        |       |                    |  |  |  |  |  |
|------|---|--------|-------|--------------------|--|--|--|--|--|
| S.No | Name  | River  | Туре  | Installed Capacity |  |  |  |  |  |
| 1    | Khara   | Yamuna | R (P) | 72                 |  |  |  |  |  |
| 2    | Matatila  | Betwa  | S     | 30.6               |  |  |  |  |  |
| 3    | Obra  | Rihand | S     | 99                 |  |  |  |  |  |
| 4    | Rihand  | Rihand | S     | 300                |  |  |  |  |  |
| 4    | Total   |        |       | 501.6              |  |  |  |  |  |

| SL.<br>NO. | STATIONS        | NO. OF<br>STATIONS | NO. OF UNITS X CAPACITY (MW) | RIVER/<br>BASIN*       | DISTRICT   | I. C.<br>(MW) | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSI<br>ONING |
|------------|-----------------|--------------------|------------------------------|------------------------|------------|---------------|--------------------|------------------------------|
| 1          | KHARA           | 1                  | (3X24)                       | YAMUNA LINK<br>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)                       | Rihand                 | SINGRAULI  | 300           | S                  | 1961-1965                    |
| 4          | TOTAL<br>UPJVNL | 4                  |                              |                        |            | 501.6         |                    |                              |

### B. Pumped Storage

|       |           | INSTALLED CA                            | APACITY |   |   |  |
|-------|-----------|---|---------|---|---|--|
| S.No. | SCHEMES   | SCHEMES No. of units x Unit size(MW) MW |         | River   | Status  |  |
| 1     | Kandhaura | 5x280+2x140                             | 1680    | Upper Reservoir<br>& Lower<br>Reservoir- both<br>off stream | Under S&I     Target date of preparation of DPR- 12/23     Agency-JSW Energy     Date of MOA-25.11.2022 |  |
| 2     | UP01      | 11x305+2x152.5                          | 3660    | Upper Reservoir<br>& Lower<br>Reservoir- both<br>off stream | • Under S&I • Target date of preparation of DPR- 02/24 • Agency-Greenko •Date of MOA-01.02.2023         |  |

## Status of Large Hydro Power Development in Madhya Pradesh

### I. Conventional Projects

|          |   | Nos. | Capacity (MW) |
|----------|---|------|---------------|
| Projects | e Large Hydro Power Potential from Hydroelectric<br>aving capacity above 25 MW)<br>Study) | 14   | 2819          |
| Break    | up of Hydro Power Potential (2017-23 Study)   |      |               |
| A        | Projects in operation   | 9    | 2235          |
| В        | Projects on which construction is held up   | 1    | 400           |
| С        | Balance Capacity*   | 4    | 184           |

### **II. Pumped Storage Projects**

|   |           | Nos. | Capacity (MW) |
|---|-----------|------|---------------|
| A | Under S&I | 3    | 3245          |

| S.No. | Name of Project                 | River   | Type | I.C.(MW) |
|-------|---------------------------------|---------|------|----------|
| 1     | Bargi                           | Narmada | S    | 90       |
| 2     | Indira Sagar<br>(Narmada Sagar) | Narmada | S    | 1000     |
| 3     | Omkareshwar                     | Narmada | S    | 520      |
| 4     | Maheshwar                       | Narmada | R    | 400      |
| 5     | Basania                         | Narmada | S    | 56       |
| 6     | Hoshangabad<br>(Jahanpur)       | Narmada | R    | 58       |
| 7     | Bauras                          | Narmada | R    | 44       |
| 8     | Burhner                         | Burhner | S    | 26       |
| 9     | Gandhi Sagar                    | Chambal | S    | 115      |
| 10    | Rajghat                         | Betwa   | S    | 45       |
| 11    | Madhikheda                      | Sindh   | S    | 60       |
| 12    | Bansagar-III<br>(Bansagar)      | Sone    | R    | 60       |
| 13    | Bansagar-II<br>(Beehar)         | Sone    | S    | 30       |
| 14    | Bansagar-I<br>(Tons )           | Tons    | R(P) | 315      |
| 14    |                                 | Total   | •    | 2819     |

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

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

| Sl. No. | Name of Project  | I. C.<br>(MW) | District              | River   | Basin | Agency | Type<br>(R/S/R(P)) | Status & Likely Commissioning   |
|---------|------------------|---------------|-----------------------|---------|-------|--------|--------------------|---|
| 1       | Maheshwar (Pvt.) |               | Khargone &<br>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. The application of PFC has been admitted in NCLT on 27.09.2022 under IBC. |
| 1       | Total            | 400           |                       |         |       |        |                    |   |

 $<sup>\ ^*</sup>$  The Project is presently stalled. Commissioning is subject to restart of works

### C. Balance Capacity

| S.No. | Name of Project           | River   | Type | I.C.<br>(MW) | District    |
|-------|---------------------------|---------|------|--------------|-------------|
| 1     | Burhner                   | Burhner | S    | 26           | Mandla      |
| 2     | Basania                   | Narmada | S    | 56           | Mandla      |
| 3     | Hoshangabad<br>(Jahanpur) | Narmada | R    | 58           | Hoshangabad |
| 4     | Bauras                    | Narmada | R    | 44           | Raisen      |
| 4     | Total                     |         |      | 184          |             |

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

#### D. Pumped Storage

|       |                   | INSTALLED CA                    | APACITY |  |  |
|-------|-------------------|---------------------------------|---------|--|--|
| S.No. | SCHEMES           | No. of units x<br>Unit size(MW) | MW      | River  | Status   |
| 1     | Indira Sagar      | 6x80+1x45                       | 525     | Upper reservoir-ISP<br>reservoir<br>,Lower Reservoir-<br>Omkareshwar<br>reservoir  | •Under S&I •Agency-NHDC •Target date of DPR preparation- 12/25 •Date of MOA-07.06.2023   |
| 2     | MP30 Gandhi Sagar | 7x240+2x120                     | 1920    | Upper Reservoir is<br>proposed off the<br>river<br>Lower Reservoir is<br>exisiting on Gandhi<br>Sagar which is on<br>Chambal river | •Under S&I •Target date of DPR preparation-09/23 •Agency-Greenko •Date of MOA-13.10.2021 |
| 3     | Tekwa-2           | 4x200                           | 800     | Upper Reservoir &<br>Lower Reservoir-<br>both off stream   | •Under S&I     • Agency-NHDC     • Target date of preparation of DPR- 12/25              |

# Status of Large Hydro Power Development in Chhattisgarh

# **I. Conventional Projects**

|                   |  | Nos. | Capacity<br>(MW) |
|-------------------|--|------|------------------|
| Hydroe<br>(Projec | able Large Hydro Power Potential from lectric Projects ts having capacity above 25 MW) 23 Study) | 11   | 1311             |
| Brea              | kup of Hydro Power Potential (2017-23 Study)   |      |                  |
| A                 | Projects in operation  | 1    | 120              |
| В                 | Balance Capacity   | 10   | 1191             |

| Sl.No. | Name of Project         | River     | Туре | I. C. (MW) |
|--------|-------------------------|-----------|------|------------|
| 1      | Hasdeo Bango            | Hasdeo    | S    | 120        |
| 2      | Bodhghat                | Indravati | S    | 252        |
| 3      | Kutru-I                 | Indravati | S    | 96         |
| 4      | Kutru-II                | Indravati | S    | 275        |
| 5      | Nugur-I                 | Indravati | S    | 272        |
| 6      | Kotri                   | Kotri     | S    | 44         |
| 7      | Konta                   | Sabari    | R    | 68         |
| 8      | Joka                    | Kanhar    | S    | 30         |
| 9      | Pasal                   | Rihand    | S    | 82         |
| 10     | Duniadhih<br>(Duniahin) | Rehar     | S    | 46         |
| 11     | Rehar-II<br>(Karri)     | Rehar     | S    | 26         |
| 11     | Total                   |           |      | 1311       |

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

## **B.** Balance Capacity

| Sl. No. | Name of<br>Project  | River     | I.C. (MW) | District  | Туре |
|---------|---------------------|-----------|-----------|-----------|------|
| 1       | Bodhghat            | Indravati | 252       | Dantewada | S    |
| 2       | Kutru-I             | Indravati | 96        | Bastar    | S    |
| 3       | Kutru-II            | Indravati | 275       | Bastar    | S    |
| 4       | Nugur-I             | Indravati | 272       | Dantewada | S    |
| 5       | Kotri               | Kotri     | 44        | Bastar    | S    |
| 6       | Konta               | Sabari    | 68        | Dantewada | R    |
| 7       | Joka                | Kanhar    | 30        | Surguja   | S    |
| 8       | Pasal               | Rihand    | 82        | Surguja   | S    |
| 9       | Duniadhih           | Rehar     | 46        | Surguja   | S    |
| 10      | Rehar-II<br>(Karri) | Rehar     | 26        | Surguja   | S    |
| 10      | Total               |           | 1191      |           |      |

#### Status of Large Hydro Power Development in Gujarat

#### I. Conventional Projects

|   |  | Nos. | Capacity (MW) |
|---|--|------|---------------|
| Exploitable Large Hydro Power Potential from<br>Hydroelectric Projects<br>(Projects having capacity above 25 MW)<br>(2017-23 Study) |  | 2    | 550           |
| Breaku  | o of Hydro Power Potential (2017-23 Study) |      |               |
| A   | Capacity in operation                      | 2    | 550           |

II. Pumped Storage Projects

|   |              | Nos. | Capacity<br>(MW) |
|---|--------------|------|------------------|
| A | In Operation | 2    | 1440             |

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.

#### Details of Exploitable Large Hydro Power Projects

| S.no | Name                | River   | Туре | Installed<br>Capacity |
|------|---------------------|---------|------|-----------------------|
| 1    | Ukai                | Tapti   | S    | 300                   |
| 2    | Sardar Sarovar CHPH | Narmada | R(P) | 250                   |
| 2    | TO                  | 550     |      |                       |

A. H.E. Projects in Operation:

| A.     | 11.E. I Tojecis in Operation. |              |                                 |                |          |              |                    |                       |
|--------|-------------------------------|--------------|---------------------------------|----------------|----------|--------------|--------------------|-----------------------|
| S. No. | Utility/<br>Stations          | No. of Stns. | No. of units x<br>Capacity (MW) | River / Basin* | District | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Year of commissioning |
|        | GSECL                         |              |                                 |                |          |              |                    |                       |
| 1      | UKAI                          | 1            | (4X75)                          | TAPI           | TAPI     | 300          | S                  | 1974-1976             |
|        | SUB-TOTAL GSECL               | 1            |                                 |                |          | 300          |                    |                       |
|        | SSNNL                         |              |                                 |                |          |              |                    |                       |
| 2      | SARDAR SAROVAR CHPH           | 1            | (5X50)                          | NARMADA        | NARMADA  | 250          | R(P)               | 2004                  |
|        | SUB-TOTAL SSNNL               | 1            |                                 |                |          | 250          |                    |                       |
| 2      | TOTAL GUJARAT                 | 2            |                                 |                |          | 550          |                    |                       |

<sup>\*</sup> All projects are in CIR Basin

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

### **B. Pumped Storage**

|       |                        | INSTALLE                        | D CAPACITY | River   | Status   |
|-------|------------------------|---------------------------------|------------|---------|--|
| S.No. | o. SCHEMES             | No. of units x<br>Unit size(MW) | MW         |         |  |
| 1     | Kadana                 | 4x60                            | 240        | Mahi    | In Operation<br>(Presently not working in<br>Pumping Mode) |
| 2     | Sardar Sarovar Project | 6x200                           | 1200       | Narmada | In Operation<br>(Presently not working in<br>Pumping Mode) |

# Status of Large Hydro Power Development in Maharashtra

# **I. Conventional Projects**

|         |  | Nos. | Capacity (MW) |  |  |  |  |
|---------|--|------|---------------|--|--|--|--|
| _       | le Large Hydro Power Potential from Hydroelectric Projects having capacity above 25 MW) Study) | 16   | 3144.0        |  |  |  |  |
| Breakup | Breakup of Hydro Power Potential (2017-23)   |      |               |  |  |  |  |
| A       | Projects in operation  | 12   | 2647          |  |  |  |  |
| В       | Balance Capacity   | 4    | 497           |  |  |  |  |

**II. Pumped Storage Projects** 

|   |                      | Nos. | Capacity (MW) |
|---|----------------------|------|---------------|
| A | In Operation         | 2    | 400           |
| В | Construction Held Up | 1    | 80            |
| C | Under S&I            | 9    | 13600         |

| Details o | of Exploitable Large Hydro Power Projects |  |       |                       |
|-----------|---|--|-------|-----------------------|
| S.no      | Name                                      | River  | Туре  | Installed<br>Capacity |
| 1         | Vaitarna<br>(Vaitarna I)                  | Vaitarna   | S     | 60                    |
| 2         | Bhira Tail Race                           | Kundalika  | R (P) | 80                    |
| 3         | Tillari                                   | Tillari  | R (P) | 60                    |
| 4         | Bhandardara St-II                         | Pravara  | R (P) | 34                    |
| 5         | Pench                                     | Pench  | S     | 160                   |
| 6         | Wainganga                                 | Wainganga  | S     | 138                   |
| 7         | Samda                                     | Wainganga  | R     | 45                    |
| 8         | Kunghara                                  | Wainganga  | R     | 100                   |
| 9         | Pranhita                                  | Pranhita   | S     | 214                   |
| 10        | Bhivpuri                                  | Andhra   | S     | 75                    |
| 11        | Khopoli                                   | Indrayani  | S     | 72                    |
| 12        | Bhira                                     | Neela& Mula                                      | S     | 150                   |
| 13        | Koyna Dam P/H                             | Koyna  | S     | 36                    |
| 14        | Koyna St. I & II                          | Koyna  | S     | 600                   |
| 15        | Koyna St. III                             | water discharge d<br>from units(St-I, II &<br>IV | R (P) | 320                   |
| 16        | Koyna St. IV                              | Koyna  | S     | 1000                  |
| 16        | TOTAL                                     | ·  |       | 3144                  |

| S. No. | Utility/                  | No. Of stns. | No. Of units x<br>Capacity<br>(MW) | River   | Basin | District  | I.C. (MW) | Type (R/S/R(P)) | Year of commissioning |
|--------|---------------------------|--------------|------------------------------------|---|-------|-----------|-----------|-----------------|-----------------------|
|        | MAHAGENCO                 |              |                                    |   |       |           |           |                 |                       |
| 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<br>through<br>ulestward units<br>(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                  | 1            | (1X60)                             | VAITARNA  | WFR   | NASIK     | 60        | S               | 1976                  |
|        | SUB-TOTAL MAHAGENCO       | 7            |                                    |   |       |           | 2156      |                 |                       |
|        | MPPGCL                    |              |                                    |   |       |           |           |                 | 1                     |
| 8      | PENCH                     | 1            | (2X80)                             | PENCH   | EFR   | CHINDWARA | 160       | S               | 1986-1987             |
|        | SUB-TOTAL MPPGCL          | 1            |                                    |   |       |           | 160       |                 |                       |
|        | TOTAL STATE SECTOR        | 8            |                                    |   |       |           | 2316      |                 |                       |
|        | PRIVATE                   |              |                                    |   |       |           |           |                 |                       |
|        | DODSON-LINDBLOM HYDRO P   | OWER P       | VT. LTD. (DLH                      | IP)   |       |           |           |                 |                       |
| 9      | BHANDARDHARA ST-II        | 1            | (1X34)                             | PRAVARA   | EFR   |           | 34        | R(P)            | 1996                  |
|        | SUB-TOTAL DLHP            | 1            |                                    |   |       |           | 34        |                 |                       |
|        | TATA POWER COMPANY (PVT.) |              |                                    |   |       |           |           |                 |                       |
| 10     | BHIRA                     | 1            | (6X25)                             | NEELA &<br>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             |
|        | SUB-TOTAL TPCL            | 3            |                                    |   |       |           | 297       |                 |                       |
|        | TOTAL PVT (MAHARASHTRA)   | 4            |                                    |   |       |           | 331       |                 |                       |
| 12     | TOTAL MAHARASHTRA         | 12           |                                    |   |       |           | 2647      |                 |                       |

### B. Balance Capacity

| Sl<br>.No. | Name of Project | River     | Туре | I.C.(MW) | District  |
|------------|-----------------|-----------|------|----------|---|
| 1          | Wainganga       | Wainganga | S    | 138      | Border of Gadchiroli and<br>Chandrapur district |
| 2          | Samda           | Wainganga | R    | 45       | Border of Gadchiroli and<br>Chandrapur district |
| 3          | Kunghara        | Wainganga | R    | 100      | Border of Gadchiroli and<br>Chandrapur district |
| 4          | Pranhita        | Pranhita  | S    | 214      | Gadchiroli                                      |
| 4          | Total           |           |      | 497      |   |

