



Power System Operation Corporation Ltd.

145th OCC Meeting



At ERPC, Kolkata

21st May, 2018

ER Grid Performances

Highlights for the month of April-18

Frequency Profile

Average Freq:- 49.97 Hz

Avg FVI:- 0.047

Lowest FVI:- 0.020

Max- 50.21Hz on 29th April' 18

Min- 49.61 Hz on 23rd April' 18

79.60% of the time freq was with in IEGC Band

Peak Demand

ER: 21361 MW on 16th April 2018 at 20:28 hrs

% Growth in Average Demand Met w.r.t. last year- 0.1%

BSPHCL : 4710 MW ; ON 16/04/18

JUVNL: 1218 MW; ON 25/04/18

DVC: 3209 MW; ON 14/04/18

GRIDCO: 4410 MW; ON 22/04/18

WB: 8345 MW; ON 20/04/18

SIKKIM: 99 MW; ON 18/04/18

Energy met

Max. 457 MU on 25th Apr 2018
%Growth w.r.t. last year on Max energy 4.39%

Avg. 408 MU in April 2018
%Growth w.r.t. last year on Avg. energy : (-) 1.16%

New Element

Generating Units-NIL

Open Access

STOA transactions approved -298 nos.

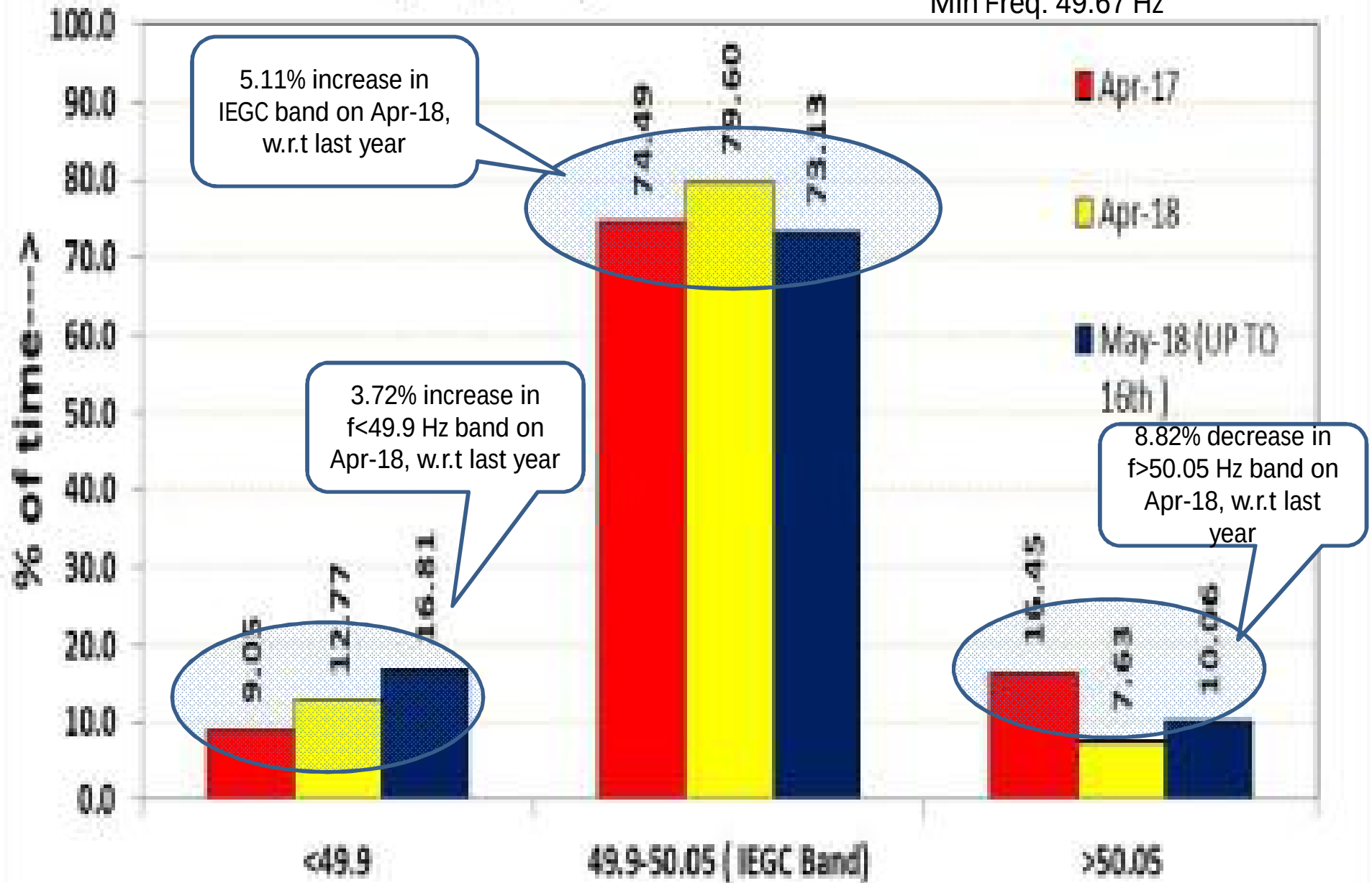
Energy Approved-1041.2 MUs

Monthly Frequency Profile of Grid

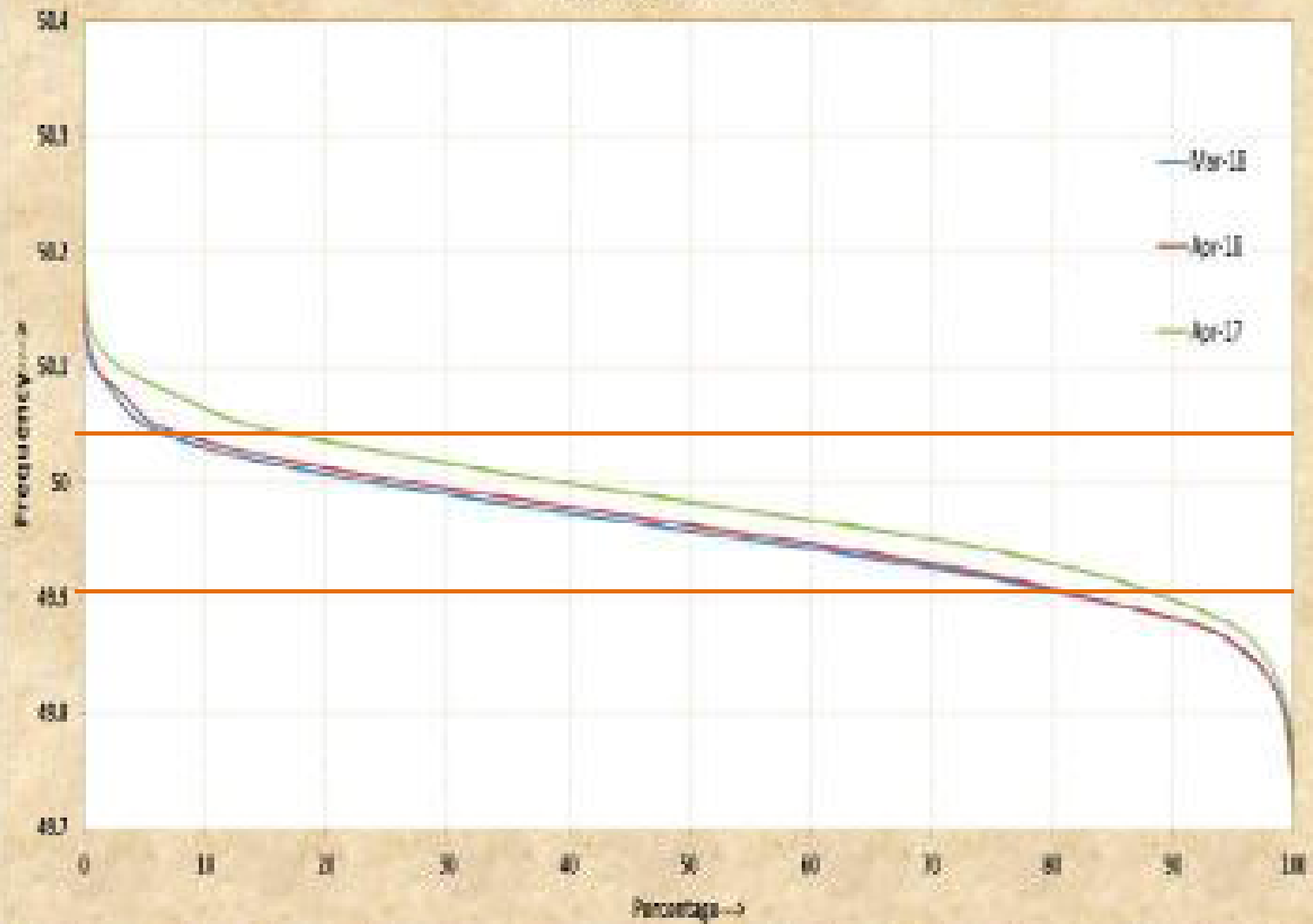
In Mar-18 (Up to 21st):

Max Freq: 50.25 Hz

Min Freq: 49.67 Hz



Frequency Duration curve



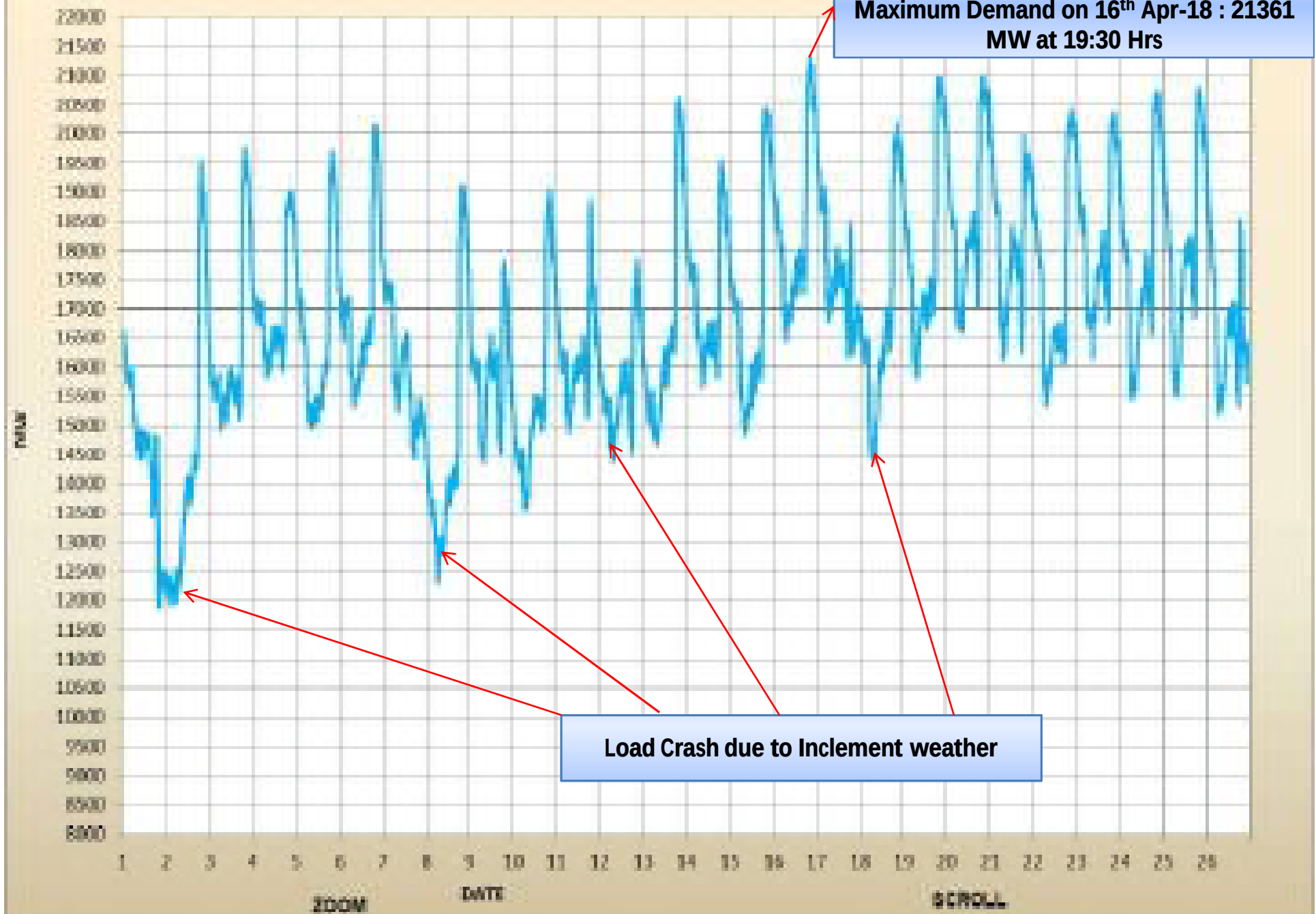
So Far Highest Demand

Constitute	Demand (in MW)	Date	Time	Dmd met on 16 th Apr'18 (max dmd met day)
Bihar	4746	08-May-18	21:04	4710
DVC	3333	10-Apr-16	20:57	3125
Jharkhand	1310	08-May-18	22:42	959
Odisha	4656	10-Oct-17	19:37	4228
W. Bengal	8605	12-Apr-17	19:56	8297
Sikkim	117	28-Oct-16	18:59	94
ER	21801	08-May-18	19:30	21364

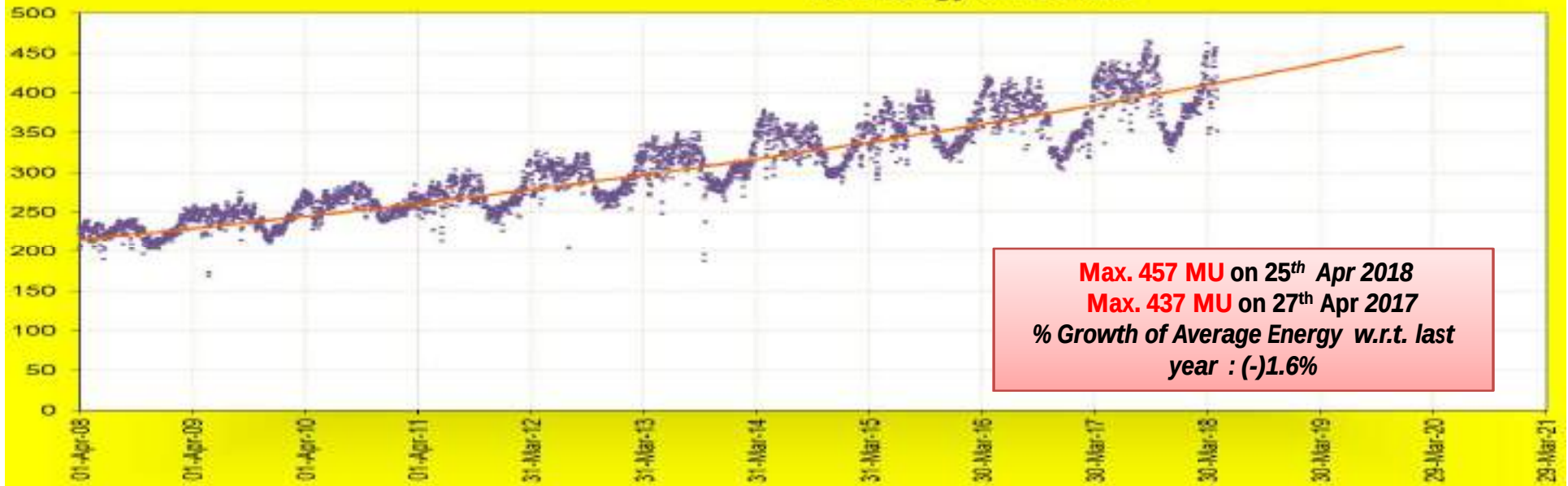
So Far Highest Energy Consumption

Constitute	Energy consumption (in MUs)	Date	Dmd met on 16 th Apr'18 (max dmd met day)
Bihar	92.3	08-May-18	87.7
DVC	75	23-Mar-17	68.1
Jharkhand	26	20-Apr-16	21.4
Odisha	92.9	08-May-18	84
West Bengal	181	29-Mar-18	165.9
Sikkim	2.1	07-Dec-17	1.5
ER	462	29-Mar-18	441

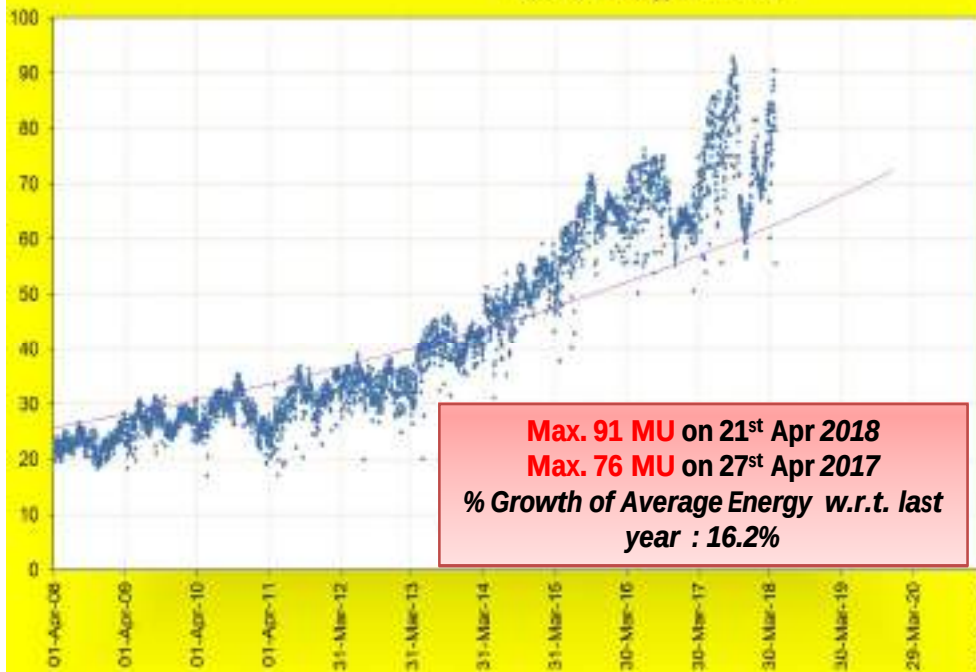
REGIONAL LOAD AND FREQ FOR APRIL-2018



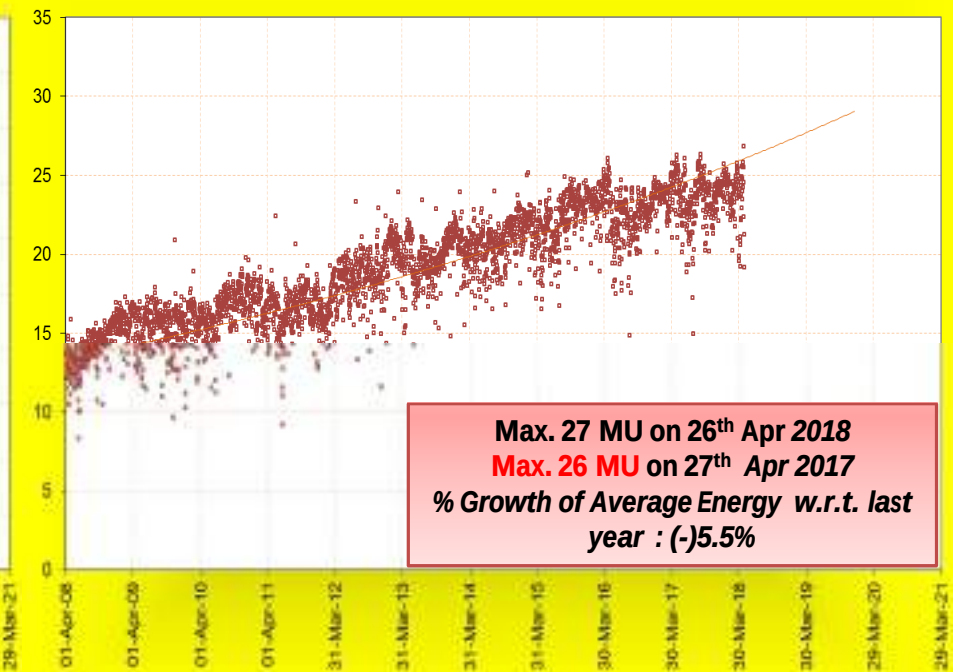
ER Energy met in MU



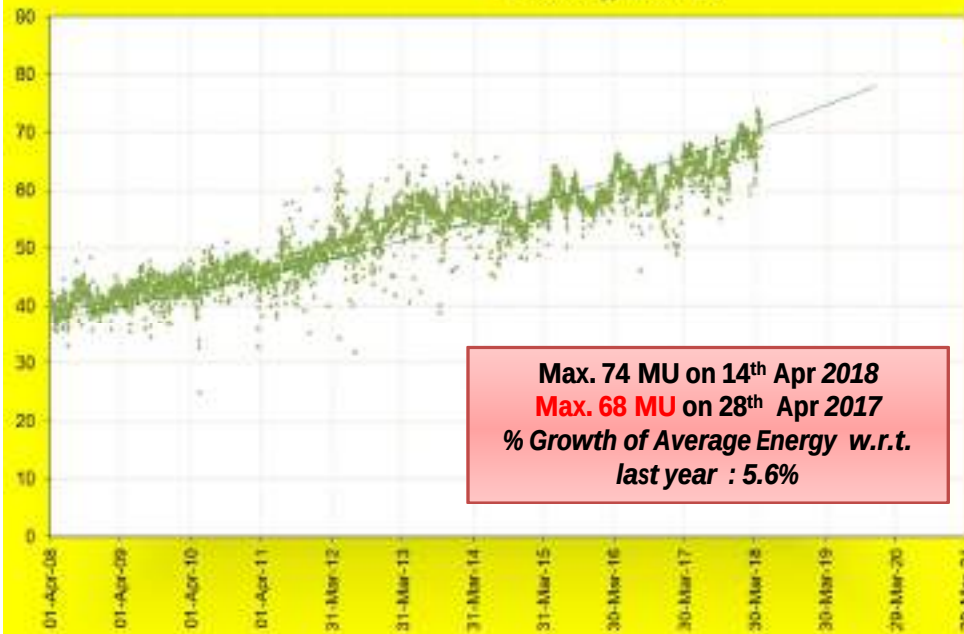
BSPHCL Energy met in MU



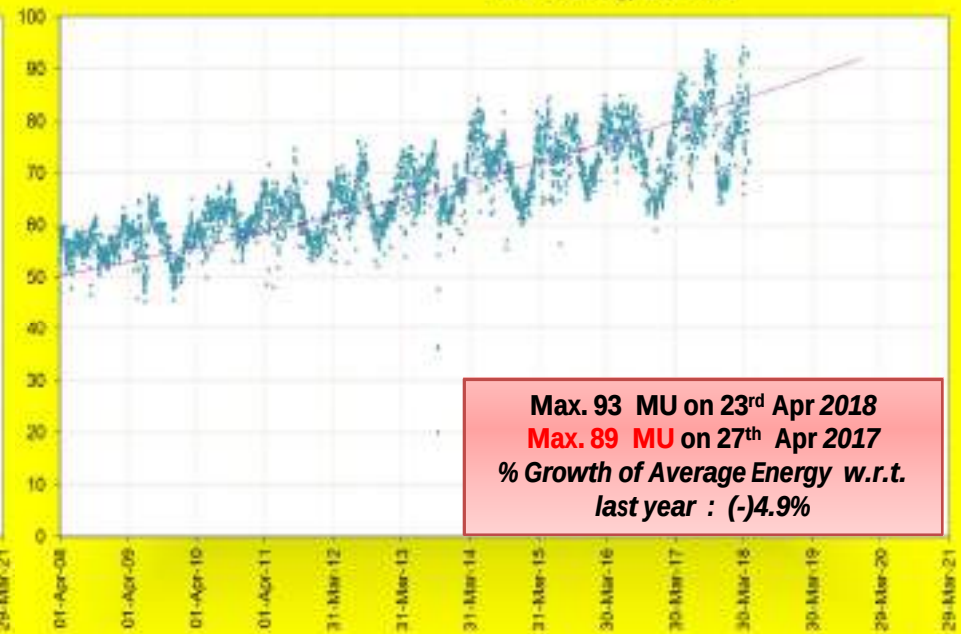
JUVNL Energy met in MU



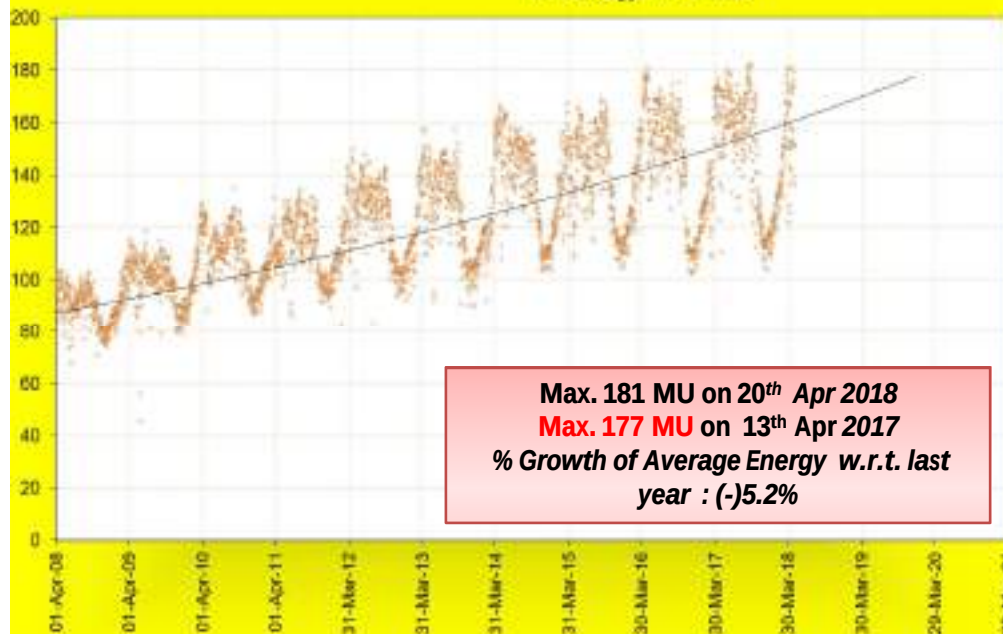
DVC Energy met in MU



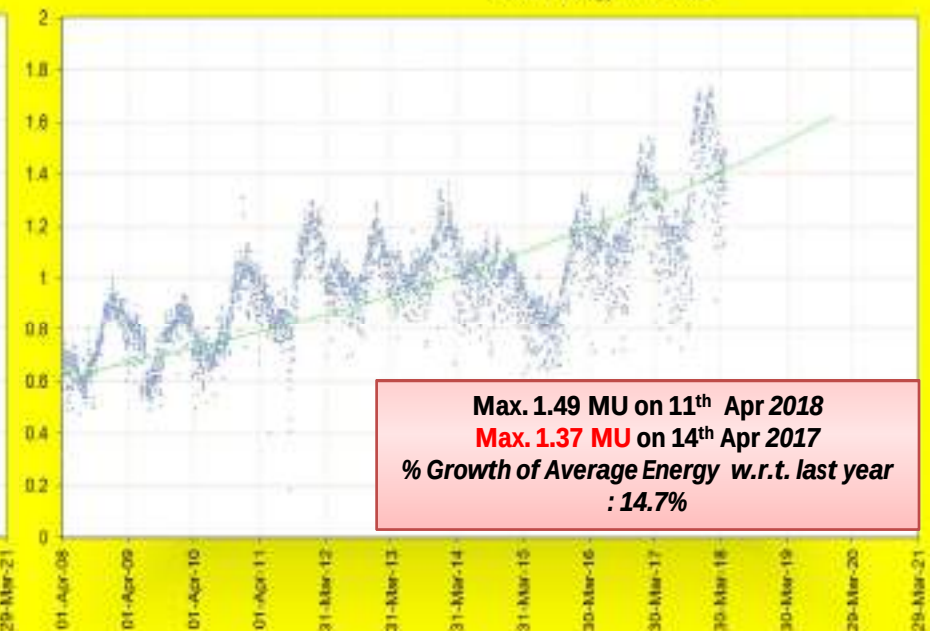
Odisha Energy met in MU



WB Energy met in MU

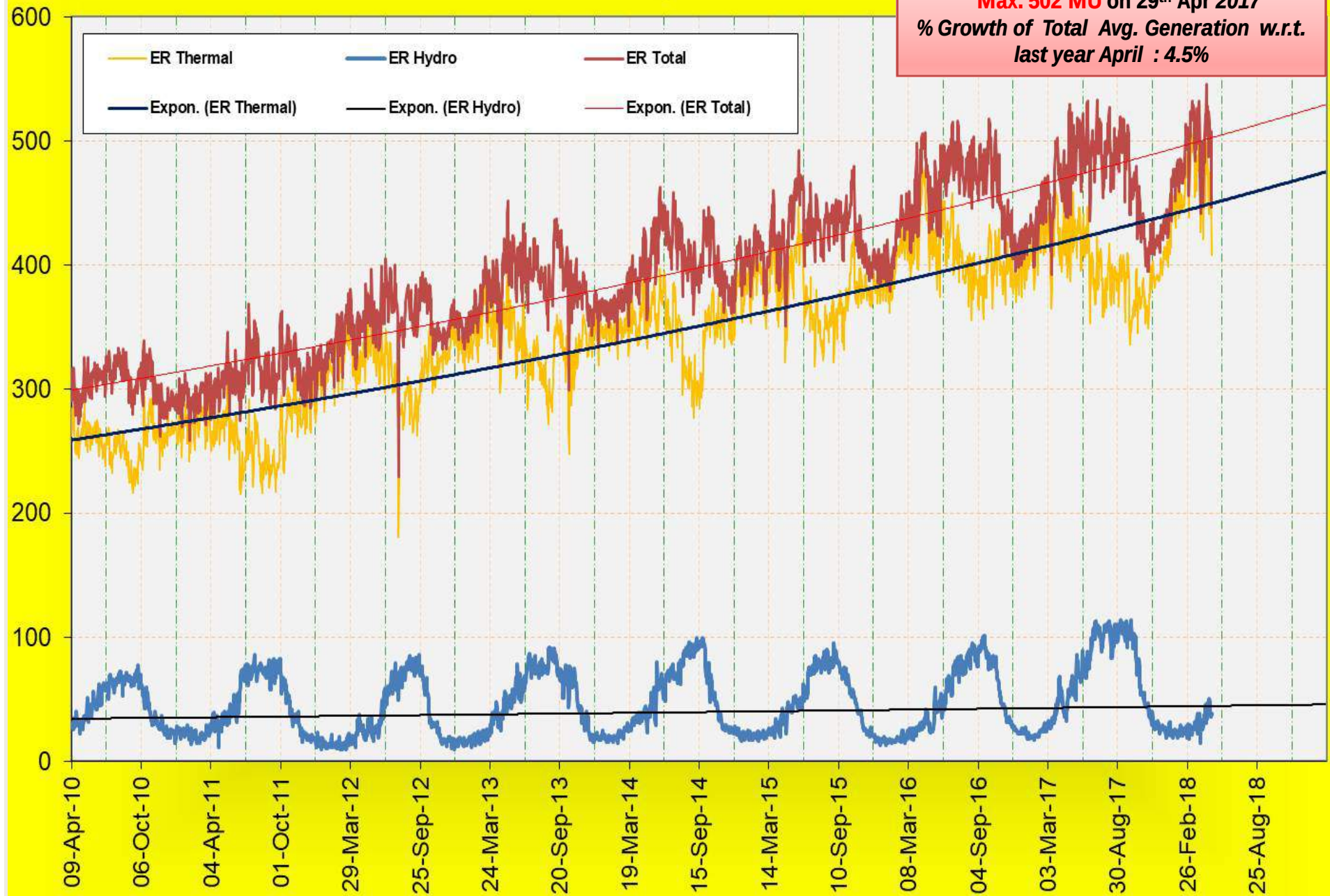


Sikkim Energy met in MU



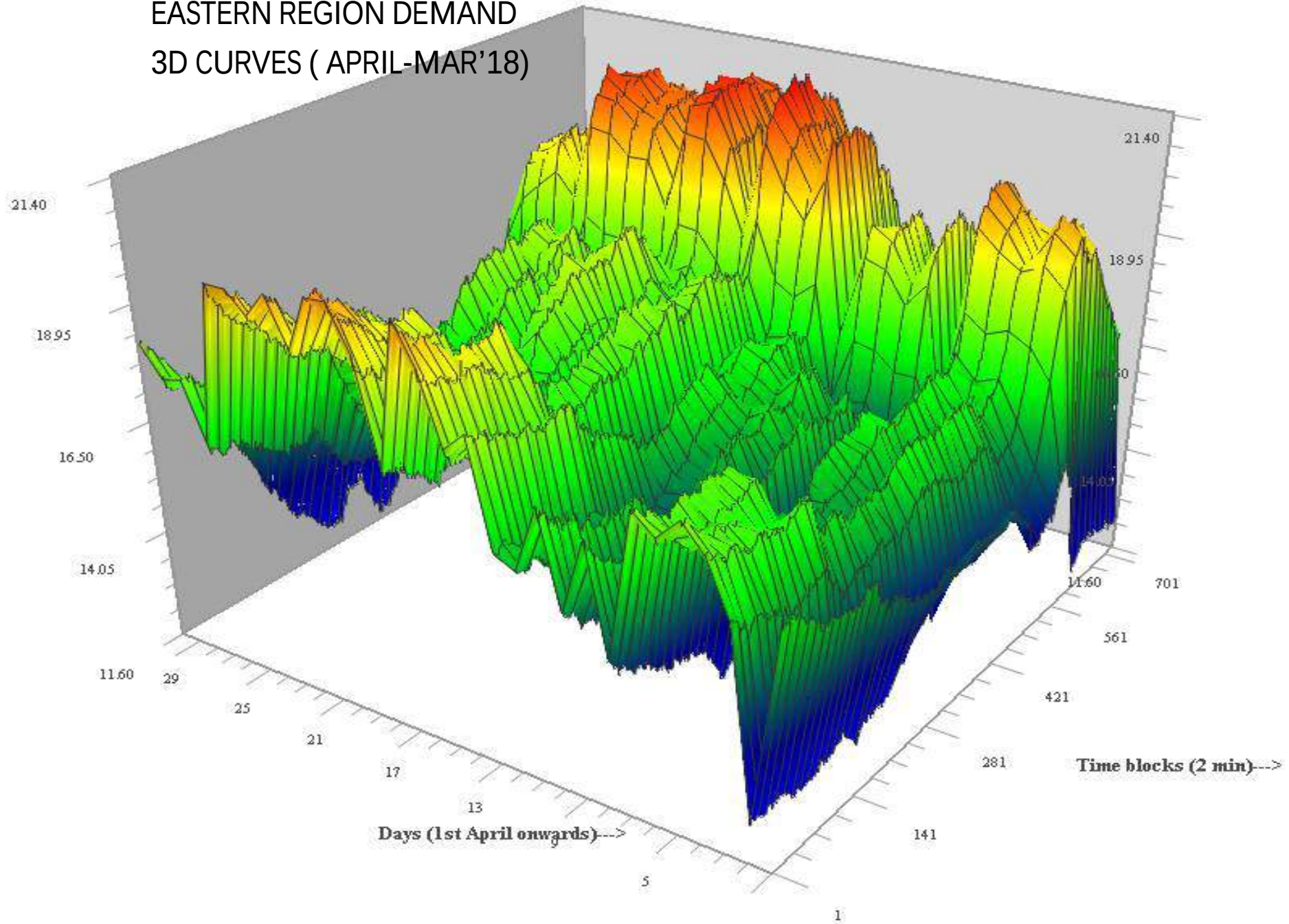
Daily Generation in MU

Max. 545 MU on 16th Apr 2018
Max. 502 MU on 29th Apr 2017
**% Growth of Total Avg. Generation w.r.t.
last year April : 4.5%**

