

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

### CESC PEAK (15:00 hrs)

#### 1. Base Cases considered :

- a. WBSEDCL own system : 7475 MW.
- b. CESC system : 2200 MW. (Synchronized at Kasba)
- c. IPCL Drawal : 100 MW
- d. 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. WBPDCCL own Generation (in Avg. MW) 3800 +450  
(KTPP :700, BKTPP :950, SGTTP: 1450, STPS :470, BTPS :230, DPL:450)
- ii. PPSP (3 units) : 225
- iv. HEL (2unit) : 540
- v. WBSEDCL Hydel : 60
- vi. TLDP III +TLDP IV : 140
- vii. CESC : 830
- viii. HIREL : 130
- viii. IPP/CPP(TPH+CPL+BEL+PCBL) : 165

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ix. Total Available Generation (S/O) in W.B = **6340 MW**

3. **Requirement from outside for W.B.** = (9775-6340) MW = **3435 MW** (Excluding loss).

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#### 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 **3646.2 MW** (including loss).

At above Load-Gen scenario :

After increasing the state load to 10620 MW and decreasing the state generation to 4362 MW

Import TTC of WBSETCL at STU & CTU boundary (CTU to STU): **6517 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 = 926 MW (1343 Amps)**
- 2. **GOKARNA 400KV SS-315 MVA ICT= 317 MW (462 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= (6517-450) MW = : **6067 MW**

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

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

- e. WBSEDCL own system : 7840 MW.
- f. CESC system : 2000 MW. (Synchronized at Kasba)
- g. IPCL Drawal : 100 MW
- h. West Bengal total demand : **9940 MW**[=a+b+c]  
(Load P.f : 0.95)

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

- i. WBPDCCL own Generation (in Avg. MW) 3800 +450  
(KTPP :700, BKTPP :950, SGTPP: 1450, STPS :470, BTPS :230, DPL:450)
- ii. PPSP (3 units) : 675
- iv. HEL (2unit) : 540
- v. WBSEDCL Hydel : 60
- vi. TLDP III +TLDP IV : 140
- vii. CESC : 830
- viii. HIREL : 130
- viii. IPP/CPP(TPH+CPL+BEL+PCBL) : 165

ix. Total Available Generation (S/O) in W.B= **6790 MW**

**3.Requirement from outside for W.B.** = (9940-6790) MW = **3150 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 **3373.6 MW** (including loss).

At above Load-Gen scenario :

After increasing the state load to 10542 MW and decreasing the state generation to 4362 MW .

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

**6445 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 = 919 MW (1335 Amps)**
- 2. GOKARNA 400KV SS-315 MVA ICT= 317.2 MW (462 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= (6445-450) MW = : **5995 MW**

SI No	FROM (HRS)	TO (HRS)	TTC (MW)	ATC(MW)
1.	00.00	01.00	6445	5995
2.	01.00	23.00	6517	6067
3.	23.00	24.00	6445	5995

*(Signature)*  
Chief Engineer  
STATE LOAD DESPATCH CENTRE  
WBSETCL, HOWRAH