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

C. Pumped Storage

|       | lipeu Storage   | INSTALLED CAPACITY              |      |   |  |
|-------|-----------------|---------------------------------|------|---|--|
| S.No. | SCHEMES         | No. of units x<br>Unit size(MW) | MW   | River   | Status   |
| 1     | Bhira           | 1x150                           | 150  | Upper reservoir-<br>Mulshi Lake<br>Lower reservoir-<br>Mulla River  | In Operation   |
| 2     | Ghatgar         | 2x125                           | 250  | Upper reservoir-<br>Pravara River<br>Lower reservoir-<br>Shahi Nalla  | In Operation   |
| 3     | Koyna Left Bank | 2x40                            | 80   | Koyna   | •Construction Held Up •Likely commissioning by 2027-28   |
| 4     | Patgaon         | 6x300+2x150                     | 2100 | Upper Reservoir is proposed on existing Patgaon reservoir  Lower Reservoir is to be constructed on tributary of Karli river | •Under S&I •Target date for preparation of DPR – 12/2023 •Agency-Adani Green Energy Ltd. •Date of MOA-28.06.2022 |
| 5     | Warasgaon       | 4x300                           | 1200 | Upper Reservoir is<br>proposed on Mose<br>river<br>Lower Reservoir is<br>proposed on Kal<br>river                           | •Under S&I •Target date for preparation of DPR – 05/24 •Agency-WRD, Maharashtra                                  |

| 6  | Bhavali                  | 6x250        | 1500 | Upper reservoir-to<br>be constructed<br>downstream of<br>Bhavali Dam<br>Lower Reservoirto<br>be constructed on<br>Ulhas river               | •Under S&I •Target date of Preparation of DPR- 12/23 •Agency-JSW Energy •Date of MOA-14.09.2021                 |
|----|--------------------------|--------------|------|---|---|
| 7  | Tarali                   | 5x300        | 1500 | Upper Reservoir is<br>proposed Offstream<br>Lower Reservoir is<br>on existing Tarali<br>reservoir   | •Under S&I •Target date of DPR preparation- 04/24 •Agency-Adani Green Energy Ltd. •Date of MOA-28.06.2022       |
| 8  | Shirwata                 | 5x300 +2x150 | 1800 | Upper Reservoir is off stream  Lower Reservoir is on existing Shirawata reservoir   | •Under S&I •Agency-TATA power •Target date of preparation of DPR- 06/24 •Date of MOA-08.08.2023                 |
| 9  | Bhivpuri                 | 4x200 +2x100 | 1000 | Upper Reservoir is on existing Thokerwadi reservoir  Lower Reservoir is offstream.  | •Under S&I •Agency-TATA power •Target date of preparation of DPR- 06/24 •Date of MOA-08.08.2023                 |
| 10 | Pane                     | 5x250+2x150  | 1500 | Upper Reservoir-Offstream  Lower Reservoir-connected to a small stream which joins the downstream Kal river                                 | • Under S&I •Target date of preparation of DPR- 6/24 •Agency- JSW Energy •Date of MOA-29.09.2022                |
| 11 | Malshej Ghat<br>Bhorande | 6 x 250      | 1500 | Upper Reservoir on<br>Minor nallah<br>draining into Kukadi<br>river<br>Lower Reservoir-on<br>Minor nallah<br>draining Into Kalu<br>river    | •Under S&I • Target date of preparation of DPR- 05/24 • Agency-Adani Green Energy Ltd. •Date of MoA- 28.06.2022 |
| 22 | Warasgaon<br>Warangi     | 5x 300       | 1500 | Upper reservoir- proposed on on minor nallah draining into Ambi river  Lower reservoir- proposed on on minor nallah draining into Kal river | •Under S&I • Target date of preparation of DPR- 06/24 • Agency-Adani Green Energy Ltd. •Date of MoA- 28.06.2022 |

## Status of Large Hydro Power Development in Goa

I. Conventional Projects

|   | No. | I.C. (MW) |
|---|-----|-----------|
| Exploitable Large Hydro Power Potential from<br>Hydroelectric Projects<br>(Projects having capacity above 25 MW)<br>(2017-23 Study) | *   | *         |

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

### I. Conventional Projects

|   |  | Nos. | Capacity (MW) |  |
|---|--|------|---------------|--|
|   | le Large Hydro Power Potential from Hydroelectric Projects<br>having capacity above 25 MW)<br>Study) | 8    | 2826          |  |
|   | Breakup of Hydro Power Potential (2017-23)   |      |               |  |
| A | Projects in operation  | 5    | 1610          |  |
| В | Projects under active construction   | 2    | 1190          |  |
| C | Balance Capacity   | 1    | 26            |  |

### II. Pumped Storage Projects

|   |                           | Nos. | Capacity (MW) |
|---|---------------------------|------|---------------|
| A | Under Active Construction | 1    | 1200          |
| В | Under S&I                 | 16   | 17120         |
| С | Concurred                 | 1    | 1350          |
| D | S&I Held Up               | 2    | 2200          |

| Sl.No. | Name of Project                                  | River    | Туре  | I.C.<br>(MW) |
|--------|--|----------|-------|--------------|
| 1      | Upper Sileru-I&II<br>(Upper Sileru)              | Sileru   | S     | 240          |
| 2      | Lower Sileru                                     | Sileru   | S     | 460          |
| 3      | Polavaram  | Godavari | S     | 960          |
| 4      | Balimela Dam Toe                                 | Sileru   | S     | 26           |
| 5      | Srisailam  | Krishna  | S     | 770          |
| 6      | Nagarjunasagar RBC & Ext<br>(Nagarjunasagar RBC) | Krishna  | S     | 90           |
| 7      | Nagarjunasagar TPD                               | Krishna  | R (P) | 50           |
| 8      | Lower sileru extension                           | Sileru   | R (P) | 230          |
| 8      |  | Total    |       | 2826         |

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

<sup>\*</sup> All projects are in EFR Basin

### B. H.E. Projects under active construction:

| Sl. No. | Name of Project        | Agency                               | District                | River/ Basin     | I. C.<br>(MW) | Type<br>(R/S/R(P)) | Likely Commissioning |
|---------|------------------------|--------------------------------------|-------------------------|------------------|---------------|--------------------|----------------------|
| 1       | Polavaram              | APGENCO/<br>Irrigation<br>Dept., A.P | East & West<br>Godavari | Godavari/<br>EFR | 960           | S                  | 2024-26<br>(Mar'26)  |
| 2       | Lower sileru extension | APGENCO                              | Alluri<br>Sitharamaraju | Sileru/EFR       | 230           | R(P)               | 2025-26 (Mar'26)     |
| 2       | Total                  |                                      |                         |                  | 1190          |                    |                      |

### C. Balance Capacity

| Sl.No. | Name of<br>Project  | River  | Туре | I. C. (MW) | District  | Remarks  |
|--------|---------------------|--------|------|------------|-----------|--|
| 1      | Balimela Dam<br>Toe | Sileru | S    | 26         | Malkangri | <ul> <li>The Government of Orissa and Government of Andhra Pradesh agreed in year 1962 that AP will construct a 60 MW Power House at Balimela toe for its own use at its cost, using AP's 50% share of water. Though the Dam is situated in orissa, 100% cost and benefits go to State of A.P. as per the agreement</li> <li>This project could not be taken up due to non-issue of NOC by Govt of Odisha for blasting material for power House excavation in spite of lot of correspondence from Govt of AP.</li> <li>The Govt. of Odisha had informed the Govt. of AP on 08-09-2010 to take up the construction of this project jointly by both APGENCO &amp; OHPC on 50:50 basis.</li> <li>The correspondence has been done with Govt. of Odisha from year 2013 to till date on the finalization of the clauses of draft modified agreement to be entered by both Govt. of AP &amp; Govt. of Odisha as the implementation of Balimela Dam Toe HE Project would be taken up jointly by both APGENCO &amp; OHPC duly sharing the costs and benefits in 50:50 ratio as per the decisions of Project Administrative committee (PAC) and after signing of modified agreement.</li> <li>At present, the draft modified agreement is submitted to the Govt. of AP vide dt:07-07-18 for approval. After receiving approval from Govt. of AP, the draft modified agreement will be sent to M/s OHPC for arranging consent of Govt. of Odisha.</li> </ul> |
| 1      | Total               |        |      | 26         |           |  |

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

### D. Pumped Storage

|       |              | INSTALLED<br>CAPACITY           |      |  |  |
|-------|--------------|---------------------------------|------|--|--|
| S.No. | SCHEMES      | No. of units x<br>Unit size(MW) | MW   | River  | Status   |
| 1     | Upper Sileru | 9x150                           | 1350 | Upper reservoir-<br>Guntawada reservoir<br>Lower reservoir-<br>Donkarayi reservoir   | •DPR concurred by CEA •Concurrence date- 13.06.2023 •EC & FC yet to be obtained by developer.  |
| 2     | Yerravaram   | 3x400                           | 1200 | Upper reservoir-<br>proposed on<br>Nallah/stream flowing<br>into the thandava<br>reservoir<br>Lower Reservoir-<br>proposed on<br>nallah/stream flowing<br>into the thandava<br>reservoir | •Under S&I •Agency-Shirdi Sai Electricals Ltd. •Target date of Preparation of DPR- 03/25 •Date of MOA-19.01.2023   |
| 3     | Kurukutti    | 5x240                           | 1200 | Upper Reservoir is<br>proposed on Minor<br>nallah draining into<br>Boduru Gedda river<br>Lower Reservoir is<br>proposed on Boduru<br>Gedda river   | •Under S&I Held Up •Agency- Adani Green •Project site (partly) falls within the disputed boundary between Govt. of Andhra Pradesh and Govt. of Odisha. Drilling Held up. |

| 4  | Karrivalasa     | 4x250       | 1000 | Upper Reservoir is<br>proposed on Minor<br>nallah draining into<br>Boduru Gedda river<br>Lower Reservoir is<br>proposed on Boduru<br>Gedda river  | •Under S&I Held Up •Agency-Adani Green •Project site (partly) falls within the disputed boundary between Govt. of Andhra Pradesh and Govt. of Odisha. Drilling Held up |
|----|-----------------|-------------|------|---|--|
| 5  | Pinnapuram      | 4x240+2x120 | 1200 | Upper reservoir- Near Gorakallu reservoir in Pannapuram Village Lat 15° 36'26" N Long 78° 15'13" E Likely commsiioning by 2024-25 (Dec 24)  Lower reservoir- Lat 15°37'26" N Long 78°15'30" E |  |
| 6  | Gandikota       | 4x250       | 1000 | Upper Reservoir is<br>proposed Off Stream<br>Lower Reservoir is<br>exisiting on Gandikota<br>reservoir which is on<br>Penna river   | •Under S&I •Target date of Preparation of DPR- 12/23 •Agency- Adani green energy •Date of MOA-29.06.2022   |
| 7  | owk             | 4x200       | 800  | Upper Reservoir is<br>proposed Off Stream<br>Lower Reservoir is<br>exisiting on Owk<br>reservoir which is on<br>Penna river   | •Under S&I •Target date of Preparation of DPR- 03/24 •Agency- Aurobindo Realty & Infrastructure Pvt. Ltd. •Date of MOA-12.09.2022                                      |
| 8  | Chitravathi     | 2x250       | 500  | Upper Reservoir is<br>proposed Off Stream<br>Lower Reservoir is<br>exisiting on Chitravathi<br>reservoir  | • Under S&I •Target date of Preparation of DPR- 12/23 •Agency-Adani Green Energy Ltd •Date of MOA-29.06.2022   |
| 9  | Somasila        | 4x225       | 900  | Both Upper & Lower<br>Reservoirs are<br>proposed off stream   | •Under S&I • Target date of Preparation of DPR- 12/23 • Agency- Shirdi Sai Electricals Ltd. • Date of MOA-19.01.2023   |
| 10 | Paidipalem East | 6x200       | 1200 | Upper Reservoir- new<br>proposed Off Stream<br>Lower Reservoir - new<br>proposed draws water<br>Paidipalem Balancing<br>reservoir   | •Under S&I •Date of DPR preparation-07/24 •Agency-Indosol Solar Power Pvt. Ltd. •Date of MOA-12.09.2022  |
| 11 | Singanamala     | 4x200       | 800  | Upper Reservoir- Off<br>Stream<br>Lower Reservoir- Off<br>Stream.   | •Under S&I •Date of DPR preparation-09/24 •Agency- Aurobindo Realty & Infrastructure Pvt. Ltd. •Date of MOA-12.09.2022   |

|    |                           |              |      | T  |  |
|----|---------------------------|--------------|------|--|--|
| 12 | Paidipalem<br>North       | 5 x 200      | 1000 | Upper Rservoir- new<br>proposed Off Stream<br>Lower Reservoir - new<br>proposed draws water<br>Paidipalem Balancing<br>reservoir     | •Under S&I •Date of DPR preparation— 07/2024 •Agency-Indosol Solar Power Pvt. Ltd. •Date of MOA-12.09.2022                         |
| 13 | Veeraballi Off-<br>stream | 5x300+2x150  | 1800 | Upper Reservoir &<br>Lower Resrvoir- both<br>off stream  | •Under S&I • Target date of preparation of DPR- 02/24 • Agency-Astha Green Energy Ventures India PVT. LTD. •Date of MOA-12.09.2022 |
| 14 | vempalli                  | 6x250        | 1500 | Upper Reservoir &<br>Lower Resrvoir- both<br>off stream  | Under S&I Target date of preparation of DPR- 03/25 Agency-JSW Energy Date of MOA-25.01.2022  |
| 15 | Gujjili                   | 6x250        | 1500 | Upper Reservoir &<br>Lower Resrvoir- both<br>off stream  | Under S&I Target date of preparation of DPR- 03/25 Agency-NREDCAP Date of MOA-25.01.2022   |
| 16 | Raiwada                   | 3x283.33     | 850  | Upper Reservoir on a<br>tabletop hill across a<br>minor rivulet draining<br>into a nallah<br>Lower Reservoir-<br>across Sarada river | Under S&I Target date of preparation of DPR- 12/23 Agency-Adani Green Energy Ltd. Date of MOA-23.05.2022                           |
| 17 | Chittamvalasa             | 4x200        | 800  | Upper Reservoir &<br>Lower Reservoir- both<br>off stream   | Under S&I     Agency-NREDCAP     Target date of preparation of DPR- 08/24  |
| 18 | Yaganti                   | 4x250        | 1000 | Upper Reservoir-<br>Minor Rivulet<br>Lower Reservoir-Minor<br>Rivulet  | Under S&I Agency-APGENCO Target date of preparation of DPR- 08/24 Date of MOA-23.08.2023   |
| 19 | Kamalapadu                | 3x238 +2x118 | 950  | Upper Reservoir &<br>Lower Reservoir- both<br>off stream   | Under S&I Agency-APGENCO Target date of preparation of DPR- 08/24 Date of MOA-23.08.2023   |
| 20 | Aravetipalli              | 6x220        | 1320 | Upper Reservoir &<br>Lower Reservoir- both<br>off stream   | Under S&I     Agency-APSPCL     Target date of preparation of DPR- 08/24   |

### Status of Large Hydro Power Development in Telangana

## **I. Conventional Projects**

|   |   |  | Nos.    | Capacity<br>(MW) |  |  |
|---|---|--|---------|------------------|--|--|
|   | Large Hydro Power Pot<br>aving capacity above 25 (<br>tudy) | 8  | 1302.00 |                  |  |  |
|   | Breakup of Hydro Po   |  |         |                  |  |  |
| A | Projects in operation                                       | Projects in operation                    |         |                  |  |  |
| В | Projects allotted by St                                     | ates for development                     |         |                  |  |  |
|   | B-I   | DPR Prepared                             |         |                  |  |  |
|   | (i)   | Projects returned to project authorities | 1       | 320              |  |  |
| C | Balance Capacity*   |  | 1       | 240              |  |  |

<sup>\*</sup>Balance Capacity 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.