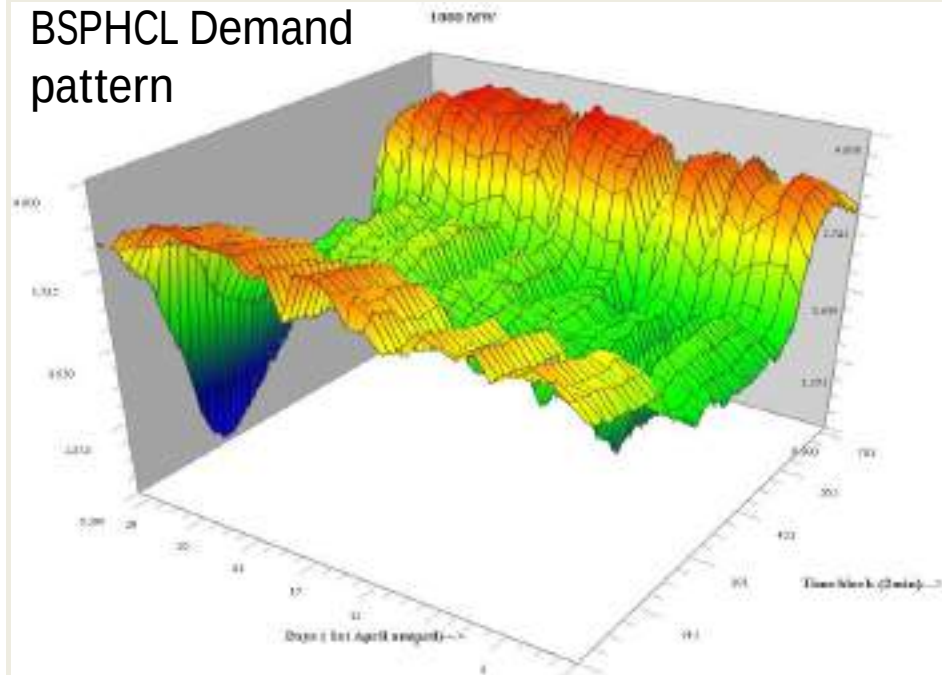


1000 MW

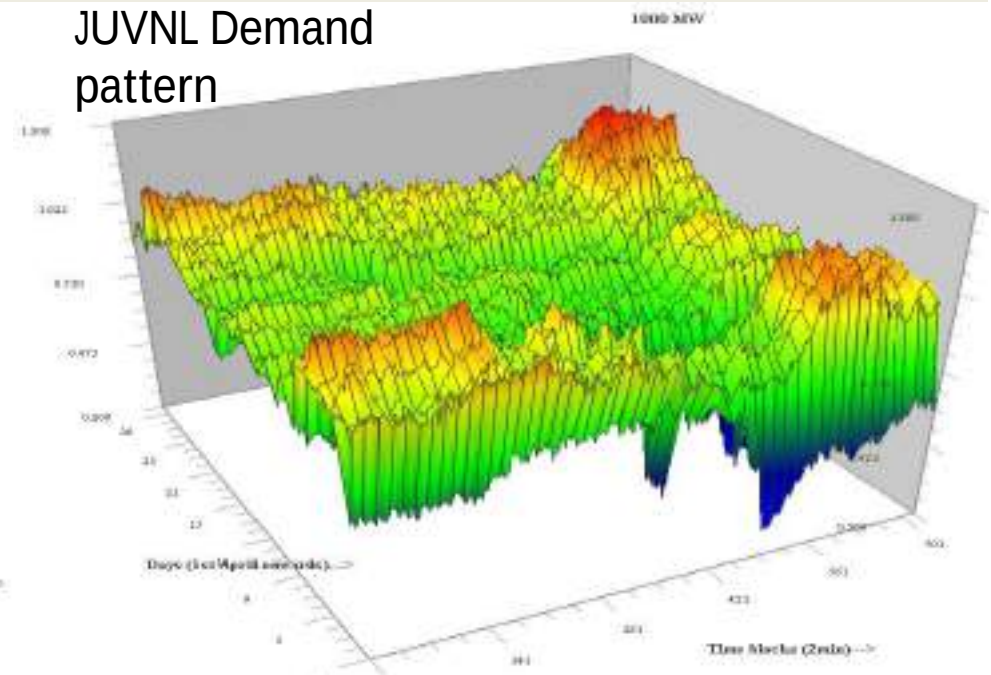
EASTERN REGION DEMAND 3D CURVES (APRIL-MAR'18)



BSPHCL Demand pattern

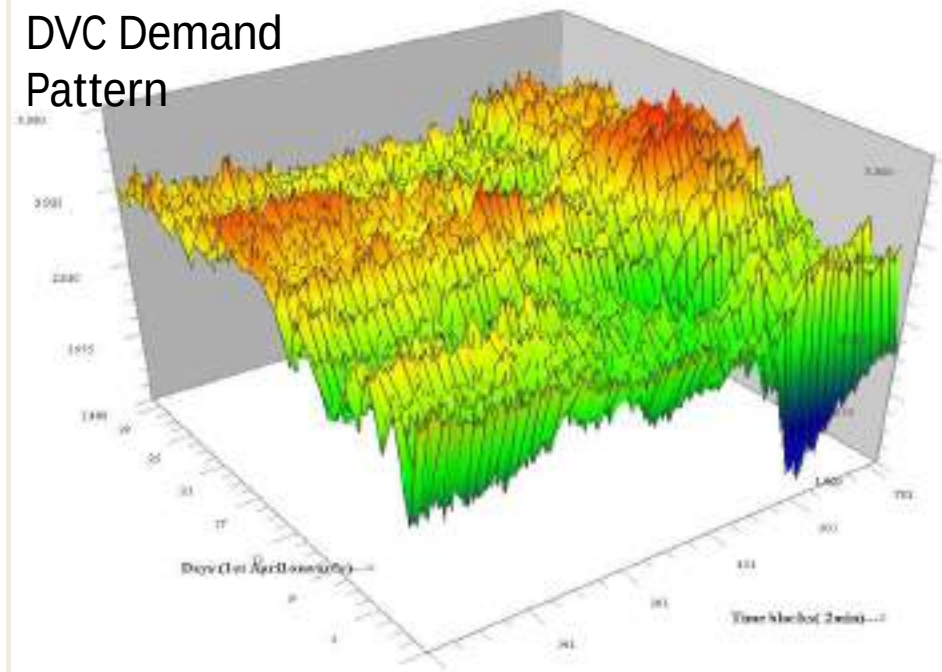


JUVNL Demand pattern

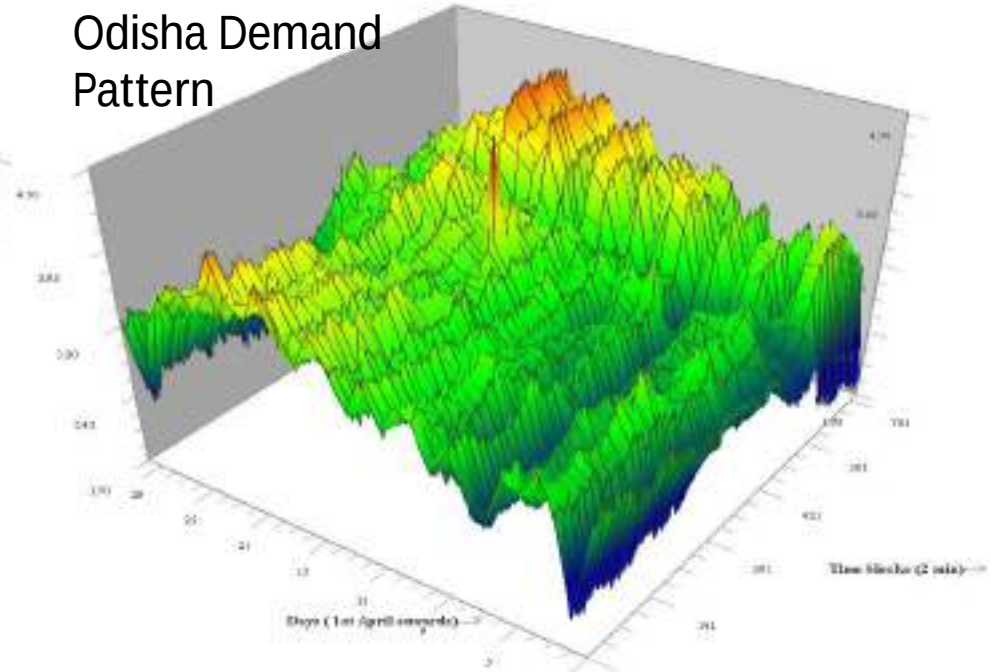


(APRIL'18)

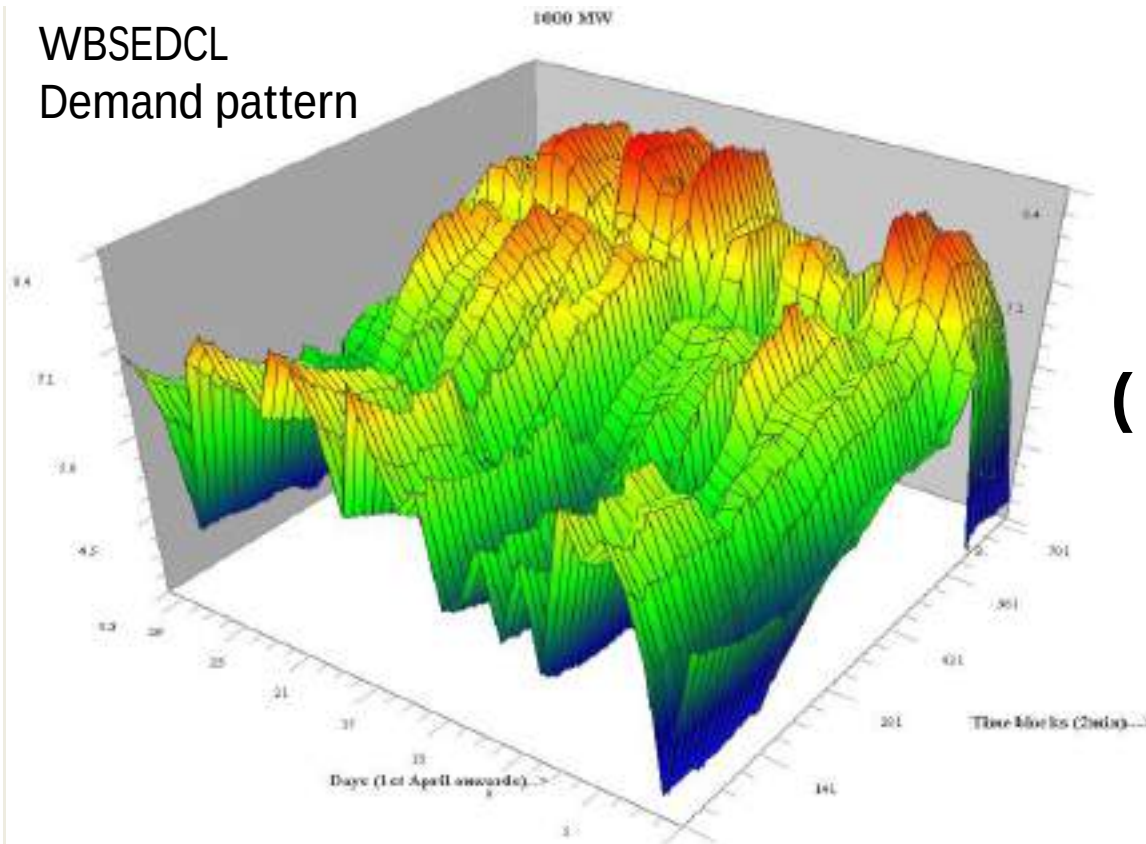
DVC Demand Pattern



Odisha Demand Pattern

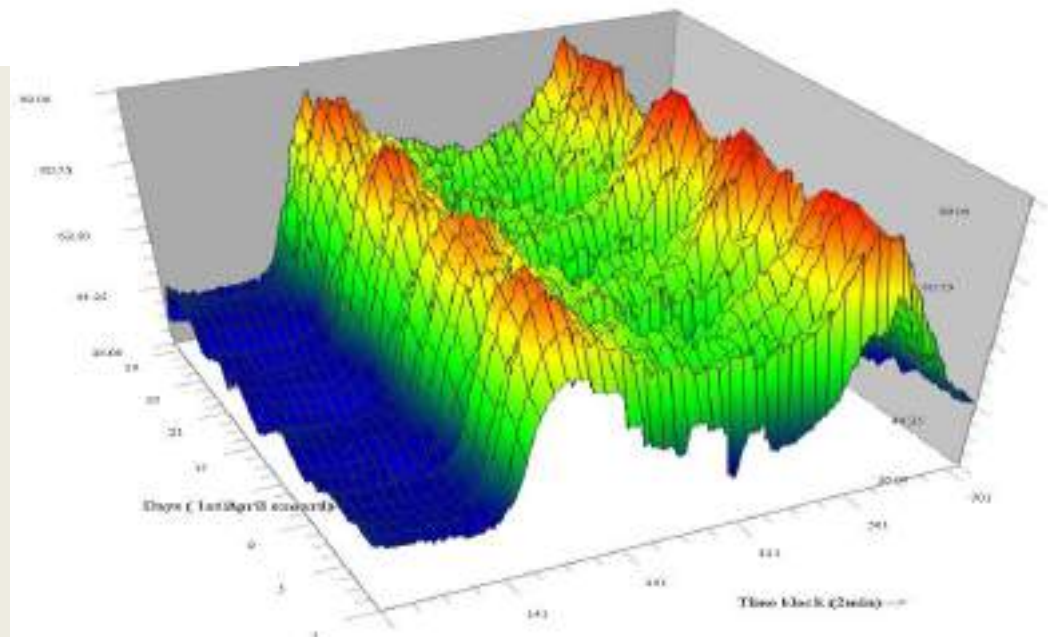


WBSEDCL
Demand pattern



(APRIL-18)

Sikkim Demand
pattern

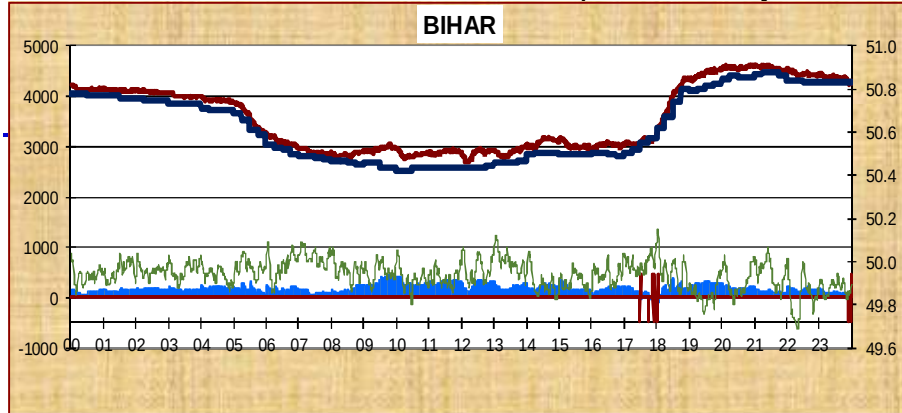
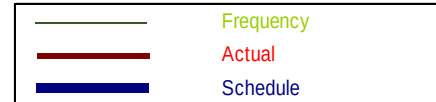


Performance of constituents/Utilities
on maximum demand day in April,
2018
(16-04-2018)

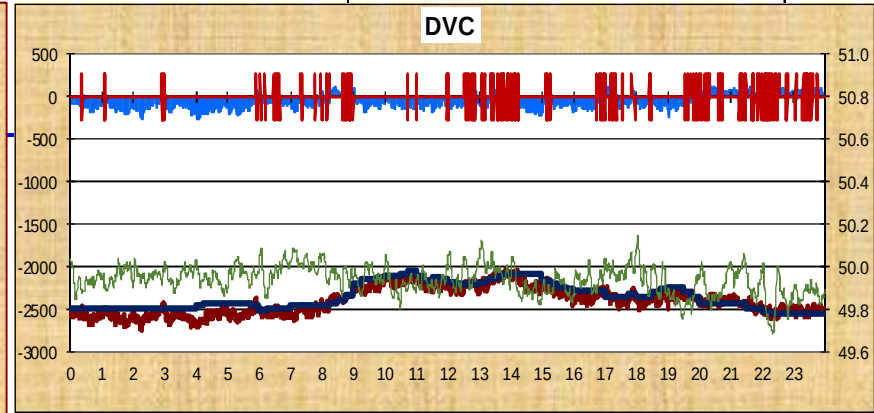


CONSTITUENTWISE SCHEDULE & ACTUAL EXCHANGE

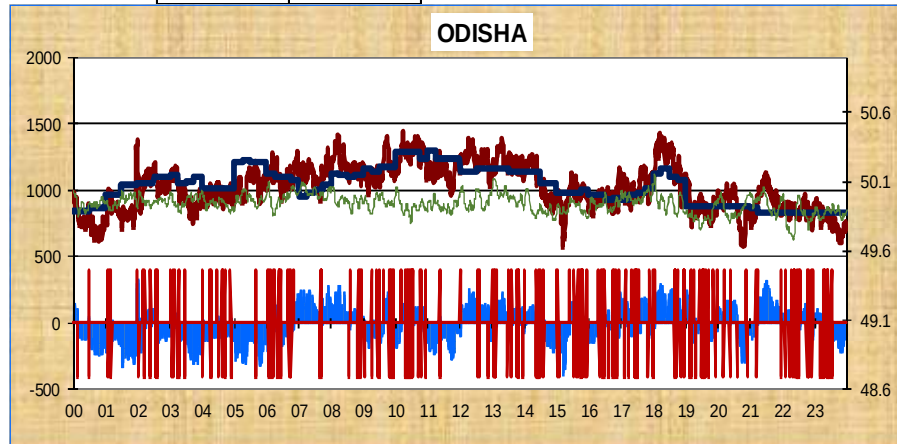
DATE : 16 Apr 2018 Monday



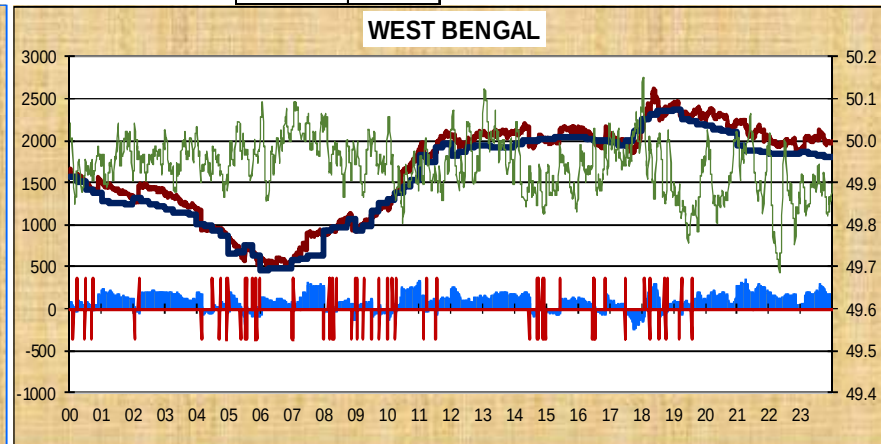
Act MU	MAX	MIN	Min/Max	UI	SCHEDULE
85.8	4620	2695	0.58	4.37	81.38
Time:	21:04	12:10			



Act MU	MAX	MIN	Min/Max	UI	SCHEDULE
-57.5	-2015	-2753	0.73	-1.30	-56.25
Time:	13:51	2:14			



Act MU	MAX	MIN	Min/Max	UI	SCHEDULE
24.5	1439	576	0.40	-0.26	24.80
Time:	10:13	20:44			

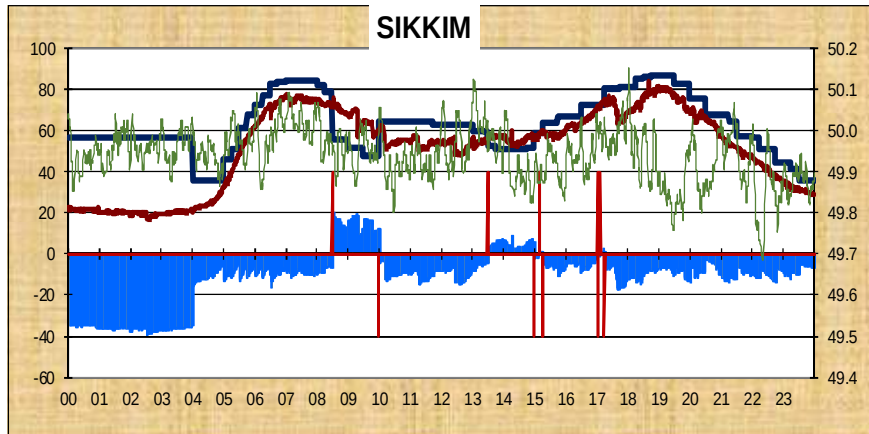
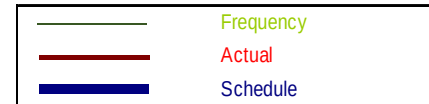


Act MU	MAX	MIN	Min/Max	UI	SCHEDULE
39.5	2608	513	0.20	2.15	37.34
Time:	18:23	6:51			

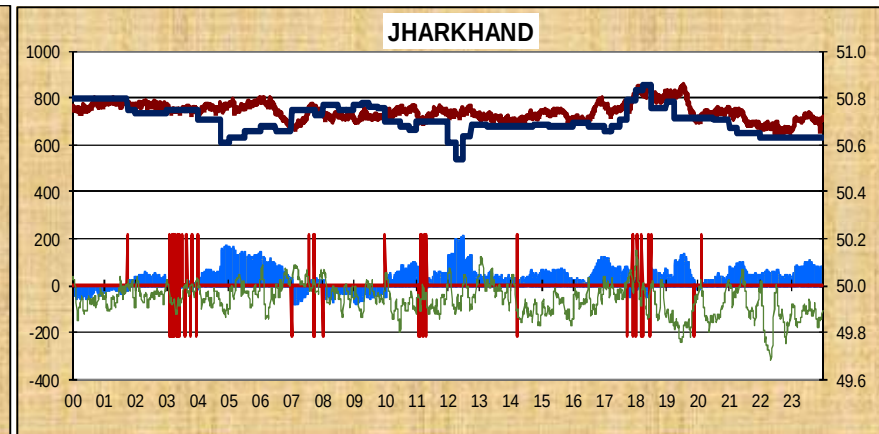


CONSTITUENTWISE SCHEDULE & ACTUAL EXCHANGE

DATE : 16 Apr 2018 Monday



MU	MAX	MIN	Min/Max	UI	SCHEDULE
1.2	84	17	0.20	-0.26	1.50
Time:	18:40	2:32			



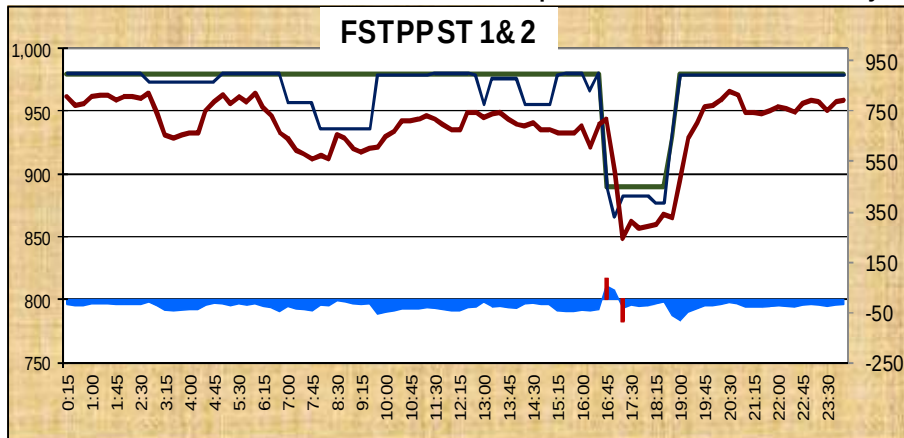
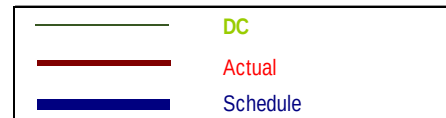
Act MU	MAX	MIN	Min/Max	UI	schd MU
17.82	859	645	0.75	0.87	16.94
Time:	18:27	22:43			



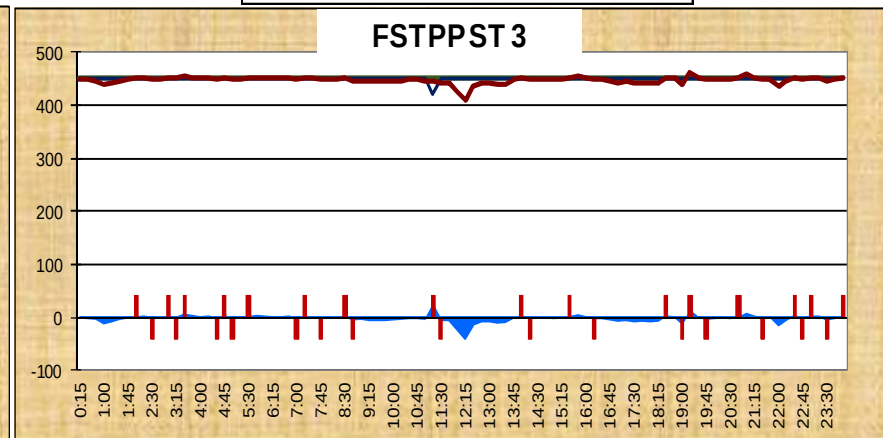
ISGS (THERMAL) DC, SCHEDULE & ACTUAL GENERATION

DATE : 16 Apr 2018

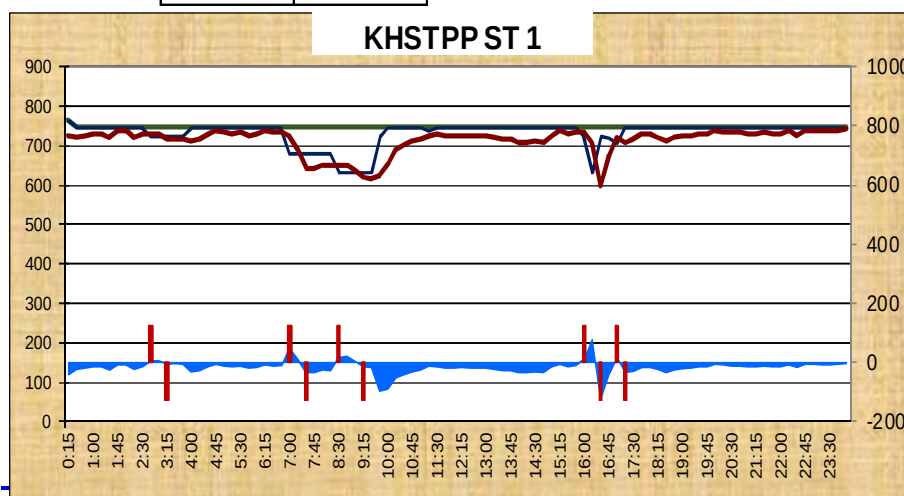
Monday



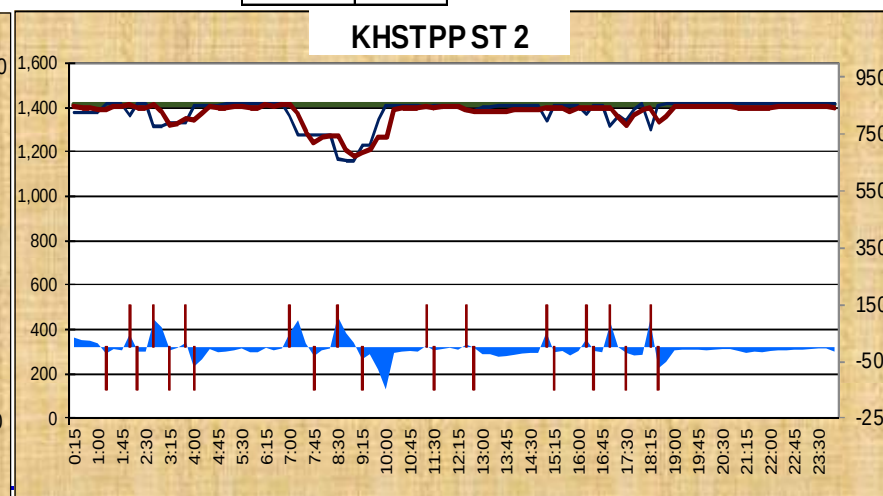
Act MU	MAX	MIN	Min/Max	UI	schd MU
22.48	966	848	0.88	-0.66	23.15
Time:	20:30	17:15			



Act MU	MAX	MIN	Min/Max	UI	schd MU
10.7	461	408	0.89	-0.06	10.79
Time:	19:15	12:15			



Act MU	MAX	MIN	Min/Max	UI	schd MU
17.1	742	596	0.80	-0.41	17.54
Time:	0:00	16:30			



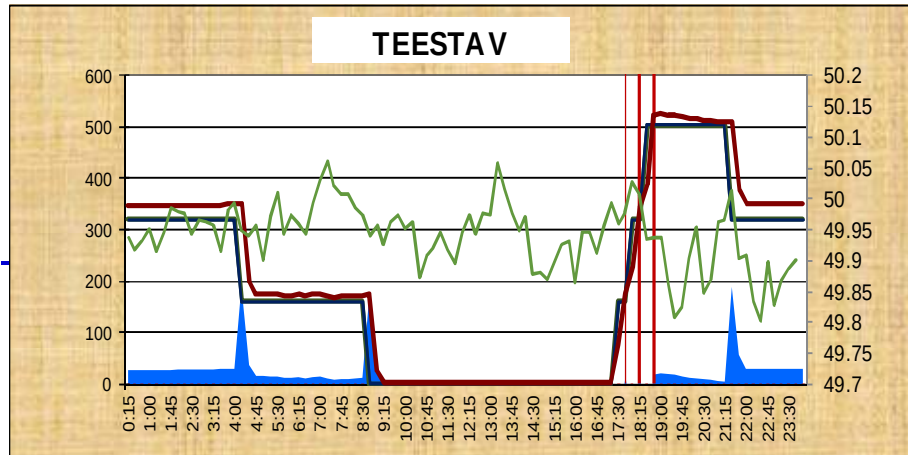
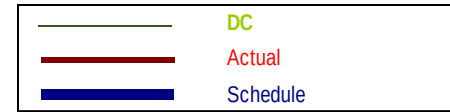
Act MU	MAX	MIN	Min/Max	UI	schd MU
33.0	1412	1181	0.84	-0.13	33.14
Time:	6:15	9:00			



