

**Import TTC/ATC of WBSETCL at STU (W.B)-CTU boundary for, June'2023 (peak)**

**CESC PEAK (16:00 hrs)**

**1. Base Cases considered :**

- a. WBSEDCL own system : 7250 MW.
- b. CESC system : 2375 MW. (Synchronized at Kasba)
- c. IPCL Drawal : 100 MW
- d. West Bengal total demand : **9725 MW** [ =a+b+c ]  
(Load P.f : 0.95)

**2. Total Available Generation (S/O) in West Bengal (in MW) :**

- i. WBPDCL own Generation (in Avg. MW) 3600 +450  
(KTPP :620, BKTPP :950, SGTTPP: 1330, STPS :470, BTPS :230, DPL:450)
- ii. PPSP (3 units) : 225
- iv. HEL (2unit) : 540
- v. WBSEDCL Hydel : 60
- vi. TLDP III + TLDP IV : 210
- vii. CESC : 830
- viii. HIREL : 130
- viii. IPP/CPP(TPH+CPL+BEL+PCBL) : 165

ix. Total Available Generation (S/O) in W.B = **6210 MW**

**3. Requirement from outside for W.B. = (9725-6210) MW = 3515 MW (Excluding loss).**

4. Now, working out with the above Load-Generation scenario,  
Under normal condition with availability of all circuits and availability of load & generation as above (under 1. & 2.), Net drawal i.e. summation of all W.B tie flows (at STU-CTU boundary) comes as **3720 MW** (including loss).

At above Load-Gen scenario :

After increasing the state load to 10550 MW and decreasing the state generation to 4362 MW

Import TTC of WBSETCL at STU & CTU boundary (CTU to STU): **6475 MW**

Constraints or violation arrived under (n-1) condition: Tripping of 400 KV DURGAPUR-PARULIA#1 (400 KV tie-lines have been considered for (N-1) condition)

**1. 400KV DURGAPUR-PARULIA#2 = 910 MW (1330 Amps)**

TRM (Transfer Reliability Margin) (Considering average S/O of the largest Gen Unit) : 450 MW.

ATC of WBSETCL at STU & CTU boundary (CTU to STU) : TTC-TRM= (6621-450) MW = : **6025 MW**

  
20/3/23

Additional Chief Engineer  
STATE LOAD DESPATCH CENTRE  
WBSETCL, HOWRAH

P.T.O.

## **WBSEDCL PEAK (24:00 hrs)**

### **1 Base Cases considered :**

- e. WBSEDCL own system : 7525 MW,  
f. CESC system : 2150 MW. (Synchronized at Kasba)  
g. IPCL Drawal : 100 MW  
h. West Bengal total demand : **9775 MW** [ = a+b+c ]  
(Load P.f : 0.95)

### **2. Total Available Generation (S/O) in West Bengal (in MW) :**

- i. WBPDDL own Generation (in Avg. MW) 3600 +450  
(KTPP :620, BKTPP :950, SGTTP: 1330, STPS :470, BTPS :230, DPL:450)  
ii. PPSP (3 units) : 675  
iv. HEL (2unit) : 540  
v. WBSEDCL Hydrel : 60  
vi. TLDP III +TLDP IV : 210  
vii. CESC : 830  
viii. HIREL : 130  
viii. IPP/CPP(TPH+CPL+BEL+PCBL) : 165

ix. Total Available Generation (S/O) in W.B= **6660 MW**

**3. Requirement from outside for W.B. = (9775-6660) MW = 3115 MW (Excluding loss).**

### **4. Now, working out with the above Load-Generation scenario,**

Under normal condition with availability of all circuits and availability of load & generation as above (under 1. & 2. ), Net drawal i.e. summation of all W.B tie flows (at STU-CTU boundary) comes as **3320.3 MW** (including loss).

At above Load-Gen scenario :

After increasing the state load to 10760 MW and decreasing the state generation to 4362 MW

Import TTC of WBSETCL at STU & CTU boundary (CTU to STU): **6699 MW**

Constraints or violation arrived under (n-1) condition: Tripping of 400 KV DURGAPUR-PARULIA#1 (400 KV tie-lines have been considered for (N-1) condition)

### **1. GOKARNA 400KV SS-315 MVA ICT = 321 MVA (460 Amps)**

TRM (Transfer Reliability Margin) (Considering average S/O of the largest Gen Unit) : 450 MW.

ATC of WBSETCL at STU & CTU boundary (CTU to STU) : TTC-TRM = (6699-450) MW = : **6249 MW**

SI No.	FROM (HRS)	TO (HRS)	TTC (MW)	ATC(MW)
1.	00.00	12.00	6699	6249
2.	12.00	16.00	6475	6025
3.	16.00	24.00	6699	6249

*Banerjee* - 20/3/23