#### **II. Pumped Storage Projects**

|   |              | Nos. | Capacity<br>(MW) |
|---|--------------|------|------------------|
| A | In Operation | 2    | 1605.6           |

| Sl.No. | Name of Project                           | River    | Туре  | I.C.<br>(MW) |
|--------|---|----------|-------|--------------|
| 1      | Pochampad                                 | Godavari | S     | 36           |
| 2      | Dummugudem                                | Godavari | R     | 262          |
| 3      | Tupakulagudem                             | Godavari | S     | 240          |
| 4      | Priyadarshini Jurala                      | Krishna  | R (P) | 234          |
| 5      | Lower Jurala                              | Krishna  | R (P) | 240          |
| 6      | Nagarjunasagar<br>(Nagarjunasagar Dam PH) | Krishna  | S     | 110          |
| 7      | Nagarjunasagar LBC                        | Krishna  | R     | 60           |
| 8      | Pulichintala                              | Krishna  | R (P) | 120          |
| 8      |   | 1302     |       |              |

| S. No. | Utility/<br>Stations   | No. of Stns. | No. of units x<br>Capacity (MW) | River<br>/ Basin* | District          | Capacity<br>(MW) | Type<br>(R/S/R(P)) | Year of commissioning |
|--------|------------------------|--------------|---------------------------------|-------------------|-------------------|------------------|--------------------|-----------------------|
|        | TSGENCO                |              |                                 |                   |                   |                  |                    |                       |
| 1      | PRIYADARSHNI<br>JURALA | 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          | 1            | (1X110)                         | KRISHNA           | NALGONDA          | 110              | S                  | 1978-85               |
| 4      | NAGARJUNA SGR 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               |
| 6      | TOTAL TSGENCO          | 6            |                                 |                   |                   | 800              |                    |                       |

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

#### B. 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      | 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. |
| 1       | Total           | 320          |         |                    |  |

### C. Balance Capacity

| Sl.No. | Name of Project | River Type |   | I.C.(MW) | District |
|--------|-----------------|------------|---|----------|----------|
| 1      | Tupakulagudem   | Godavari   | S | 240      | Mulugu   |

#### D. Pumped Storage

|       |                 | INSTALLED CAPACITY                 |        |         |          |              |
|-------|-----------------|------------------------------------|--------|---------|----------|--------------|
| S.No. | SCHEMES         | No. of units x<br>Unit<br>size(MW) | MW     | River   | District | Status       |
| 1     | Nagarjuna Sagar | 7x100.80                           | 705.60 | Krishna | Karnool  | In Operation |
| 2     | Srisailam LBPH  | 6x150                              | 900    | Krishna | Nalgonda | In Operation |

### Status of Large Hydro Power Development in Karnataka

### I. Conventional Projects

|          |  |   | Nos. | Capacity (MW) |
|----------|--|---|------|---------------|
| (Project | able Large Hydro Pow<br>ts having capacity abov<br>23 Study) | er Potential from Hydroelectric Projects<br>ve 25 MW) | 20   | 4414.4        |
|          | Breakup of Hydr  | o Power Potential (2017-23 Study)                     |      |               |
| A        | Projects in operation  | Projects in operation                                 |      | 3689.2        |
| В        | Projects   | allotted by States for development                    |      |               |
|          | B-I  | DPR Prepared  |      |               |
|          | (i) Projects returned to project authorities                 |   | 2    | 665           |
| С        | Balance Capacity*  |   | 4    | 747           |

<sup>\*</sup>Balance Capacity 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.

**II. Pumped Storage Projects** 

|   |           | Nos. | Capacity (MW) |
|---|-----------|------|---------------|
| A | Under S&I | 3    | 3900          |

| Sl.No. | Name of Project                               | River       | Туре  | I. C. (MW) |
|--------|---|-------------|-------|------------|
| 1      | Almatti                                       | Krishna     | S     | 290        |
| 2      | Ghatprabha                                    | Ghataprabha | S     | 32         |
| 3      | Bhadra<br>(Bhadra Dam PH)                     | Bhadra      | S     | 39.2       |
| 4      | Munirabad                                     | Tungbhadra  | S     | 38         |
| 5      | Hampi   | Tungbhadra  | S     | 36         |
| 6      | T B Dam<br>(Tungabhadra RBC)                  | Tungbhadra  | S     | 36         |
| 7      | Shivasamudram                                 | Cauvery     | R (P) | 42         |
| 8      | Kalinadi Supa                                 | Kali        | S     | 100        |
| 9      | Kalinadi (Nagjhari)                           | Kali        | S     | 855        |
| 10     | Kodasalli<br>(Kalinadi I (Kadassali))         | Kali        | S     | 120        |
| 11     | Kadra<br>Kalinadi I(Kadra)                    | Kali        | S     | 150        |
| 12     | Gangavali St.II<br>(Gangavali (Sonda ) St.II) | Gangavali   | R     | 600        |
| 13     | Linganamakki                                  | Sharavathy  | S     | 55         |
| 14     | Mahatma Gandhi Jog                            | Sharavathy  | S     | 139.2      |
| 15     | Sharavathy<br>( Sharavathi )                  | Sharavathy  | S     | 1035       |
| 16     | Gerusoppa<br>(Sharavathy Tail Race)           | Sharavathy  | R (P) | 240        |
| 17     | Varahi  | Varahi      | R (P) | 460        |
| 18     | Netravathy                                    | Netravathy  | S     | 41         |
| 19     | Sirpadi                                       | Netravathy  | R     | 36         |
| 20     | Kumaradhari                                   | Kumaradhari | S     | 70         |
| 20     | TOTAL   | -           |       | 4414.4     |

| S. No. | Utility/ Stations                      | No. of<br>Stns. | No. Of units x capacity (MW) | River       | Basin | District       | I.C. (MW) | Type<br>(R/S/R(P)) | Year of commissioning |
|--------|--|-----------------|------------------------------|-------------|-------|----------------|-----------|--------------------|-----------------------|
|        | KPCL                                   |                 |                              |             |       |                |           |                    |                       |
| 1      | ALMATTI                                | 1               | (5X55)<br>+(1X15)            | KRISHNA     | EFR   | BIJAPUR        | 290       | S                  | 2004-2005             |
| 2      | GERUSOPPA<br>(SHARAVATHY TAIL<br>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<br>JOG                  | 1               | (4X21.6)<br>+(4X13.2)        | SHARAVATHY  | WFR   | SHIMOGA        | 139.2     | S                  | 1949-1952             |
| 5      | KADRA                                  | 1               | (3X50)                       | KALI        | WFR   | UTTARA KANNADA | 150       | S                  | 1997-1999             |
| 6      | KALINADI<br>(NAGJHARI)                 | 1               | 6x 150                       | KALI        | WFR   | UTTARA KANNADA | 900       | S                  | 1979-1984             |
| 7      | KALINADI SUPA                          | 1               | (2X50)                       | KALI        | WFR   | UTTARA KANNADA | 100       | S                  | 1985                  |
| 8      | KODASALI                               | 1               | (3X40)                       | KALI        | WFR   | UTTARA KANNADA | 120       | S                  | 1998-1999             |
| 9      | LINGNAMAKKI                            | 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                             | 1               | (10X103.5)                   | SHARAVATHY  | WFR   | SHIMOGA        | 1035      | S                  | 1965-1977             |
| 12     | SIVASAMUNDRUM                          | 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                                 | 1               | (2x12)+(1x2)                 | BHADRA      | EFR   | CHICKMAGALUR   | 26        | S                  | 1965                  |
|        | TOTAL KPCL                             | 14              |                              |             |       |                | 3617.2    |                    |                       |
|        | APGENCO                                |                 |                              |             |       |                |           |                    |                       |
| 15     | T B DAM *                              | 1               | (4X9)                        | TUNGABHADRA | EFR   | BELLARI        | 36        | S                  | 1957-1964             |
| 16     | HAMPI *                                | 1               | (4X9)                        | TUNGABHADRA | EFR   | BELLARI        | 36        | S                  | 1958-1964             |
|        | SUB-TOTAL<br>APGENCO                   | 2               |                              |             |       |                | 72        |                    |                       |
| 16     | TOTAL<br>KARNATAKA                     | 16              |                              |             |       |                | 3689.2    |                    |                       |

\* Utilities are in Andhra Pradesh

#### B. 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    | 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        | KPCL   | 320      | Returned due to non-tie up of inputs/clearances, the project involves interstate aspects.  |
| 2       | Total           |        | 665      |  |

### C. Balance Capacity

| Sl.No. | Name of Project                                  | River       | Туре | I.C.(MW) | District         |
|--------|--|-------------|------|----------|------------------|
| 1      | Netravathy                                       | Netravathy  | S    | 41       | Dakshina Kannada |
| 2      | Sirpadi  | Netravathy  | R    | 36       | Dakshina Kannada |
| 3      | Kumaradhari                                      | Kumaradhari | S    | 70       | Dakshina Kannada |
| 4      | Gangavali St.II<br>(Gangavali (Sonda )<br>St.II) | Gangavali   | R    | 600      | Uttara Kannada   |
| 4      | Total  |             |      | 747      |                  |

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

### D. Pumped Storage

|       |            | INSTALLED CA                 | APACITY |  |  |
|-------|------------|------------------------------|---------|--|--|
| S.No. | SCHEMES    | No. of units x Unit size(MW) | MW      | River  | Status   |
| 1     | Sharavathy | 8x250                        | 2000.00 | Upper Reservoir is on<br>Existing Talakalale<br>reservoir<br>Lower Reservoir is on<br>Existing Gerusappa<br>reservoir  | •Under S&I •Agency-KPCL •Target date of DPR preparation- 12/24 •Date of MoA-07.12.2017                                       |
| 2     | Narihalla  | 2x150                        | 300     | Upper Reservoir is<br>proposed on minor<br>rivulet draining into<br>Narihalla Reservoir<br>Lower Reservoir-<br>Narihalla Reservoir<br>existing on Narihalla<br>River | •Under S&I • target date of DPR preparation- 11/23 • Agency- JSW Energy •Date of MOA-28.11.2022                              |
| 3     | Saundatti  | 320X4+160x2                  | 1600    | Upper Reservoir is<br>proposed Off Stream<br>Lower Reservoir is on<br>RenukaSagar which is<br>existing on Malaprabha<br>river  | •Under S&I •Target date for preparation of DPR – 09/2023 •Agency-Greenko •Date of MOA-12.03.18. Revised approval on 27.02.19 |

## Status of Large Hydro Power Development in Kerala

#### I. Conventional Projects

|          |   |  | Nos.    | Capacity (MW) |
|----------|---|--|---------|---------------|
| (Project | able Large Hydro Pow<br>is having capacity abov<br>3 Study) | 23                                       | 2472.75 |               |
|          | Breakup (   | of Hydro Power Potential (2017-23 Study) |         |               |
| A        | Projects in operation                                       |  | 14      | 2048.5        |
| В        | Projects under active                                       | construction                             | 3       | 140           |
| С        | Projects allotted by S                                      | tates for development                    |         |               |
|          | C-A   | DPR Under Preparation                    |         |               |
|          | (i)   | 1  | 800     |               |
| D        | Balance Capacity*   |  | 6       | 419           |

<sup>\*</sup>Balance Capacity 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.

| Sl.No. | Name of Project                           | River                 | Туре  | IC      |
|--------|---|-----------------------|-------|---------|
| 1      | Kuttiyadi<br>(Kuttiyadi)                  | Kuttiyadi             | S     | 75      |
| 2      | Kuttiyadi Extension<br>(Kuttiyadi)        | Kuttiyadi             | S     | 50      |
| 3      | Kuttiyadi Addl. Extension<br>(Kuttiyadi)  | Kuttiyadi             | S     | 100     |
| 4      | Chalipuzha                                | Baypore               | s     | 80      |
| 5      | Idukki<br>(Idukki I&II &<br>Idukki III)   | Periyar               | S     | 780     |
| 6      | Lower Periyar                             | Periyar               | R(P)  | 180     |
| 7      | Pallivasal<br>(Pallivasal Replacement)    | Muthirapuzha          | S     | 37.5    |
| 8      | Pallivasal Extension                      | Muthripuzha           | R     | 60      |
| 9      | Thottiyar                                 | Thottiyar             | R     | 40      |
| 10     | Sengulam                                  | Periyar (Muthripuzha) | S     | 51.2    |
| 11     | Panniar                                   | Panniar               | S     | 32.4    |
| 12     | Neriamangalam                             | Muthripuzha           | S     | 52.65   |
| 13     | Manali                                    | Idamalayar            | S     | 26      |
| 14     | Kudal                                     | Idamalayar            | S     | 56      |
| 15     | Idamalayar                                | Idamalyar             | S     | 75      |
| 16     | Sholaiyar                                 | Sholayar              | S     | 54      |
| 17     | Poringalkuthu<br>(Proringalkuthu (L.B.))  | Chalakudy             | S     | 36      |
| 18     | Athirapilly<br>(Adirapally)               | Chalakudy             | R     | 163     |
| 19     | Sabarigiri                                | Pamba                 | S     | 340     |
| 20     | Kakkad                                    | Pamba                 | R (P) | 50      |
| 21     | Lower Sabarigiri                          | Pamba                 | S     | 68      |
| 22     | Twin-Kallar<br>(Twin Kallar Multipurpose) | Achankovil            | S     | 26      |
| 23     | Mankulam                                  | Velacherry Ar         | S     | 40      |
| 23     | Total                                     |                       |       | 2472.75 |

#### A. Hydro Electric Projects in Operation:

| S. No. | Utility/Stations No. of Stns. Capac |    | No. of units x<br>Capacity<br>(MW) | River<br>/ Basin* | District           | I.C. (MW) | Type<br>(R/S/R(P)) | Year of commissioning |
|--------|-------------------------------------|----|------------------------------------|-------------------|--------------------|-----------|--------------------|-----------------------|
|        | KSEB                                |    |                                    |                   |                    |           |                    |                       |
| 1      | IDAMALAYAR                          | 1  | (2X37.5)                           | IDAMALAYAR        | ERNAKULAM          | 75        | S                  | 1987                  |
| 2      | IDUKKI                              | 1  | (6X130)                            | PERIYAR           | IDUKKI             | 780       | S                  | 1976-1986             |
| 3      | KAKKAD                              | 1  | (2X25)                             | PAMBA             | PATHANAMTHI<br>TTA | 50        | R(P)               | 1999                  |
| 4      | KUTTIYADI                           | 1  | (3X25)                             | KUTTIYADI         | KOZHIKODE          | 75        | S                  | 1972                  |
| 5      | KUTTIYADI EXTN.                     | 1  | (1X50)                             | KUTTIYADI         | KOZHIKODE          | 50        | S                  | 2001                  |
| 6      | KUTTIYADI ADDN EXTN                 | 1  | (2X50)                             | KUTTIYADI         | KOZHIKODE          | 100       | S                  | 2010                  |
| 7      | LOWER PERIYAR                       | 1  | (3X60)                             | PERIYAR           | IDUKKI             | 180       | R(P)               | 1997                  |
| 8      | NERIAMANGLAM                        | 1  | (3X17.55)                          | MUTHIRAPUZHA      | IDUKKI             | 237       | S                  | 1961-63               |
| 9      | PALLIVASAL                          | 1  | (3X5)<br>+(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             | PATHANAMTHI<br>TTA | 300       | S                  | 1960-1967             |
| 13     | SENGULAM                            | 1  | (4X12)                             | MUTHIRAPUZHA      | IDUKKI             | 48        | S                  | 1954-2001             |
| 14     | SHOLAYAR                            | 1  | (3X18)                             | SHOLAYAR          | COIMBATORE         | 54        | S                  | 1956-1968             |
| 14     | TOTAL KSEB                          | 14 |                                    |                   |                    | 2048.5    |                    |                       |

<sup>\*</sup> All projects are in WFR Basin

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

| Sl. No. | Name of Project      | Agency | District | River / Basin   | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Likely<br>Commissioning |
|---------|----------------------|--------|----------|-----------------|--------------|--------------------|-------------------------|
| 1       | Pallivasal Extension | KSEB   | ldukki   | Mudirapuzha/WFR | 60           | R                  | 2023-24<br>(Jun'23)     |
| 2       | Thottiyar            | KSEB   | ldukki   | Thottiyar/ WFR  | 40           | R                  | 2022-24<br>(Jun'23)*    |
| 3       | Mankulam             | KSEB   | ldukki   | Melachery       | 40           | S                  | 2026-27<br>(May'26)     |
| 3       | Total                |        |          |                 | 140          |                    |                         |

<sup>\* 1</sup> unit (10 MW) likely during 2022-23 & 1 unit (30 MW) during 2023-24

#### C. H.E. Projects under Survey & Investigation:

| Sl. No. | Name of Project         | Basin/River  | I.C.<br>(MW) | Agency | District | Type<br>(R/S/R(P)) | Target date of preparation of DPR |
|---------|-------------------------|--------------|--------------|--------|----------|--------------------|-----------------------------------|
| 1       | Idukki Extension Scheme | WFR/ Periyar | 800          | KSEB   | Idukki   | S                  | 03/24                             |
| 1       | TOTAL                   |              | 800          |        |          |                    |                                   |

#### D. Balance Capacity

| Sl.<br>No. | Name of Project  | River              | I.C.(MW) | District       | Туре |
|------------|------------------|--------------------|----------|----------------|------|
| 1          | Chalipuzha       | Baypore 80 Wayanad |          | Wayanad        | S    |
| 2          | Manali           | Idamlayar          | 26       | Idukki         | S    |
| 3          | Kudal            | Idamlayar          | 56       | Ernakulam      | S    |
| 4          | Lower Sabarigiri | Pamba              | 68       | Pathanamthitta | S    |
| 5          | Twin-Kallar      | Achankovil/Kallar  | 26       | Pathanamthitta | S    |
| 6          | Athirapilly      | Chalakudy          | 163      | Thrissur       | R    |
| 6          | Total            |                    | 419      |                |      |

## Status of Large Hydro Power Development in Tamil Nadu

## I. Conventional Projects

|          |  | Nos. | Capacity (MW) |
|----------|--|------|---------------|
| (Project | able Large Hydro Power Potential from Hydroelectric Projects<br>s having capacity above 25 MW)<br>3 Study) | 26   | 1785.20       |
|          | Breakup of Hydro Power Potential (2017-23 Study)   |      |               |
| A        | Projects In Operation  | 26   | 1778.2        |