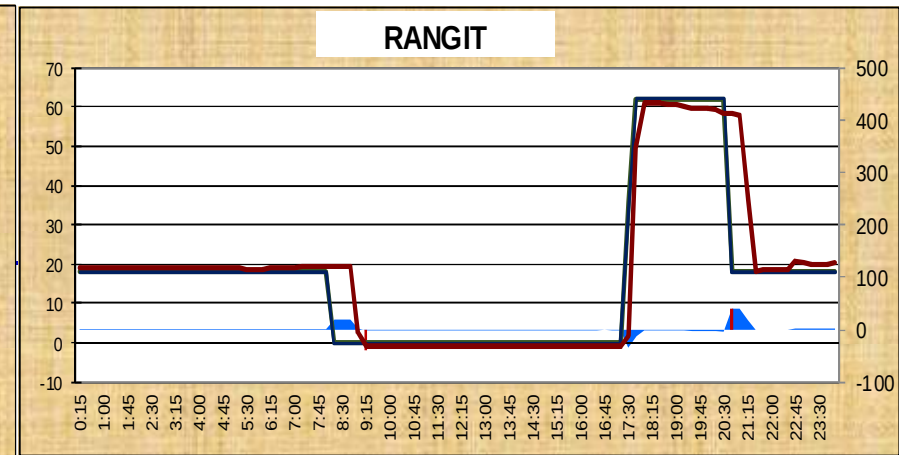
ISGS & IPP (HYDRO) DC, SCHEDULE & ACTUAL GENERATION

DATE : 16 Apr 2018

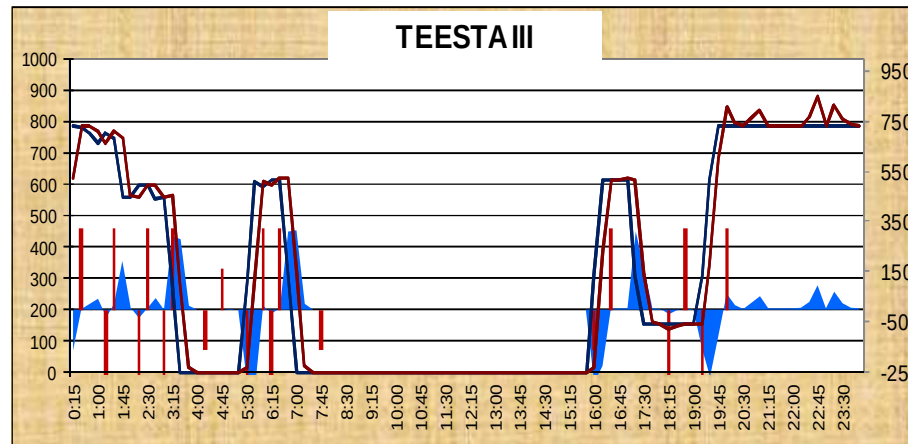
Monday



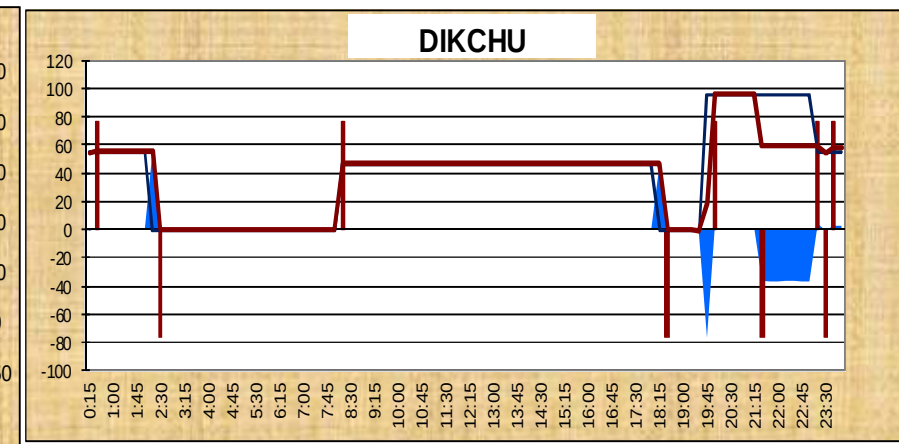
Act MU	MAX	MIN	Min/Max	UI	schd MU
5.0	525	1	0.00	0.39	4.63
Time:	19:00	10:00			



Act MU	MAX	MIN	Min/Max	UI	schd MU
0.4	61	-1	-0.01	0.03	0.40
Time:	18:00	9:15			

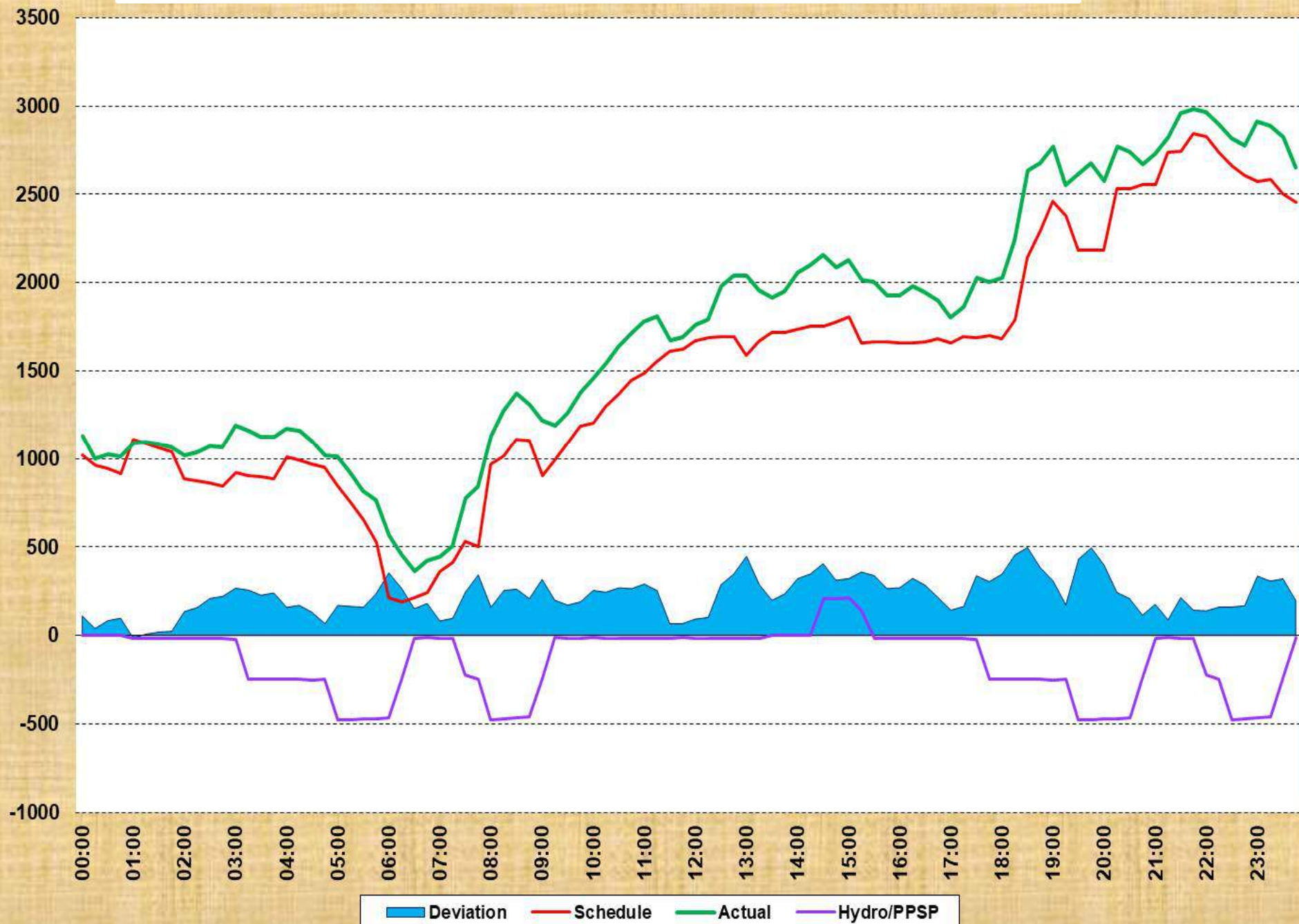


Act MU	MAX	MIN	Min/Max	UI	schd MU
7.7	877	0	0.00	0.14	7.59
Time:	22:45	4:15			

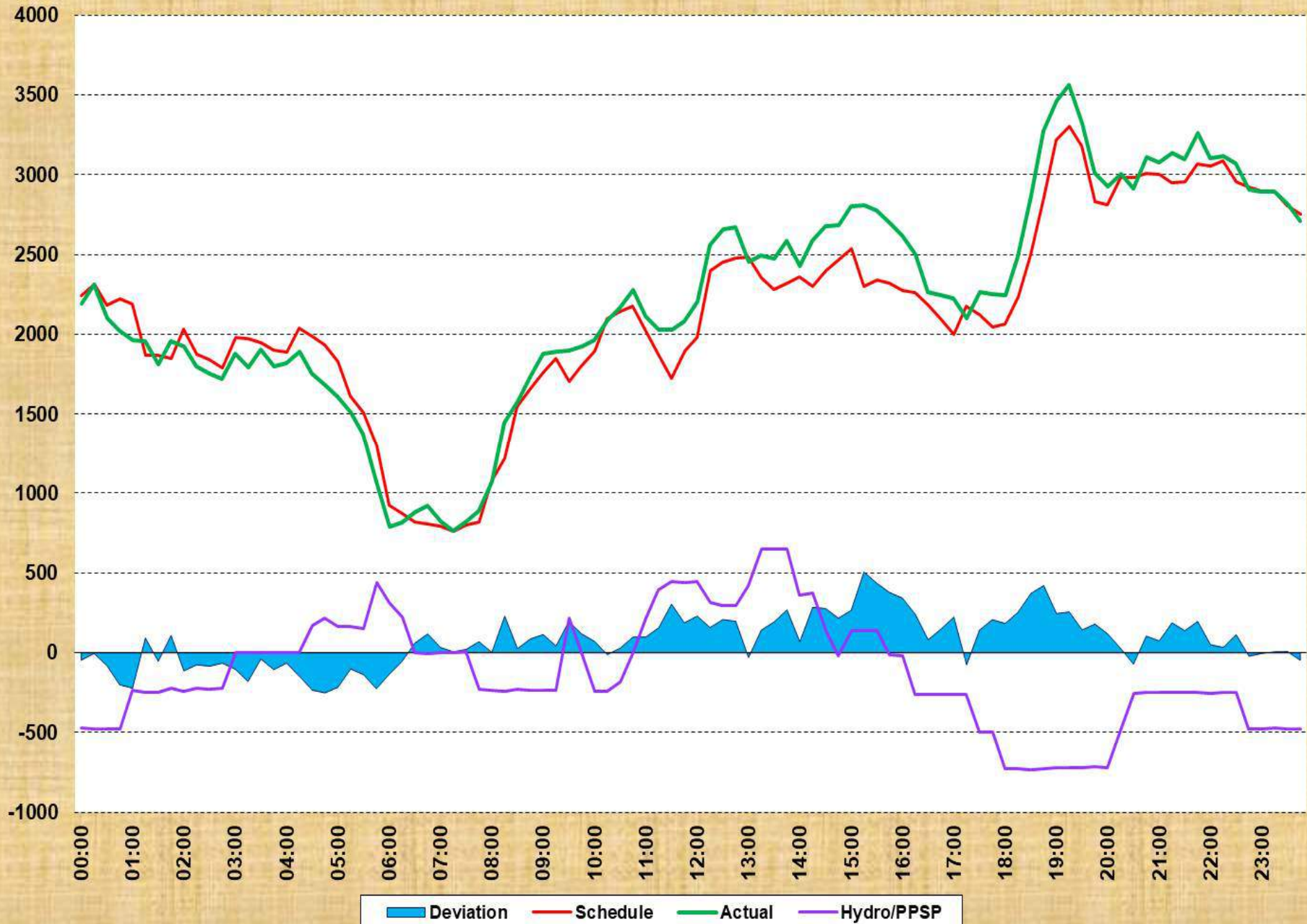


Act MU	MAX	MIN	Min/Max	UI	schd MU
0.9	97	-1	-0.01	-0.05	0.96
Time:	20:45	43207			

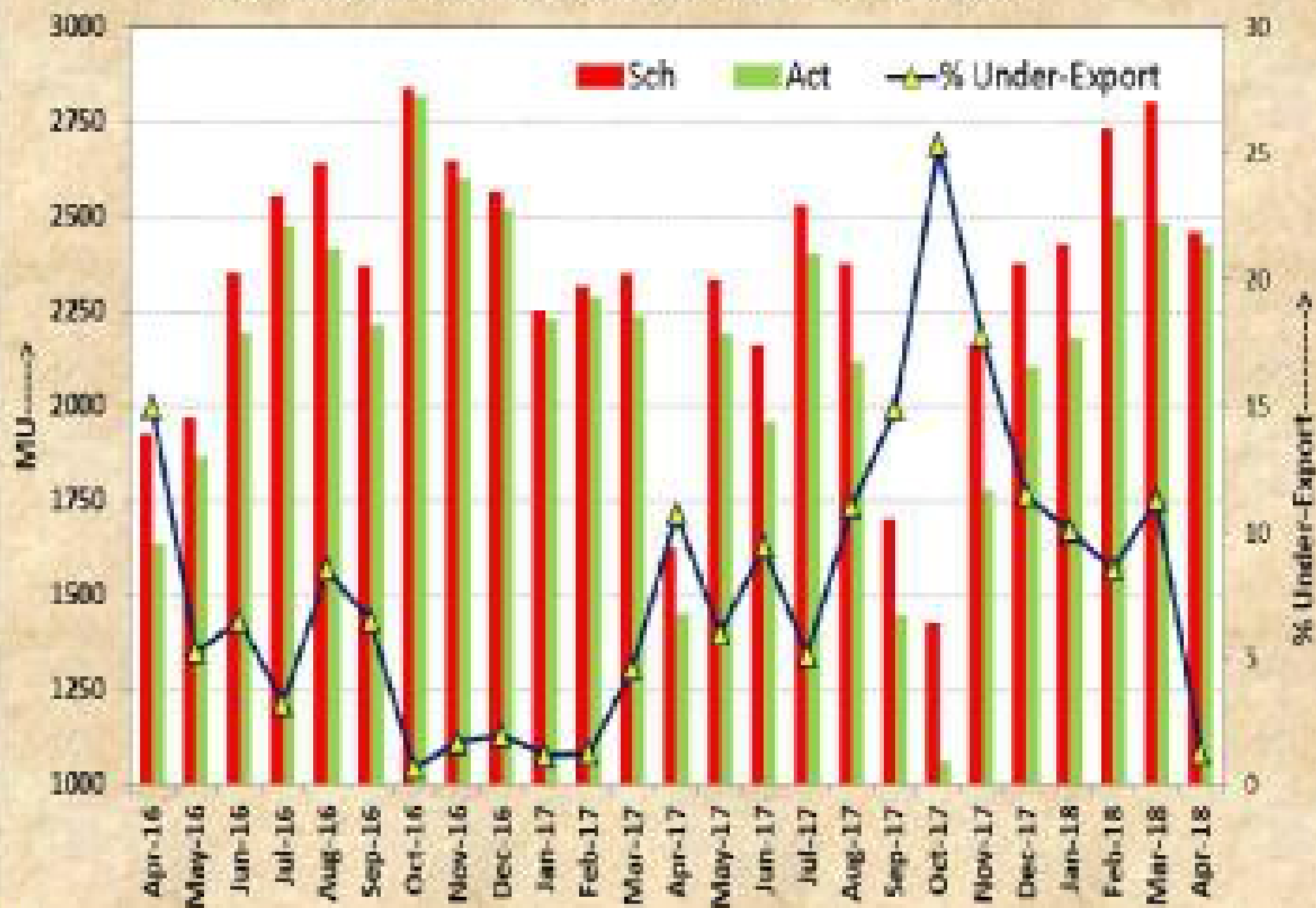
West Bengal Drawl vs Schedule and Pump Operation on 17/05/2018



West Bengal Drawl vs Schedule and Pump Operation on 19/05/2018

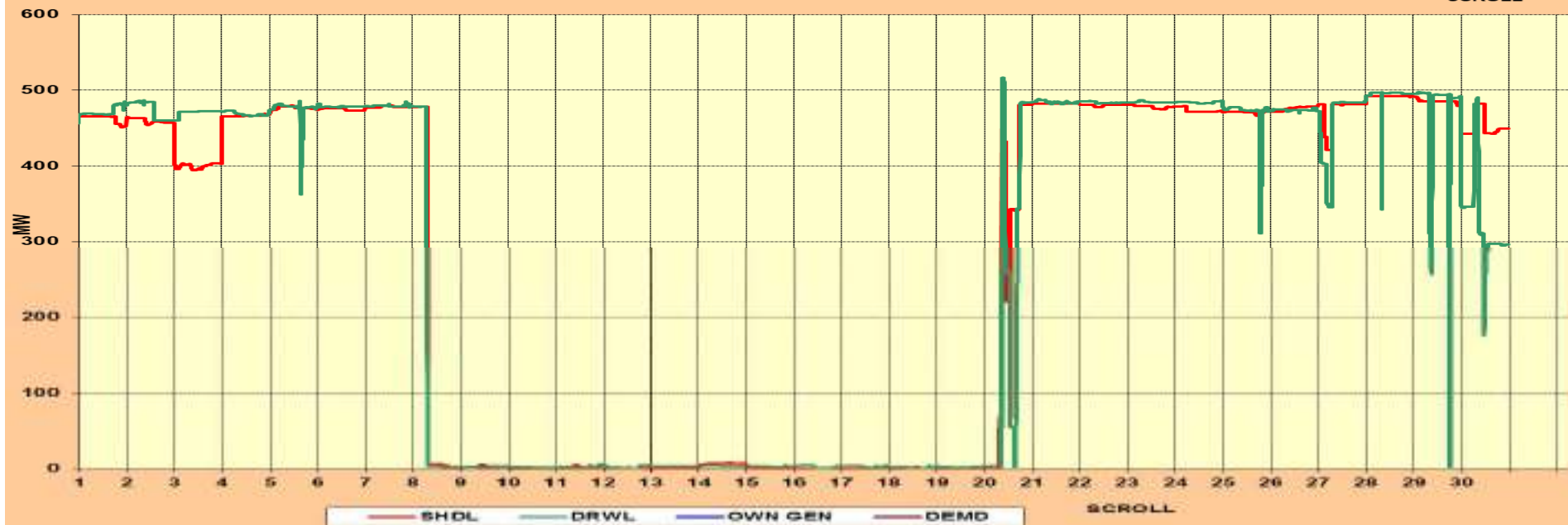


Monthly Net Export (In MU) from Eastern Region to Other Regions



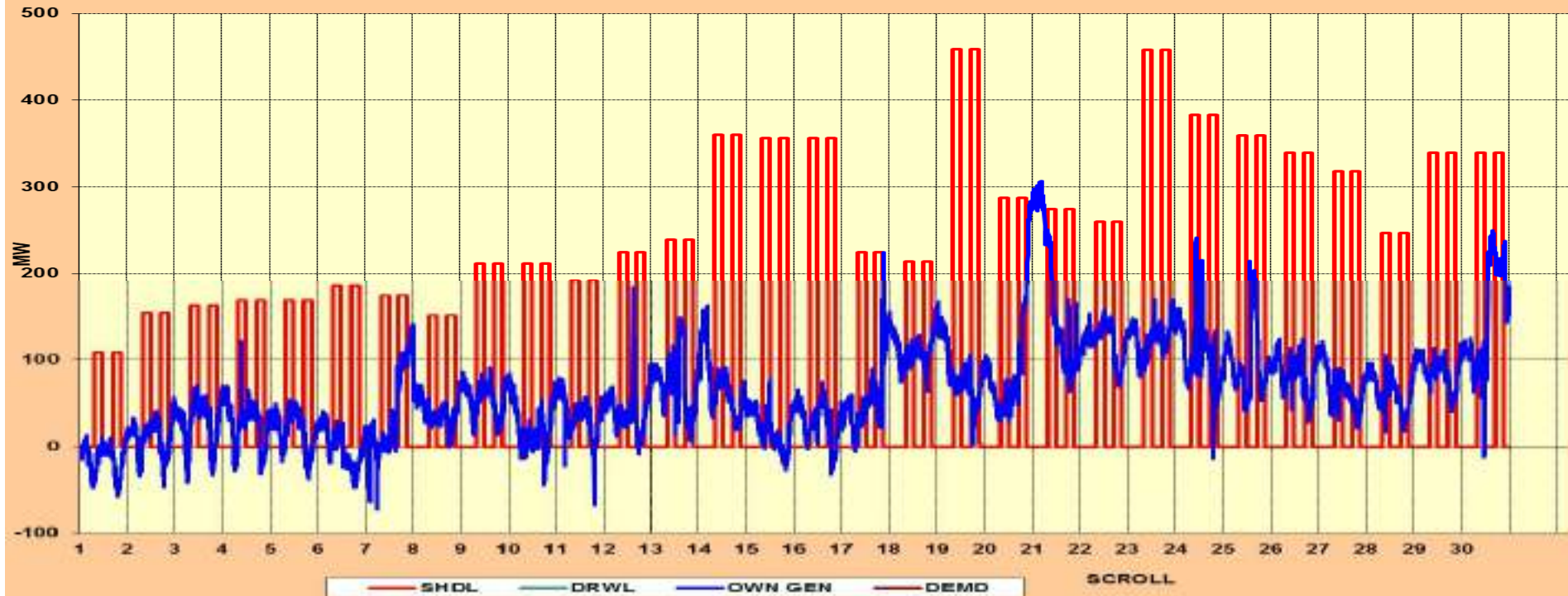
DETAILS OF BAGLADESH FOR APRIL-2018

TIME ZOOM
SCROLL

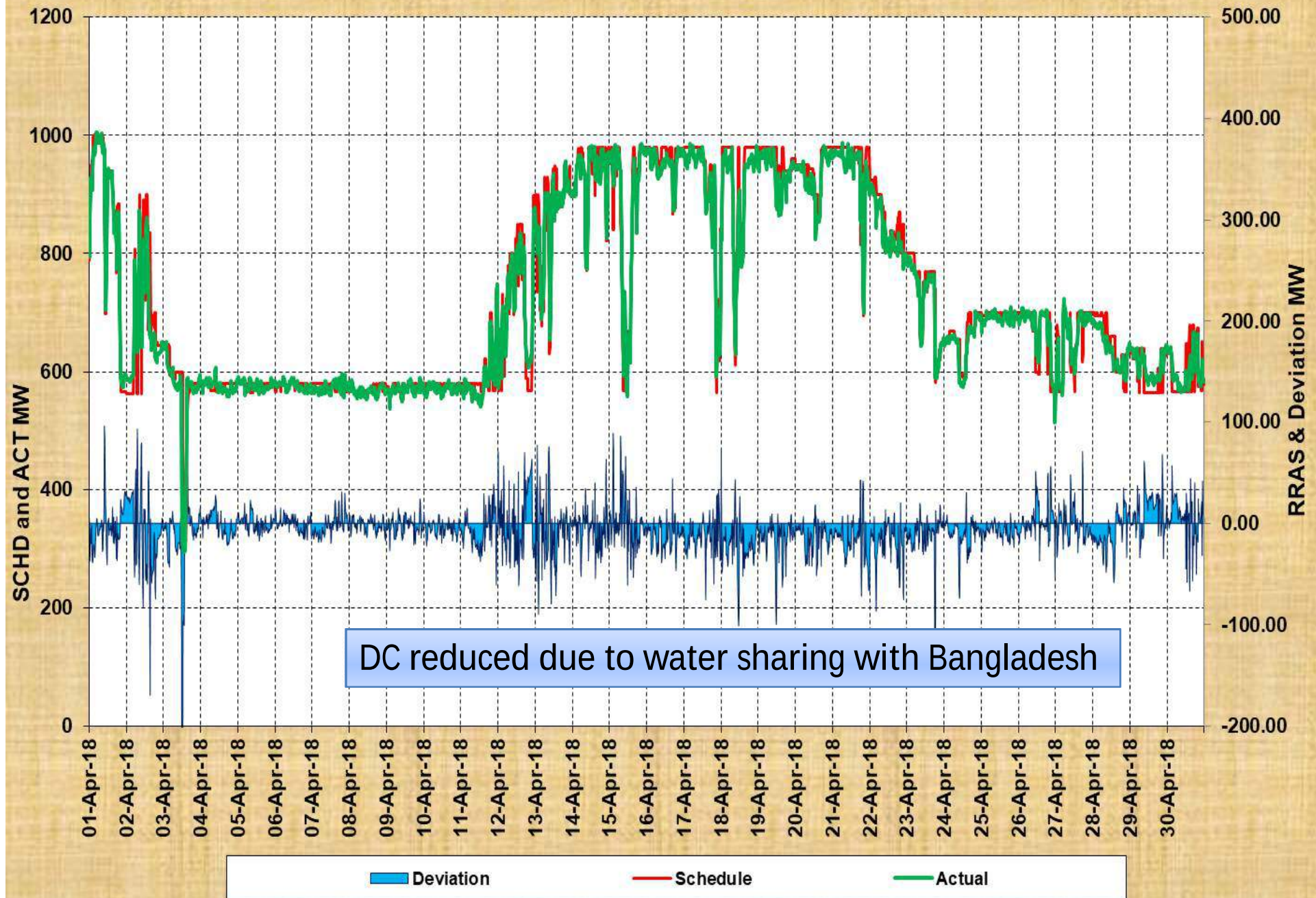


DETAILS OF Tala+ chukha FOR APRIL-2018

TIME ZOOM
SCROLL



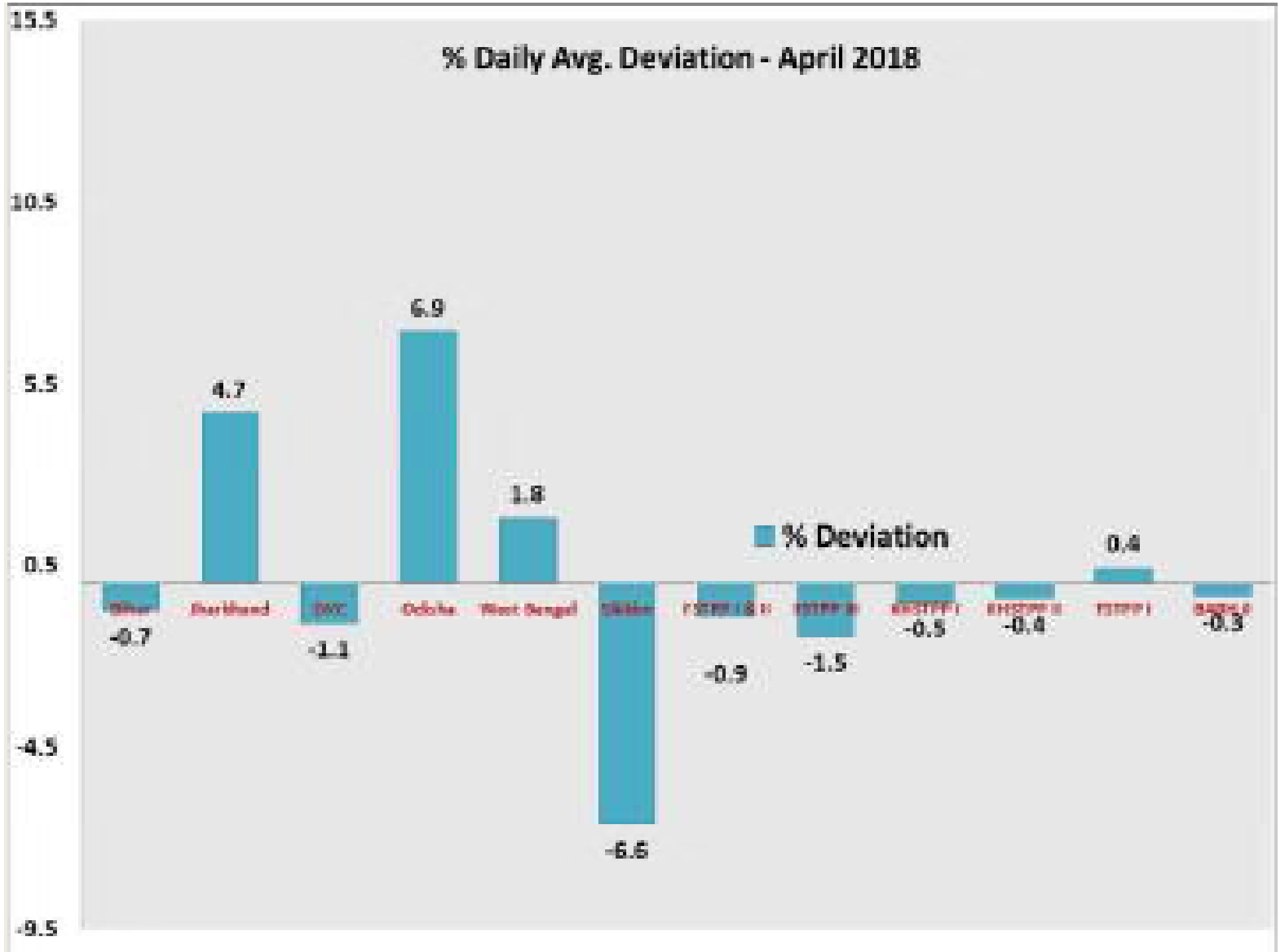
FSTPP DC Pattern During April - 2018



April 2018 Schedule Vs Actual Drawl

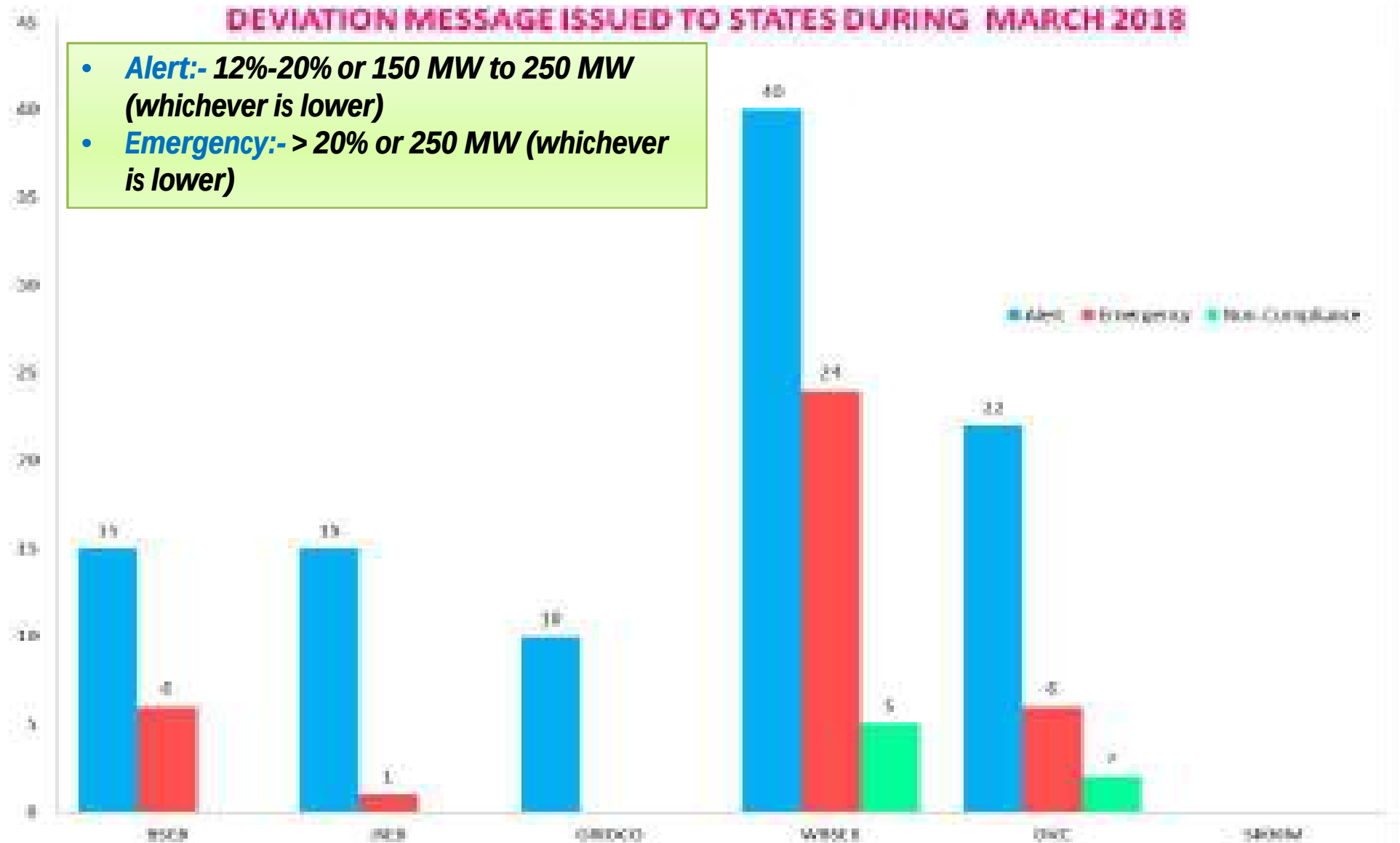
	Schedule (Mu)	Actual (Mu)	Deviation (Mu)	Daily Avg. Dev (Mu)	% Deviation (Daily Average)
Bihar	2337	2320	-17	-0.6	-0.7
Jharkhand	451	472	21	0.7	4.7
DVC	-1621	-1604	17	0.6	-1.1
Odisha	793	848	55	1.8	6.9
West Bengal	1041	1060	19	0.6	1.8
Sikkim	44	41	-3	-0.1	-6.6
FSTPP I & II	526	521	-5	-0.2	-0.9
FSTPP III	291	287	-4	-0.1	-1.5
KHSTPP I	456	454	-2	-0.1	-0.5
KHSTPP II	892	888	-4	-0.1	-0.4
TSTPP I	611	614	3	0.1	0.4
BARH II	788	785	-3	-0.1	-0.3

