

About Assam Power Sector

Assam is the largest State of North Eastern part of India and is the gateway to South East Asia with a population of around 3.5 Crore. At present Assam has approximately 6.7 million Electricity Consumers.

Power Demand for Assam ranges between 700 MW to 2400 MW at present.

Demand varies across the day as well as also across the months. Generally highest peak demand is registered in the period from August to October. Similarly, December to February register lowest peak demand of around 1500 MW.

Peak demand occurs between 5:00 PM and 10:00 PM of a day. Average daily load varies between 1200 MW and 1800 MW.

APDCL has no generation capacity of its own. All the power are arranged through agreements with State Genco, Central Sector Gencos, Traders etc. Shortfall/ surplus between demand and supply are adjusted through transactions at power exchanges.

Energy mix of tied up allocated power of APDCL as on date is depicted below:

| Source-Sector | State Genco | CPSU | Bhutan | Private | Total | % |
|-----------------|-------------|-------------|------------|------------|-------------|-------------|
| Hydro | 100 | 421 | 141 | | 661 | 27% |
| Thermal Gas | 330 | 462 | | | 792 | 32% |
| Thermal Coal | | 591 | | | 591 | 24% |
| RE Small Hydro | 14 | 13 | | 4 | 31 | 1% |
| RE Large Hydro | | 65 | | | 65 | 3% |
| RE Solar | | 25 | | 175 | 200 | 8% |
| RE Wind | | 100 | | | 100 | 4% |
| RE Total | 14 | 203 | | 179 | 396 | 16% |
| Total | 443 | 1677 | 141 | 179 | 2440 | 100% |
| % | 18% | 69% | 6% | 7% | 100% | In MW |

Projects located in the State:

State Genco:

Assam Power Generation Corporation Limited (APGCL) is the state generating utility of erstwhile SEB. Its total capacity is tied up with APDCL.

APGCL generation projects:

| Plant | Type | Capacity (MW) |
|--|-------------|----------------|
| Namrup Thermal Power Station (INTPS) | Thermal Gas | 64.5 |
| Namrup Replacement Power Project (NRPP) | Thermal Gas | 98.4 |
| Lakwa Thermal Power Station (LTPS) | Thermal Gas | 97.2 |
| Lakwa Replacement Power Project (NRPP) | Thermal Gas | 69.755 |
| Karbi Langpi Hydro Electric Project (KLHEP) | Hydro | 100 |
| Myntriang Small Hydro Electric Project (MSHEP) | Small hydro | 13.5 |
| Total: | | 443.355 |

Private projects:**1. Hayen Hydel Power Pvt. Ltd. (HHPCPL):**

Small hydro power project of 4 MW installed capacity at Chirang district of Assam operating since 2011. The contract is governed by SERC regulations us 62 of the electricity act and other relevant guidelines.

2. Suryataap Energies and Infrastructure Pvt. Ltd. (SEIPL):

5 MW solar power plant located at Balipara, Tezpur. The contract is governed by SEC regulations us 62 of the electricity act and other relevant guidelines.

3. Ground mounted solar power plants:**a. Azure Power Forty Pvt. Ltd.**

Aggregated capacity of 90 MW: 25 MW at Udalguri, 25 MW at Boko, 15 MW at Samaguri and 25 MW at Cachar.

b. Maheswari Mining & Energy Pvt. Ltd.

15 MW at Samaguri.

c. Amguri Solar Park:

70 MW capacity at Amguri, Sivasagar

4. Roof top solar:**a. 4 MW Patanjali Solar Captive power plant.****b. Around 40 MW roof top solar plants installed by various consumers.**

It is to be mentioned that at present CDM benefit is governed as per AERC regulation.

Central Sector:**5. Assam Gas Based Power Plant (NEEPCO):**

The project is located at Bokuloni Village, District - Dibrugarh, Assam with installed capacity of 291 MW. This is a gas-based power project with allocation of APDCL as under:

| Stations | Installed Capacity in MW | Allocation in MW | |
|----------|-----------------------------|------------------|----------|
| | | Peak | Off Peak |
| AGBPP | 291 | 161.42 | 165.03 |

6. Kopili Hydro Power Stations (Kopili-I, Kopili-II and Khandong):

The Station is located at Umrangso, Dima Hasao District, Assam. The installed capacity of the Station is 275 MW with a catchment area of 1256 Sq. Km. The project is a storage scheme with two Dams to harness the hydro power of Kopili River (a tributary of Brahmaputra River) and the Umrang stream (a tributary of Kopili River). There are two Dams, one is the Khandong Dam that receives the inflow of Kopili River and the other is the Umrang Dam that receives the inflow of the Umrang stream and also receives the tailrace discharge of Khandong PS & Khandong Stage II PS.

Allocation of APDCL from these plants is depicted below:

| Stations | Installed Capacity in MW | Allocation in MW | |
|--------------|-----------------------------|------------------|---------------|
| | | Peak | Off Peak |
| KOPILI | 200 | 104.85 | 107.31 |
| KOPILI II | 25 | 12.83 | 13.14 |
| KHANGDONG | 50 | 27.64 | 28.25 |
| TOTAL | 275 | 145.32 | 148.70 |

Upcoming projects:

a. APDCL is in the process to develop aggregate 3000 MW renewable power project. Considering the available resources vis-à-vis gestation period, solar power plants are proposed. For this purpose, State Govt. has already allocated more than 25,000 bighas of Govt. land to APDCL. User rights over 12,261 hectares of water bodies under Assam Fishery Development Corporation Ltd. (AFDCL) has also been transferred to APDCL.

b. APGCL is also constructing 120 MW Lower Kopili Hydro Electric Project at Longku, Dima Hasao. The project is expected to be commissioned by June, 2024.