**II. Pumped Storage Projects** 

|   |           | Nos. | Capacity (MW) |
|---|-----------|------|---------------|
| A | Under S&I | 4    | 3400          |

| S.no | Name  | River               | Туре  | Installed Capacity |
|------|---|---------------------|-------|--------------------|
| 1    | Aliyar<br>(Upper Aliyar)                      | Bharatapuzha/Aliyar | S     | 60                 |
| 2    | Sarkarpathy<br>(Sarkarpathi)                  | Parabikulam         | R (P) | 30                 |
| 3    | Sholayar I                                    | Sholayar            | S     | 70                 |
| 4    | Periyar<br>(Periyar Lake)                     | Periyar             | S     | 168                |
| 5    | Kodayar I                                     | Kodayar             | S     | 60                 |
| 6    | Kodayar II                                    | Kodayar             | S     | 40                 |
| 7    | Kundah-I<br>(Avalaanche<br>Em'ld(Kundah-I))   | Avalanche Stream    | S     | 60                 |
| 8    | Bhavani Kattalai<br>Barrage -I                | Cauvery             | R (P) | 30                 |
| 9    | Bhavani Kattalai<br>Barrage -II               | Cauvery             | R (P) | 30                 |
| 10   | Bhavani Kattalai<br>Barrage -III              | Cauvery             | R (P) | 30                 |
| 11   | Kundah-II<br>(Kundapallam<br>(Kundah-II))     | Kundah              | S     | 175                |
| 12   | Lower Mettur-I<br>(Lower Mettur)              | Cauvery             | R (P) | 30                 |
| 13   | Lower Mettur-II<br>(Lower Mettur)             | Cauvery             | R (P) | 30                 |
| 14   | Lower Mettur-III<br>(Lower Mettur)            | Cauvery             | R (P) | 30                 |
| 15   | Lower Mettur-IV<br>(Lower Mettur)             | Cauvery             | R (P) | 30                 |
| 16   | Mettur Dam                                    | Cauvery             | S     | 50                 |
| 17   | Mettur Tunnel                                 | Cauvery             | S     | 200                |
| 18   | Moyar   | Moyar               | S     | 36                 |
| 19   | Parson's valley                               | Bhavani             | S     | 30                 |
| 20   | Kundah-III<br>(Pengumbahalla<br>(Kundah-III)) | Pegumbahallah       | S     | 180                |

| 21 | Kundah-IV                    | Bhavani       | S | 100    |
|----|------------------------------|---------------|---|--------|
| 22 | Pykara<br>(Pykara (Singara)) | Pykara        | S | 59.2   |
| 23 | Pykara Ultimate              | Pykara        | S | 150    |
| 24 | Kundah-V                     | Bhavani       | S | 40     |
| 25 | Papanasam                    | Thamirabarani | S | 32     |
| 26 | Suruliyar                    | Ervalangar    | S | 35     |
| 26 | T                            | <b>'otal</b>  |   | 1785.2 |

| S. No. | Utility/<br>Stations            | No. Of<br>stns. | No. of units x<br>Capacity<br>(MW) | River              | Basin | District    | Capacity<br>(MW) | Type<br>(R/S/R(P)) | Year of commissioning |
|--------|---------------------------------|-----------------|------------------------------------|--------------------|-------|-------------|------------------|--------------------|-----------------------|
|        | TANGEDCO                        |                 | I                                  |                    |       |             |                  |                    |                       |
| 1      | ALIYAR                          | 1               | (1X60)                             | Aliyar             | WFR   | COIMBATORE  | 60               | S                  | 1970                  |
| 2      | BHAVANI KATTALAI<br>BARRAGE-I   | 1               | (2X15)                             | CAUVERY            | EFR   | ERODE       | 30               | R(P)               | 2006                  |
| 3      | BHAVANI KATTALAI<br>BARRAGE-II  | 1               | (2X15)                             | CAUVERY            | EFR   | ERODE       | 30               | R(P)               | 2013                  |
| 4      | BHAVANI KATTALAI<br>BARRAGE-III | 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                        | 1               | (3X20)                             | AVLANCHE<br>STREAM | EFR   | NILGRIS     | 60               | S                  | 1960-1964             |
| 8      | KUNDAH-II                       | 1               | (5X35)                             | KUNDAH             | EFR   | NILGRIS     | 175              | S                  | 1960-1965             |
| 9      | KUNDAH-III                      | 1               | (3X60)                             | PENGUNBAHALLA<br>H | 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                  | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1988                  |
| 13     | LOWER METTUR-II                 | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1988                  |
| 14     | LOWER METTUR-III                | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1987-1988             |
| 15     | LOWER METTUR-IV                 | 1               | (2X15)                             | CAUVERY            | EFR   | SALEM       | 30               | R(P)               | 1988-1999             |
| 16     | METTUR DAM                      | 1               | (4X12.5)                           | CAUVERY            | EFR   | SALEM       | 50               | S                  | 1937-1946             |
| 17     | METTUR TUNNEL                   | 1               | (4X50)                             | CAUVERY            | EFR   | SALEM       | 200              | S                  | 1965-1966             |
| 18     | MOYAR                           | 1               | (3X12)                             | MOYAR              | EFR   | NILGRIS     | 36               | S                  | 1952-1953             |
| 19     | PAPANASAM                       | 1               | (4X8)                              | THAMBRAPARANI      | EFR   | TIRUNELVELI | 32               | S                  | 1944-1951             |
| 20     | PARSON`S VALLEY                 | 1               | (1X30)                             | BHAVANI            | EFR   | NILGIRIS    | 30               | S                  | 2000                  |
| 21     | PERIYAR                         | 1               | (3X42)+<br>(1X35)                  | PERIYAR            | WFR   | IDUKKI      | 161              | S                  | 1958-1965             |
| 22     | PYKARA                          | 1               | (3X7)+<br>(2X13.6)+<br>(1X11)      | PYKARA             | EFR   | NILGRIS     | 59.2             | S                  | 1932-2005             |
| 23     | PYKARA ULTMATE                  | 1               | (3X50)                             | PYKARA             | EFR   | NILGRIS     | 150              | S                  | 2005                  |
| 24     | SARKARPATHY                     | 1               | (1X30)                             | PARABIKULAM        | WFR   | KOZHIKODE   | 30               | R(P)               | 1966                  |
| 25     | SHOLAYAR I                      | 1               | (2X35)                             | SHOLAYAR           | WFR   | COIMBATORE  | 70               | S                  | 1971                  |
| 26     | SURULIYAR                       | 1               | (1X35)                             | ERAVANGALAR        | EFR   | TIRUNELVELI | 35               | S                  | 1978                  |
| 26     | TOTAL                           | 26              |                                    |                    |       |             | 1778.2           |                    |                       |
|        | R= Run of River S=Storage & I   | <u> </u>        | l                                  |                    |       |             |                  |                    |                       |

## **B.** Pumped Storage

|       |   | INSTALLED CAPACITY              |      |   |  |
|-------|---|---------------------------------|------|---|--|
| S.No. | SCHEMES                                       | No. of units x<br>Unit size(MW) | MW   | River   | Status   |
| 1     | Kadamparai                                    | 4x100                           | 400  | Upper Reservoir-<br>Existing Kadamparai<br>Dam<br>Lower reservoir-Existing<br>Upper Aliyar Dam  | In Operation •Agency-TANGEDCO  |
| 2     | Kundah Pumped<br>Storage (Phase-<br>I,II&III) | 4x125                           | 500  | Upper reservoir-Existing<br>Porthimund reservoir<br>Lower reservoir-<br>Existing Avalanche<br>Emerald reservoir                             | •Under Active Construction •Agency-TANGEDCO •Likely commissioning by 2024-25 (Oct. 2024)   |
| 3     | Kodayar                                       | 6x250                           | 1500 | Upper Reservoir is on<br>existing Kodayar<br>Reservoir<br>Lower Reservoir is on<br>PWD's Pechiparai<br>reservoir(Existing Hydro<br>Project) | •Under S&I Held Up •Agency-TANGEDCO •Pre-DPR chapters returned after there is no progress in the S&I activities by the developer |
| 4     | Sillahalla StI                                | 4x250                           | 1000 | Upper Reservoiron<br>Sillahalla river<br>Lower Reservoir- on<br>Sillahalla river  | •Under S&I •AgencyTANGEDCO •Date of MOA-23.01.2019 •Target date of DPR Preparation-02/24   |

# Status of Large Hydro Power Development in Jharkhand

# I. Conventional Projects

|   |  | Nos. | Capacity (MW) |
|---|--|------|---------------|
| _ | le Large Hydro Power Potential from Hydroelectric Projects<br>having capacity above 25 MW)<br>Study) | 4    | 300           |
|   | Breakup of Hydro Power Potential (2017-23 Study)   |      |               |
| A | Projects in operation  | 3    | 210           |
| В | Balance Capacity   | 1    | 90            |

## **Details of Exploitable Large Hydro Power Projects**

| Sl.No. | Name of Project           | Туре         | I. C.<br>(MW) |    |  |  |
|--------|---------------------------|--------------|---------------|----|--|--|
| 1      | Subernarekha-I            | Subernarekha | S             | 65 |  |  |
| 2      | Subernarekha-II           | Subernarekha | R(P)          | 65 |  |  |
| 3      | Lower Sankh               | Sankh        | S             | 90 |  |  |
| 4      | Panchet<br>(Panchet Hill) | Damodar      | S             | 80 |  |  |
| 4      | TOTAL                     |              |               |    |  |  |

### **II. Pumped Storage Projects**

|   |           | Nos. | I.C. (MW) |
|---|-----------|------|-----------|
| A | Under S&I | 1    | 1500      |

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

#### B. Balance Capacity

| Sl.<br>No. | Name of Project | River | Туре | I.C.<br>(MW) | District |
|------------|-----------------|-------|------|--------------|----------|
| 1          | Lower Sankh     | Sankh | S    | 90           | Simdega  |
| 1          | Total           |       |      | 90           |          |

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

C. Pumped Storage

| S.No. | SCHEMES    | INSTALLED CAPACITY              |         |   |  |  |
|-------|------------|---------------------------------|---------|---|--|--|
|       |            | No. of units x<br>Unit size(MW) | MW      | River   | Status   |  |
| 1     | Lugu pahar | 6x250                           | 1500.00 | Upper reservoir-<br>proposed on Kairo<br>Jharna Nala<br>Lower Reservoir-<br>proposed across<br>Bokaro River | •Under S&I •Target date of Preparation of DPR- 12/24 •Agency-DVC |  |

## Status of Large Hydro Power Development in Bihar

### I. Conventional Projects

|                 |   | Nos. | I.C.<br>(MW) |
|-----------------|---|------|--------------|
| Hydro<br>(Proje | itable Large Hydro Power Potential from electric Projects cts having capacity above 25 MW) -23 Study) | 1    | 130.1        |
| Brea            | akup of Hydro Power Potential (2017-23 Study)   |      |              |
| A               | DPR Prepared  |      |              |
| (i)             | Projects returned to project authorities  | 1    | 130.1        |

### **Details of Exploitable Large Hydro Power Projects**

| S.N<br>o. | Name    | River | Туре | IC    |
|-----------|---------|-------|------|-------|
| 1         | Dagmara | Kosi  | R    | 130.1 |
| 1         | Total   | 130.1 |      |       |

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

| S1.No. | Name of Project | River | I.C.<br>(MW) | Date of returned |  |
|--------|-----------------|-------|--------------|------------------|--|
| 1      | Dagmara         | Kosi  | 130.1        | 22-Jan           |  |
|        | Total           | 130.1 |              |                  |  |

### Status of Large Hydro Power Development in Odisha

### I. Conventional Projects

|   |   | Nos. | Capacity (MW) |
|---|---|------|---------------|
|   | Large Hydro Power Potential from Hydroelectric Projects ving capacity above 25 MW) ady) | 13   | 2824.50       |
|   | Breakup of Hydro Power Potential (2017-23 Study)  |      |               |
| A | Projects In Operation   | 7    | 2039.8        |
| С | Balance Capacity*   | 6    | 677           |

<sup>\*</sup>Balance Capacity 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.

#### II. Pumped Storage Projects

|   |           | Nos. | Capacity (MW) |
|---|-----------|------|---------------|
| A | Under S&I | 3    | 1420          |

| Sl.No. | Name of Project  | River     | Туре  | IC     |
|--------|------------------|-----------|-------|--------|
| 1      | Bhimkund         | Baitarni  | S     | 30     |
| 2      | Baljori          | Baitarni  | S     | 230    |
| 3      | Lodani           | Brahmani  | S     | 64     |
| 4      | Rengali          | Brahmani  | S     | 250    |
| 5      | Tikarpara        | Mahanadi  | S     | 220    |
| 6      | mirakuu (Buria)  | Mahanadi  | S     | 275.5  |
| 7      | (Hirakuu Cmpmma) | Mahanadi  | R (P) | 72     |
| 8      | Salki            | Salki     | S     | 70     |
| 9      | Kharag           | Kharag    | R     | 63     |
| 10     | Upper Indravati  | Indravati | S     | 600    |
| 11     | Upper Kolab      | Kolab     | S     | 320    |
| 12     | Machkund         | Machkund  | S     | 120    |
| 13     | Balimela         | Sileru    | S     | 510    |
| 13     | Total            |           |       | 2824.5 |

| S.<br>NO. | UTILITY/<br>STATIONS  | NO. OF<br>STNS. | NO. OF UNITS<br>X CAPACITY<br>(MW)         | RIVER     | DISTRICT   | I.C.<br>(MW) | Type<br>(R/S/R(P)) | YEAR OF<br>COMMISSIONING |
|-----------|-----------------------|-----------------|--|-----------|------------|--------------|--------------------|--------------------------|
|           | ОНРС                  |                 |  |           |            |              |                    |                          |
| 1         | BALIMELA              | 1               | (6X60)+<br>(2X75)                          | SILERU    | MALKANGIRI | 510          | S                  | 1973-1977, 2008          |
| 2         | HIRAKUD (BURLA)       | 1               | (2X43.65)+<br>(1X37.5)+(2X4<br>9.5)+(2X32) | MAHANADI  | SAMBALPUR  | 287.8        | s                  | 1956-1990                |
| 3         | HIRAKUD<br>(CHIPLIMA) | 1               | (3X24)                                     | MAHANADI  | SAMBALPUR  | 72           | R(P)               | 1962-1964                |
| 4         | RENGALI               | 1               | (5X50)                                     | BRAHMANI  | ANGUL      | 250          | S                  | 1985-1992                |
| 5         | UPPER INDRAVATI       | 1               | (4X150)                                    | INDRAVATI | KALAHANDI  | 600          | S                  | 1999-2001                |
| 6         | UPPER KOLAB           | 1               | (4X80)                                     | KOLAB     | KORAPUT    | 320          | S                  | 1988-1993                |
|           | TOTAL OHPC            | 6               |  |           |            | 2039.8       |                    |                          |
|           | APGENCO               |                 |  |           |            |              |                    |                          |
| 1         | MACHKUND              | 1               | (3X17)+<br>(3X21.25)                       | MACHKUND  | KORAPUT    | 114.75       | S                  | 1959                     |
|           | SUB-TOTAL<br>APGENCO  | 1               |  |           |            |              |                    |                          |
| 7         | TOTAL ODISHA          | 7               |  |           |            | 2039.8       |                    |                          |

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

#### B. Balance Capacity

| Sl.No. | Name of Project | River    | Туре | I.C.<br>(MW) | District   | Remarks  |
|--------|-----------------|----------|------|--------------|------------|--|
| 1      | Bhimkund        | Baitarni | S    | 30           | Keonjhar   |  |
| 2      | Baljori         | Baitarni | S    | 230          | Keonjhar   |  |
| 3      | Lodani          | Brahmani | S    | 64           | Sundergarh |  |
| 4      | Tikkarpara      | Mahanadi | S    | 220          | Angul      |  |
| 5      | Salki           | Salki    | S    | 70           | Boudh      | Initially alloted to OHPCL Project was shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 6      | Kharag          | Kharag   | R    | 63           | Kandhmal   | Initially alloted to OHPCL Project was shifted to S&I held up as no progress in the S&I activities of project reported by developer. |
| 6      | Total           |          |      | 677          |            | ,  |

#### C. Pumped Storage

|       |                 | SCHEMES  No. of units x Unit size(MW)  MW |     |   |  |
|-------|-----------------|---|-----|---|--|
| S.No. | SCHEMES         |   |     | River   | Status   |
| 1     | Upper Indravati | 4x150                                     | 600 | Upper Reservoir is existing on<br>Upper Indravati HEP reservoir<br>(Exisiting Hydro Project)<br>Lower Reservoir is to be<br>constructed.          | •Under S&I •Target date for preparation of DPR – 10/2023 •Agency-OHPCL •Date of MOA-29.07.2015 |
| 2     | Upper Kolab     | 2x160                                     | 320 | Upper Reservoir is existing on<br>Upper Kolab HEP reservoir<br>(Exisiting Hydro Project)<br>Lower Reservoir is to be<br>constructed (off stream). | •Under S&I •Agency-OHPCL •Target date of preparation of DPR- 12/24                             |
| 3     | Balimela        | 2x250                                     | 500 | Upper Reservoir is existing on Balimela HEP reservoir (Exisiting Hydro Project)  Lower Reservoir is to be constructed.                            | •Under S&I •Agency-OHPCL •Target date of preparation of DPR- 12/24                             |

### Status of Large Hydro Power Development in West Bengal

#### I. Conventional Projects

|          |   |                                | Nos.  | Capacity (MW) |
|----------|---|--------------------------------|-------|---------------|
| Projects | le Large Hydro Pow<br>having capacity abo<br>Study) | 10                             | 809.2 |               |
| Bre      | eakup of Hydro Po                                   | ower Potential (2017-23 Study) |       |               |
| A        | Projects in operati                                 | on                             | 5     | 441.2         |
| В        | Projects under acti                                 | ve construction                | 1     | 120           |
| C        | Projects allotted by                                | y States for development       |       |               |
|          | C-I   | DPR Under Preparation          |       |               |
|          | (i)   | Projects under S&I             | 1     | 90            |
| D        | Balance Capacity*                                   | :                              | 3     | 196           |

<sup>\*</sup>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.