% Daily Avg. Deviation - April 2018



DEVIATION MESSAGE ISSUED TO STATES DURING MARCH 2018

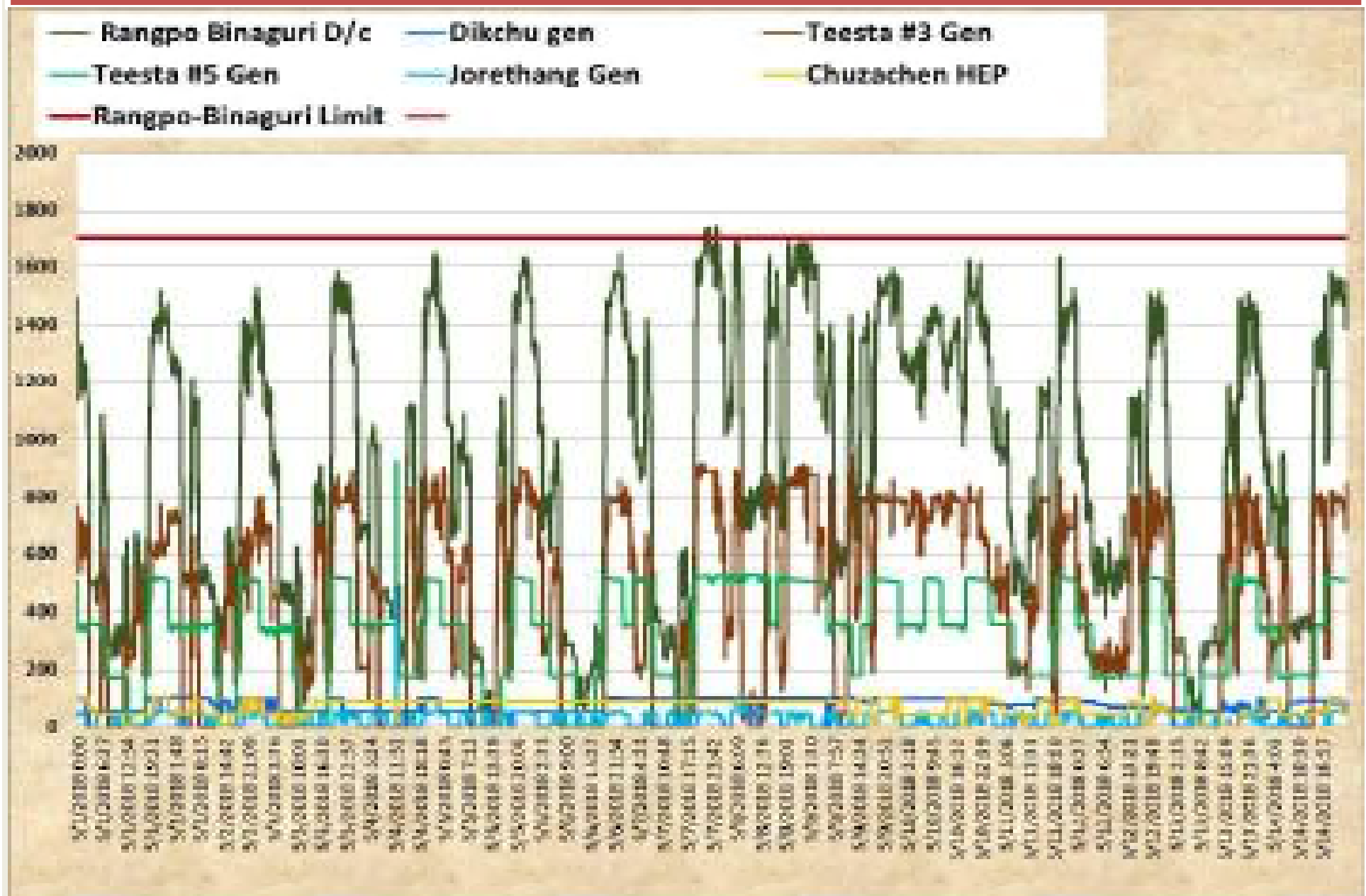
- **Alert:-** 12%-20% or 150 MW to 250 MW (whichever is lower)
- **Emergency:-** > 20% or 250 MW (whichever is lower)



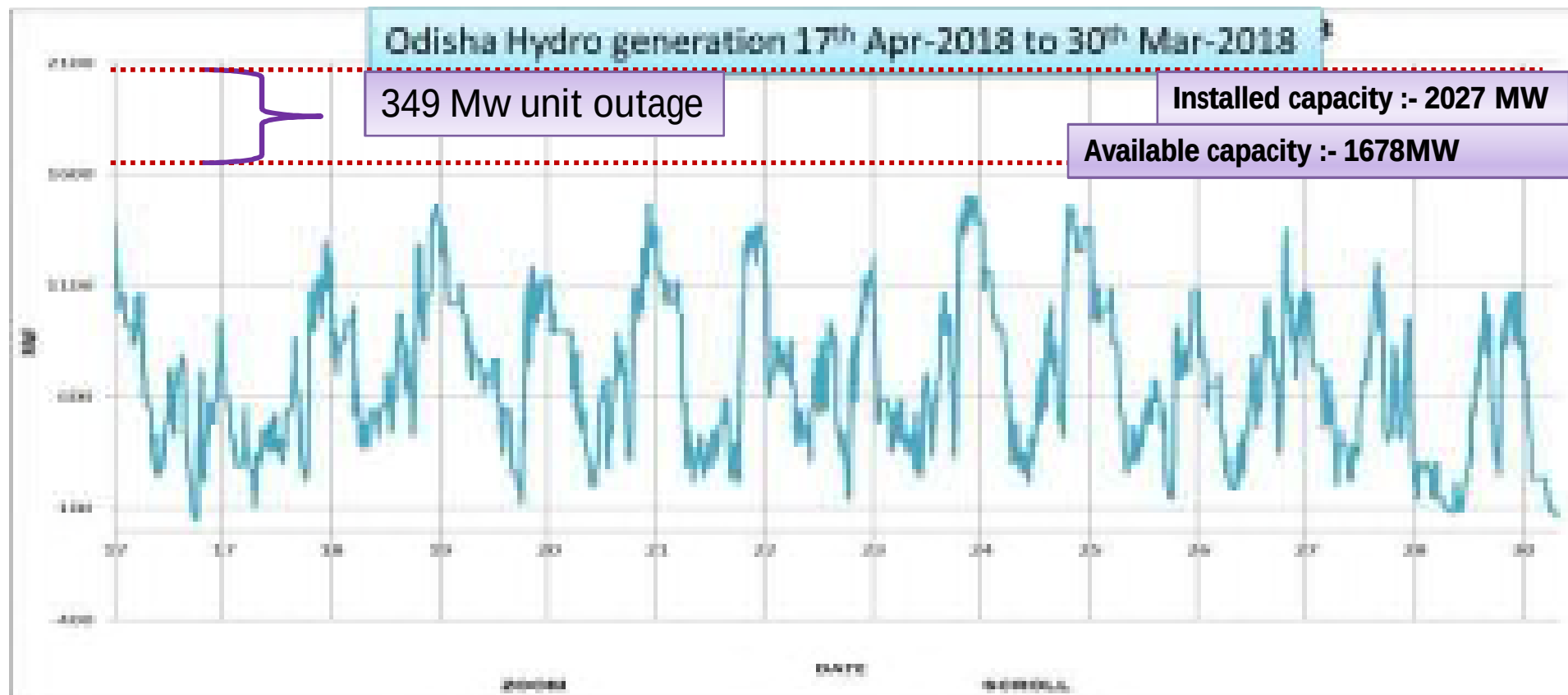
- Total Number of Deviation violation and zero crossing violation messages issued during April-2018 :- **197**
- Deviation Violation Messages :- **154** & Zero Crossing Violation :- **43**

Teesta – III & Teesta – V Dispatch Pattern during lean hydro inflow

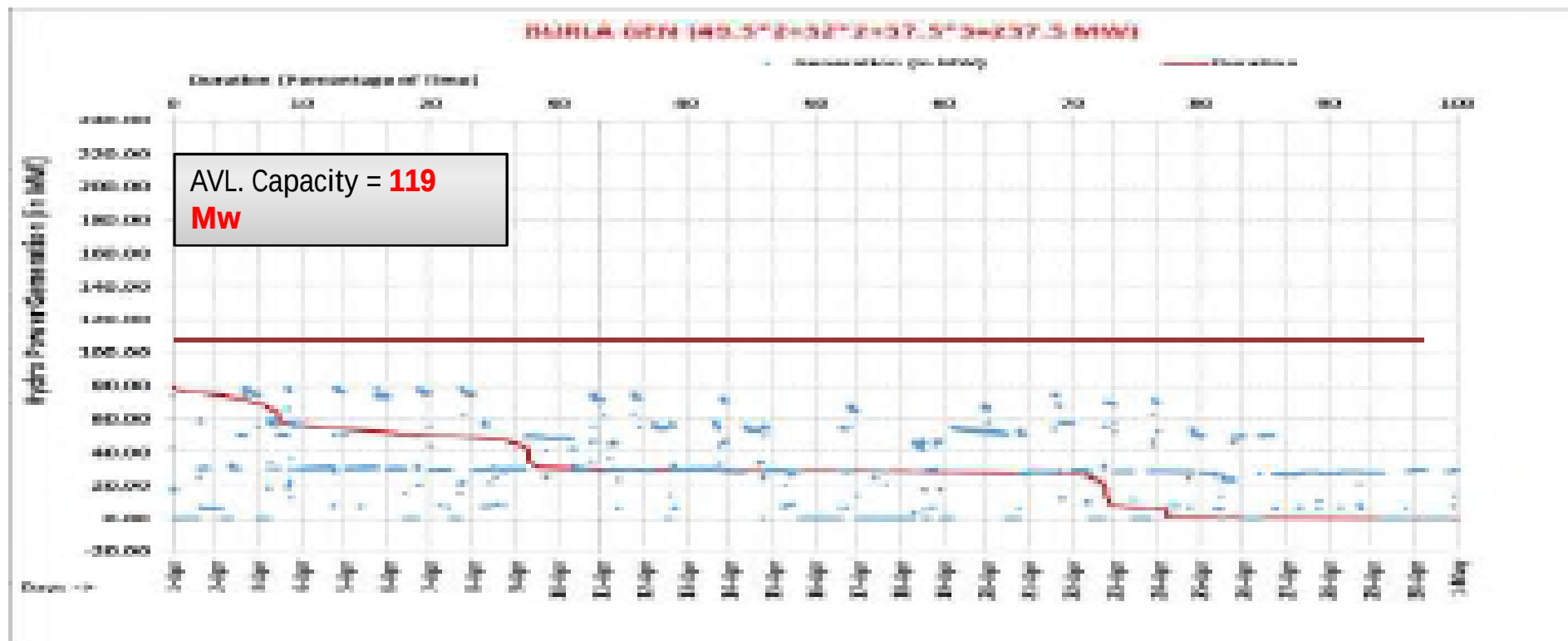
Rangpo – Binaguri D/C & Generation Pattern of Generators in Sikkim 01-05-2018 to 14-05-2018



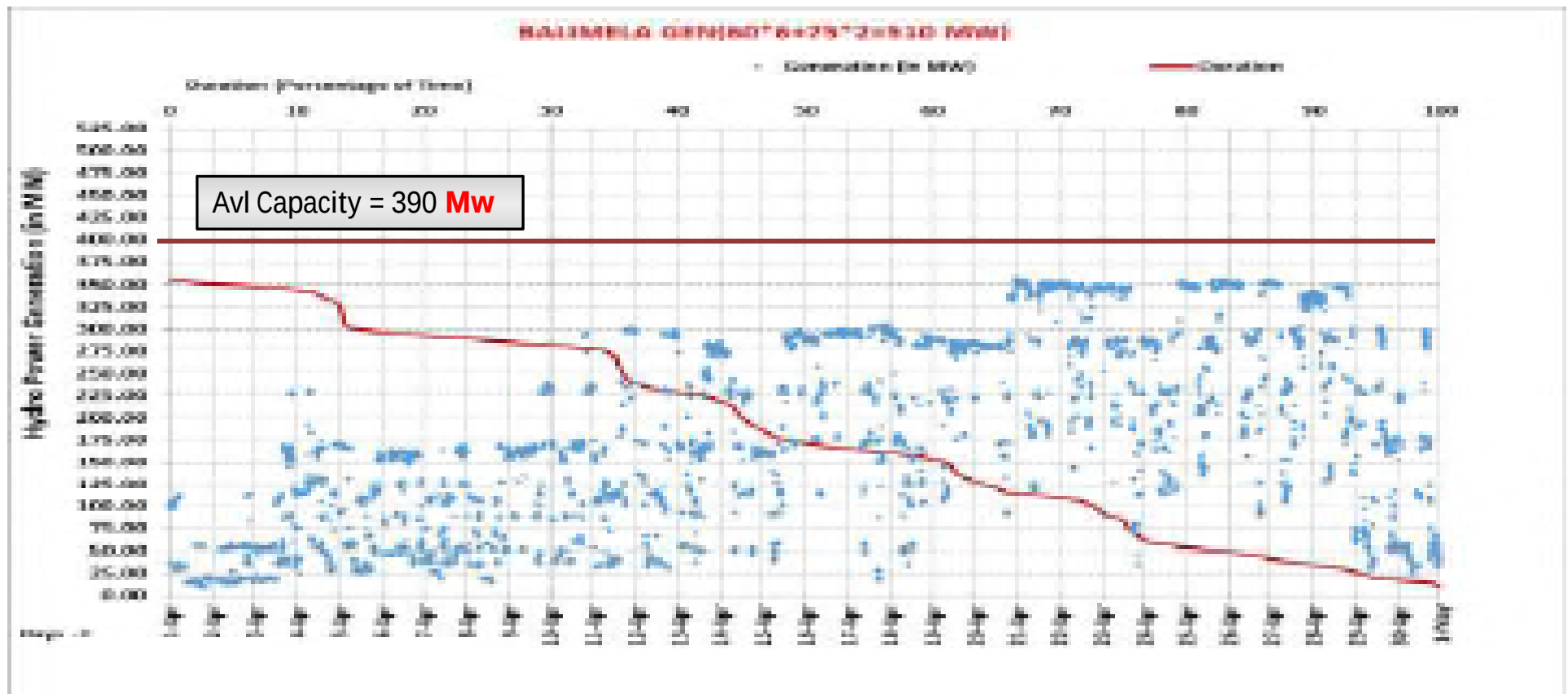
State Hydro Generators Performance



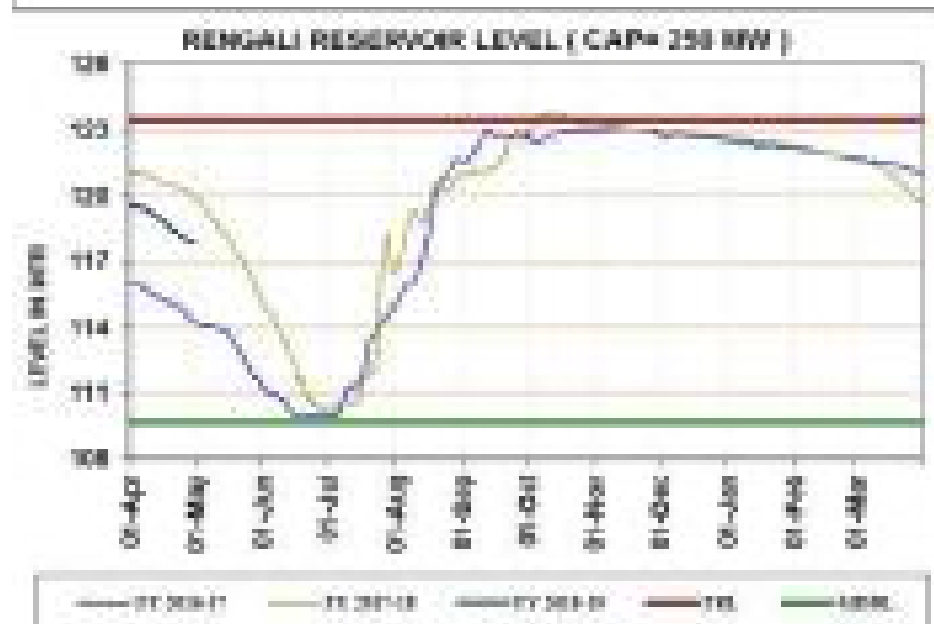
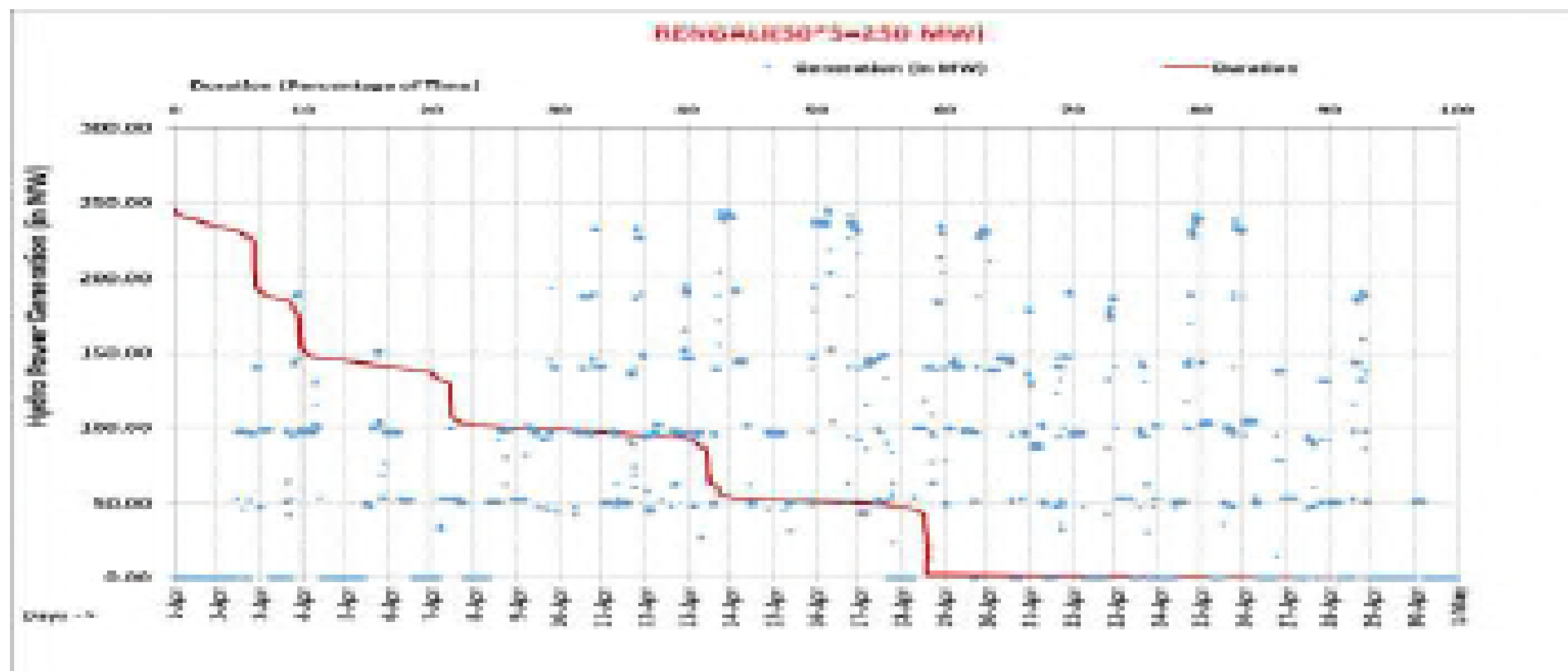
	Long Outage	Forced Outage
Burla	75 : U-5(37.5 mw), U-6(37.5 mw)	U-1(49.5 mw)
Chipilima	24 :U-3 (24mW)	
Rengali		
Balimela	120 : U-1(60 mw) U-2(60Mw)	
Up Kolab	80 : U-2(80 Mw)	
Indravati		
	299	49.5

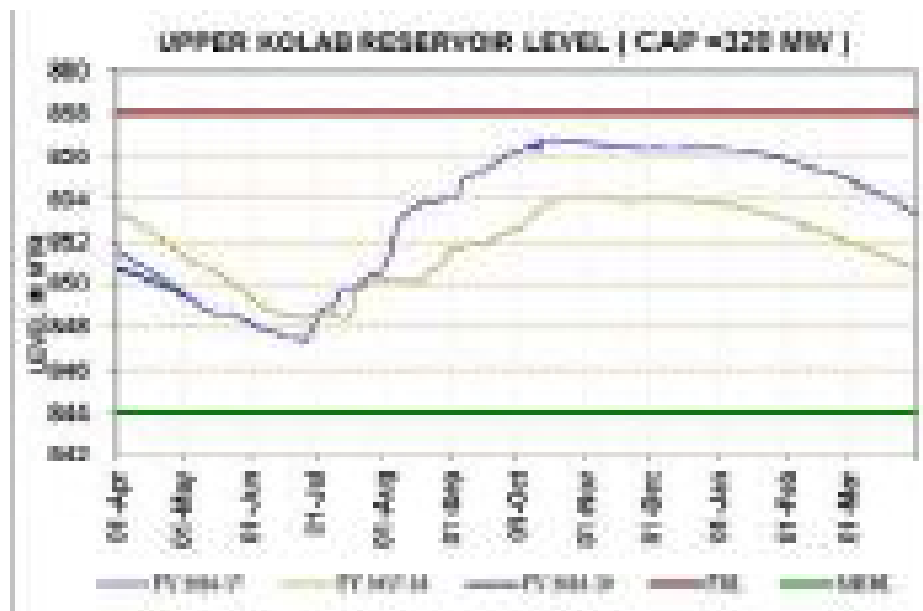
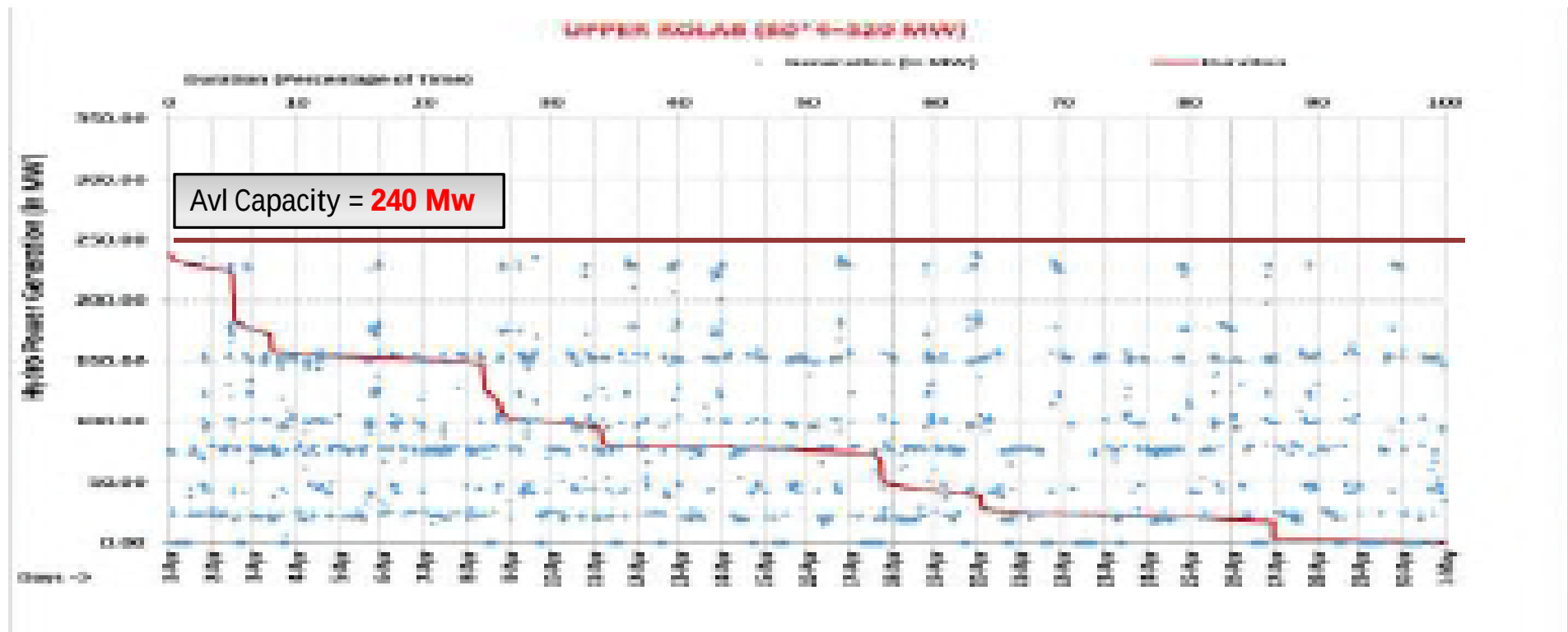


Unit No	Date of Outage	Reason
U - 1	19.11.17(19:00)	Gen. UGB oil temp high
U - 2	01.12.17(08:30)	Annual Maint.
U - 5	25.10.2016	R & M Work
U - 6	16.10.2015	R & M Work



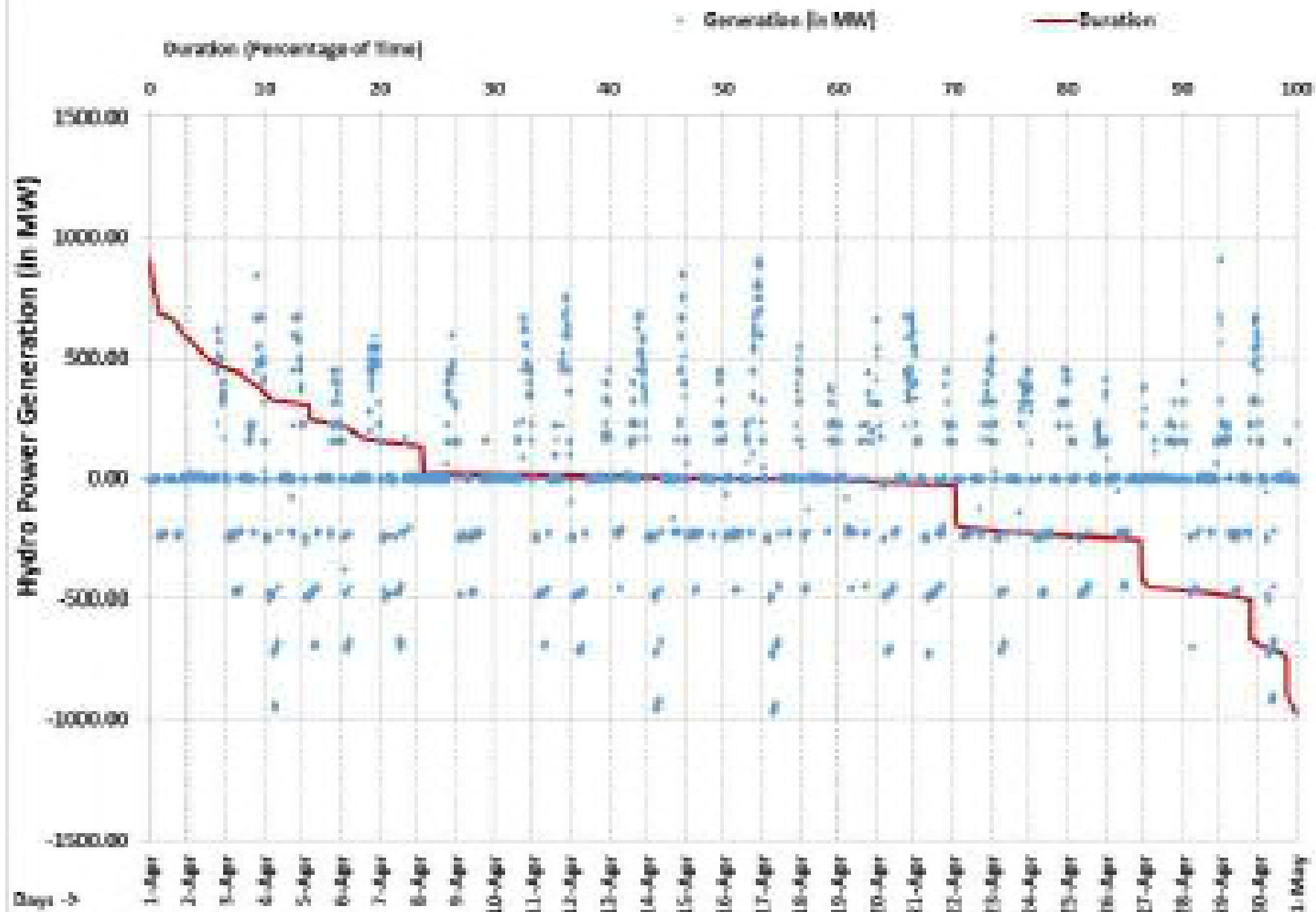
Unit No	Date of Outage	Reason
U – 1(60 MW)	05.08.16	R & M Work
U – 2(60 MW)	20.11.17	R & M Work



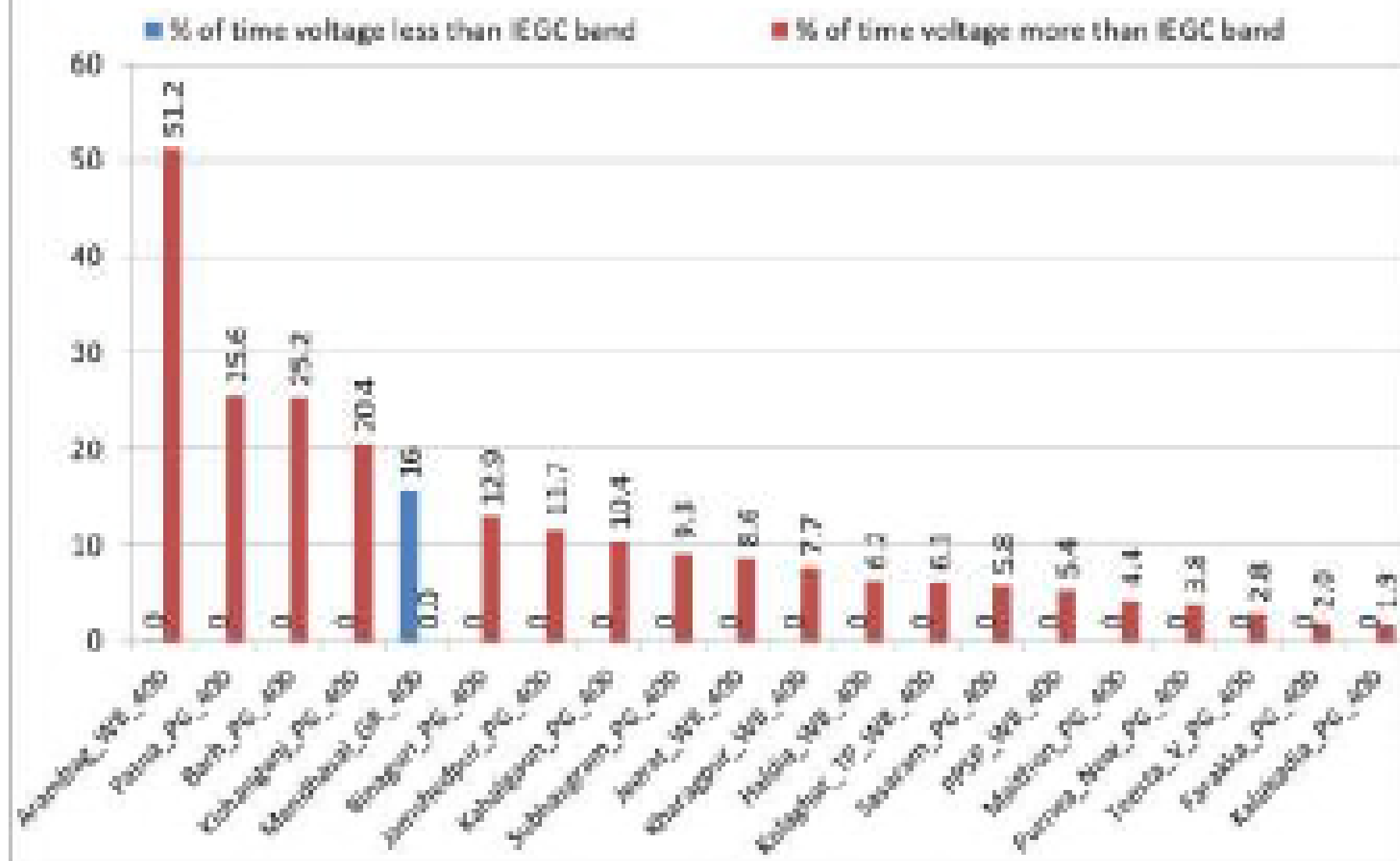


Unit No	Date of Outage	Reason
U – 2(80 MW)	28.05.2017	Repair of MIV & Draft Tube Gate leakage

PPSP GEN / MOT (225*4-900 MW)



Voltage deviation index of various S/S for the Month of April 2018



Statistics of VDI of various S/S* in Eastern Region for April, 2018

% of time	No of S/S having voltage higher than IEGC limit for ...	No of S/S having voltage lower than IEGC limit for ...	No of S/S having voltage not in IEGC band for ...
100%	0	0	0
>= 50% but < 100%	0	1	1
>= 30% but < 50%	0	0	0
>= 10% but < 30%	1	6	7

* For all S/S at 400 kV and above voltage level and selective S/S at 220 kV and lower level where voltage data were available in SCADA for considerable amount of time

Grid Event : HVDC Talcher Kolar Pole 1 tripping and SPS Operation 16-05-2018 15:34 Hrs

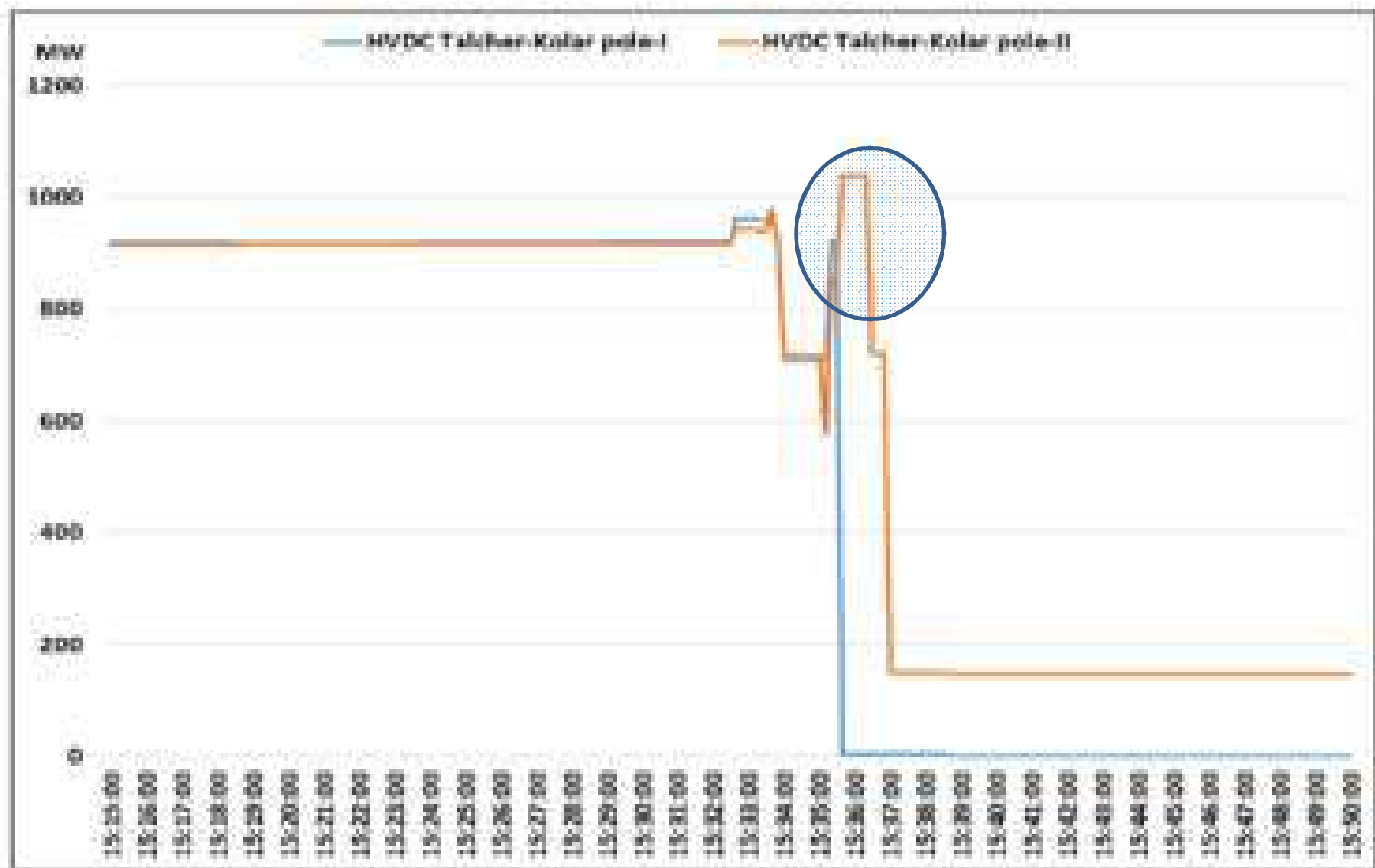
Pre Condition :

- HVDC Power Flow : 2000 MW

Event :

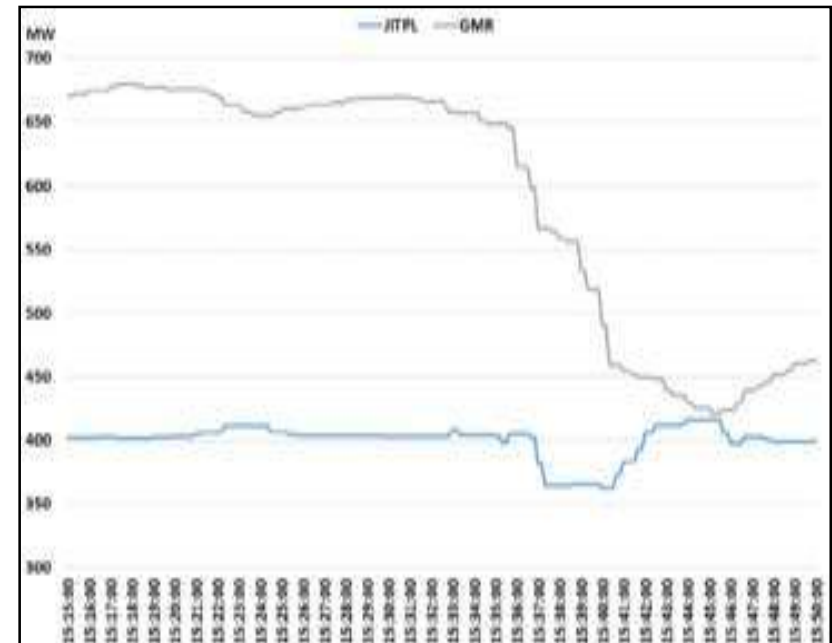
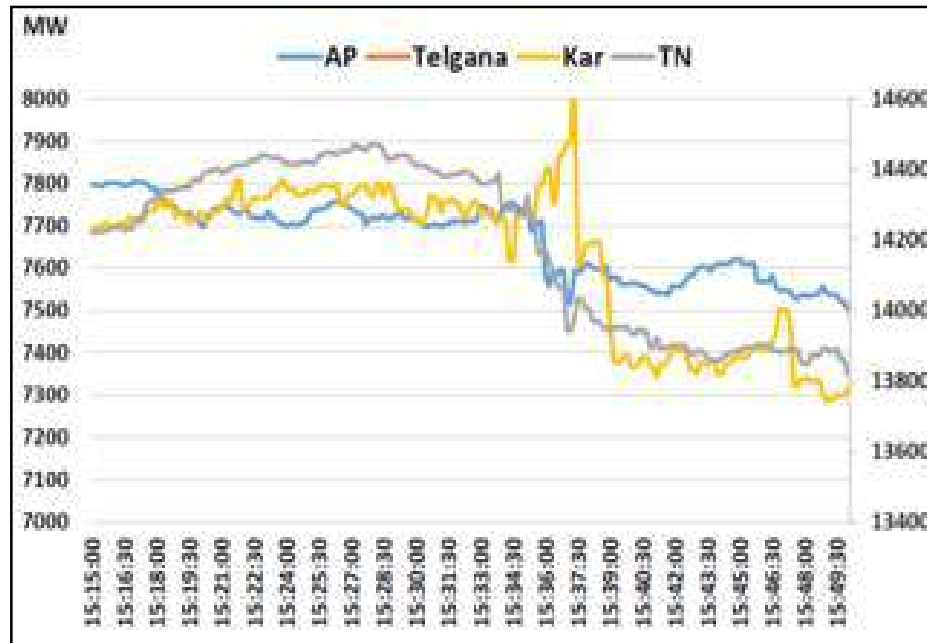
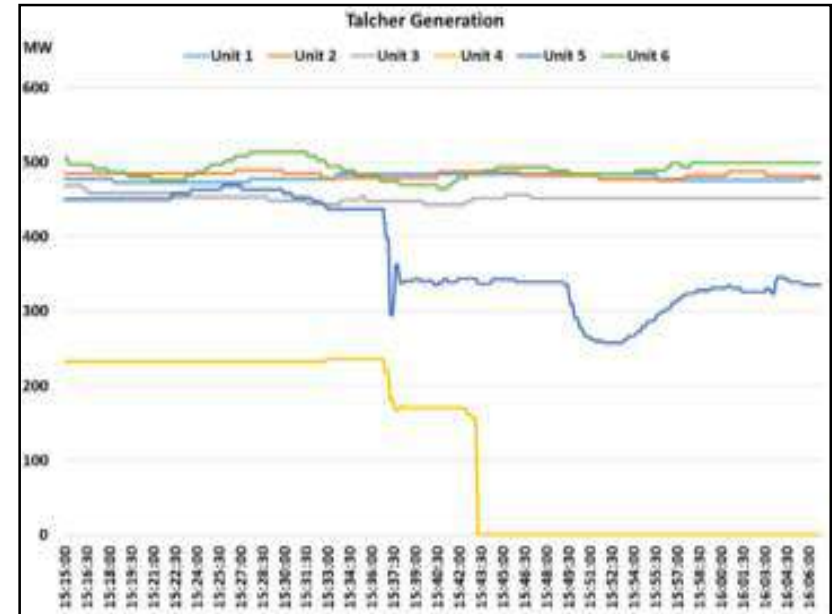
- Transient observed on HVDC T-K.
- RVO mode started in HVDC so power order reduced to 1600 MW.
- After this Power order recovered to 2000 MW however , pole 1 got blocked and other pole went to GRM.
- Which SPS operated is not confirmed by PGCIL ? However based on SCADA data at ERLDC indicated **“Power Flow more than 1600 MW and one pole tripping and other going on GRM”**.

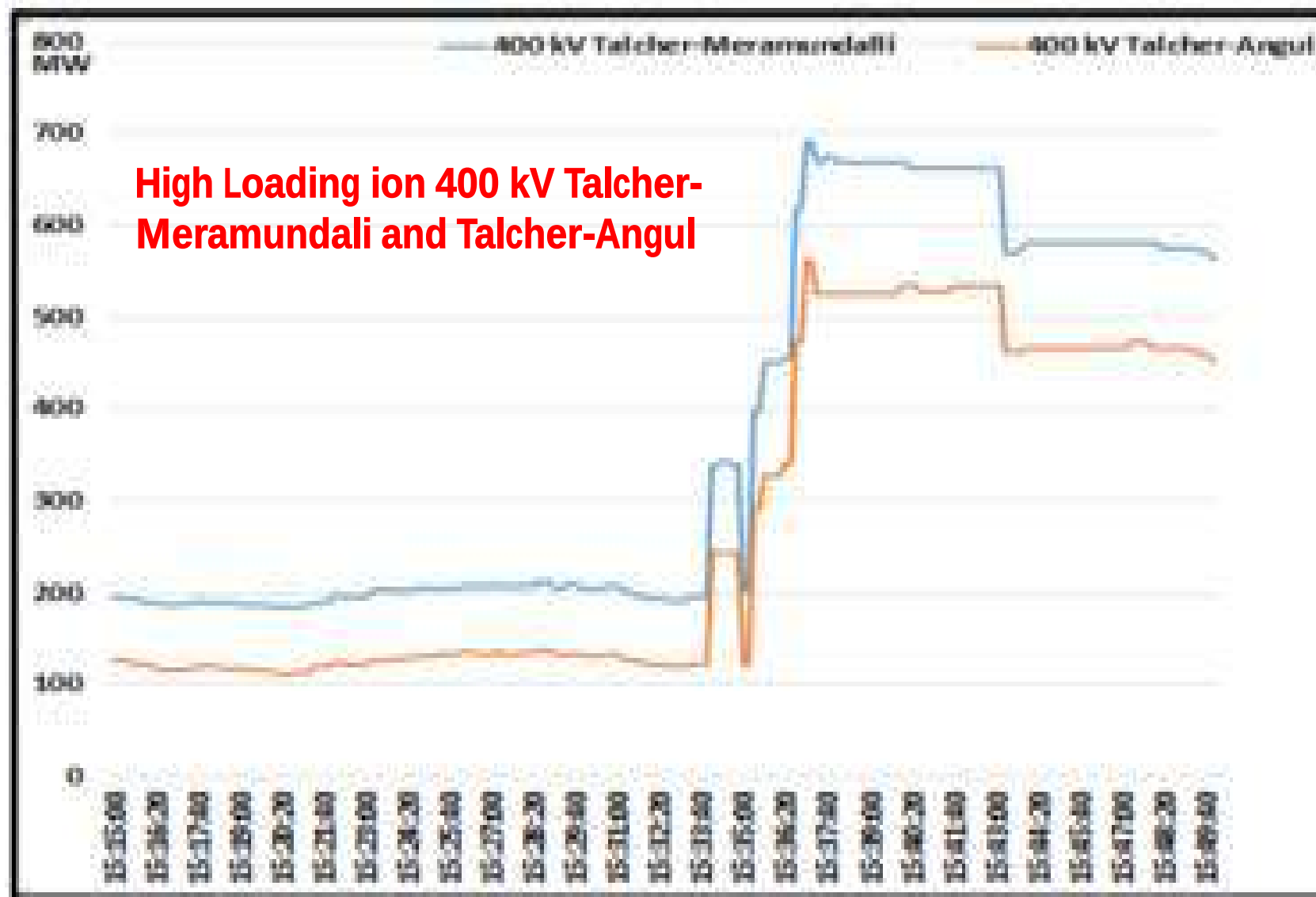
Action in ER Grid	Action in SR Grid
1. Trip one selected Unit of Talcher Stage 2 (In general Unit 6) 2. Fast reduction of 150 MW in Unit 5 3. Fast Reduction of 200 MW generation Reduction each at GMR and JITPL	1655 MW Load Shed in SR



SPS Operation :

- Immediate Load shedding of more than 1000 MW in Southern Region.
- Fast Generation backing down of total 165 MW observed at Talcher in Unit 4 & 5.
- Slow backing down in GMR (10 Min for 200 MW)
- Delayed and inadequate backing down in JITPL and only 40 MW (After 2 Minutes of event)





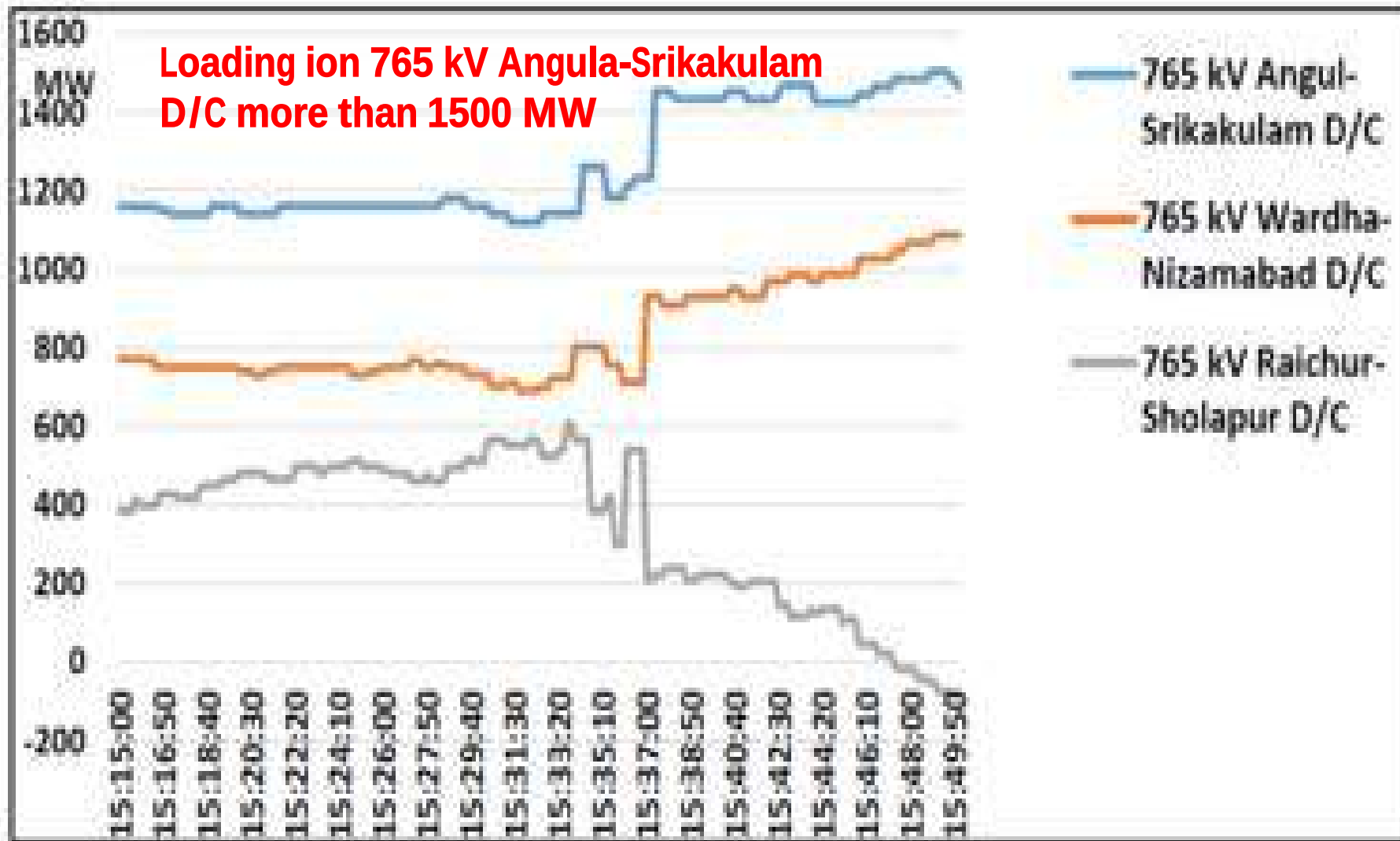
Grid In Stress :

- **Frequency rise by 0.13 Hz : Due to large load shedding and very low generation backing down**
- **N-1 Non Compliance of 400 kV Talcher-Meramundali (700 MW) and 400 kV Talcher Angul (550 MW) : Due to Low backing down at Talcher.**
- **N-1 Non-Compliance for 765/400 kV Vemagiri ICT (Each ICT loaded above 750 MW) :**
Due to low/slow/inadequate backing down in Eastern Region

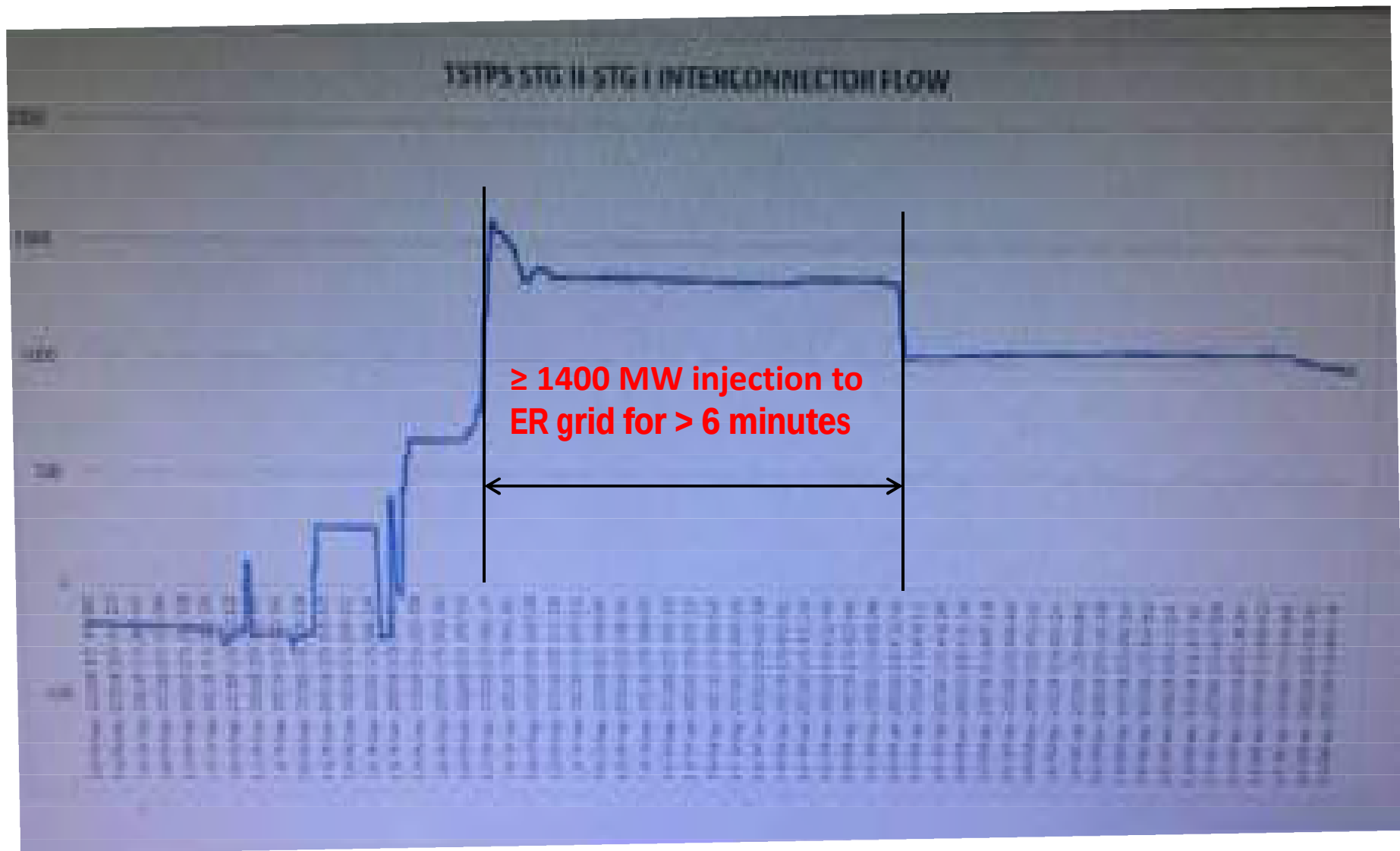
Point of Concern:

- **Why Frequent Tripping of HVDC T-K Pole 1 only (11 times since Jan 2018)**
- **Talcher : Inadequate reduction at Talcher Stage 2.**
- **GMR : Why Delayed reduction in 10 Minutes**
- **JITPL : Why Inadequate reduction and immediate restoration of Generation.**
- **Generation Reduction in Eastern Region need to be reviewed as existing quantum is not sufficient.**

**Loading ion 765 kV Angula-Srikakulam
D/C more than 1500 MW**



Talcher-Stage 1- Stage 2 Inter-connector Flow



Tripping of HVDC T-K Pole 1 (1 Jan 2018 to 18 May 2018)

Element Name	Tripping Date	Tripping Time	Reason	Revival Date	Revival Time
500KV HVDC TALCHER-KOLAR POLE-I	30-Apr-18	20:28	O/V stage II protection operated at Talcher	30-Apr-18	21:33
500KV HVDC TALCHER-KOLAR POLE-I	23-Mar-18	13:31	EXTERNAL PROTECTION OPERATED DUE TO DC MEASUREMENT FAILURE	23-Mar-18	16:05
500KV HVDC TALCHER-KOLAR POLE-I	17-Mar-18	15:12	Reason Awaited	17-Mar-18	21:08
500KV HVDC TALCHER-KOLAR POLE-I	16-May-18	15:35	To GMR	16-May-18	16:15
500KV HVDC TALCHER-KOLAR POLE-I	09-Jan-18	7:52		09-Jan-18	9:04
500KV HVDC TALCHER-KOLAR POLE-I	08-Jan-18	17:48	DC build up protection	08-Jan-18	18:00
500KV HVDC TALCHER-KOLAR POLE-I	08-Jan-18	19:06	PROBLEM IN VALVE HALL	09-01-18	0:54
500KV HVDC TALCHER-KOLAR POLE-I	07-Mar-18	9:38		07-Mar-18	10:29
500KV HVDC TALCHER-KOLAR POLE-I	03-May-18	19:33	DC line fault around 145 KM from Kolar	04-05-18	20:06
500KV HVDC TALCHER-KOLAR POLE-I	02-Mar-18	16:14	Valve cooling problem	02-Mar-18	18:56

Grid Event : Rangpo SPS Non-Operation : 9th May 2018 05:45 Hrs

Annexure-A1.2

Pre Condition :

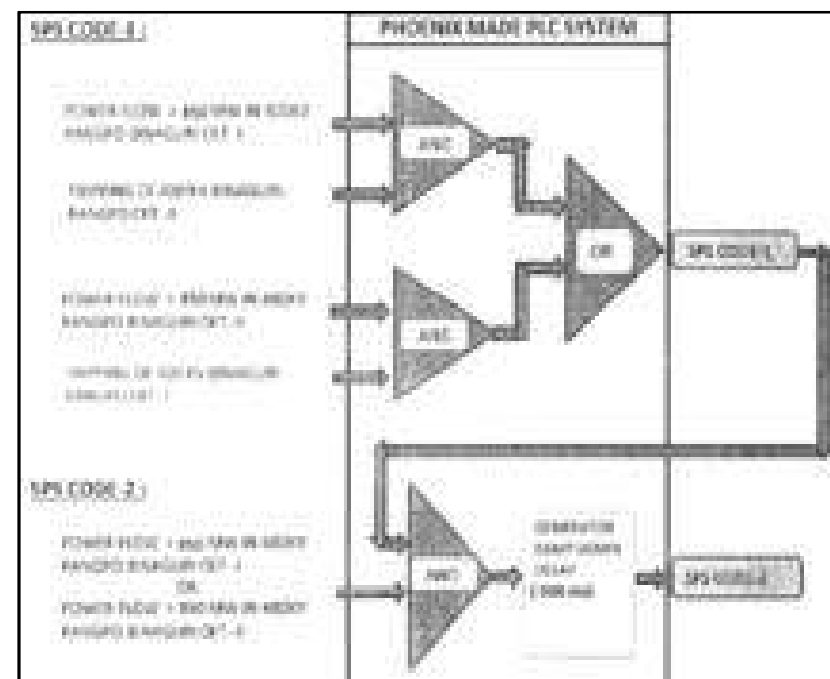
- Loading on 400 kV Binaguri-Rangpo D/C was 1040 MW.

Event

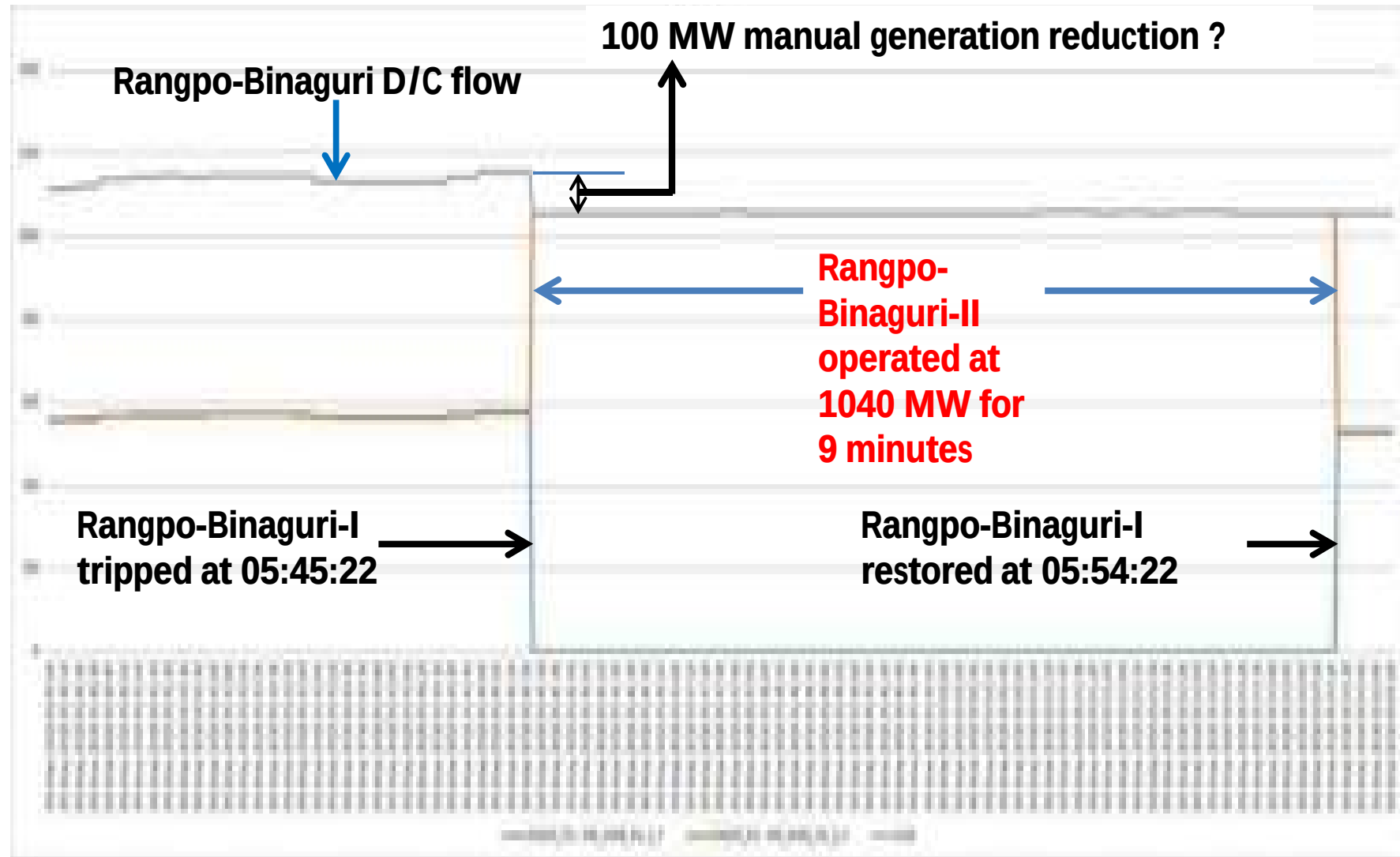
- At 05:45 Hrs, 400 kV Binaguri-Rangpo 1 circuit tripped on R phase to earth fault.
- Circuit tripped from Rangpo end only as got successfully reclosed from Binaguri end.
- Resistive Nature fault.
- **Power flow on other circuit went to 1040 MW for 9 Minutes : NO SPS OPERATION**
- Line was immediately restored by 09:54 Hrs.

Issue of Concern

- **Why the SPS has not operated when condition was satisfied ?** PGCIL May kindly Explain



400 kV Rangpo-Binaguri-II Flow



Frequency Response Characteristic

Eastern Region Last Three Events

**Regional Frequency Response Characteristic for
Last Three Events**

Event	NR	ER	WR	SR	NER*
Event 1 At Kotra in WR (3090 MW Gen Loss)	24.7%	13.4%	25.7%	21.1%	0.0%
Event 2 at Lalitpur in NR	41.2%	24.5%	38.5%	24.6%	26.1%
Event 3 at DSTPS in ER (900 MW Gen Loss)	19.8%	48.8%	24.1%	0.0%	35.2%
Average Response	28.57%	28.90%	29.43%	15.23%	20.43%

What is Adequate Governor Frequency Response

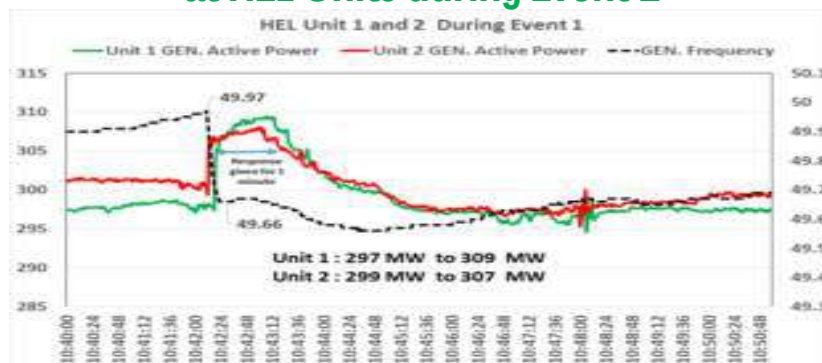


Delta f = 0.13 Hz
 Droop = 5% , MCR = 500 MW
 Ideal Response = $(0.13/50) \times (100/5) \times 500 = 26$ MW
 Actual response = 22.9 MW = Delta P observed
 Actual response as % of Ideal Response = 88 %

Delta f = 0.13 Hz
 Droop = 5% , MCR = 1000 MW
 Ideal Response = $(0.13/50) \times (100/5) \times 1000 = 52$ MW
 Actual response = 42 MW = Delta P observed
 Actual response as % of Ideal Response = 80 %



Adequate Governor Frequency Response Observed at HEL Units during Event 1



- Delta f = 0.31 Hz
- Droop = 5% , MCR = 300 MW (Each Unit)
- Ideal Response = $(0.31/50) \times (100/5) \times 300 = 37.2$ MW
- (However as per RGMO Criteria limited to 1.05 % = 15 MW)
- Actual response Unit 1 = 12 MW ; Unit 2 = 9 MW = Delta P observed
- Actual response as % of Ideal Response = 70 %
- Response is given for only 1 minutes and then withdrawn by ramping down the unit. This may be retained for 4-5 Minutes for Manual action by System Operators

Compliance to IEGC Regulations 5.2 (f), (g), (h) & (i) by ISGS and IPP Generators

NIL Response	JITPL
	Farakka St 3
	Barh
	Teesta 5
	Sterlite
	Teesta 3

Suspected Response and Need detailed Analysis : Talcher Stage 1 and GMR

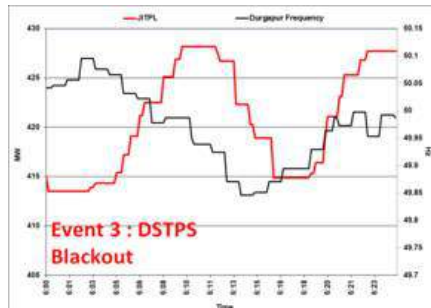
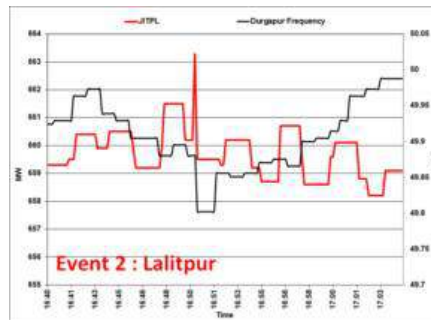
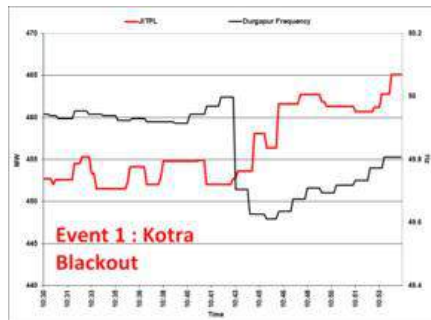
1 - 15 % Response	MPL (1.83 %)
	Farakka St 1 & 2 (5.38 %)
	Kahalgaon St 2 (7.4 %)
	Adhunik (8.54 %)
	Talcher St 2 (11.91 %)
	Kahalgaon St 1 (14.5%)

Compliance to IEGC Regulations 5.2 (f), (g), (h) & (i) by State SSGS

NIL Response	Mejia
	Mejia B
	Bakreshwar
	Indravati
	Kolaghat
	Bandel
	Sagadighi
	DSTPS-Andal
	Santaldih
	DPL

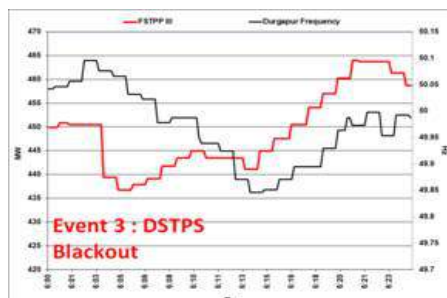
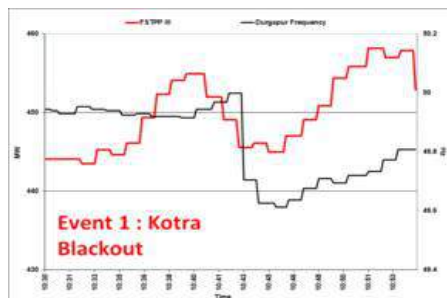
1 - 15 % Response	Chandrapura B (15 %)
	Budge Budge (1.66 %)

JITPL



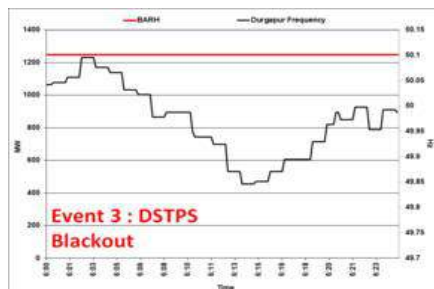
- No Data Submitted as of now.