#### **II. Pumped Storage Projects**

|   |              | Nos. | Capacity (MW) |
|---|--------------|------|---------------|
| A | In Operation | 1    | 900           |
| В | Concurred    | 1    | 1000          |

### **Details of Exploitable Large Hydro Power Projects**

| S.no | Name                        | River        | Туре  | Installed<br>Capacity(MW) |
|------|-----------------------------|--------------|-------|---------------------------|
| 1    | Rammam I                    | Rammam       | R     | 60                        |
| 2    | Rammam II                   | Rammam       | R     | 50                        |
| 3    | Rammam III                  | Rammam       | R     | 120                       |
| 4    | Tessta Low dam -<br>IV      | Teesta       | R (P) | 160                       |
| 5    | Teesta Low Dam<br>III       | Teesta       | R (P) | 132                       |
| 6    | TLDP- I&II                  | Great Rangit | R     | 56                        |
| 7    | Teesta Intermediate         | Teesta       | R     | 52                        |
| 8    | Teesta Low Dam<br>Project V | Teesta       | R     | 80                        |
| 9    | Jaldhaka<br>(Jaldhaka I)    | Jaldhaka     | R (P) | 36                        |
| 10   | Maithon                     | Barakar      | S     | 63.2                      |
| 10   |                             | TOTAL        |       | 809.2                     |

| Sl.No. | Name of Project    | Agency  | District        | River /Basin* | I. C. | Type<br>(R/S/R(P)) | Year of<br>Commissioning |
|--------|--------------------|---------|-----------------|---------------|-------|--------------------|--------------------------|
| 1      | Jaldhaka           | WBSEDCL | KALIMPONG       | Jaldhaka      | 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<br>DHANBAD | Basakar       | 63.2  | S                  | 1957-58                  |
| 5      | Teesta Low Dam-IV  | NHPC    | DARJEELING      | Teesta        | 160   | R(P)               | 2016                     |
| 5      | Total              |         |                 |               | 441.2 |                    |                          |

 $<sup>\</sup>boldsymbol{*}$  Maithon is in Ganga and others are in Brahmaputra Basin.

#### B. H.E. Projects under active Construction:

| Sl. No. | Name of Project | Agency | District   | River / Basin                                | I. C.<br>(MW) | Type<br>(R/S/R(P)) | Likely<br>Commissioning |
|---------|-----------------|--------|------------|--|---------------|--------------------|-------------------------|
| 1       | Rammam-III      | NTPC   | Darjeeling | Rammam/<br>Rangit/<br>Teesta<br>/Brahmaputra | 120           | R                  | 2025-26<br>(July'25)    |
| 1       |                 |        |            |  | 120           |                    |                         |

#### C. H.E. Projects Under Survey & Investigation:

| Sl. No. | Name of Project     | Basin/River | Agency for DPR | I.C.<br>(MW) | District   | Type<br>(R/S/R(P)) | Date of MOA | Target date of Preparation of DPR |
|---------|---------------------|-------------|----------------|--------------|------------|--------------------|-------------|-----------------------------------|
| 1       | Teesta Intermediate | Teesta      | WBSEDCL        | 90           | Darjeeling | ROR                |             | 12/23                             |
| 1       |                     |             |                | 90           |            |                    |             |                                   |

## E. Balance Capacity

| Sl.No. | Name of Project             | River       | Туре | I.C.(MW) | District   | Remarks   |
|--------|-----------------------------|-------------|------|----------|------------|---|
| 1      | Rammam-I                    | Rammam      | RoR  | 60       | Darjeeling |   |
| 2      | Teesta Low Dam Project<br>V | Teesta      | RoR  | 80       | Darjeeling |   |
| 3      | TLDP-I&II                   | Badi rangit | RoR  | 56       | Darjeeling | • The project was alloted to<br>NHPC. However, withdrawal<br>of consent for the project by<br>Govt. of Sikkim on<br>30.01.2017. |
| 3      | Total                       |             |      | 196      |            |   |

Note: R-Run of the River

# F. Pumped Storage

|       | SCHEMES | INSTALLED C.                     | APACITY |                      |   |
|-------|---------|----------------------------------|---------|----------------------|---|
| S.No. |         | No. of units x<br>Unit size (MW) | MW      | River                | Status  |
| 1     | Purulia | 4x250                            | 900     | Kisto Bazar<br>Nalla | In Operation  |
| 2     | Turga   | 4x250                            | 1000    | Turga Nala           | •DPR concurred by CEA •Concurrence date- 05.10.2016 •EC accorded on 02.07.2018. FC-I accorded on 12.04.18 and FC-II accorded on 13.10.2022. |

# Status of Large Hydro Power Development in Sikkim

### I. Conventional projects

|          | _          |   | Nos. | Capacity (MW) |
|----------|------------|---|------|---------------|
| Projects | having cap | ydro Power Potential from Hydroelectric acity above 25 MW)        | 34   | 6051          |
|          | Breakup o  | f Hydro power Potential (2017-23)                                 |      |               |
| A        | Projects i | n operation   | 8    | 2282          |
| В        | Projects u | under active construction   | 2    | 620           |
| C        | H.E. Proj  | ects on which Construction is held up                             | 3    | 417           |
| D        | Projects a | illotted by States for development                                |      |               |
|          | D-I        | DPR Prepared  |      |               |
|          | (i)        | Projects concurred by CEA and yet to be taken up for construction | 1    | 520           |
| E        | Balance (  | Capacity*   | 20   | 2212          |

<sup>\*</sup>Balance Capacity 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.

**Details of Exploitable Large Hydro Power Projects** 

| S.no | Name                            | River        | Туре  | Installed Capacity |
|------|---------------------------------|--------------|-------|--------------------|
| 1    | Kalep                           | Tista        | R     | 54                 |
| 2    | Talem                           | Tista        | R     | 44                 |
| 3    | Jedang                          | Lhonak       | R     | 160                |
| 4    | Teesta-I<br>(zeema)             | Teesta       | R     | 320                |
| 5    | Serum                           | Sebokung     | R     | 115                |
| 6    | Lachung                         | Lachung      | R     | 75                 |
| 7    | Teesta-II                       | Lachen Chu   | R     | 410                |
| 8    | Lachen<br>(Chunthang)           | Teesta       | R     | 160                |
| 9    | Ringpi                          | Ringpi       | R     | 120                |
| 10   | Rukel                           | Rongni chu   | R     | 26                 |
| 11   | Rangyong                        | Rongni chu   | R     | 248                |
| 12   | Panan                           | Toulng       | R     | 300                |
| 13   | Teesta-III<br>(Singhik)         | Teesta       | R (P) | 1200               |
| 14   | Teesta St-IV<br>(Mangan)        | Teesta       | R (P) | 520                |
| 15   | Dikchu                          | Dikchu       | R (P) | 96                 |
| 16   | Teesta- V<br>(samdong)          | Teesta       | R (P) | 510                |
| 17   | Lower lagyap                    | Rongni       | R     | 26                 |
| 18   | Chhot pathing                   | Rangpo       | R     | 55                 |
| 19   | Rongnichu<br>(Rongni Storage)   | Rangpo       | R     | 113                |
| 20   | Mana                            | G. Rangit    | R     | 44                 |
| 21   | Lethang<br>(Yoksam)             | Ranthang chu | R     | 98                 |
| 22   | Namlum                          | G. Rangit    | R     | 50                 |
| 23   | Rangit -III<br>(Gompa+ Ligship) | Rangit       | R (P) | 60                 |
| 24   | Chujachen                       | Rangpo       | R (P) | 110                |
| 25   | Jorethang Loop                  | Rangit       | R (P) | 96                 |
| 26   | Rangit-II                       | Rimbi        | R     | 66                 |
| 27   | Teesta-VI                       | Teesta       | R     | 500                |
| 28   | Rangit-IV                       | Rangit       | R     | 120                |
| 29   | Bhasmey                         | Rangpo       | R     | 51                 |
| 30   | Tashiding                       | Ranthang chu | R (P) | 97                 |
| 31   | Kalez Khola                     | KalezKhola   | R     | 34                 |
| 32   | Suntaleytar                     | Rangpo Chu   | R     | 32                 |
| 33   | Bimkyong                        | Lachung Chu  | R     | 66                 |
| 34   | BOP                             | Lachung Chu  | R     | 75                 |
| 34   | 201                             | TOTAL        |       | 6051               |
| J-1  |                                 | IOIAL        |       | 0031               |

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

<sup>\*</sup> All projects are in Brahamputra Basin

#### B. H.E. Projects under active Construction:

| Sl. No. | Name of Project | Agency | District     | I.C. (MW) | River/ Basin           | Type<br>(R/S/R(P)) | Likely Commissioning   |
|---------|-----------------|--------|--------------|-----------|------------------------|--------------------|------------------------|
| 1       | Teesta St. VI   | NHPC   | South Sikkim | 500       | Teesta/Brahmaput<br>ra | R                  | 2026-27<br>(August'26) |
| 2       | Rangit-IV       | NHPC   | West Sikkim  | 120       | Rangit/<br>Brahmaputra | R                  | 2024-25<br>(Aug'24)    |
| 2       | Total           |        |              | 620       |                        |                    |                        |

#### C. H.E. Projects on which Construction is held up:

| Sl. No. | Name of Project | Agency                                | District     | I.C. (MW) | River/ Basin         | Type<br>(R/S/R(P)) | Status & Likely Commissioning  |  |
|---------|-----------------|---------------------------------------|--------------|-----------|----------------------|--------------------|--|--|
|         |                 |                                       |              |           | Rangpo/ Teesta       | _                  | Works are stalled since Sept., 2016 due to   |  |
| 1       | Bhasmey         | Gati Infrastructure                   | East Sikkim  | 51        | Brahmaputra          | R                  | funds constraints with developer.  *   |  |
| 2       | Rangit-II       | Sikkim Hydro                          | West Sikkim  | 66        | Rimbi                | R                  | Works are stalled since December, 2017<br>due to funds constraints with developer.<br>Project is in NCLT since 30.07.2020. |  |
|         |                 | , , , , , , , , , , , , , , , , , , , |              |           | Brahmaputra          |                    |  |  |
|         |                 |                                       |              |           | Toulng               |                    | Construction of bridge on Mantham lake for accessibility of site is now being started.                                     |  |
| 3       | Panan           | Himagiri                              | North Sikkim | 300       | 300 R<br>Brahmaputra | R                  | The works are likely to start soon after accessibility to Dam site is achieved.  |  |
| 3       | Total           |                                       |              | 417       |                      |                    |  |  |

<sup>\*</sup> The Project is presently stalled. Commissioning is subject to restart of works

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

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

| Sl. No | Name of<br>Project | Agency | River  | I.C. (MW) | District     | Date of CEA<br>Concurrenc<br>e | Tyne | Status  |
|--------|--------------------|--------|--------|-----------|--------------|--------------------------------|------|---|
| 1      | Teesta St-IV       | NHPC   | Teesta | 520       | North Sikkim | 13.05.10                       | R(P) | EC accorded on 09.01.14. FC-I accorded on 26.02.13. FC-II is yet to be obtained # |
| 1      |                    | Total  |        |           | 520          |                                |      |   |

- #• 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 projet 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.
- CMD, NHPC met Hon'ble Chief Minister, Sikkim on 29.10.2022 to discuss early implementation of Teesta Stage-IV HE Project. NHPC vide letter dated 12.11.2022 requested Chief Secretary, Govt of Sikkim for completion of remaining Gram Sabha meetings and process of settlement of rights.
- A meeting was chaired by Hon'ble Minister of Power and NRE and attended by Secretary (Power), CMD, NHPC and senior officials of MoP & NHPC on 16.02.23 wherein issues related to pending compliance of Forest Clearance Stage-I w.r.t consent under FRA-2006 in remaining 3 GPUs was discussed

#### **E.** Balance Capacity

| Sl.No. | Name of Project       | River        | Type (R/S/R(P)) | IC   | District     | Reamrks   |
|--------|-----------------------|--------------|-----------------|------|--------------|---|
| 1      | Kalep                 | Tista        | R               | 54   | North Sikkim |   |
| 2      | Talem                 | Tista        | R               | 44   | North Sikkim |   |
| 3      | Jedang                | Lhonak       | R               | 160  | North Sikkim |   |
| 4      | Teesta-I<br>(zeema)   | Tista        | R               | 320  | North Sikkim |   |
| 5      | Serum                 | Sebokung     | R               | 115  | North Sikkim |   |
| 6      | Lachung               | Lachung      | R               | 75   | North Sikkim |   |
| 7      | Ringpi                | Ringpi       | R               | 120  | North Sikkim |   |
| 8      | Rukel                 | Rongnichu    | R               | 26   | North Sikkim |   |
| 9      | Rangyong              | Rongnichu    | R               | 248  | North Sikkim |   |
| 10     | Chhota Pathing        | Rongpo       | R               | 55   | East Sikkim  |   |
| 11     | Mana                  | G.Ranjit     | R               | 44   | South Sikkim |   |
| 12     | Namlum                | G.Ranjit     | R               | 50   | North Sikkim |   |
| 13     | Lower Lagyap          | Rongpi       | R               | 26   | East Sikkim  |   |
| 14     | Teesta St-II          | Lachen chu   | R               | 410  | North Sikkim |   |
| 15     | Lachen<br>(Chunthang) | Teesta       | R               | 160  | North Sikkim |   |
| 16     | Bimkyong              | Lachung Chu  | R               | 66   | North Sikkim |   |
| 17     | ВОР                   | Lachung Chu  | R               | 75   | North Sikkim |   |
| 18     | Lethang<br>(Yoksam)   | Ranthang chu | R               | 98   | West Sikkim  |   |
| 19     | Kalez khola           | Kalez Khola  | R               | 34   | West Sikkim  | •Project was in S&I held up due<br>to objection raised by local<br>people against Topographical<br>Survey.        |
| 20     | Suntaleytar           | Rangpo Chu   | R               | 32   | East sikkim  | •Initially alloted to Hindustan<br>Electric Power Ltd.<br>•Project was in S&I Held up as<br>MOA was not finalised |
| 20     | To                    | otal         |                 | 2212 |              |   |

# Status of Large Hydro Power Development in Meghalaya

## I. Conventional Projects

|      |         |   | Nos. | Capacity (MW) |
|------|---------|---|------|---------------|
| (Pro |         | Large Hydro Power Potential from Hydroelectric Projects ving capacity above 25 MW) udy) | 22   | 2026          |
| Brea | akup of | Hydro Power Potentia (2017-23 Study)  |      |               |
| A    | Project | ts In Operation   | 5    | 322           |
| В    | Project | ts allotted by States for development   |      |               |
|      | B-I     | DPR Prepared  |      |               |
|      | (i)     | Projects concurred by CEA and yet to be taken up for construction                       | 1    | 85            |
|      | B-II    | DPR Under Preparation   |      |               |
|      | (i)     | Projects under S&I  | 2    | 270           |
|      | (ii)    | Projects allotted for development on which S&I is held up/ yet to be taken up           | 1    | 170           |
| С    | Balanc  | e Capacity*   | 13   | 1434          |

<sup>\*</sup>Balance Capacity 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.