Farakka Stage 3



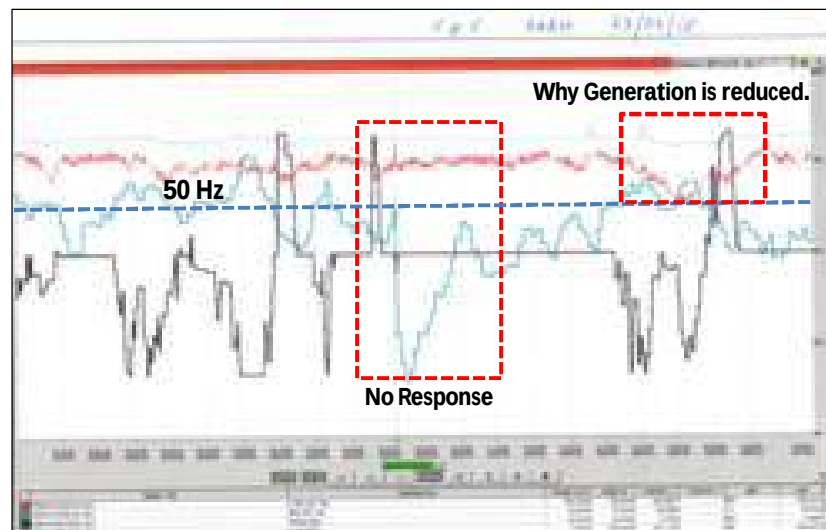
- Negative Response Observed.
- No Data Submitted as of now.

Barh



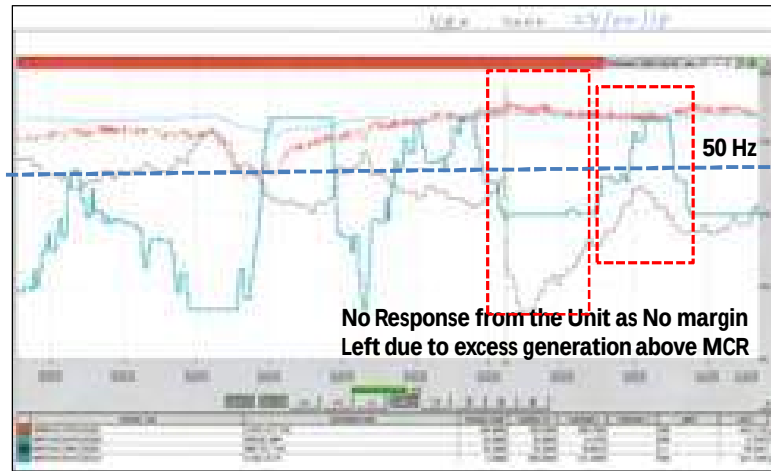
- No Response Observed.
- No Data for Event 3.
- Data Submitted for only event 1.

Barh Unit 5 Response for Event 1



- No Response from The Unit 5.
- Generation reduction observed when the frequency fall is not sharp and that to not Primary response.

Barh Unit 4 Response for Event 1



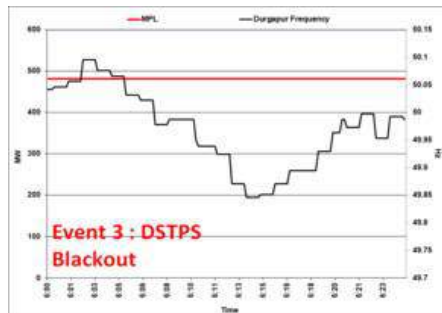
- No Response observed from The Unit 4 as it was generating 673 MW (Installed Capacity 660 MW)
- Margin for RGMO Response is there even if load set point is 675 MW (1.05 % is 693 MW)

Teesta 5



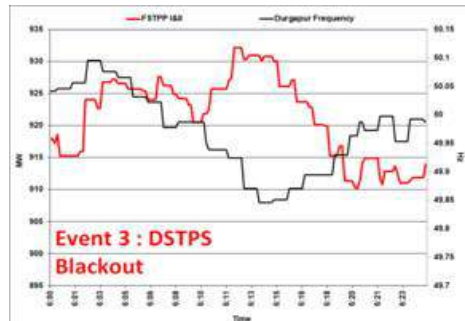
- No Response
- No Data Submitted as of now.

MPL



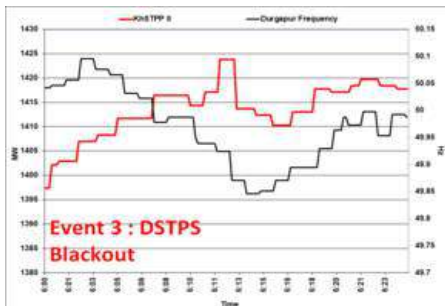
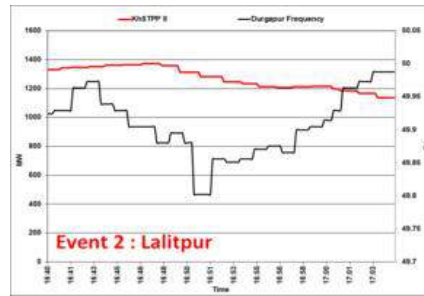
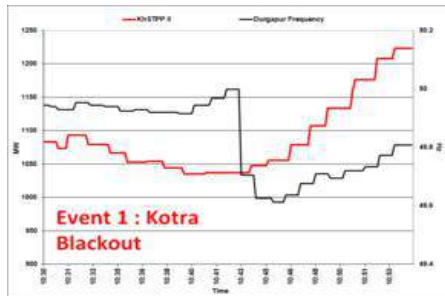
- No Response observed.
- Data submitted only for event 1 where no Response observed.
- Technical issue were sighted during Event 1 however, during event 2 also response is not observed.

Farakka Stage 1 and 2



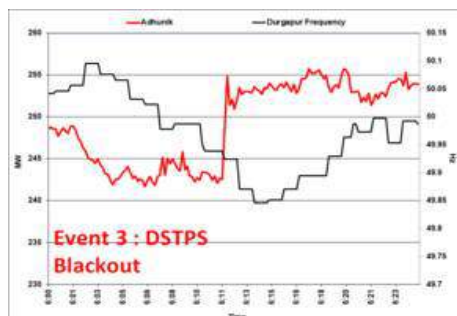
- No Data Submitted as of now.

Kahalgaon Stage 2



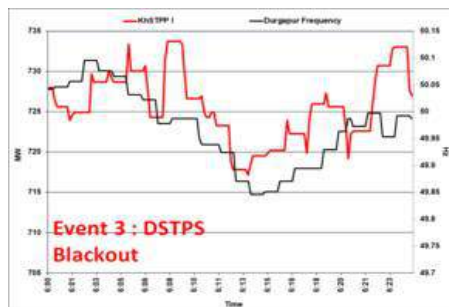
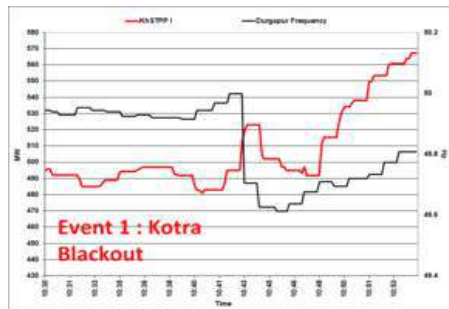
- No Data Submitted as of now.

Adhunik



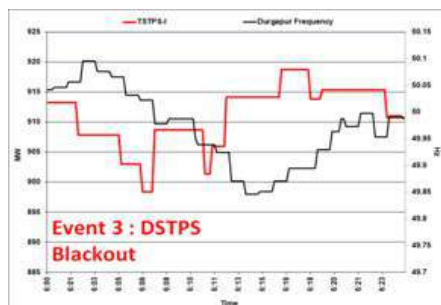
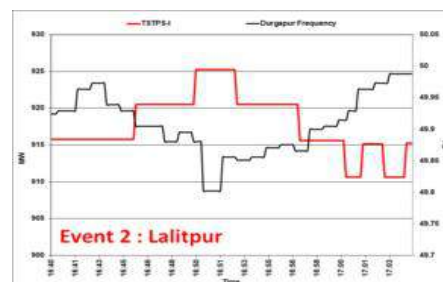
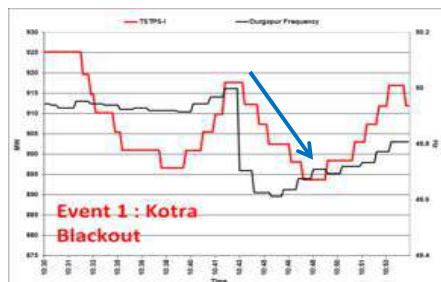
- Response Observed in Event 2 and 3.
- No Response for Event 1
- Data not submitted for any events.

Kahalgaon Stage 1



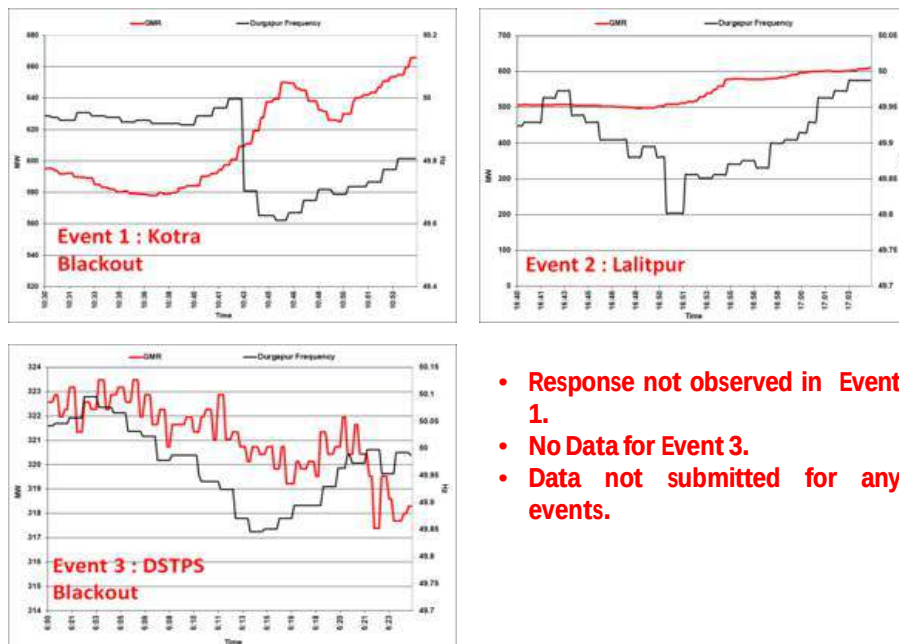
- Response not observed in Event 2 and 3.
- Response In Event 1 observed however withdrawn in 2 minutes.
- Data not submitted for any events.

Talcher Stage 1



- Inadequate or negative Response observed.
- Data not submitted for any events.

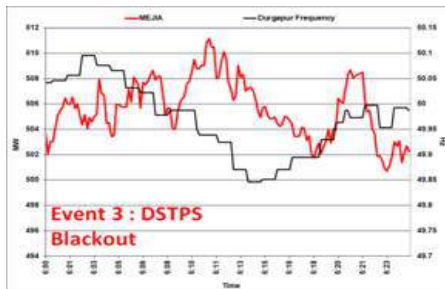
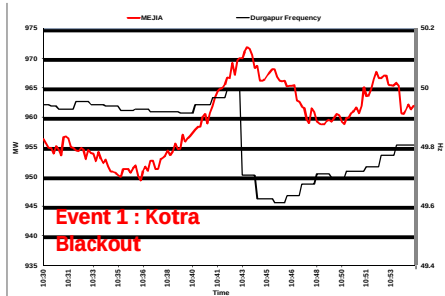
GMR



- Response not observed in Event 1.
- No Data for Event 3.
- Data not submitted for any events.

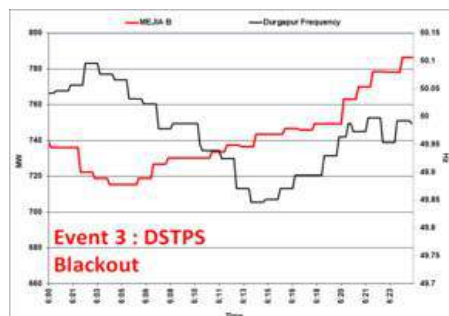
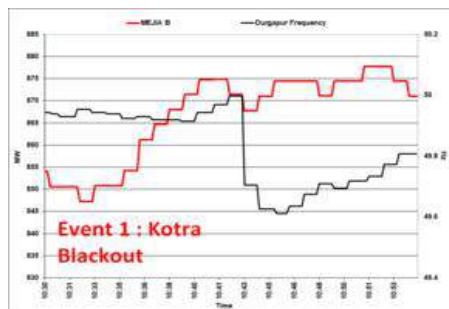
SSGS

Mejia



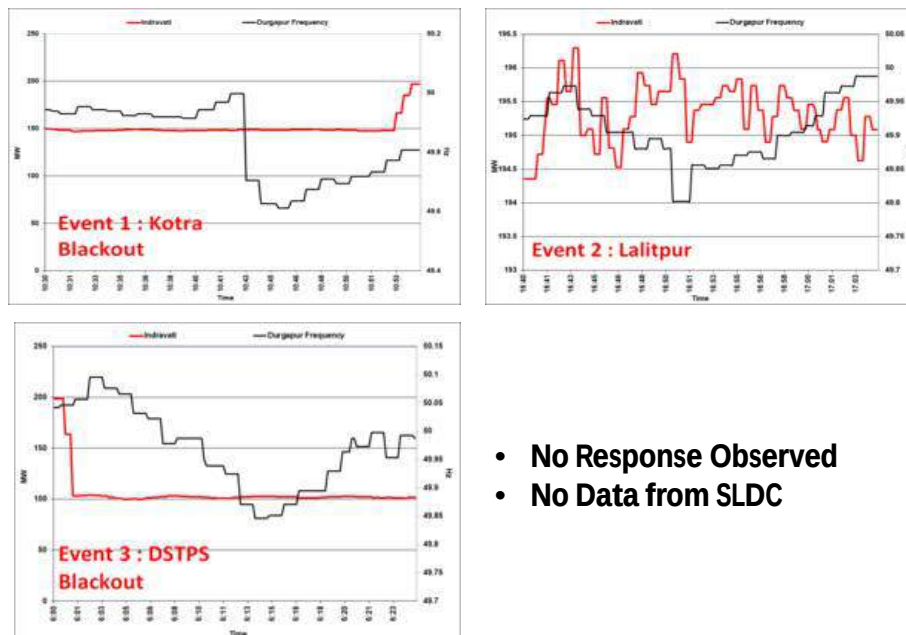
- No Response Observed
- DVC Submitted Data but not for 1 second interval

Mejia B



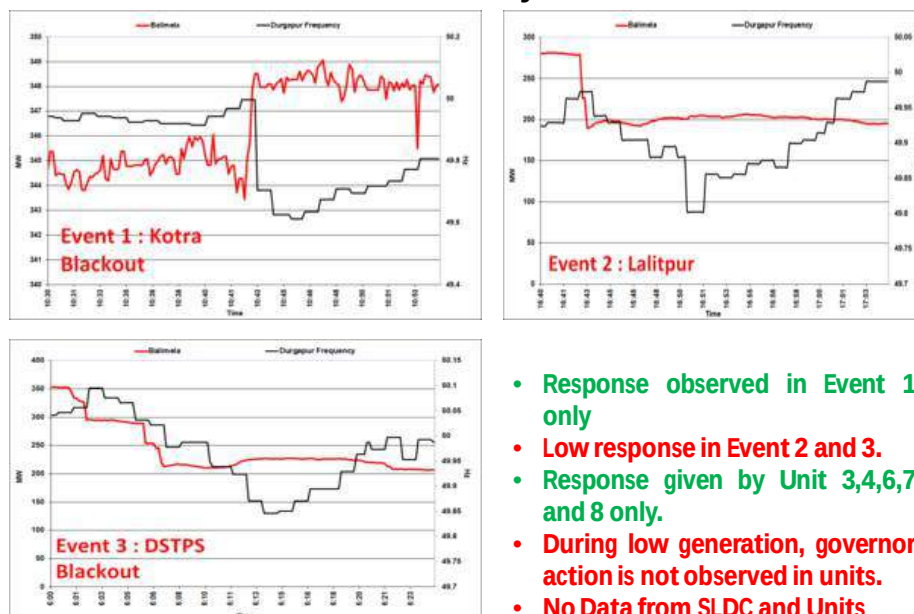
- No Response Observed
- DVC Submitted Data but not for 1 second interval

Indravati



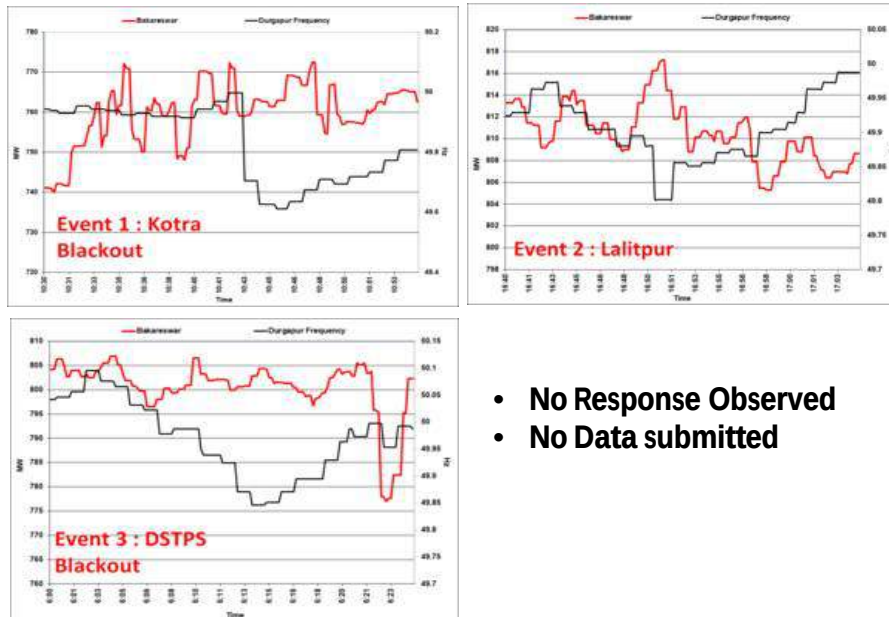
- No Response Observed
- No Data from SLDC

Balimela Hydro



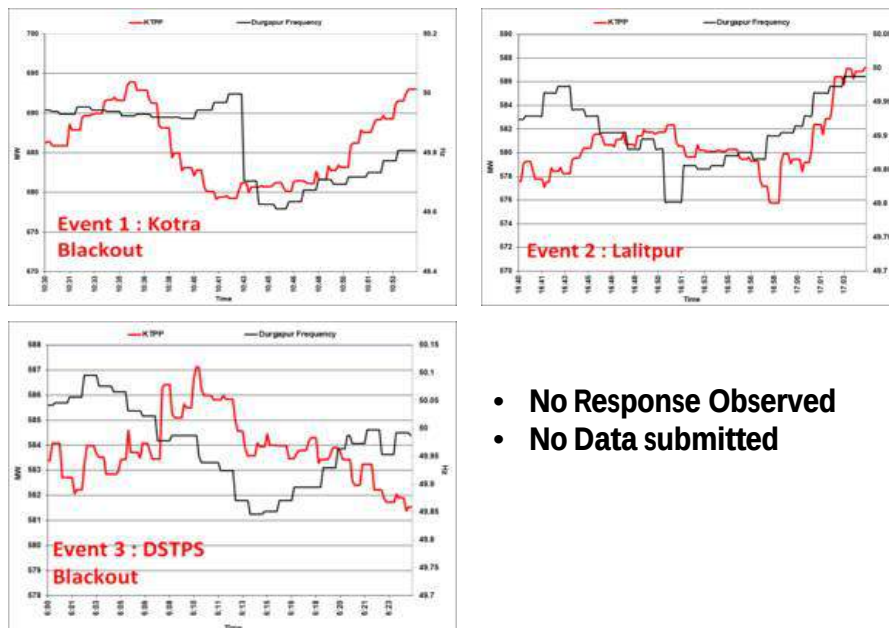
- Response observed in Event 1 only
- Low response in Event 2 and 3.
- Response given by Unit 3,4,6,7 and 8 only.
- During low generation, governor action is not observed in units.
- No Data from SLDC and Units

Bakareswar



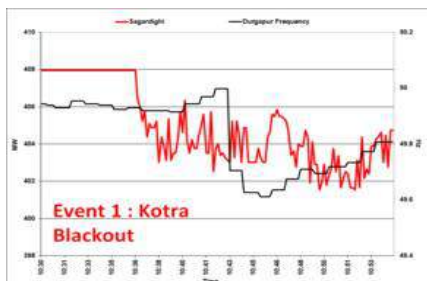
- No Response Observed
- No Data submitted

Kolaghat



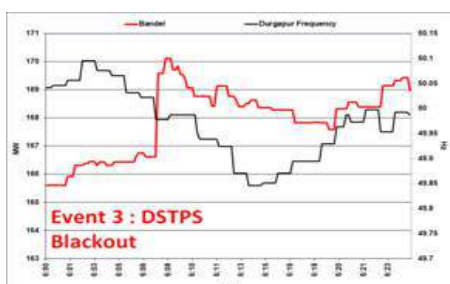
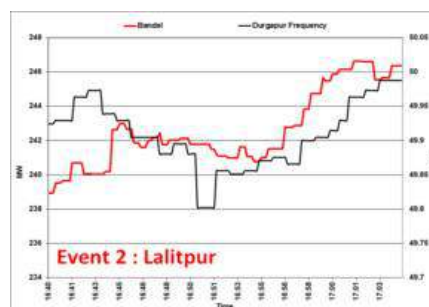
- No Response Observed
- No Data submitted

Sagardighi



No Response Observed

Bandel



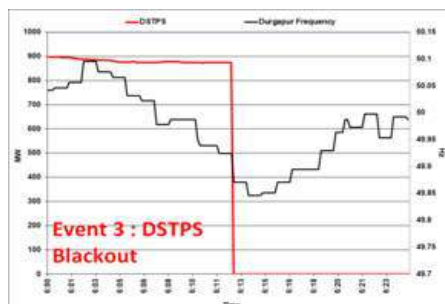
No Response Observed
from Unit 5

Chandrapura B



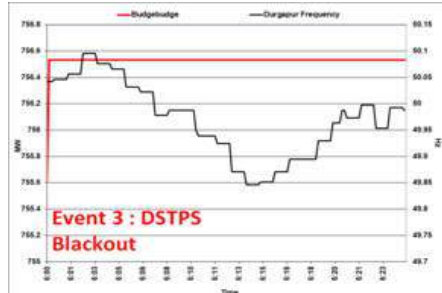
- Response observed in all events.
- Average Response is 15 %
- However, the Response is mainly due to Ramping as seen in plots than RGMO.
- Need verification from actual data from Plant

DSTPS -Andal



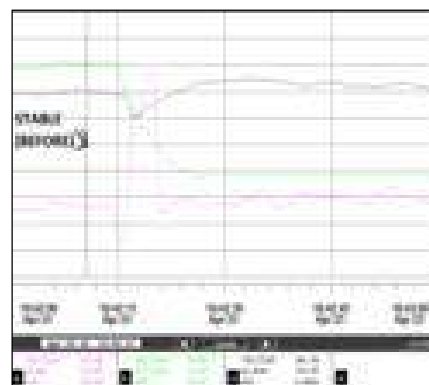
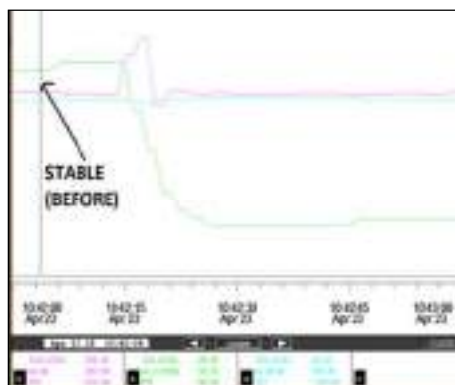
- No Response Observed from both units
- Negative Response observed for event 1 from DCS data of DVC of 10 second interval.
- DVC to submit 1 second interval data.

Budge Budge



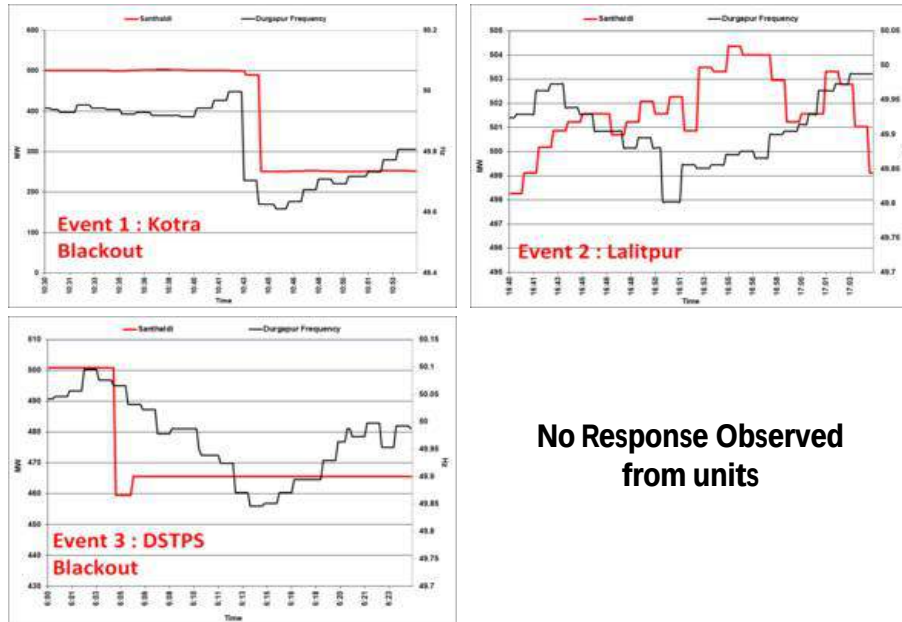
- Station Data was also analyzed.
- Response is there but not correct.
- Response is given in first 10 seconds and in next 10 seconds it is withdrawn.

Budge Budge Response during Event 1 based on Plant Data



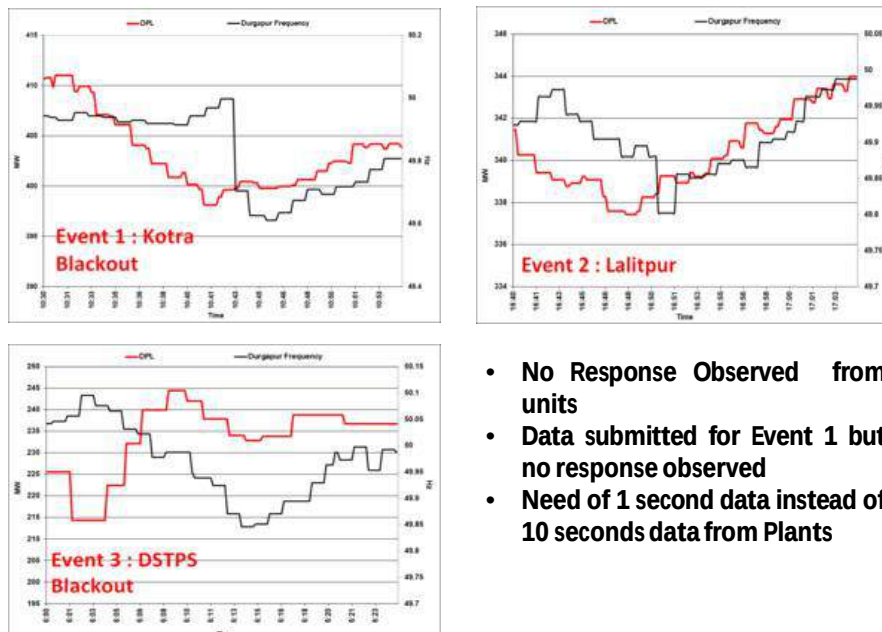
Response is given in first 10 seconds and in next 10 seconds it is withdrawn.

Santaldih

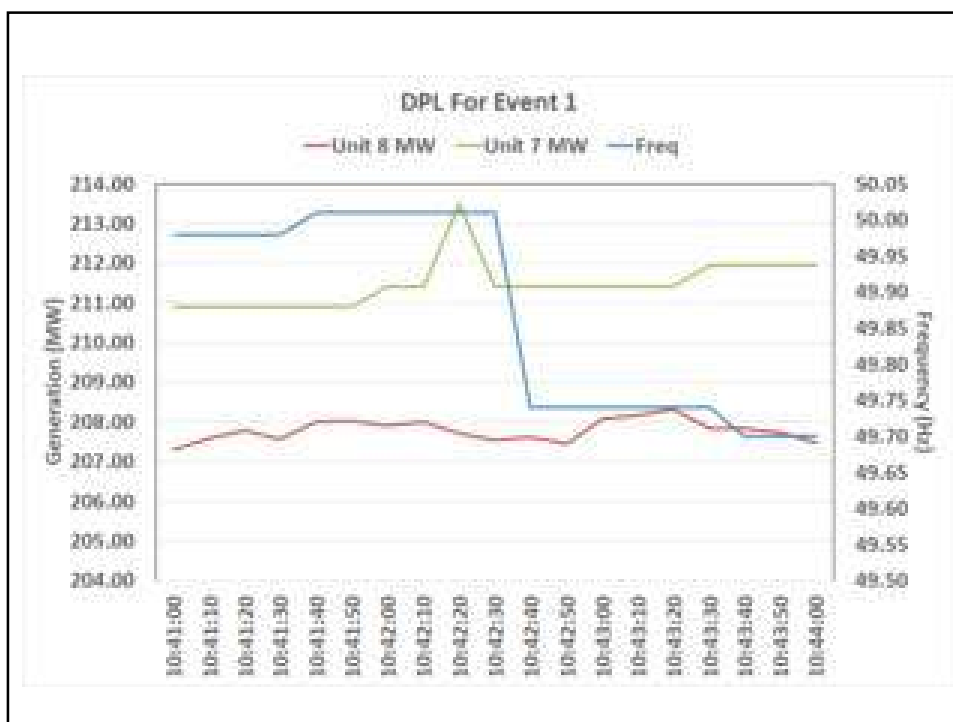


No Response Observed from units

DPL



- No Response Observed from units
- Data submitted for Event 1 but no response observed
- Need of 1 second data instead of 10 seconds data from Plants



**FGMO Response Observed
in Some Units**

Tenughat



- Response observed in all events.
- Average Response is 23 %
- Response however withdrawn in 2 minutes.

VDI of Selected 765 kV & 400 kV in Eastern Region in the month of April - 2018

नई रांची / Ranchi New			जमशेदपुर / Jamshedpur			मुजफ्फरपुर / Muzaffarpur		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
797	783	0.00	426	406	22.68	421	386	0.09

बिहार शरीफ / Bihar Sariff			बिनागुरी / Binaguri			जैरत / Jeerat		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
425	398	1.51	428	397	13.45	428	383	8.61

राउरकेला / Rourkela			जयपुर / Jeypore			कोडरमा / Koderma		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
411	402	0.00	430	372	1.41	424	402	1.01

मैथन / Maithon			तेस्ता / Teesta			रांगपो / Rangpo		
MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)	MAX	MIN	VDI (% of Time)
425	405	4.87	426	398	3.38	424	379	0.66

पावर सिस्टम ऑपरेशन कर्पोरेशन लिमिटेड

(भारत सरकार का उद्यम)

POWER SYSTEM OPERATION CORPORATION LIMITED

(A Government of India Enterprise)



Eastern Regional Load Despatch Centre: 14, Golf Club Road, Tollygunge, Kolkata-700 033.

CIN: U40105DL2009GOI188682

फ़ोन: 033- 24235755, 24174049 फ़ैक्स : 033-24235809/5029 Website: www.erldc.org, Email ID- erldc@posoco.in

No. ERLDC/SS/Islanding/2018/ 672

Date: 09th May, 2018

To,

- | | |
|--|--|
| 1. GM (O&M), KBUNL St-II, Kanti Thermal,
Muzzafarpur Bihar 843100 | 2. Chief Engineer, SLDC, BSPTCL, 4th Floor,
Vidyut Bhawan, Bailey Road, Patna-Bihar
800001 |
|--|--|

Sub: - Detailed information required for developing the islanding scheme of KBUNL St-II

Ref: Minutes of 144th OCC Meeting of Easter Region Dated 02.05.2018

Dear Sir,

As you are kindly aware, during 144th OCC meeting held on 19-04-18 at ERPC Kolkata, it was decided that ERLDC will prepare draft islanding scheme of KBUNL St-II. Further BSPTCL and NTPC were advised to share all the required details with ERLDC. The concerned utilities are therefore requested to furnish the following details:

Information required from KBUNL St-II:-

- Unit Governor status and droop setting
- Switchyard diagram with present and future element clearly indicating the element under outage (if any) and plan for implementing bus sectionalizer (if any)
- Minimum load at which unit can run stably
- Maximum overload at which unit can run stably
- Maximum ramp-up rate
- Maximum ramp down rate
- Maximum frequency at which unit can run stably
- Minimum frequency at which unit can run stably
- Total station auxiliary load that KBUNL will consume at the time of islanding

Information required from BSPTCL:-

- Maximum, minimum and average load along with details of UFR installed at:-
 - 132 kV Muzzafarpur, 132 kV SKMCH, 132 kV Vaishali, 132 kV Motihari, 132 kV Samastipur, 132 kV Motipur, 132 kV Goplaganj,
 - Detailed single line diagram of the power system in and around Muzzafarpur, Motihari, and Darbhanga clearly indicating all 400 kV, 220 kV, and 132 kV lines along with BSPTCL lines which are normally kept open, substations where the bus is split to feed some other load.
 - List of lines emanating from KBUNL which have communication facility OPGW or PLCC.