# **Details of Exploitable Large Hydro Power Projects**

| S. No. | Name   | River                          | Type | Installed<br>Capacity |
|--------|--|--------------------------------|------|-----------------------|
| 1      | Kyrdamkulai<br>(Umiam Umtru-III)             | Umtru                          | R(P) | 60                    |
| 2      | Umiam (Umtru) St IV                          | Tail Water of<br>Umaim st. III | R(P) | 60                    |
| 3      | Umium-Ummtru VI                              | Umtru                          | S    | 39                    |
| 4      | Umlamphang                                   | Umiam                          | R    | 28                    |
| 5      | Umaim Stage -I                               | Umiam                          | S    | 36                    |
| 6      | New Umtru                                    | Umtru                          | R(P) | 40                    |
| 7      | Selim  | Myntdu                         | R    | 54                    |
| 8      | Umanghot                                     | Umngot                         | R    | 220                   |
| 9      | Umjaut                                       | Umiew                          | R    | 72                    |
| 10     | Umduna (Umduma)                              | Umiam                          | R    | 60                    |
| 11     | Wah Umiam Stage-III<br>(Mawhu+ Nonglyngkien) | Umiew                          | R    | 85                    |
| 12     | Umngi Stage-I<br>(Umngi Storage+ Rangmaw)    | Umngi                          | S    | 30                    |
| 13     | Nongam                                       | Umngi                          | R    | 165                   |
| 14     | Mawpat                                       | Umngi                          | R    | 30                    |
| 15     | Kynshi II<br>(Mawthaba)                      | Kynshi                         | R    | 278                   |
| 16     | Kynshi I<br>(Mawsyrpat+ Kynshi -I storage)   | Kynshi                         | S    | 270                   |
| 17     | Nangmawlar<br>(Nongmawlar)                   | Kynshi                         | R    | 106                   |
| 18     | Mawblei Storage                              | Wahblei                        | S    | 110                   |
| 19     | Simsang Dam P/H                              | Someshri                       | MPP  | 66                    |
| 20     | Amagam Storage                               | Rongdi                         | S    | 26                    |
| 21     | Myntdu Leshka stage I                        | Myntdu                         | R(P) | 126                   |
| 22     | Myntdu Leshka St-II                          | Myntdu                         | R    | 65                    |
| 22     | TC   | TAL                            | _    | 2026                  |

| S. No. | Utility/Stations | No. of Stns. | No. of units x<br>Capacity<br>(MW) | River / Basin*                                | District      | LC. (MW) | Type<br>(R/S/R(P)) | Year of commissioning |  |  |
|--------|------------------|--------------|------------------------------------|---|---------------|----------|--------------------|-----------------------|--|--|
|        | MePGCL           |              |                                    |   |               |          |                    |                       |  |  |
| 1      | KYRDEMKULAI      | 1            | (2X30)                             | Umtru   | 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<br>PH & own catchment | RI-BHOI       | 60       | R(P)               | 1992                  |  |  |
| 5      | MYNTDU ST-I      | 1            | (3X42)                             | MYNTDU  | JAINTIA HILLS | 126      | R(P)               | 2012                  |  |  |
| 5      | TOTAL MePGCL     | 5            |                                    |   |               | 322      |                    |                       |  |  |

<sup>\*</sup> All projects are in Brahamputra Basin

#### $\textbf{B.} \quad \textbf{H.E. Projects concurred by CEA} \ \text{and yet to be taken up for construction:} \\$

| Sl No. | Name of Project     | Agency | District         | I.C. (MW) | Date of CEA<br>Concurrence | Type<br>(R/S/R(P)) | Status  |
|--------|---------------------|--------|------------------|-----------|----------------------------|--------------------|---|
| 1      | Wah Umiam Stage-III | NEEPCO | East Khasi Hills | 85        | 26.07.2021                 | R                  | 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. |
| 1      | Total               |        |                  | 85        |                            |                    |   |

#### C. H.E. Projects Under Survey & Investigation:

| Sl. No. | Name of Project     | Basin<br>/River | Agency            | I.C.<br>(MW) | District           | Type<br>(R/S/R(P)) | Date of MOA | Target date of<br>Preparation of DPR |
|---------|---------------------|-----------------|-------------------|--------------|--------------------|--------------------|-------------|--------------------------------------|
| 1       | Myntdu Leshka st-II | Myntdu          | MePGCL            | 210          | West Jaintia Hills | R                  | 20.4.12     | 11/23                                |
| 2       | Simsang Dam Project | Someshri        | Brahmaputra Board | 60           | South Garo Hills   | MPP                |             |                                      |
| 2       | Total               |                 |                   | 270          |                    |                    |             |                                      |

### D. 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/<br>MoA | District                  | Status  |
|---------|-----------------|-----------|--------|---------------------------|---------------------------|---|
| 1       | Selim           | 170       | MePGCL | 2008                      | East & West Jaintia Hills | S&I held up due to irregular allocation/release of funds, the hostile terrain, non and non-availability of geologists from GSI, India.  MePGCL vide their letter dated 01.11.2019 informed that installed capacity is likely to be 60 MW. |
| 1       | Total           | 170       |        |                           |                           |   |

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

#### E. Balance Capacity

| E. Ba      | lance Capacity                               | ı       | 1        | <del></del>      |      |   |
|------------|--|---------|----------|------------------|------|---|
| Sl.No.     | Name of Project                              | River   | I.C (MW) | District         | Туре | Reamrks   |
| 1          | Umium-Ummtru VI                              | Umtru   | 39       | Ri-Bhoi          | S    |   |
| 2          | Umlamphang                                   | Umiam   | 28       | Ri-Bhoi          | R    |   |
| 3          | Nongam                                       | Umngi   | 165      | East Khasi Hills | R    |   |
| 4          | Mawpat                                       | Umngi   | 30       | West Khasi Hills | R    |   |
| 5          | Nangmawlar                                   | Kynshi  | 106      | West Khasi Hills | R    |   |
| 6          | Amagam Storage                               | Rongdi  | 26       | East Garo hills  | S    |   |
| 7          | Umjaut                                       | Umiew   | 72       | Umiew            | R    |   |
| 8          | Umduna (Umduma)                              | Umiam   | 60       | Umiam            | R    |   |
| 9          | Umngi Stage-I<br>(Umngi Storage+<br>Rangmaw) | Umngi   | 30       | Umngi            | S    |   |
| 10         | Kynshi I (Mawsyrpat+<br>Kynshi -I storage)   | Kynshi  | 270      | Kynshi           | S    |   |
| 11         | Mawblei Storage                              | Wahblei | 110      | Wahblei          | S    |   |
| 12         | Umanghot<br>(Umngot Stor.)                   | Umngot  | 220      | Umngot           | R    |   |
| 13         | Kynshi-II                                    | Kynshi  | 278      | West Khasi Hills | R    | •Initially alloted to GoMe & Jaiprakash Power Venture Ltd. (JV) • Project was in S&I held up on account of non-finalisation of dam location/height due to deposit of Uranium. I.C. revised to 325 MW. 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 & Reservoir areas of the project. |
| 13         | Total  |         | 1434     |                  |      |   |
| Note: R -F | Run of the River & S- Storage                | e       |          |                  |      |   |

## 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:

| Name of Project       | Unit     |         | Year of<br>Installation | Phase    | RIVER | ТҮРЕ |
|-----------------------|----------|---------|-------------------------|----------|-------|------|
|                       | Unit-I   | 5.00 MW | 1976                    | Phase I  |       |      |
| Gumti H.E.<br>Project | Unit-II  | 5.00 MW | 1976                    |          | Gumti | S    |
|                       | Unit-III | 5.00 MW | 1984                    | Phase II |       |      |

# **Status of Large Hydro Power Development in Manipur**

I. Conventional Projects

|          |   | Nos. | Capacity (MW) |
|----------|---|------|---------------|
| Projects | le Large Hydro Power Potential from Hydroelectric naving capacity above 25 MW) Study) | 9    | 615           |
| Bre      | akup of Hydro Power Potential (2017-23 Study)   |      |               |
| A        | Projects in operation   | 1    | 105           |
| В        | Balance Capacity*   | 8    | 510           |

<sup>\*</sup>Balance Capacity 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.

### **Details of Exploitable Large Hydro Power projects**

| S. No. | Name                   | River               | Type | Installed<br>Capacity |
|--------|------------------------|---------------------|------|-----------------------|
| 1      | Khongem Chakha<br>II   | Barak               | S    | 40                    |
| 2      | Khongem Chakha<br>III  | Barak               | R    | 28                    |
| 3      | Irang                  | Irang               | S    | 60                    |
| 4      | Pabaram                | Barak               | S    | 213                   |
| 5      | Nungnag                | Irang               | S    | 28                    |
| 6      | Loktak D/s<br>(Khunou) | Leimatak            | R    | 66                    |
| 7      | Loktak                 | Imphal              | S    | 105                   |
| 8      | Thinghat               | Tuival              | S    | 45                    |
| 9      | Maklang -<br>Tuyungbi  | Maklang<br>Tuyungbi | S    | 30                    |
| 9      | TOTAL                  |                     |      | 615                   |

### A. 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 |
|--------|-----------------|--------|------------|-----------------------|---------------|--------------------|--------------------------|
| NHPC   |                 |        |            |                       |               |                    |                          |
| 1      | Loktak          | NHPC   | 105        | Imphal/<br>Brahmputra | Churachandpur | S                  | 1983                     |
| 1      | Total           |        | 105        |                       |               |                    |                          |

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

#### **B.** Balance Capacity

| Sl.No. | Name of Project        | River                 | Туре | I.C.(MW) | District      |
|--------|------------------------|-----------------------|------|----------|---------------|
| 1      | Khongnem<br>Chakha-II  | Barak                 | S    | 40       | Senapati      |
| 2      | Khongnem<br>Chakha-III | Barak                 | R    | 28       | Senapati      |
| 3      | Nungnag                | Irang                 | S    | 28       | Tamenglong    |
| 4      | Thinghat               | Tuivai                | S    | 45       | Churachandpur |
| 5      | Irang                  | Irang                 | S    | 60       | Tamenglong    |
| 6      | Pabaram                | Barak                 | S    | 213      | Tamenglong    |
| 7      | Maklang - Tuyungbi     | Maklang &<br>Tuyungbi | S    | 30       | Ukhrul        |
| 8      | Loktak D/S<br>(Khunou) | Leimetak              | R    | 66       | Tamenglong    |
| 8      | Total                  |                       | -    | 510      |               |

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

# Status of Large Hydro Power Development in Assam

I. Conventional Projects

|         |  | Nos.                                | Capacity (MW) |     |
|---------|--|-------------------------------------|---------------|-----|
| (Projec | table Large Hydro Povets having capacity about 23 Study) | 8                                   | 643           |     |
|         | Breakup of Hyo   | lro Power Potential (2017-23 study) |               |     |
| A       | Projects in operation                                    |                                     | 3             | 350 |
| В       | Projects under active                                    | construction                        | 1             | 120 |
| С       | Projects allotted by S                                   | States for development              |               |     |
|         | C-I  | DPR Prepared                        |               |     |
|         | (i)  | 1                                   | 60            |     |
| D       | Balance Capacity*  | 3                                   | 143           |     |

<sup>\*</sup>Balance Capacity 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.

### **Details of Exploitable Large Hydro Power Projects**

| S.no | Name                            | River   | Туре | Installed Capacity<br>(MW) |
|------|---------------------------------|---------|------|----------------------------|
| 1    | Dilli<br>(Dilli Stor.)          | Disang  | S    | 28                         |
| 2    | Diyung Dam P/H                  | Jamuna  | S    | 45                         |
| 3    | Khandong<br>(Kopili-I)          | Kopili  | S    | 50                         |
| 4    | Kopili<br>(Kopili II )          | Umrong  | S    | 200                        |
| 5    | Amring                          | Amring  | S    | 70                         |
| 6    | Karbi Langpi (Upper<br>Borpani) | Borpani | S    | 30                         |
| 7    | Karbi langpi (Lower<br>Borpani) | Borpani | R(P) | 100                        |
| 8    | Lower Kopili                    | Kopili  | R    | 120                        |
| 8    |                                 | TOTAL   |      | 643                        |

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

<sup>\*</sup> All projects are in Brahamputra Basin

#### B. H.E. Projects under active construction:

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

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

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

| Sl. No | Name of<br>Project                 | Agency | I.C.<br>(MW) | Month of Return/Reason of<br>Return  |
|--------|------------------------------------|--------|--------------|--|
| 1      | Karbi Langpi<br>(Upper<br>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. |
| 1      | Total                              |        | 60           |  |

## **D.** Balance Capacity

| Sl.No. | Name of<br>Project | River              | Туре | I.C.(MW) | District      |
|--------|--------------------|--------------------|------|----------|---------------|
| 1      | Dilli Stor.        | Disang             | S    | 28       | Dibrugarh     |
| 2      | Diyung Dam<br>P/H  | Diyung             | S    | 45       | Cachar        |
| 3      | Amring             | Amring             | S    | 70       | Karbi Anglong |
| 3      | Total              | 3 Nos. of Projects |      | 143      |               |

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

# **Status of Large Hydro Power Development in Nagaland**

# I. Conventional Projects

|                     |               |   | Nos. | Capacity (MW) |
|---------------------|---------------|---|------|---------------|
| Project<br>(Project | ts            | Hydro Power Potential from Hydroelectric pacity above 25 MW)      | 4    | 325           |
| Br                  | eakup of Hy   | ydro Power Potential (2017-23 Study)                              |      |               |
| A                   | Projects in o | operation   | 1    | 75            |
| В                   | Projects allo | otted by States for development                                   |      |               |
|                     | B-I           | DPR Prepared  |      |               |
|                     | (i)           | Projects concurred by CEA and yet to be taken up for construction | 1    | 186           |
| С                   | Balance Cap   | pacity  | 2    | 64            |

## **Details of Exploitable Large Hydro Power Projects**

| S.no | Name                          | River   | Туре                                    | Installed Capacity<br>(MW) |
|------|-------------------------------|---------|---|----------------------------|
| 1    | Dikhu<br>(Dikhu Dam<br>P.H.)  | Dikhu   | Seasonal<br>Storage cum<br>Run-of River | 186                        |
| 2    | Yangnyu<br>(Yangnyu<br>Stor.) | Yangnyu | S                                       | 36                         |
| 3    | Jhanzi<br>Storage             | Jhanzi  | S                                       | 28                         |
| 4    | Doyang (Doyang V)             | Doyang  | S                                       | 75                         |
| 4    |                               | TOTAL   |   | 325                        |

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

#### B. 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<br>Concurrence | Type<br>(R/S/R(P))  | Status  |
|--------|-----------------|--------|----------|------------------------|-----------|----------------------------|---------------------|---|
| 1      | Dikhu           | NMPPL  | Longleng | Dikhu /<br>Brahamputra | 186       | 31.03.2014                 | Seasonal S cum<br>R | EC yet to be obtained by developer.<br>TOR issued on 27/12/2018. FC not<br>applicable as forest land is not<br>involved.# |
| 1      | Total           |        |          |                        | 186       |                            |                     |   |

#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. Authority Meeting was held on 27.01.2022. Govt of Nagaland will resume land acquisition after monsoon.

CEA vide letter dated 04.08.2022 informed developer that Central Electricity Authority is not in a position to extend the validity of Concurrence of Dikhu HE Project further as inspite of giving two extensions for validity of concurrence, development of Dikhu HE Project (186MW) is not satisfactory. A meeting held on 08.09.2022 under the chairmanship of Chairperson, CEA regarding reconsideration of extension of validity of Dikhu HEP (186 MW) up to 30.03.2023. As deliberated in the meeting, NMPPL was once again requested to convey concrete plan along with timeline for start of works of Dikhu HEP".

M/s NMPPL vide email dated 29.09.2022 has given their plan with timelines. Principle Secretary to the Govt of Nagaland Power Department Nagaland vide letter dated 28.09.2022 has highlighted some points for special consideration. M/s NMPPL further requestest to extend the TEC for another 3 years and 9 months from the last date TEC was valid, so as enable to start main construction of Dikhu Project by 31.12.2024. In a meeting under the chairmanship of Chairperson, CEA with representatives of State Govt. and developer of the project on 21.10.2022, it was brought out by representative of State Govt. that land acquisition negotiation with villagers of remaining two villages is becoming very difficult and in such situation, the Government of Nagaland is willing to bring down the Installed Capacity of the project to 140 MW or below to minimize the submergence.