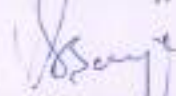
Contd...2

You are kindly requested to provide the above information at the earliest, so that the draft islanding scheme can be placed in upcoming OCC meeting scheduled on 21st May 2018.

Soliciting your kind corporation

Thanking you,

Yours faithfully,



Surajit Banerjee
DGM(SO/SS/C&M)

Copy for kind information: MS, ERPC Kolkata

Quarterly Preparedness Monitoring -AGENDA

(Status as on :
)

S.No.	State	Sector (G/T/D)	Utilities	Status of CISO Nomination	Critical Infra Identified	Crisis managem ent Plan Prepared	Status of CS mock drill	Status of Training/ Workshops organized/ participated by utility	Action taken on CERT- In/NCIIPC Advisories
1	Tamilnadu	T	TANGEDCO	Yes/No	Yes/No	Yes/No	Done on _____		

Darbhanga-Motihari Transmission Co.Ltd.

Site office: 400/220kV GIS Substation, KunwarEitUdyog, Dekuli village, Laheriasarai, Darbhanga District, Bihar - 846001

Ref: DMTCL/O&M/ERLDC/2018/1

Date: 22/04/2018

To,

DGM (SO),

Power System Operation Corporation Ltd.,

Kolkata.

Kind Attn.: Mr. Surajit Benerjee

Reference: ERLDC/2018/SO/114 dated 10/04/2018

Subject: Unreliable operation at Motihari (DMTCL) S/S

Dear Sir,

With reference to subject above and refer letter the point wise clarifications are as under.

- On date 07/04/2018 at 09:56 Hrs. the load of 400/132KV Motihari substation was being feed from 400KV Barh – Motihari circuit No.1 & 2, however 400KV Gorakhpur circuit No.1 & 2 was in de-energized condition. The relay indications at the time of incident are as under.
400KV Barh–Motihari Circuit No.1 & 2: Phase – Y & B, Zone – 4 at Motihari end and Phase – Y & B, Zone – 2 at Barh end.
Being a reverse zone i.e. Zone – 4 fault at Motihari end and Zone – 2 fault at Barh end the said line has tripped with respective time delay.
- On date 07/04/2018 at 18:25 Hrs. the load of 132KV system was being feed from 400/132KV, 200MVA ICT No.1 and ICT No.2 was out of service due to breaker problem which has resulted into overloading of transformer and subsequent tripping. The problematic breaker attended at 18:50 Hrs. and 400/132KV, 200MVA put back in service.



Registered Office: Essel House B-10, Lawrence Road, New Delhi - 110035
Corporate Office: 6th floor, Plot No. 19 & 20, Film City, Sector 16-A, Noida, Uttar Pradesh -201301
| www.esselinfraprojects.com
CIN: U40300DL2012GOI246371

Darbhanga-Motihari Transmission Co.Ltd.

Site office: 400/220kV GIS Substation, KunwarEitUdyog, Dekuli village, Laheriasarai, Darbhanga District, Bihar - 846001

- The main CBs of 400KV Barh circuit No.1 and 400KV Gorakhpur circuit No.1 is now in service form 08/04/2018, however 125MVAR bus reactor is in service form its respective tie breaker.

The 400KV Gorakhpur circuit No.2 is out of order due to Sf6 gas leakage. OEM has also visited for the assessment work and same to be attend within one and half month.

- The concern DMTCL executives are instruct to present the OCC/PCC meetings of ERLDC/ERPC for proper coordination,

This is for your information please,

Thanking You,

Yours faithfully,

For Darbhanga-Motihari Transmission Company Ltd.



POWER QUALITY ISSUE

HARMONICS AT TRANSMISSION
LEVEL

"Evolution" of Power Factors

With linear vs. nonlinear loads

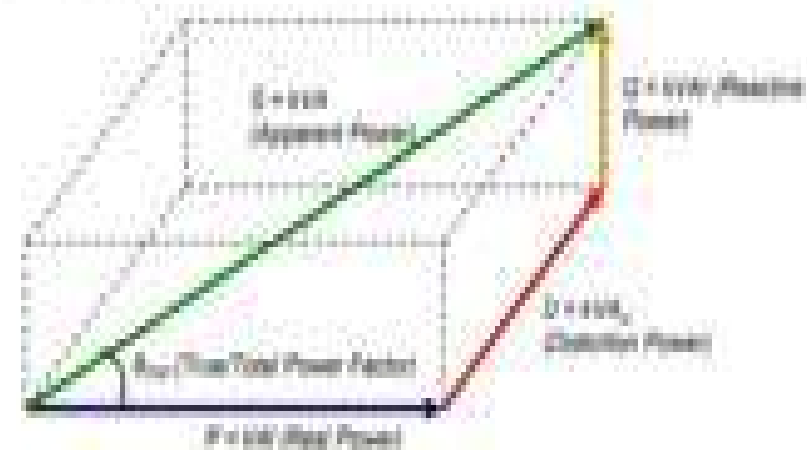
Electrical system with **linear** loads



$$S(kVA) = \sqrt{P^2 + Q^2} = \sqrt{(kW)^2 + (kVAR)^2}$$

$$\text{power factor, cos } \theta = \frac{P}{S} = \frac{kW}{kVA}$$

Electrical system with **nonlinear** loads



$$S(kVA) = P_{tot} I_{tot} = \sqrt{P^2 + Q^2 + D^2}$$

True/Total Power Factor: $\cos \theta_{tot} = \cos \theta_{fund} \cos \theta_{harm}$

Displacement Power Factor (Fundamental Component): $\cos \theta_{fund} = \frac{kW}{kVA_{fundamental}}$

Distortion Power Factor (Harmonic Component): $\cos \theta_{harm} = \frac{1}{\sqrt{THD^2 + 1}}$

Effects of Harmonics

Different Perspectives

Engineering Perspective

- nuisance tripping of circuit breaker
- Harmonic resonance
- Capacitor bank failure
- Excessive heating
- Transformer overheating
- Skin effects on cables for higher harmonic orders
- Motor winding burnt (short) & humming
- Neutral overloading (double neutral)
- Causing EMI to sensitive system
- Problems to generators

Business Perspective

- Increased maintenance and replacement cost (OPEX)
- Interruptions and downtime cost
- Reduced system capacity and thus increase CAPEX by unnecessary expansion

As per CEA Grid standard clause 3.2 “ *The transmission licensee shall ensure that the voltage wave-form quality is maintained at all points in the Grid by observing the limits given in Table 5 below, - “*

S.No	System Voltage (kV <u>rms</u>)	Total Harmonic Distortion (%)	Individual Harmonic of any particular Frequency (%)
1	765	1.5	1
2	400	2	1.5
3	220	2.5	2
4	33 to 132	5	3

IEEE STD 519-2014

Table 4—Current distortion limits for systems rated ≥ 161 kV

Maximum harmonic current distortion in percent of I_L						
Individual harmonic order (odd harmonics) ^{a,b}						
I_h/I_L	$1 \leq h \leq 11$	$11 \leq h \leq 17$	$17 \leq h \leq 23$	$23 \leq h \leq 37$	$37 \leq h \leq 50$	TDD ^c
$< 25^d$	1.0	0.5	0.35	0.15	0.1	1.5
$25 \leq 50$	1.0	1.0	0.75	0.3	0.15	2.5
≥ 50	1.0	1.5	1.15	0.45	0.22	3.75

^aEven harmonics are limited to 25% of the odd harmonic limits shown.

^bCurrent distortions that result in a dc offset, e.g., half-wave converters, are not allowed.

^cAll power generation equipment is limited to these values of current distortion, regardless of actual I_h/I_L .

where

I_h = maximum short-circuit current at PCC

I_L = maximum demand load current (fundamental frequency component)
at the PCC under normal load operating condition



UPTO 50TH HARMONICS HAVE TO CONSIDER

DISCUSSION

- THD calculated using DR data and pre-fault portion only.
- But sampling rate is insufficient to capture 50th harmonics. So increased manually.
- This may be a source of error. But in many substation even with the base DR sample rate high harmonics is found.

Reference:

- 1) IEEE_STD_519_1992vs2014
- 2) http://www.powergrid.in/sites/default/files/footer/climate_change/Swachh_Power.pdf
- 3) https://www.cpsenergy.com/content/dam/corporate/en/Documents/PUCT_PowerQuality_requirements.pdf

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TATA

Overview on PGCIL AMR (ER)
18-May-2018

TCS Internal

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Total Sub Stations and SEM Meters (Utility wise) which are now connected with AMR system				
SL No	Utility	Region	Total Sub Station	Total SEM Meter
1	Power Grid	ER-II	12	145
2	Power Grid	ER-I	13	205
3	Power Grid	Odisha	10	95
4	NTPC	ER-II	1	34
5	NTPC	ER-I	3	79
6	NTPC	Odisha	3	43
7	DVC	ER-II	8	32
8	DVC	ER-I	5	13

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TCS Internal

2

Total Sub Stations and SEM Meters (Utility wise) which are now connected with AMR system (contd.)

SL No	Utility	Region	Total Sub Station	Total SEM Meter
9	IPP	ER-II	4	28
10	IPP	Odisha	2	20
11	NHPC	ER-II	2	21
12	WBSEB	ER-II	13	29
13	CESC	ER-II	1	2
14	GRIDCO	ER-II	19	39

Total Sub Stations and SEM Meters (Utility wise) which are now connected with AMR system (contd.)

SL No	Utility	Region	Total Sub Station	Total SEM Meter
15	SIKKIM	ER-II	4	20
16	BSEB	ER-I	28	59
17	DMTCL	ER-I	2	30
18	JSEB	ER-I	15	30

- Total number of substations : 147
- Total no of Meters : 924
- Total Utility : 12

Data Communication through SIM

DCU sends meter data from Sub Stations to AMR system at ERLDC via GPRS where GPRS signal strength is good (signal strength is more than 30 %).

Some of the scenarios has been enlisted where the issue with GPRS signal .

- Very poor GPRS signal strength .
- GPRS signal strength varies as per the weather condition .
- In some remote locations GPRS is very poor or there is no GPRS signal strength.
- Intermittent GPRS signal strength fluctuation .

Due to above reasons , DCU is not able to send the data to AMR system from some locations .

At present , In-order to resolve above issues , PGCIL LAN can be used as replacement of GPRS SIM .

Total Sub Stations details which can be integrated with PGCIL LAN

LAN connection is available at PGCIL and NTPC Sub Station locations cover under ER-II , ER -I , and Odisha .

Utility	Region	Total Location	Total Meter
Power Grid	ER-II	12	145
Power Grid	ER-I	13	205
Power Grid	Odisha	10	95
NTPC	ER-II	1	34
NTPC	ER-I	3	79
NTPC	Odisha	3	43

Total Sub Stations details which can be integrated with PGCIL LAN (contd.)

The overall details of Locations and Meters which can be Integrated with PGCIL LAN .

- Total number of PGCIL locations : 35
- Total Number of Meters in PGCIL : 445
- Total number of NTPC Locations : 7
- Total number of NTPC Meters : 156
- If all locations of PGCIL and NTPC in ER are integrated with PGCIL LAN , then total 42 locations (29 % of Total Locations) and total 601 SEM meters (65 % of total Meters) could be connected through PGCIL LAN .

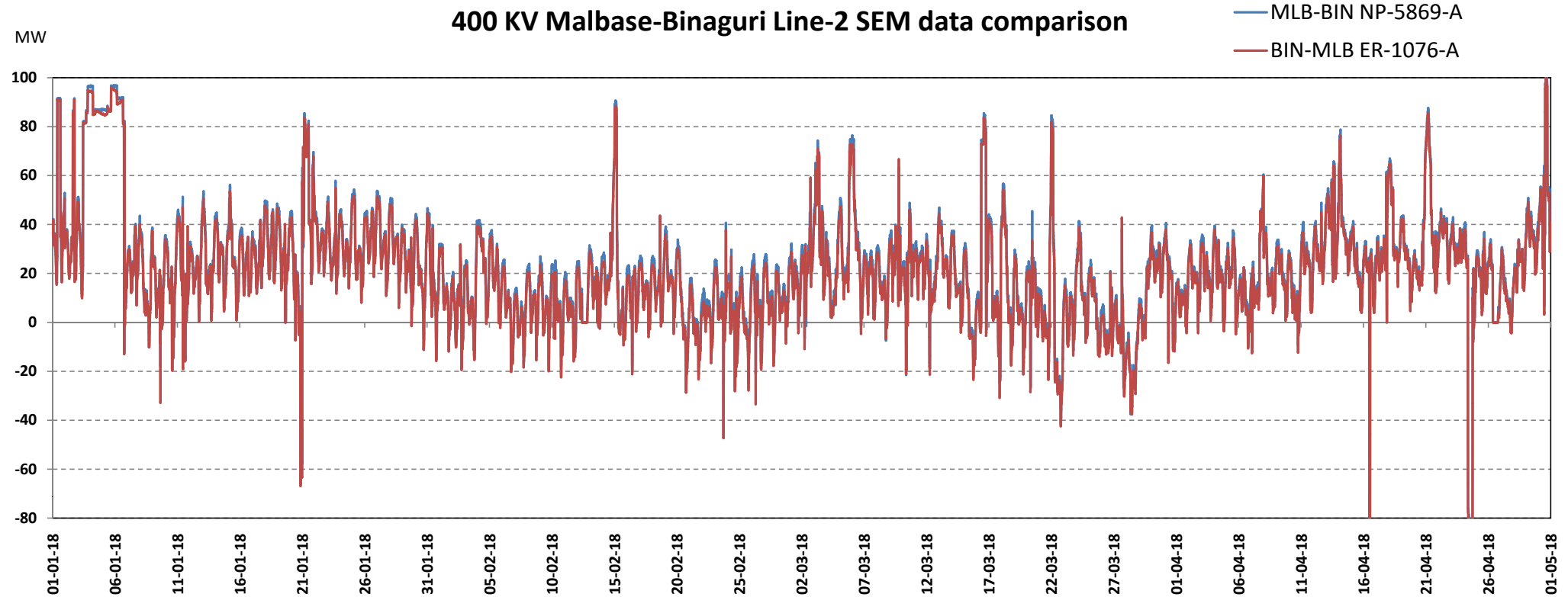
Locations already integrated with PGCIL LAN

As a POC (Proof of Concept) , two locations in ER-II have been integrated with PGCIL LAN for data transmission .

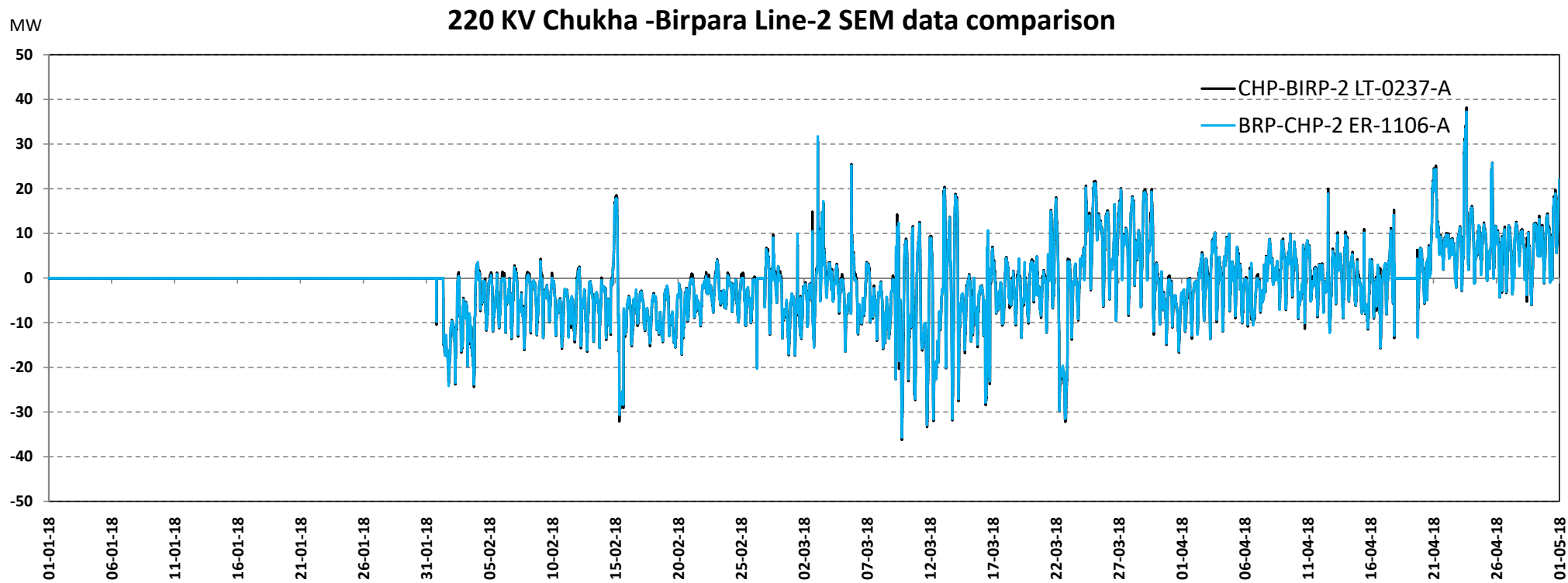
- Subhasgram - PG
- Binaguri – PG

After connecting with LAN , data transmission issue has been taken care to great extend .

400 KV MALBASE-BINAGURI LINE SEM DATA COMPARISON



220 KV CHUKHA-BIRAPARA LINE-2 SEM DATA COMPARISON



MONTHLY ENERGY COMPARISON

Month	400 KV MLB-BIN at Malbase	BIN-MLB at Bina end	BIN-MLB at Bina end	DIFF between DGPC and PG meter at Bina	% DIFF between DGPC and PG meter at Bina	CHP-BIRP-2	BRP-CHP-2	BRP-CHP-2 at Birpara end	DIFF between DGPC and PG meter at Birpara	% DIFF between DGPC and PG meter at Birpara
	NP-5869-A	ER-1076-A PG meter	DGPC meter			LT-0237-A	ER-1106-A	DGPC meter (LT-0327-A)		
	MU	MU	MU	MU		MU	MU	MU	MU	
Jan-18	26.00	24.95	24.72	-0.23	-0.94	0.06	0.06	0.06	0.00	0.00
Feb-18	7.78	6.23	6.41	0.18	2.84	3.83	3.83	3.83	0.00	-0.03
Mar-18	12.80	11.05	11.06	0.01	0.10	1.55	1.60	1.60	0.00	-0.30
Apr-18	17.91	16.60	17.49	0.90	5.14	2.26	2.26	2.33	0.07	3.00



Damodar Valley Corporation
Under Ministry of Power, GoI (Established by Act No. XIV of 1948)
ELECTRICITY DEPARTMENT
DVC TOWERS, VIP ROAD, KOLKATA - 700 054.

No. EDCON/SPE/System Study/288

पूवी क्षेत्रीय विद्युत समिति
Eastern Regional Power Committee

Dated: 16.04.2018

To
The Member (Secretary),
Eastern Region Power Committee
14, Golf Club Road
Tollygunj, Kolkata - 700033

डायरी सं./Diary No- 131
दिनांक/Date 19/04/18
भारत सरकार/Govt of India
गोल्फ क्लब रोड टॉलीगंज
14, Golf Club Road
कोलकाता-33, Kolkata-33

Sub: Contingency Planning in respect of DVC T&D System

Ref.: ITEM NO. B15 of 37th ERPC Meeting

Dear Sir,

As advised to be submitted under referred Item No. recorded in the Minutes of the 37th ERPC Meeting held on 16th March – 18 at Goa, the subject action plan in regard to the strengthening of the DVC transmission system for long term adequacy, especially for the evacuation of 1 x 500MW generation of Bokaro – A and contingency planning in respect of highly loaded ATRs, is enclosed herewith for your kind information and further needful please.

Regards,

Yours faithfully,

EE(Rao)
I

S. K. Bose
(S. K. Bose) 16/4/18

Chief Engineer – I

System Planning & Engineering

Enclo.: As stated above

Copy to:

1. Executive Director, ERLDC, Kolkata

Distribution:

1. Executive Director (System), DVC, Kolkata
2. Chief Engineer - I (SLDC), DVC, Howrah
3. Chief Engineer - I (CLD), DVC, Maithon

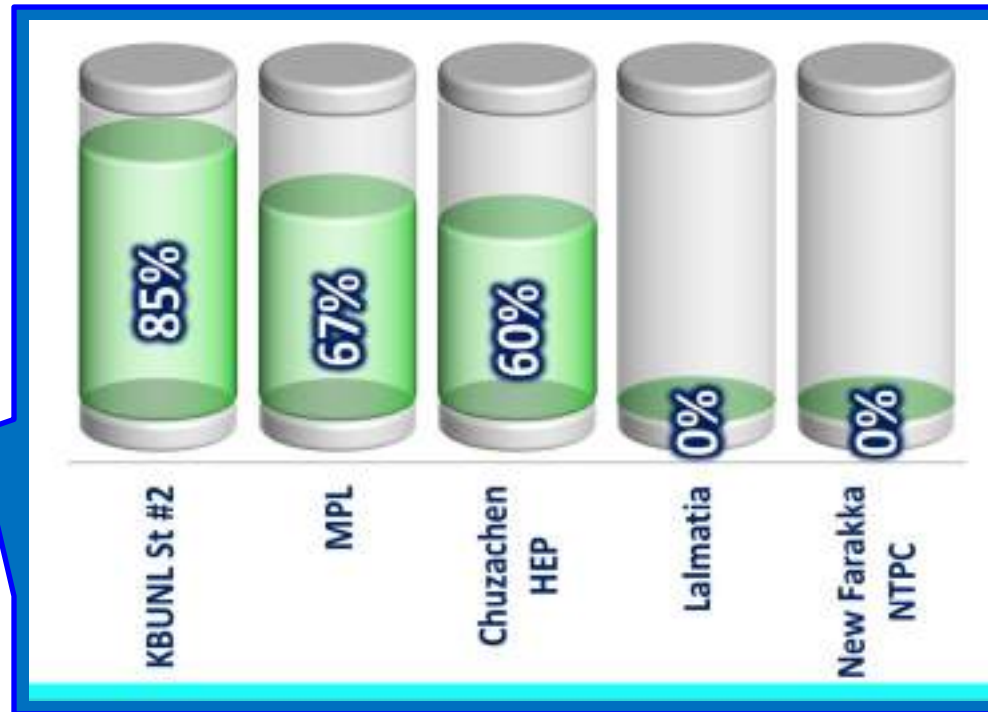
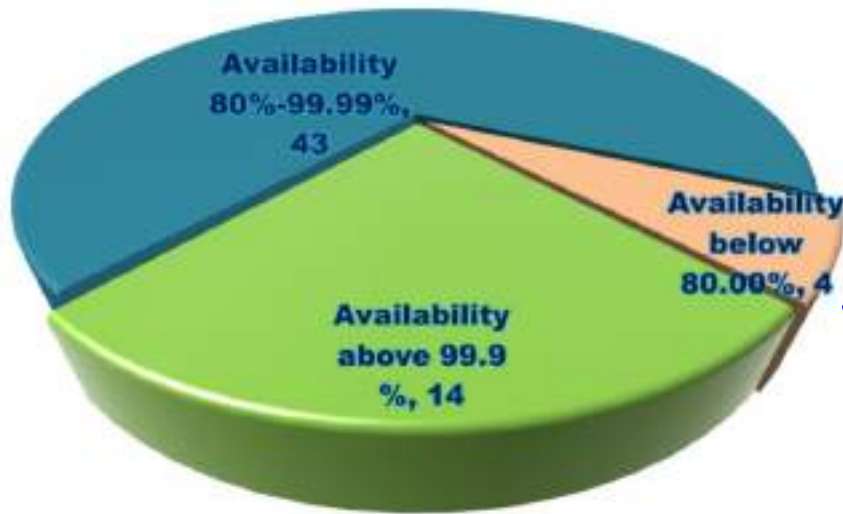
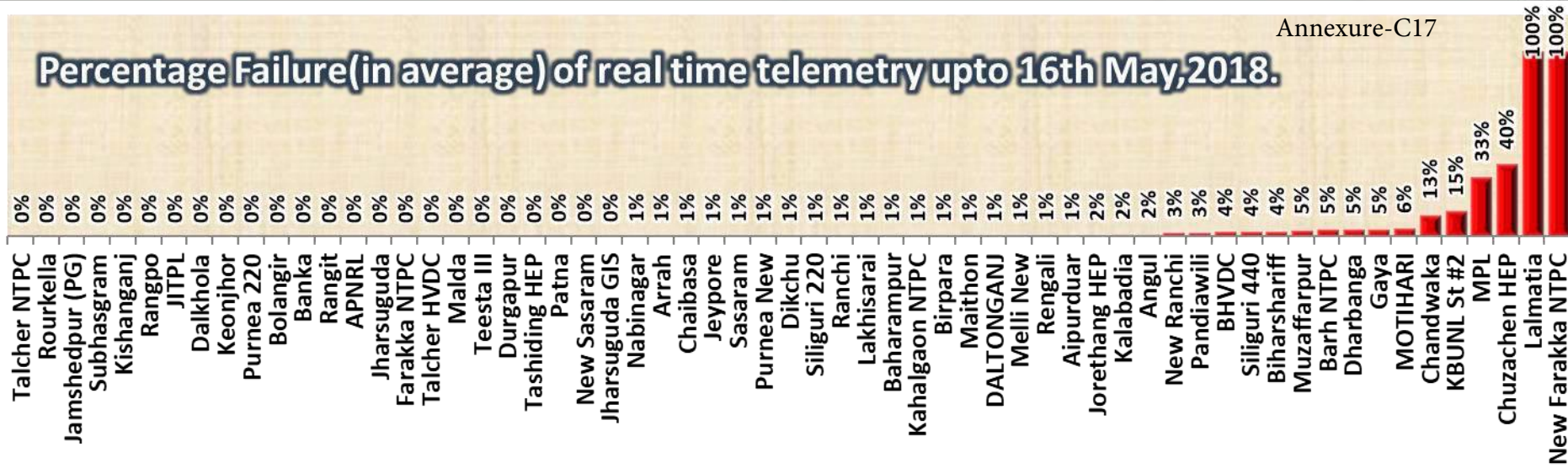
Contingency Planning of DVC in respect of ITEM NO. B15 of 37th ERPC Meeting

ATR/ICT at	Existing scheme	Proposed scheme	Status
BTPS	1 x 315 MVA ICT	2 x 315 MVA ICT	a. ICT already commissioned b. 220KV Controlling bay is under construction (Target : 03/19)
CTPS	Load at 33KV level is being fed by 132/33KV Power Transformer through 220/132KV ATR	New 2 x 80MVA 220/33KV power transformers are going to be installed to relieve ATRs	a. Transformer already procured b. Construction of 220KV bays is under pre-tendering stage (Target : 12/18)
Kalyaneswari	Load at Patherdih region is being fed by Kalyaneswari - MHS - Patherdih line through ATRs	2 x 160MVA ATRs are going to be installed at Dhanbad s/s along with construction of 132KV D/C Dhanbad - Patherdih line These two ATRs may cater the load of Patherdih region through the above line and the ATRs at Kalyaneswari get relieved	a. 132KV D/C Dhanbad - Patherdih line is under construction (Target : 08/18) b. Procurement & installation of 2 x 160MVA ATRs is under process (Target : 06/19)
DTPS	The load of Burdwan, Belmuri, Howrah is being fed from DTPS through 3 x 160 MVA ATR	220/132KV Infrastructure at Burdwan substation along with creation of 220KV D/C line from Parulia s/s to Burdwan s/s is under consideration This arrangement may cater the load of Burdwan, Belmuri, Howrah; In exigency power may flow at upstream (towards DTPS) to reduce the ATR loading	a. 220KV D/C Parulia - Burdwan line is under construction (Target : 08/19) b. Construction of 220KV (GIS) /132KV at Burdwan s/s is under tendering stage (Target : 12/19)

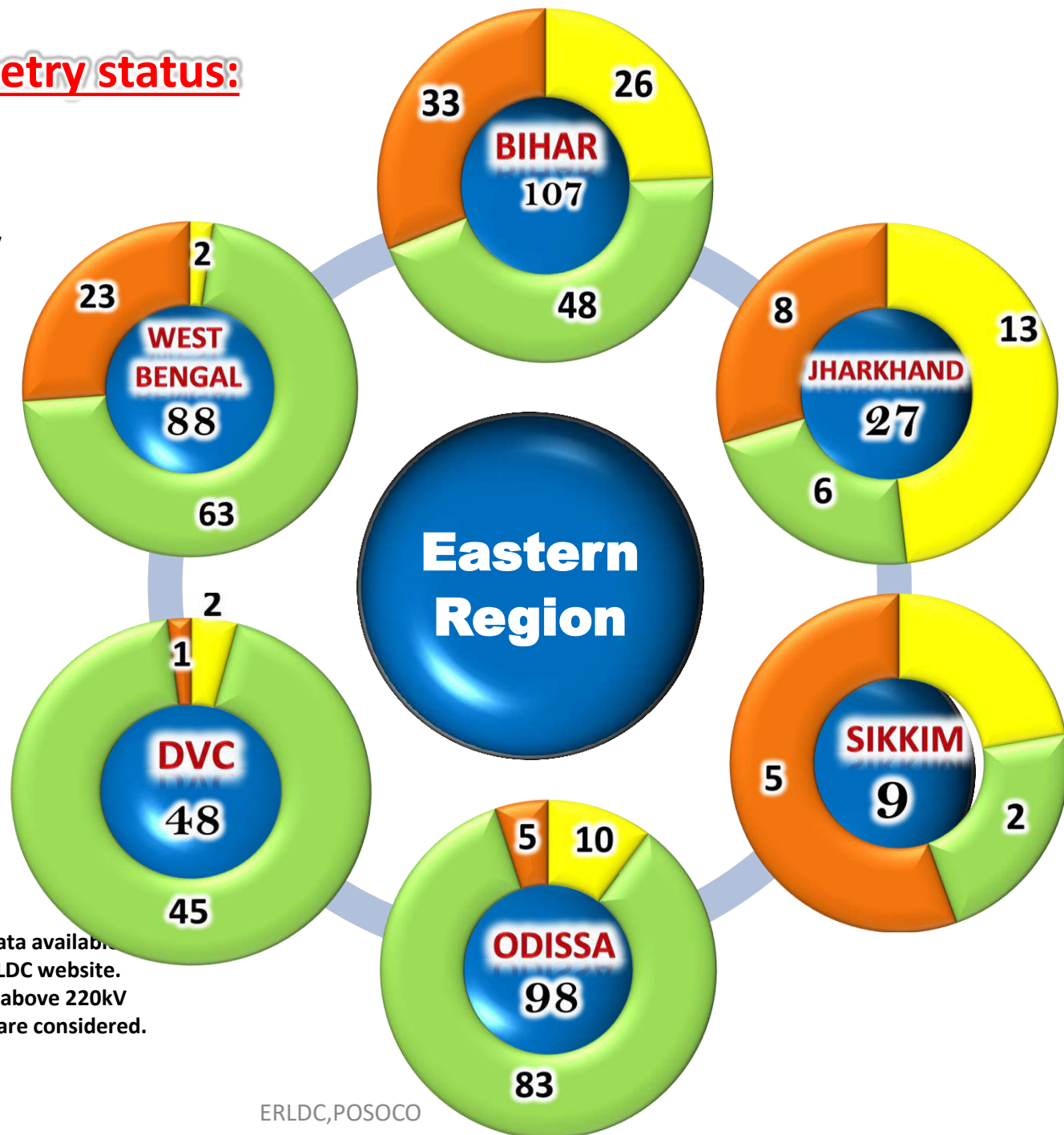
Overview of real time telemetry of Eastern region, May-2018.

Annexure-C17

Percentage Failure(in average) of real time telemetry upto 16th May,2018.



State sector telemetry status:



Note :

1. These data are based on real time data available over ICCP. Station list is available in ERLDC website.
2. These are operational data. Stations above 220kV and important stations at 132 kV level are considered.

– **Prolong outage:**

- **New Farakka (NTPC) since 09-09-2017(Target date 30th April,2018 ,as informed by NTPC in 143rd OCC).**
- **Lalmatia(NTPC) since 01-01-2018.**

– Telemetry of 400 KV TISCO (DVC) restored on 12/05/18.