In view of above, the developer needs to recast the DPR with revised IC and get fresh concurrence. In such circumstances, re-validation of earlier concurrence of Dikhu HE Project with IC of 186 MW has no relevance

#### C. Balance Capacity

| Sl.No. | Name of Scheme             | River                 | Туре | I.C.(MW) | District   |
|--------|----------------------------|-----------------------|------|----------|------------|
| 1      | Yangnyu<br>(Yangnyu Stor.) | Yangnyu               | S    | 36       | Longleng   |
| 2      | Jhanji storage             | Jhanji                | S    | 28       | Mokokchung |
| 2      | Total                      | 2 Nos. of<br>Projects |      | 64       |            |

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

## Status of Large Hydro Power Development in Arunachal Pradesh

#### I. Conventional Projects

|                     |                                      |   | Nos. | Capacity (MW) |
|---------------------|--------------------------------------|---|------|---------------|
| (Project            |                                      | o Power Potential from Hydroelectric Projects<br>cy above 25 MW)              | 109  | 50394.00      |
| Breaku <sub>]</sub> | p of Hydro Pov                       | wer Potential (2017-23 Study)   |      |               |
| A                   | Projects in op                       | peration  | 3    | 1115          |
| В                   | B Projects under active construction |   | 2    | 4880          |
| С                   | Projects allot                       | ted by States for development   |      |               |
|                     | C-I                                  | DPR Prepared  |      |               |
|                     | (i)                                  | Projects concurred by CEA and yet to be taken up for construction             | 14   | 13798         |
|                     | (ii)                                 | Projects returned to project authorities                                      | 13   | 5323          |
|                     | C-II                                 | DPR Under Preparation   |      |               |
|                     | (i)                                  | Projects under S&I  | 6    | 15632         |
|                     | (ii)                                 | Projects allotted for development on which S&I is held up/ yet to be taken up | 1    | 145           |
| D                   | Balance Capa                         | acity*  | 69   | 11186         |

<sup>\*</sup>Balance Capacity 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.

|      | Exploitable Large Hydro Power |                       | Ŧ    | In stall and Course state |
|------|-------------------------------|-----------------------|------|---------------------------|
| S.no | Name                          | River                 | Туре | Installed Capacity        |
| 1    | Mihundon                      | Dibang (Dri)          | R    | 226                       |
| 2    | Amulin                        | Matun                 | R    | 212                       |
| 3    | Emini                         | Matun                 | R    | 326                       |
| 4    | Agoline                       | Dibang or Dri         | R    | 220                       |
| 5    | Attunli                       | Tangon                | R(P) | 680                       |
| 6    | Etalin                        | Dri& Tangon           | R    | 3097                      |
| 7    | Emra-I                        | Emra                  | R    | 450                       |
| 8    | Emra-II                       | Emra                  | R    | 210                       |
| 9    | Elango                        | Ahi                   | R    | 128                       |
| 10   | Dibang<br>(Dibang Stor.)      | Dibang                | МРР  | 2880                      |
| 11   | Sissiri<br>(Sesseri)          | Sesseri               | S    | 60                        |
| 12   | Ithun I                       | Ithun                 | R    | 76                        |
| 13   | Ithun II                      | Ithun                 | R    | 48                        |
| 14   | Etabue                        | Ange Pani             | R    | 122                       |
| 15   | Jidu<br>(Yangsang)            | Yangsang              | R    | 90                        |
| 16   | Rigong                        | Ringong               | R    | 85                        |
| 17   | Mirak                         | Sigong                | R    | 78                        |
| 18   | Pango<br>(Minnying)           | Sirapatang/<br>Sigong | R    | 72                        |
| 19   | Pauk                          | Yarjep                | R    | 128                       |
| 20   | Нео                           | Yarjep                | R    | 240                       |
| 21   | Hirong                        | Siyom                 | R    | 500                       |
| 22   | Tato-II                       | Siyom                 | R(P) | 700                       |
| 23   | Tato-I                        | Yarjep                | R    | 186                       |

| 24 | Naying                              | Siyom       | R    | 1000 |
|----|-------------------------------------|-------------|------|------|
| 25 | Yamne-I                             | Yamne       | R    | 106  |
| 26 | Yamne St II                         | Yamne       | R    | 70   |
| 27 | Lower Siang<br>(Passighat)          | Siang       | R(P) | 2700 |
| 28 | Siyom (Middle)<br>(Passighat)       | Siyom       | R    | 1000 |
| 29 | Tagurshit                           | Tagurshit   | R    | 52   |
| 30 | Pemashelphu                         | Yargyap Chu | R    | 78   |
| 31 | Kangtangshri                        | Siyom       | R(P) | 68   |
| 32 | Lower Yamne-I (Jaru)                | Yamne       | R    | 66   |
| 33 | Rapum                               | Siyom       | R    | 60   |
| 34 | Rego                                | Siyom       | R    | 63   |
| 35 | Lower Yamne St-II<br>(Yapin)        | Yamne       | R    | 74   |
| 36 | Sippi                               | Ringong     | R    | 75   |
| 37 | Simang I                            | Simang      | R    | 32   |
| 38 | Simang- II                          | Simang      | R    | 32   |
| 39 | Siang Upper Stage-II<br>(Passighat) | Siang       | S    | 3750 |
| 40 | Saing Upper Stage-I<br>(Passighat)  | Siang       | S    | 6834 |
| 41 | Kalai-I<br>(Kalai)                  | Lohit       | S    | 1140 |
| 42 | Hutong -II<br>(Hutong)              | Lohit       | R    | 900  |
| 43 | Demwe Lower<br>(Demwe)              | Lohit       | R(P) | 1750 |
| 44 | Demwe Upper St-I<br>(Demwe)         | Lohit       | R    | 210  |
| 45 | Demwe Upper St-II<br>(Demwe)        | Lohit       | R    | 210  |
| 46 | Demwe Upper St-III<br>(Demwe)       | Lohit       | R    | 150  |
| 47 | Gimliang                            | Dau         | R    | 82   |
| 48 | Raigam                              | Delai       | R    | 180  |
| 49 | Tidding -I                          | Tidding     | R    | 82   |
| 50 | Tidding -II                         | Tidding     | R    | 70   |

| 51 | Kalai II                                 | Lohit                 | R(P) | 1200 |
|----|--|-----------------------|------|------|
| 52 | (Kalai)<br>Anjaw                         | Lohit                 | R    | 230  |
|    | Oju                                      | Subansiri / Si        |      |      |
| 53 | (Oju-I + Oju-II)                         | Nigit                 | R    | 2060 |
| 54 | Niare                                    | Subansiri             | R    | 860  |
| 55 | Naba                                     | Subansiri/ Si<br>Ngit | R    | 905  |
| 56 | Milli                                    | kurung                | R    | 138  |
| 57 | Sape                                     | kurung                | R    | 65   |
| 58 | Chomi                                    | Kurung                | R    | 165  |
| 59 | Chela                                    | Kurung                | R    | 180  |
| 60 | Nyepin                                   | Payam                 | R    | 48   |
| 61 | Hiya                                     | Payam                 | R    | 65   |
| 62 | Kurung<br>(Kurung Dam I + Kurung Dam II) | Kurung                | S    | 300  |
| 63 | Hegio                                    | Kurung                | R    | 320  |
| 64 | Subansiri Lower<br>(Subansiri Dam)       | Subansiri             | R(P) | 2000 |
| 65 | Tago I                                   | Kale                  | R    | 48   |
| 66 | Ranganadi St II<br>(Yazali Storage)      | Ranganadi             | S    | 100  |
| 67 | Nalo                                     | Subansiri             | S    | 372  |
| 68 | Dengser                                  | Subansiri             | R    | 545  |
| 69 | Subansiri Upper                          | Subansiri             | S    | 1320 |
| 70 | Subansiri Middle (kamla)<br>(Tamen)      | Kamala                | S    | 1500 |
| 71 | Panyor                                   | Panyor<br>(Ranganadi) | R    | 130  |
| 72 | Ranganadi St-I<br>(Yazali DivII)         | Ranganadi             | R(P) | 405  |
| 73 | Turu                                     | Dikrong               | R    | 100  |
| 74 | Par                                      | Dikrong               | R    | 85   |
| 75 | Dardu                                    | Dikrong               | R    | 85   |

| 76  | Doimukh<br>[Dudmukh Storage]                 | Dikrong            | R    | 34  |
|-----|--|--------------------|------|-----|
| 77  | Pare   | Dikrong            | R(P) | 110 |
| 78  | Tipang                                       | Tirap              | S    | 26  |
| 79  | Chanda                                       | Kameng             | R    | 115 |
| 80  | Badao  | Kameng             | R    | 94  |
| 81  | Para   | Para               | R    | 144 |
| 82  | Talong Londa<br>(Talong)                     | Kameng             | R(P) | 225 |
| 83  | Pachuk II<br>(Satuk)                         | Pachuk             | R    | 54  |
| 84  | Pachuk II Lower<br>(Kapak Leyak)             | Pachuk             | R    | 62  |
| 85  | Phanchung                                    | Pachi              | R    | 36  |
| 86  | Utung  | Bichom             | R    | 76  |
| 87  | Dibbin                                       | Bichom             | R    | 120 |
| 88  | Khuitam                                      | Digen              | R    | 62  |
| 89  | Dinchang<br>(But +Maithing)                  | Digo               | R    | 295 |
| 90  | Kameng HEP<br>(Bichom storage-I + Bichom-II) | Bichom/ Tenga      | R(P) | 600 |
| 91  | Papu   | Papu               | R    | 100 |
| 92  | Jameri<br>(Tenga)                            | Tenga              | R    | 172 |
| 93  | Kimi   | Bichom             | R    | 535 |
| 94  | Gongri                                       | Gongri             | R    | 144 |
| 95  | Nafra  | Bichom<br>(Kameng) | R(P) | 120 |
| 96  | Meyong                                       | Tim Kong Rong      | R    | 32  |
| 97  | Marjingla                                    | Kameng             | R    | 38  |
| 98  | Marijingla Lower                             | Kameng             | R    | 44  |
| 99  | Pachuk I                                     | Pachuk             | R    | 95  |
| 100 | Pakke Bung I                                 | Pakke Bung         | R    | 48  |

| 101 | Papu Valley       | Papu               | R | 45    |
|-----|-------------------|--------------------|---|-------|
| 102 | Tawang St-I       | Tawang Chu         | R | 600   |
| 103 | Tawang St-II      | Tawang Chu         | R | 800   |
| 104 | Magochu           | Mago Chu           | R | 48    |
| 105 | Nyukcharong Chu   | Nyukcharong<br>Chu | R | 160   |
| 106 | Rho               | Tawang Chu         | R | 145   |
| 107 | Tsa Chu - I Lower | Nykrong Chu        | R | 145   |
| 108 | Tsa Chu - II      | Nykrong Chu        | R | 148   |
| 109 | New Melling       | Mago Chu           | R | 48    |
| 109 | Total             |                    |   | 50394 |

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

Note: All projects are in Brahamputra Basin

#### **B. H.E. Projects Under Active Construction:**

| Sl. No. | Name of Project                | Agency | District                  | I.C. (MW) | River                  | Type<br>(R/S/R(P)) | Likely<br>Commissioning                        |
|---------|--------------------------------|--------|---------------------------|-----------|------------------------|--------------------|--|
| 1       | Subansiri Lower                | NHPC   | L.Subansiri/<br>Dhemaji   | 2000      | Subansiri              | R(P)               | 2023-25 (Mar'25) #<br>{2 units during 2023-24} |
| 2       | Dibang<br>Multipurpose Project | NHPC   | Lower<br>Dibang<br>valley | 2880      | Dibang/Brahma<br>putra | S                  | 2031-32<br>(feb'32)                            |
| 2       | Total                          |        |                           | 4880      |                        |                    |  |

Note: All projects are in Brahamputra Basin

# 2 units (500 MW) likely during 2023-24 and remaining 6 units (1500 MW) during 2024-25

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

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

| Sl<br>No. | Name of Project | Agency    | District         | River            | I.C.<br>(MW) | Date of CEA<br>Concurrence | Type<br>(R/S/R(P) | Status  |
|-----------|-----------------|-----------|------------------|------------------|--------------|----------------------------|-------------------|---|
|           | v               | ****      | T . (1)          | a:               | 2700         | 15.02.10                   | ,<br>D(D)         | EC & FC yet to be obtained by developer.  |
| 1         | Lower Siang     | JAVL      | East Siang       | Siang            | 2700         | 16.02.10                   | R(P)              | 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<br>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<br>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. However, an appeal was filed against grant of FC before the NGT on 03.05.2014 ####   |
| 5         | Hirong          | JAPL      | West Siang       | Siyom            | 500          | 10.04.2013                 | R                 | EC & FC yet to be obtained by developer. EIA/EMP report being revised as per Siang BSR. FC-I under process at state level. However, as per MoEF&CC, matter of FC is closed vide letter dated 02.12.2015 #####   |
| 6         | Talonga Londa   | GMR       | East<br>Kameng   | Kameng           | 225          | 16.08.2013                 | R(P)              | EC accorded on 07.08.2015. FC-I & FC-II yet to be obtained. ######  |
| 7         | Etalin          | SJVNL     | Dibang<br>Valley | Dri &<br>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      | NEEPCO    | West Siang       | Siyom            | 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.  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        | Нео             | NEEPCO    | 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. 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. MoA signed on 12.08.2023       |
| 11        | Tato-I          | NEEPCO    | 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.  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. MoA signed on 12.08.2023  |
| 12        | Attunli         | AHEPCL    | Dibang<br>Valley | Tangon           | 680          | 02.07.18                   | R(P)              | Both EC and FC are yet to be obtained.  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. Validity of Concurrence to the project expired on 02.07.2021. MoA signed on 12.08.2023   |
| 13        | Nafra           | NEEPCO    | West<br>kameng   | Bichom<br>Kameng | 120          | 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. \$\$   |
| 14        | Tato-II         | NEEPCO    | West Siang       | Siyom            | 700          | 22.05.12                   | 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. MoA signed on 12.08.2023 |
| 14        | Total           |           |                  |                  | 13798        |                            |                   |   |
| Щ.        | I               | l         | 1                |                  |              | 1                          | 1                 |   |

#### Note: All projects are in Brahamputra 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. Validity of Concurrence to the project expired on 11.10.2021.

###For FC-II, additional information sought by MoEF&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&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. Validity of Concurrence to the project expired on 23.09.2021.

####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.

##### . 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 allottment 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. Govt. of Arunachal Pradesh has approved the allotment of Hirong HEP to NEEPCO Ltd. on 13.01.2023. MoA signed on 12.08.2023

###### The Environmental Clearance (EC) is approved in-principle by MoEF&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&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&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. Validity of Concurrence to the project expired on 15.08.2016.

###### 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&CC and is available in their website. Sub-Committee recommended for the forest clearance of the project.FAC in its meeting held on 11.05.2022 has recommended to constitute two committees and will submit their reports within three weeks from their constitution. MoEF&CC vide letter dated 02.02.2023 conveyed that "FAC in its meeting held on 27.12.2022 opined that the instant proposal cannot be considered in the present form and the revised proposal may be submitted for further consideration by the State Government".

Validity of Concurrence to the project expired on 12.07.2021. MOP vide letter dated 22.12.2021 indicated that Etalin HEP tol be pursued by SJVNL. MoA signed on 12.08.2023

\$- 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 allottment 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.Govt. of Arunachal Pradesh has approved the allotment of Naying HEP to NEEPCO Ltd. on 13.01.2023. MoA signed on 12.08.2023

\$\$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 GoAP letter dated 23.12.2019. Further, validity of Concurrence to project expired on 01.01.2017. NEEPCO vide letter dated 23.08.2021 to HPA informed that it has signed MoA with GoAP 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 Nafre HEP will be pursued by NEEPCO. NEEPCO vide letter dated 10.01.2022 submitted updated hydrology chapter for vetting by CWC. NEEPCO vide letter dated 02.06.2022 (received on 03.06.2022) submitted PPS of Nafra HEP based on updated hydrology with incorporation of e-flow based on BSR for examination and vetting of CEA.Recommendation of HPA division on PPS chapter issued vide HPA letter dated 24.06.2022 for installed capacity of 95 MW. Developer vide letter dated 06.07.2022 has requested CEA to maintain installed capacity of 120 MW citing various reasons. HPA division vide letter dated 07.07.2022 requested developer to carry out commercial viability at 120 MW and submit proposal to CEA. Commercial viability of the project is being ascertained by developer.

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

| Sl.<br>No. | Name of<br>Project          | Agency                          | I.C.<br>(MW) | Type<br>(R/S/R(P)) | Month of Return/Reason of Return  |
|------------|-----------------------------|---------------------------------|--------------|--------------------|---|
| 1          | Ranganadi St-II             | NEEPCO                          | 130          | S                  | 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                  | MFIPL                           | 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                     | MFIPL                           | 1352         | S                  | Returned on 05/12 and STC decided that M/S MFIPL should carry out the detailed investigation for the revised DPR as per CEA's letter dt 24.5.2012.  |
| 5          | Pemashelphu<br>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                 | SSHPL                           | 100          | S                  | Returned on 02/13 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<br>Chu          | SNCPCL                          | 96           | R                  | Returned on 04/15 due to non-submission of investigation suggested by GSI.  |
| 11         | Subansiri<br>Middle (Kamla) | KHEPCL                          | 1800         | S                  | 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  |
| 12         | Magochu                     | MCPCL                           | 96           | R                  | appraising groups.  |
| 13         | Tagurshit                   | L&T Power<br>Development<br>Ltd | 74           | R                  | Returned in 06/19.  |
| 13         | Total                       |                                 | 5323         |                    |   |

## E. H.E. Projects Under Survey & Investigation:

| Sl.<br>No. | Name of Project            | River             | Agency for DPR  | Original I.C.<br>(MW) | District           | Type<br>(R/S/R(P)) | Date of MOA | Target date of<br>Preparation of<br>DPR |
|------------|----------------------------|-------------------|---|-----------------------|--------------------|--------------------|-------------|---|
| 1          | Anjaw                      | Lohit             | Athena Energy<br>Ventures Ltd.                        | 270                   | Anjaw              | R                  | 09.07.2007  | 12/23                                   |
| 2          | Demwe UpperSt-I            | Lohit             | Lohit Urja Pvt<br>Ltd                                 | 270                   | Anjaw              | R                  | 09.07.2007  | 06/24                                   |
| 3          | Niare                      | Subansiri         | Andra Power<br>Private Limited                        | 909                   | Upper<br>Subansiri | R                  | 02.05.2011  | 06/24                                   |
| 4          | Upper Siang Project        | Siang             | NHPC  | 11200                 | Upper siang        | S                  |             |   |
| 5          | Oju Hydro-Electric Project | Subansiri/ Singit | Oju Subansiri Hydro<br>Power Corporation<br>Pvt. Ltd. | 1878                  | Upper Subansiri    | R                  |             | 12/23                                   |
| 6          | Naba                       | Subansiri         | Naba Power Private<br>Ltd.                            | 1105                  | Upper Subansiri    | R                  | 21.06.2010  | 04/25                                   |
| 6          | Total                      |                   |   | 15632                 |                    |                    |             |   |

## F. 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<br>Allotment/ MoA            | District   | River  | Status  |
|---------|-----------------|-----------|--------------------------|--------------------------------------|------------|--------|---|
| 1       | Pauk            | 145       | Velcan Energy<br>Pvt Ltd | 30.06.2007<br>(rev MOA-<br>31.07.09) | West Siang | Yarjep | S&I held up due to land disputes between clans and law & order problem. |
| 1       | Total           | 145       |                          |                                      |            |        |   |

## **G.** Balance Capacity

| Sl.No. | Name of Project              | River        | Туре | I.C.<br>(MW) | District        | Remarks |
|--------|------------------------------|--------------|------|--------------|-----------------|---------|
| 1      | Agoline                      | Dibang/Dri   | R    | 220          | Dibang valley   |         |
| 2      | Elango                       | Ahi          | R    | 128          | Dibang valley   |         |
| 3      | Rigong                       | Rigong       | R    | 85           | Upper Siang     |         |
| 4      | Mirak                        | Sigong       | R    | 78           | Upper Siang     |         |
| 5      | Hegio                        | Kurung       | R    | 320          | Kra Daadi       |         |
| 6      | Doimukh<br>[Dudmukh Storage] | Dikrong      | R    | 34           | Papum pare      |         |
| 7      | Kimi                         | Bichom       | R    | 535          | West Kameng     |         |
| 8      | Chanda                       | Kameng       | R    | 115          | East Kameng     |         |
| 9      | Milli                        | Kurung       | R    | 138          | Kurung Kumey    |         |
| 10     | Sape                         | Kurung       | R    | 65           | Kurung Kumey    |         |
| 11     | Nyepin                       | Payam        | R    | 48           | Kurung Kumey    |         |
| 12     | Hiya                         | Payam        | R    | 65           | Kurung Kumey    |         |
| 13     | Par                          | Dikrong      | R    | 85           | Papum Pare      |         |
| 14     | Tago-I                       | Kale         | R    | 48           | Lower Subansiri |         |
| 15     | Utung                        | Bichom       | R    | 76           | West Kameng     |         |
| 16     | Tipang                       | Tirap        | S    | 26           | Changlang       |         |
| 17     | Jameri<br>(tenga)            | Tenga        | R    | 172          | West Kameng     |         |
| 18     | Meyong                       | Timkong Rong | R    | 32           | West Kameng     |         |
| 19     | Gongri                       | Gongri       | R    | 144          | West Kameng     |         |
| 20     | Badao                        | Kameng       | R    | 94           | East Kameng     |         |
| 21     | Amulin                       | Mathun       | R    | 212          | Dibang valley   |         |

|    |                              | 1          | 1 |      | ı               | T  |
|----|------------------------------|------------|---|------|-----------------|--|
| 22 | Emini                        | Mathun     | R | 326  | Dibang valley   |  |
| 23 | Mihumdon                     | Dibang/Dri | R | 226  | Dibang valley   |  |
| 24 | Lower Yamne St-II<br>(Yapin) | Yamne      | R | 74   | Upper Siang     |  |
| 25 | Nalo                         | Subansiri  | R | 372  | Upper Subansiri |  |
| 26 | New Melling                  | Magochu    | R | 48   | Tawang          |  |
| 27 | Tsa Chu-I Lower              | Nykrongchu | R | 145  | Tawang          |  |
| 28 | Demwe Upper St-II            | Lohit      | R | 210  | Anjaw           |  |
| 29 | Demwe Upper St-III           | Lohit      | R | 150  | Anjaw           |  |
| 30 | Etabue                       | Ange Pani  | R | 122  | Dibang Valley   | •Indicated to SJVN   |
| 31 | Simang I                     | Simang     | R | 32   | East Siang      |  |
| 32 | Ithun II                     | Ithun      | R | 48   | Ithun           |  |
| 33 | Simang- II                   | Simang     | R | 32   | Simang          |  |
| 34 | Turu                         | Dikrong    | R | 100  | Dikrong         |  |
| 35 | Phanchung                    | Pachi      | R | 36   | Pachi           |  |
| 36 | Khuitam                      | Digen      | R | 62   | Digen           |  |
| 37 | Pachuk I                     | Pachuk     | R | 95   | Pachuk          |  |
| 38 | Pakke Bung I                 | Pakke bung | R | 48   | Pakke bung      |  |
| 39 | Papu Valley                  | Pappu      | R | 45   | Pappu           |  |
| 40 | Dibbin                       | Bichom     | R | 120  | Bichom          |  |
| 41 | Siyom<br>(Passighat)         | Siyom      | R | 1000 | West Siang      |  |
| 42 | Papu                         | Papu       | R | 100  | East Kameng     | •Yet to be indicated and alotted to CESC Ltd. •issue of interference of levels with the upstream project of M/s Vensar Energy Ltd i.e papu valley HEP requires to be resolved. |

| 43 | Emra-I   | Emra       | R | 450 | Dibang Valley          | •Indicated to SJVN and earlier alloted to Athen Energy Ventures Pvt. Ltd. •No approach road the project site and intent to terminate by GoAP under since 25/07/2018   |
|----|----------|------------|---|-----|------------------------|---|
| 44 | Rho      | Tawang Chu | R | 145 | Tawang                 | •Yet to be indicated and earlier alloted to SEW energy. •No visible progress since 2015. Drift work pending. •letter issued to the developer to resolve issue with CEA/CWC/GSI on 17/9/19   |
| 45 | Dardu    | Dikrong    | R | 85  | Papum pare             | •Yet to be indicated and earlier alloted to KVk energy & infrastructure Ltd. •No activity/progress in project. Local public demanding to hand over the project to CPSU. Dikrong study not yet finalised. Interntion to trminated by GOAP is under process since 10/04/18. |
| 46 | Dengser  | Subansiri  | R | 545 | Upper<br>Subansiri     | •Indicated to NHPC and earlier<br>allloted to Coastal Infrastructure<br>Pvt. Ltd.<br>•Unapproachable area/ difficult &<br>inhospitable terrain and local law &<br>order problem   |
| 47 | Yamne-I  | Yamne      | R | 106 | Upper Siang            | <ul> <li>Indicated to NEEPCO and earlier alloted to S. S. yamne Power Pvt. Ltd.</li> <li>Local law and order problem. Under process for termination since 18/05/18</li> </ul>   |
| 48 | Dinchang | Digo       | R | 295 | West Kameng            | <ul> <li>Indicated to NEEPCO and earlier alloted to KSK Energy Ventures</li> <li>Ltd</li> <li>Project under process for termination by GOAP since</li> <li>13.03.2018</li> </ul>  |
| 49 | Ithun-I  | Ithun      | R | 76  | Lower Dibang<br>Valley | • Yet to be indicated and earlier alloted to JVKIL consortium. •Non-operationalization of Hunli-Desali road. Very slow progress, hence under process for Intent to Terminate by GoAP since 19/07/2018   |

|    | 1                   | 1                     | l |     |                 | <del> </del>   |
|----|---------------------|-----------------------|---|-----|-----------------|--|
| 50 | Kurung              | Kurung                | S | 300 | Kra Daadi       | Indicated to NEEPCO and earlier also alloted to NEEPCO.     Proposal for sanction of Pre-Investment expenditure is on hold and Secy(Power), MoP concern over some of the cluases of MoA between NEEPCO and GoAP                        |
| 51 | Chomi               | Kurung                | R | 165 | Kurung<br>Kumey | •Yet to be indicated and earlier<br>alloted to Adveta Power.<br>•MoA to be renewed   |
| 52 | Chela               | Kurung                | R | 180 | Kurung<br>Kumey | Yet to be indicated and earlier alloted to Adveta Power.      MoA to be renewed  |
| 53 | Para                | Para                  | R | 144 | East Kameng     | • Yet to be indicated and earlier alloted to Coastal Projects Pvt. Ltd •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. |
| 54 | Tidding-I           | Tidding               | R | 82  | Anjaw           | Yet to be indicated and earlier alloted to Sai Krishnodaya Ind. (P) Ltd.     There is no progress in the S&I activities of project. ToR has not been obtained and there is no progress in geotechnical investiations.                  |
| 55 | Tidding-II          | Tidding               | R | 70  | Anjaw           | Yet to be indicated and earlier alloted to Sai Krishnodaya Ind. (P) Ltd.     There is no progress in the S&I activities of project. ToR has not been obtained and there is no progress in geotechnical investiations.                  |
| 56 | Pango<br>(Minnying) | Sirapatang/<br>Sigong | R | 72  | Upper Siang     | •Yet to be indicated and earlier<br>alloted to Meenakshi Power Ltd.<br>•Held up due to lack of<br>infrastructure, poor communication<br>network and remoteness of site.  |

|    |                                  | 1           | 1 |     |                   | T  |
|----|----------------------------------|-------------|---|-----|-------------------|--|
| 57 | Sippi                            | Ringong     | R | 75  | Upper Siang       | Yet to be indicated and earlier alloted to Meenakshi Power Ltd.     Held up due to lack of infrastructure, poor communication network and remoteness of site.                        |
| 58 | Jidu (Yangsang)                  | Yangsang    | R | 90  | Upper Siang       | •Yet to be indicated and earlier alloted to Meenakshi Power Ltd. •Held up due to lack of infrastructure, poor communication network and remoteness of site.                          |
| 59 | Pachuk-II<br>(Satuk)             | Pachuk      | R | 54  | Pachuk            | Yet to be indicated and earlier alloted to Energy Development Co. Ltd.     No progress in the S&I activities of project reported by developer.                                       |
| 60 | Tsa Chu -II                      | Nykrong Chu | R | 148 | Nykcharong<br>chu | <ul> <li>Yet to be indicated and earlier alloted to Energy Development Co.</li> <li>Ltd.</li> <li>No progress in the S&amp;I activities of project reported by developer.</li> </ul> |
| 61 | Pachuk II Lower<br>(kapak Leyak) | Pachuk      | R | 62  | Pakke Bung        | Yet to be indicated and earlier alloted to Energy Development Co. Ltd.     No progress in the S&I activities of project reported by developer.                                       |
| 62 | Marijingla                       | Kameng      | R | 38  | Kameng            | Yet to be indicated and earlier alloted to Energy Development Co. Ltd.     No progress in the S&I activities of project reported by developer.                                       |
| 63 | Marijingla Lower                 | Kameng      | R | 44  | Kameng            | <ul> <li>Yet to be indicated and earlier alloted to Energy Development Co.</li> <li>Ltd.</li> <li>No progress in the S&amp;I activities of project reported by developer.</li> </ul> |
| 64 | Rego                             | Siyom       | R | 63  | West Siang        | Yet to be indicated and earlier alloted to Greenko Energies Ltd.     No progress in the S&I activities of project reported by developer.   |

| 65 Rapum Siyom R 60 West Siang alloted to No program project results of the No program project results of th | Note: R –Run of the River & S- Storage |                 |        |       |      |               |  |
|--|--|-----------------|--------|-------|------|---------------|--|
| 65 Rapum Siyom R 60 West Siang alloted to No program project results of the No program project results of th | 69                                     | Total           |        | 11186 |      |               |  |
| Rapum Siyom R 60 West Siang alloted to No progresser research to the No progresser research to t | 69                                     | Subansiri Upper | Singit | S     | 1320 |               | •Earlier the project was alloted<br>to KSK Energy Ventures Ltd.<br>The Project has been allotted to<br>NHPC in July 2023   |
| 65 Rapum Siyom R 60 West Siang alloted to No progroject resolved  66 Panyor Panyor (Ranganadi) R 130 Lower Subansiri Pvt . Ltd. No progroject resolved alloted to Pvt . Ltd. No progroject resolved alloted to No  | 68                                     | Emra-II         | Emra   | R     | 210  | Dibang valley | •Indicated to NHPC and earlier alloted to Athena Emra power pvt ltd •No road connectivity to project site.local issue, communication problem.Intent to terminate under process since 5/07/2018 |
| 65 Rapum Siyom R 60 West Siang alloted to No progression alloted to No progression alloted to No progression alloted to No progression alloted to Panyor (Ranganadi) R 130 Lower Subansiri No progression No progression alloted to Pvt . Ltd. No progression No progression alloted to Pvt . Ltd.   | h/ I                                   |                 | Yamne  | R     | 66   | Upper Siang   | Yet to be indicated and earlier alloted to Yamne Power Pvt. Ltd.     No progress in the S&I activities of project reported by developer.   |
| 65 Rapum Siyom R 60 West Siang alloted to No prog  | 66                                     | Panyor          | •      | R     | 130  |               | <ul> <li>Yet to be indicated and earlier alloted to Rajratan Energy Holing</li> <li>Pvt . Ltd.</li> <li>No progress in the S&amp;I activities of project reported by developer.</li> </ul>     |
|  | 65                                     | Rapum           | Siyom  | R     | 60   | West Siang    | <ul> <li>Yet to be indicated and earlier alloted to Greenko Energies Ltd.</li> <li>No progress in the S&amp;I activities of project reported by developer.</li> </ul>                          |

# Status of Large Hydro Power Development in Mizoram

## I. Conventional Projects

|   | ·   | Nos. | Capacity<br>(MW) |
|---|---|------|------------------|
| - | ole Large Hydro Power Potential from Hydroelectric Projects having capacity above 25 MW) Study) | 11   | 1926.7           |
|   | Breakup of Hydro Power Potential (2017-23 study)  |      |                  |
| A | Projects in operation   | 1    | 60               |
| В | Balance Capacity  | 10   | 1866.7           |

**Details of Exploitable Large Hydro Power Projects** 

| Details of | etans of Exploitable Large Hydro Power Projects |                     |      |                       |  |  |  |  |  |
|------------|---|---------------------|------|-----------------------|--|--|--|--|--|
| S.no       | Name  | River               | Туре | Installed<br>Capacity |  |  |  |  |  |
| 1          | Tuivai<br>(Bungpuilong                          | Tuival              | R    | 140                   |  |  |  |  |  |
| 2          | Tuirial<br>(Sonai)                              | Tuirial             | S    | 60                    |  |  |  |  |  |
| 3          | Lunglang  | Туао                | S    | 474                   |  |  |  |  |  |
| 4          | Mat   | Mat                 | S    | 41.7                  |  |  |  |  |  |
| 5          | Boinu   | Boinu               | S    | 498                   |  |  |  |  |  |
| 6          | Kaldan  | kaldan              | S    | 159                   |  |  |  |  |  |
| 7          | Bhairabi  | Dhaleshwari         | S    | 50                    |  |  |  |  |  |
| 8          | Tlawng  | Dhaleshwari/ Tlawng | S    | 37                    |  |  |  |  |  |
| 9          | Tuivawl   | Tuivawl             | R    | 50                    |  |  |  |  |  |
| 10         | Tuichang  | Tuichang            | S    | 57                    |  |  |  |  |  |
| 11         | Kolodyne<br>Stage -II                           | Kolodyne            | S    | 360                   |  |  |  |  |  |
| 11         |   | TOTAL               |      | 1926.7                |  |  |  |  |  |

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

#### **B.** Balance Capacity

| Sl.No. | Name of Project | River                  | Туре | I.C.(MW) |  |
|--------|-----------------|------------------------|------|----------|--|
| 1      | Lunglang        | Tyao                   | S    | 474      |  |
| 2      | Boinu           | Boinu                  | S    | 498      |  |
| 3      | Kaldan          | Kaldan                 | S    | 159      |  |
| 4      | Bhairabi        | Dhaleshwari            | S    | 50       |  |
| 5      | Mat             | Mat                    | S    | 41.7     |  |
| 6      | Tlawng          | Dhaleshwari<br>/Tlawng | S    | 37       |  |
| 7      | Tuivawl         | Tuivawl                | R    | 50       |  |
| 8      | Tuichang        | Tuichang               | S    | 57       |  |
| 9      | Tuivai          | Tuival                 | R    | 140      |  |
| 10     | Kolodyne St-II  | Koldyan                | S    | 360      |  |
| 10     | Total           |                        |      | 1866.7   |  |