BIHAR

List of station having availability higher than 90% of time

Begusarai(220kV)	Biharsharif(220kV)	BODH GAYA(220kV)	Fatuha(220kV)	GOPALGANJ(220kV)	Hajipur(220kV)
KHAGAUL(220kV)	Madhepura(220kV)	Pusaui(220kV)	Sipara(220kV)	Arrah(132kV)	BARIPAHARI(132kV)
BIHTA(132kV)	BUXAR(132kV)	Chhapra(132kV)	Dalsinghsarai(132kV)	DHAKA(132kV)	DIGHA(132kV)
Dumraon(132kV)	Ekangarsarai(132kV)	Gaighat(132kV)	GOH(132kV)	Hajipur Old(132kV)	Harnaut(132kV)
HULASGANJ(132kV)	Imamgunj(132kV)	Jagdishpur(132kV)	Jakkanpur(132kV)	KARBIGAHIA(132kV)	Katra(132kV)
Kusheswar Asthan (132kV)	LAKHISARAI(132kV)	MASRAKH(132kV)	Mithapur(132kV)	Nalanda(132kV)	Raxaul (132kV)
Runisaidpur(132kV)	Sabour(132kV)	Samastipur(132kV)	Sasaram(132kV)	Shitalpur(132kV)	Sitamarhi(132kV)
SKMCH(132kV)	Sonenagar(132kV)	Sultanganj(132kV)	Tekari(132kV)	Wazirganj(132kV)	KBUNL_ST_1(220KV)

List of station having intermittent data

Darbhanga(220kV)	DEHRI(220kV)	Kishanganj new(220kV)	Samastipur new(220kV)	Banka(132kV)	BARH(132kV)
Chandauti(132kV)	Ekma(132kV)	Gangwara(132kV)	Jahanabad(132kV)	Jai Nagar(132kV)	Jandaha(132kV)
Karmnasa(132kV)	Karpi(132kV)	Katihar(132kV)	Kochas (Dinara)(132kV)	Kundra(132kV)	Madhubani(132kV)
Nawada(132kV)	Pandaul(132kV)	Phulparas (132kV)	SAHARSA(132kV)	Shekhpura(132kV)	Sherghati(132kV)
TEHTA(132kV)	Vaishali(132kV)				

List of stations having availability (less than 10% or RTU not integrated)

sonenagar new(220kV)	Uda Kishanganj(132kV)	Aurangabad(132kV)	BANJARI(132kV)	Belaganj(132kV)	BETIAH(132kV)
BIKRAMGANJ(132kV)	Dhandaha(132kV)	Forbisganj(132kV)	Hathidah(132kV)	Jamalpur(132kV)	Jamui(132kV)
Kahalgao(132kV)	Khagaria(132kV)	Kishanganj(132kV)	Koshi(132kV)	MASAUHRI(132kV)	Mohania(132kV)
Motihari(132kV)	ffarpur (Ramdayalu)(13	Naugachhia(132kV)	Purnea(132kV)	RAFIGANJ(132kV)	Rajgir(132kV)
Ramnagar(132kV)	Siwan(132kV)	Sonebarsa(132kV)	Supaul(132kV)	Valmikinagar(132kV)	BTPS_NEW(132KV)
DARBHANGA(132KV)	MOTIPUR(220KV)	MUSHAURI(220KV)			

DVC

List of station having availability higher than 90%

BOKARO A TPS(400kV) CTPS 1(132kV)	DURGAPUR TPS(400kV) CTPS 2(220kV)	MEJIA B TPS(400kV) CTPS B(220kV)	RAGHUNATHPUR(400kV) DHANBAD(220kV)	BARHI(132kV) DURGAPUR(220kV)	BURNPUR(220kV) HOWRAH(132kV)
JAMSHEDPUR(220kV) WARIA TPS(220kV)	KALYANESWARI(220kV) ASP(132kV)	MEJIA A TPS(220kV) BAIDA(132kV)	MOSABANI(132kV) BARDWAN(132kV)	PATRATU(132kV) BARJORA(220kV)	RAMGARH(220kV) BELMURI(132kV)
CHANDIL(132kV)	GIRIDHI(220kV)	GOLA(132kV)	HAZARIBAG(132kV)	JAMURIA(132kV)	KALIPAHARI(132kV)
KHARAGPUR(132kV) PATHERDIH(132kV)	KODARMA(132kV) PURULIA(220kV)	KUMARDHUBI(132kV) PUTKI(132kV)	MAITHON HPS(132kV) RAMGARH(132kV)	PANCHET HPS(132kV) RAMKANAL(132kV)	PARULIA(132kV) KODARMA(440kV)

List of station having intermittent data

TISCO(400kV) NORTH KARANPURA(132kV)

List of station having availability less than 10%

NIMIAGHAT(132kV)

JHARKHAND

List of station having availability higher than 90%

Chandil(220kV) Patratu(220kV) Ramchandrapur(220kV) Tenughat(220kV) Hatia-I(132kV) Jadugoda(132kV)

List of station having intermittent data

Adityapur(132kV) hakradharpur(132kV) Daltonganj(132kV) Dumka(132kV) Golmuri(132kV) Japla(132kV)
Kamdara(132kV) Kanke(132kV) Lalmatia(132kV) Manique(132kV) Namkum(132kV) Noamundi(132kV)
Pakur(132kV)

List of station having availability less than 10%

Hatia-II(220kV) Deoghar(132kV) Garawah(132kV) Goilker(132kV) Jamtara(132kV) Latehar(132kV)
Rajkharsawan(132kV) Sahebganj(132kV)

WEST BENGAL

List of station having availability higher than 90%

Arambag(400kV)	Domjur(220kV)	Gokarna 400kv(400kV)	Haldia TPP(400kV)	Howrah(220kV)	Jeerat(400kV)
Kasba(220kV)	KTPS(400kV)	Lakshmikantapur(220kV)	Midnapur(220kV)	PPSP(400kV)	Satgachia(220kV)
Subhasgram(220kV)	Durgapur(400kV)	Bakreswar(400kV)	Kharagpur(400kV)	Sagardighi(400kV)	CHANDITALA(400kV)
Asansol(220kV)	DPL(220kV)	Durgapur(220kV)	Gokarna(220kV)	Rishra(220kV)	STPS(220kV)
NJP(220kV)	Krishnanagar(220kV)	Bishnupur(132kV)	BTPS(132kV)	Liluah(132kV)	Titagarh(132kV)
Maldah(132kV)	NBU(132kV)	Tcf-2(132kV)	Ashoknagar(132kV)	Adisaptagram(132kV)	New Bishnupur(220kV)
Borjora(132kV)	Bighati(132kV)	Kursiang(132kV)	FOUNDRY PARK(220kV)	IPCHL(220kV)	JK NAGAR(220kV)
NEWTOWN3(220kV)	SADAIPUR(220kV)	DHARAMPUR(220kV)	Budge Budge(CESC)(220kV)	Chakmir(CESC)(132kV)	Majherhat(CESC)(132kV)
Southern(CESC)(132kV)	tanical gurdan(CESC)(132kV)	New Coshipur(CESC)(220kV)	Princep street(CESC)(132kV)	Parklane(CESC)(132kV)	Titagarh(CESC)(132kV)
BT Road(CESC)(132kV)	Jadavpur(CESC)(132kV)	EM Bypass(CESC)(220kV)	Chakmir(CESC)(132kV)	East Calcutta(CESC)(132kV)	Dum Dum(CESC)(132kV)
Taratala(CESC)(132kV)	BBD Bag(CESC)(132kV)	Belur(CESC)(132kV)			

List of station having intermittent data

Saltlake(132kV)	NPPSP(400kV)				
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List of station having availability less than 10%

Haldia New(220kV)	Dalkhola(220kV)	KLC Bantala(220kV)	Barasat(132kV)	Bongaon(132kV)	Haldia Old(132kV)
Kolaghat(132kV)	Rammam(132kV)	Raigunj(132kV)	Sainthia(132kV)	Birpara(132kV)	Chalsa(132kV)
Tcf-1(132kV)	Tcf-3(132kV)	Tarakeswar(132kV)	Alipuduar(132kV)	Gangarampur(132kV)	Joka(132kV)
Kalimpong(66kV)	Hizli(132kV)	TLDP3(220kV)	TLDP4(220kV)	Patuli(CESC)(132kV)	

ODISHA

List of station having availability higher than 90%

Mendhasal(400kV)	Meramundali(400kV)	JSPLA(400kV)	GMR(400kV)	Jayanagar(220kV)	Balimela HPS(220kV)
Uper Kolab HPS(220kV)	Theruvalli(220kV)	Indravati HPS(220kV)	Bhanjanagar(220kV)	Narendrapur(220kV)	Bidanasi(220kV)
Nayagarh(220kV)	Rengali HPS(220kV)	TTPS(220kV)	Rengali swiching station(220kV)	Joda(220kV)	Duburi New(400kV)
Duburi Old(220kV)	Bhdrakh(220kV)	Balasore(220kV)	Budhipadar(220kV)	IB TPS(220kV)	Tarkera(220kV)
Barkote(220kV)	TATA POWER(220kV)	JSL(220kV)	TSIL(220kV)	VEDANTA(220kV)	VISA(220kV)
JSPL(220kV)	MIL(220kV)	OPTCL (Podia)(220kV)	Sunabeda(132kV)	Machhkund HPS(132kV)	Rayagada(132kV)
Chhatrapur(132kV)	Aska(132kV)	Bhubaneswar (132kV)	Akhusinga(132kV)	Basta(132kV)	Balugaon(132kV)
Puri(132kV)	Cuttack(132kV)	Choudwar(132kV)	ICCL(132kV)	Chainpal(132kV)	Rairangpur(132kV)
Dhenkanal(132kV)	Baripada(132kV)	Jajpur Road(132kV)	Angul(132kV)	Boinda(132kV)	Rourkela(132kV)
Chiplima HPS(132kV)	Sambalpur(132kV)	Rajgangapur(132kV)	Bargarh(132kV)	ARYAN(132kV)	NBVL(132kV)
EMAMI(132kV)	ARATI(132kV)	AISCL(132kV)	IMFFA(132kV)	MINAKHEE(132kV)	OPCL(132kV)
OCLRJ(132kV)	OCL(132kV)	Bolangir Old(132kV)	Bolani(132kV)	Soro(132kV)	Sonepur(132kV)
Anandpur (132kV)	Barpalli(132kV)	Digapahandi(132kV)	Jaleswar(132kV)	Chhend(132kV)	Karanjia(132kV)
Patnagarh(132kV)	Pattamundai(132kV)	Phulbani(132kV)	Sundargarh(132kV)	Kalarangi(132kV)	

List of station having intermittent data

Chandaka(220kV)	NALCO(220kV)	Paradeep(220kV)	Bolangir New(220kV)	Khurda(132kV)	Kendrapara(132kV)
Kamakhyanagar(132kV)	Burla HPS(132kV)	ACC, Bargarh(132kV)	Kesura(132kV)		

List of station having availability less than 10%

Kesinga(132kV)	Sijua(132kV)	SHYAM(132kV)	VEDANTA(LANGIGARH)(132kV)	Parlakhemundi(132kV)
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*Thank
you*



Sub Station	ICT	HV side Meter	LV Side Meter
ALIPURDUAR	400/220	2	2
BARIPADA	400/220	3	3
BIHARSHARIF	400/220	3	3
BINAGURI	400/220	2	2
BOLANGIR	400/220	2	2
CHAIBASA	400/220	2	2
DURGAPUR	400/220	2	2
GAYA	400/220	2	2
JAMSHEDPUR	400/220	3	3
JEYPORE	400/220	2	2
KEONJHAR	400/220	2	2
KISHANGANJ	400/220	2	2
MAITHON	400/220	2	2
MALDA	400/220	2	2
MUZAFFARPUR	400/220	3	3
NEW PURNEA	400/220	2	2
PANDIABILI	400/220	2	2
PATNA	400/220	3	3
RANCHI	400/220	2	2
RENGALI	400/220	2	2
ROURKELA	400/220	2	2
SASARAM	400/220	2	2
SUBHASGRAM	400/220	5	5
BANKA	400/132	2	2
LAKHISARAI	400/132	2	2

ARAH	220/132	3	3
BARIPADA	220/132	2	2
BIRPARA	220/132	2	2
MALDA	220/132	2	2
NJP/SILIGURI	220/132	2	2
PURNEA	220/132	3	3
GANGTOK	132/66	2	2
	Total	74	74

S.No	Region	State	Sub-Station	Owner/ Utility	S/S type	PMU	TOTAL PANEL QTY	PMU Delivery status	Cable Delivery status	Erection	Cable laying	CT/PT/DI termination	Commissioning	Integration	SAT	Remarks
			78			296	175	74	75	66	65	64	64	43	60	
1	ER-II	West Bengal	Arambagh	WBSETCL	CR	3	1	Yes	Yes	done	done	done	done	done	done	
2	ER-II	West Bengal	BAKRESHWAR TPS	WBSETCL	CR	4	1	Yes	Yes	done	done	done	done	done	done	
3	ER-II	West Bengal	Bidhannagar	WBSETCL	CR	3	1	Yes	Yes	done	done	done	done	done	done	
4	ER-II	West Bengal	JEERAT	WBSETCL	CR	2	1	Yes	Yes	done	done	done	done	done	pending	SAT pending as customer didn't agree to witness SAT.
57	ER-II	West Bengal	Alipurduar	Powergrid	CR	6	7	Yes	Yes	partially done	partially done	partially done	partially done	Pending	pending	Work started on 22.12.2016. 4 PMU panels and network panel installed. Rest 2 PMU panels could not be erected because location not finalised. Cable laying and termination at PMU panel completed for 6 feeders. CT/PT interfacing pending due to unavailability of shutdown. PGCIL is asking to take DI points from field, which is not in scope. Work is held up. Team demobilised.
6	ER-II	West Bengal	KASBA	WBSETCL	CR	3	1	Yes	Yes	done	done	done	done	done	done	
7	ER-II	DVC	DSTPS	DVC	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
67	ER-I	BIHAR	BANKA	Powergrid	Kiosk	4	5	Yes	Yes	done	done	done	done	Pending	pending	SAT pending.
9	ER-II	DVC	MEJIA-B	DVC	CR	2	1	Yes	Yes	done	done	done	done	done	done	Integrated on 07.12.2016
45	ER-II	Jharkhand	Bokaro TPS	DVC	CR	1	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs.
11	ER-II	DVC	Raghunathpur TPS	DVC	CR	3	1	Yes	Yes	done	done	done	done	done	done	
33	Odisha	Orissa	Bolangir	Powergrid	CR+Kiosk	2	3	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
13	ER-II	DVC	Bokaro	DVC	CR	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.06.2016
14	ER-II	DVC	CTPS(Chanderpura)	DVC	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs.
78	ER-I	Bihar	Barauni PP	Bihar	CR	0	0	No	No	N/A	N/A	N/A	N/A	N/A	N/A	Substation deleted.
16	Odisha	Orissa	MENDHASAL	OPTCL	CR	2	1	Yes	Yes	done	done	done	done	done	done	
17	Odisha	Orissa	MERAMANDALI	OPTCL	CR	6	2	Yes	Yes	done	done	done	done	done	done	
18	Odisha	Orissa	RENGALI	OPTCL	CR	2	1	Yes	Yes	done	done	done	done	done	done	Integrated on 22.06.2017
37	Odisha	Orissa	GMR	GMR	Kiosk	3	4	Yes	Yes	done	done	done	done	Pending	pending	SDH Panel not commissioned, powergrid supervision required for SAT activity
20	Odisha	Orissa	BALIMELA(H)	OPTCL	CR	3	1	Yes	Yes	done	done	done	done	done	done	
21	ER-II	West Bengal	Durgapur	Powergrid	CR	5	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 30.05.2016.
15	Odisha	Orissa	Budhipadar	OPTCL	CR	10	0	No	Yes	pending	pending	pending	pending	pending	pending	Manufactured, waiting for FAT. Will be dispatched after FAT.
23	Odisha	Orissa	Indrawati	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
24	Odisha	Orissa	Indrawati HPS	OPTCL	CR	1	1	Yes	Yes	done	done	done	done	done	done	Team deployed in substation. Permission for panel installation & cable laying given but no work permission in existing control panel is given. Team was idle for more than. 10 days.
25	Odisha	Orissa	JEYPORE	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
26	ER-II	West Bengal	MAITHON	Powergrid	CR	7	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 21.06.2016.
27	ER-II	West Bengal	MALDA	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.06.2016
28	Odisha	Orissa	Rengali	Powergrid	Kiosk	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 04.05.2016
29	Odisha	Orissa	ROURKELA	Powergrid	Kiosk	5	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 21.04.2016
30	ER-II	West Bengal	Binaguri	Powergrid	CR	7	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 28.07.2016

PMU Installation and commissioning status of ER as on 12.01.2018

S.No	Region	State	Sub-Station	Owner/ Utility	S/S type	PMU	TOTAL PANEL QTY	PMU Delivery status	Cable Delivery status	Erection	Cable laying	CT/PT/DI termination	Commissioning	Integration	SAT	Remarks
31	ER-II	West Bengal	SUBHASHGRAM	Powergrid	Kiosk	2	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 22.06.2016
32	Odisha	Orissa	Baripada	Powergrid	CR	3	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 30.01.2017.
75	ER-I	Jharkhand	Jharkhand Pool (Chan	Powergrid	Kiosk	4	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mts.
34	Odisha	Orissa	ANGUL	Powergrid	Kiosk	10	11	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.03.2017.
35	Odisha	Orissa	Keonjhar	Powergrid	CR	2	3	Yes	Yes	done	done	done	done	done	done	PMU integrated on 18.01.2017.
36	Odisha	Orissa	Jharsuguda	Powergrid	Kiosk	8	9	Yes	Yes	done	done	done	done	done	done	PMU integrated on 29.07.2016
74	ER-I	Bihar	Kishanganj (karandeg	Powergrid	CR	4	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mts.
8	ER-II	DVC	Kodarma TPS	DVC	CR	3	1	Yes	Yes	done	done	done	done	Pending	done	SDH panel does not exist.
39	ER-II	West Bengal	Baharampur	Powergrid	CR	2	3	Yes	Yes	done	done	done	done	done	done	PMU integrated on 10.05.2016
40	ER-II	West Bengal	Birpara	Powergrid	CR	4	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 15.07.2016.
41	ER-II	DVC	CTPS B	DVC	CR	3	1	Yes	Yes	done	done	done	done	done	done	mom/sat signature pending from powergrid end.
42	ER-II	DVC	KALYANESWARI	DVC	CR	4	1	Yes	Yes	done	done	done	done	done	done	PMU integrated on 02.01.2017.
43	ER-II	DVC	PARULIA	DVC	CR	5	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 21.02.2017.
44	ER-II	West Bengal	Purulia PSP	WBSETCL	CR	2	1	Yes	Yes	done	done	done	done	done	done	
66	ER-I	BIHAR	LakhiSarai	Powergrid	Kiosk	4	5	Yes	Yes	done	done	done	done	Pending	done	SAT completed. Integration planed
46	ER-II	West Bengal	Durgapur TPS	DVC	CR	3	1	Yes	Yes	done	done	done	done	done	done	
73	ER-I	Jharkhand	Daltonganj	Powergrid	Kiosk	2	3	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	Site on-hold as Substation is under construction.
22	ER-II	West Bengal	FARRAKA	NTPC	CR	5	2	Yes	Yes	done	done	done	done	pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs.
54	Odisha	Orissa	Ind barath	Ind barath	Kiosk	1	1	Yes	Yes	pending	pending	pending	pending	pending	pending	Permission awaited
10	ER-II	DVC	Maithon RB TPS	DVC	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Work started on 04.07.2016. Panel shifted. Team demobilised due to access issue and panel location issue. Team deputed again 18th August, I&C done, integration pending due to communication break with control center.
51	Odisha	Orissa	Jindal	JITPL	CR	2	1	Yes	Yes	pending	pending	pending	pending	pending	pending	Permission awaited
5	ER-II	West Bengal	Kolaghat TPS	WBSETCL	CR	4	1	Yes	Yes	done	done	done	done	done	done	
52	Odisha	Orissa	Monnet	Monnet	CR	1	1	Yes	Yes	pending	pending	pending	pending	pending	pending	Permission awaited
55	ER-II	Sikkim	New Melli	Powergrid	CR	0	0	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Substation deleted.
76	ER-I	Jharkhand	Patratu	Jharkhand	CR	3	1	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	Permission awaited.
53	Odisha	Orissa	Strelite	Strelite	CR	3	1	Yes	Yes	done	done	done	done	pending	done	SDH not commissioned
48	Odisha	Orissa	TALCHER	NTPC	CR	5	2	Yes	Yes	pending	pending	pending	pending	pending	pending	Permission awaited
58	ER-II	West Bengal	Rajarhat	Powergrid	CR	2	1	Yes	Yes	done	pending	pending	pending	Pending	pending	Site on-hold. Work withheld due to localite agitation issue.
59	ER-I	Jharkhand	JAMSHEDPUR	Powergrid	CR	6	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 14.02.2017
60	ER-I	BIHAR	Kahalgaon(KHSTPP)	NTPC	CR	6	2	Yes	Yes	done	done	pending	pending	Pending	pending	Work on-hold. NTPC asked to use Armoured cable. Out of scope. Team idemobilized from site. Site assumed as closed as per PRM in Kolkatta.
61	ER-I	BIHAR	Purnea	Powergrid	CR	6	2	Yes	Yes	done	done	done	done	done	done	PMU integrated on 13.04.2017

PMU Installation and commissioning status of ER as on 12.01.2018

S.No	Region	State	Sub-Station	Owner/ Utility	S/S type	PMU	TOTAL PANEL QTY	PMU Delivery status	Cable Delivery status	Erection	Cable laying	CT/PT/DI termination	Commissio ning	Integration	SAT	Remarks
62	ER-I	BIHAR	PATNA	Powergrid	Kiosk	6	7	Yes	Yes	done	done	done	done	done	done	PMU integrated on 11.04.2017
63	ER-I	Jharkhand	RANCHI	Powergrid	Kiosk	12	13	Yes	Yes	done	done	done	done	done	done	
64	ER-I	BIHAR	SASARAM(Pusauli)	Powergrid	CR+Kiosk	9	3	Yes	Yes	done	done	done	done	done	done	
65	ER-I	BIHAR	BARH	NTPC	CR	4	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
12	ER-II	DVC	MEJIA	DVC	CR	5	2	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs.
38	ER-II	Sikkim	RANGPO	Powergrid	CR	4	1	Yes	Yes	done	done	done	done	Pending	done	S/S couldn't be integrated because distance between PMU panel and SDH is more than 100 mtrs.
68	ER-I	Jharkhand	Chaibasa	Powergrid	Kiosk	4	5	Yes	Yes	done	done	done	done	done	done	
69	ER-I	BIHAR	765kv Gaya	Powergrid	Kiosk	11	12	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.02.2017
70	ER-I	Jharkhand	765/400kV Ranchi (N)	Powergrid	Kiosk	8	9	Yes	Yes	done	done	done	done	done	done	PMU integrated on 24.02.2017
71	ER-I	Bihar	Biharshariff	Powergrid	CR	9	3	Yes	Yes	done	done	done	done	done	done	
72	ER-I	Bihar	MUZAFFAPUR	Powergrid	CR	5	2	Yes	Yes	done	done	done	done	done	done	
49	ER-II	Sikkim	TEESTA	NHPC	CR	1	1	Yes	Yes	done	done	done	done	done	pending	SAT pending due to no supervision
77	ER-I	Jharkhand	Tenughat	Jharkhand	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	SDH panel not commissioned
19	Odisha	Orissa	U.KOLAB	OPTCL	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication Link not available.
56	ER-II	Sikkim	TT Pool	Powergrid	CR	0	0	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Substation deleted.
50	Odisha	Orissa	Uttara	Powergrid	CR	2	1	Yes	Yes	done	done	done	done	Pending	done	Communication link from s/s to ERLDC not available.
47	Odisha	Orissa	TTPS(Talcher)	OPTCL	CR	3	1	Yes	Yes	pending	pending	pending	pending	pending	pending	Permission awaited

ER PMU site activity Summary:

Sl. No.	Region	Utility	As per approved BOQ		Supplied		Installed		Commissioned		Integrated to ERLDC/ SLDC	
			No. of Substations	No. of PMU	S/S	PMU	S/S	PMU	S/S	PMU	S/S	PMU
1	ER-I	Powergrid	15	94	15	94	14	92	14	92	10	76
2	ER-I	NTPC	2	10	2	10	2	10	1	4	0	0
3	ER-I	Jharkhand	2	5	2	5	1	2	1	2	0	0
4	ER-I	Bihar	0	0	0	0	0	0	0	0	0	0
	ER-I	Total	19	109	19	109	17	104	16	98	10	76
1	ER-II	Powergrid	10	41	10	42	9	35	8	33	7	29
	ER-II	NHPC	1	1	1	1	1	1	1	1	1	1
2	ER-II	NTPC	1	5	1	5	1	5	1	5	0	0
3	ER-II	DVC	13	37	13	37	13	37	13	37	7	22
4	ER-II	WBSETCL	7	21	7	21	7	21	7	21	7	21
	ER-II	Total	32	105	32	106	31	99	30	97	22	73
1	Odisha	Powergrid	10	38	10	38	10	38	10	38	6	30
2	Odisha	OPTCL	8	29	7	19	6	16	6	16	5	14
3	Odisha	NTPC	1	5	1	5	0	0	0	0	0	0
4	Odisha	IPP	5	10	5	10	2	6	2	6	0	0
	Odisha	Total	24	82	23	72	18	60	18	60	11	44
	ER	Total	75	296	74	287	66	263	64	255	43	193

Annexure-D.1

**Anticipated Power Supply Position for the month of
Jun-18**

SL.NO	PARTICULARS	PEAK DEMAND MW	ENERGY MU
1	BIHAR		
	i) NET MAX DEMAND	4500	2592
	ii) NET POWER AVAILABILITY- Own Source (including bilateral)	362	187
	- Central Sector	3185	1816
	iii) SURPLUS(+)/DEFICIT(-)	-953	-589
2	JHARKHAND		
	i) NET MAX DEMAND	1270	815
	ii) NET POWER AVAILABILITY- Own Source (including bilateral)	341	162
	- Central Sector	848	467
	iii) SURPLUS(+)/DEFICIT(-)	-81	-186
3	DVC		
	i) NET MAX DEMAND (OWN)	2825	1700
	ii) NET POWER AVAILABILITY- Own Source	4964	2685
	- Central Sector	334	191
	Long term Bi-lateral (Export)	1537	1107
	iii) SURPLUS(+)/DEFICIT(-)	936	69
4	ORISSA		
	i) NET MAX DEMAND	4300	2628
	ii) NET POWER AVAILABILITY- Own Source	3210	1663
	- Central Sector	1270	720
	iii) SURPLUS(+)/DEFICIT(-)	180	-245
5	WEST BENGAL		
5.1	WBSEDCL		
	i) NET MAX DEMAND (OWN)	5960	3723
	ii) CESC's DRAWAL	0	0
	iii) TOTAL WBSEDCL's DEMAND	5960	3723
	iv) NET POWER AVAILABILITY- Own Source	3720	1959
	- Import from DPL	155	0
	- Central Sector	2491	1771
	v) SURPLUS(+)/DEFICIT(-)	406	7
	vi) EXPORT (TO B'DESH & SIKKIM)	250	7
5.2	DPL		
	i) NET MAX DEMAND	275	174
	ii) NET POWER AVAILABILITY	430	187
	iii) SURPLUS(+)/DEFICIT(-)	155	13
5.3	CESC		
	i) NET MAX DEMAND	2220	1118
	ii) NET POWER AVAILABILITY - OWN SOURCE	830	486
	FROM HEL	540	337
	FROM CPL/PCBL	40	0
	Import Requirement	810	295
	iii) TOTAL AVAILABILITY	2220	1118
	iv) SURPLUS(+)/DEFICIT(-)	0	0
6	WEST BENGAL (WBSEDCL+DPL+CESC) (excluding DVC's supply to WBSEDCL's command area)		
	i) NET MAX DEMAND	8455	5015
	ii) NET POWER AVAILABILITY- Own Source	4980	2631
	- Central Sector+Others	3881	2108
	iii) SURPLUS(+)/DEFICIT(-)	406	-275
7	SIKKIM		
	i) NET MAX DEMAND	85	32
	ii) NET POWER AVAILABILITY- Own Source	2	0
	- Central Sector+Others	158	93
	iii) SURPLUS(+)/DEFICIT(-)	75	60
8	EASTERN REGION At 1.03 AS DIVERSITY FACTOR		
	i) NET MAX DEMAND	20810	12782
	Long term Bi-lateral by DVC	1537	1107
	EXPORT BY WBSEDCL	250	7
	ii) NET TOTAL POWER AVAILABILITY OF ER (INCLUDING C/S ALLOCATION)	23534	12723
	iii) PEAK SURPLUS(+)/DEFICIT(-) OF ER (ii)-(i)	937	-1173

**EASTERN REGIONAL LOAD DESPATCH CENTRE
KOLKATA**

TRANSMISSION ELEMENTS OUTAGE APPROVED IN 145TH OCC MEETING OF ERPC

SL. No	NAME OF THE ELEMENTS	FROM		TO		REMARKS	S.D availed BY	Reason	SUBJECT TO CONSENT FROM AGENCY
		DATE	TIME	DATE	TIME				
	400 KV ANGUL-BOLANGIR S/C LINE	24/05/18	08:00	25/05/18	17:00	ODB	ER-II/Odisha/Angul	To complete stringing work at LOC. 51/0-52/0 (Power	NLDC
	500 MVA ICT-1 At Pandiabili	25/05/18	08:00	25/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 220 kv & 400 kv porcelain insulator(BPI and Bushing)	GRIDCO
	Non- auto of 400KV Talcher-Rourkela D/C line	25/05/18	09:00	25/06/18	17:00	ODB	ER-II/Odisha/Rengali	For PID works	
	400KV RTPS-RANCHI PG CKT#1	26/05/18	06:00	26/05/18	16:00	ODB	DVC	JUMPER POINT CHECKING WORK OF ALL ANGLE POINT TOWERS	Subject to revival o 400kv Maithon-MPL-dc
	400KV RTPS-MAITHON PG	27/05/18	06:00	27/05/18	16:00	ODB	DVC	JUMPER POINT CHECKING WORK OF ALL ANGLE POINT TOWERS	Subject to revival o 400kv Maithon-MPL-dc
	400KV RTPS-RANCHI PG CKT#1	28/05/18	06:00	28/05/18	16:00	ODB	DVC	JUMPER POINT CHECKING WORK OF ALL ANGLE POINT TOWERS	Subject to revival o 400kv Maithon-MPL-dc
	400/220 KV ICT-1 at Gaya S/S	28/05/18	09:00	28/05/18	16:00	ODB	POWERGRID ER-1	for construction work of 400/220 KV ICT - III At Gaya Sub-station.	BSPHCL
	400KV S/C FARAKKA - BEHRAMPUR	28/05/18	08:00	28/05/18	18:00	ODB	POWERGRID,ER-II	For stringing between location no- 12/0 - 13/0 of 400 KV Farakka -Behrampur D/c line	WB
	80MVAR Sipat LR-I	28/05/18	10:00	28/05/18	17:00:00	ODB	POWERGRID ER-I	For top up of oil in oil conservator	sipat line-I will be out of service for 30 min for isolating Reactor and 30 hr during shut down return for taking reactor into service.
	500 MVA ICT-2 At Pandiabili	28/05/18	10AM	28/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 220 kv & 400 kv porcelain insulator(only	GRIDCO
	400KV RTPS-MAITHON PG	29/05/18	06:00	29/05/18	16:00	ODB	DVC	JUMPER POINT CHECKING WORK OF ALL ANGLE POINT TOWERS	Subject to revival o 400kv Maithon-MPL-dc
	400KV S/C FARAKKA - BEHRAMPUR	29/05/18	08:00	15/06/18	18:00	OCB	POWERGRID ER-II	For railway Diversion work	WB
	80MVAR Sipat LR-II	29/05/18	10:00	29/05/18	17:00:00	ODB	POWERGRID ER-I	For top up of oil in oil conservator	sipat line-I will be out of service for 30 min for isolating Reactor and 30 min during shut down return for taking reactor into service.
	400 KV Farakka- Kahalgaon-I	29/05/18	10:00	29/05/18	18:00	ODB	POWERGRID,ER-II	For connecting bay-22 (Main Bay of 400 KV Farakka-Kahalgaon-I) from line side after augmentation of Isolator & CT from 2000A to 3150 A rating under ERS-XV projects.	
	400 kv Pandiabili-Baripada Line	29/05/18	07:30	29/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 400 kv porcelain insulator(BPI ,CVT , Wavetrap and Baripada line reactor Bushing). In line, the erection of counter weights.	
	400 kv Pandiabili-Mendhasal ckt-1	29/05/18	07:30	29/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 400 kv porcelain insulator(BPI ,CVT and Wavetrap). In line, the erection of counter weights.	
	400KV Rengali-Talcher # 1 line	29/05/18	09:00	29/05/18	17:00	ODB	ER-II/Odisha/Rengali	For AMP work	
	400KV S/C FARAKKA - SAGARDIGHI	30/05/18	08:00	30/05/18	18:00	ODB	POWERGRID,ER-II	For stringing between location no- 23/0 to 24/0 & LOC NO- 13/0 - 14/0 of 400 KV Farakka -Behrampur D/c	WB
	400 KV Farakka- Kahalgaon-III	30/05/18	10:00	30/05/18	18:00	ODB	POWERGRID,ER-II	For connecting bay-34 (Tie Bay of 400 KV Farakka-Kahalgaon-III) from line side after augmentation of RTV Coating of 400 kv porcelain insulator(BPI ,CVT and Wavetrap and Duburi line reactor). In line, the erection of counter weights.	GRIDCO
	400 kv Pandiabili-Duburi	30/05/18	07:30	30/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 400 kv porcelain insulator(BPI ,CVT and Wavetrap). In line, the erection of counter weights.	GRIDCO
	400 KV Pandiabili-Mendhasal ckt-2	30/05/18	07:30	30/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	For CB Mechanism and Pole overhauling work and AMP.	
	400KV Rengali-Talcher # 1 Main Bay-404 at Rengali	30/05/18	09:00	02/06/18	17:00	ODB	ER-II/Odisha/Rengali	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	400KV MEJIA-JAMSHEDPUR PG	30/05/18	09:00	30/05/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	400KV MEJIA-JAMSHEDPUR PG	31/05/18	09:00	31/05/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	220KV D/C Farakka- Lalmatia Ckt I & II	01/06/18	09:00	26/05/18	17:00	ODB	POWERGRID ER-1	for construction work of 400KV D/C Rajarhat-Purnea Line	JUSNL
	765KV Sasaram-Fatehpur	01/06/18	08:00	26/05/18	18:00	ODB	POWERGRID ER-1	for tower strengthening work	NLDC
	400KV HVDC North side Converter Trx Main Bay @ Pusauli	01/06/18	09:00	03/06/18	18:00	OCB	POWERGRID ER-1	For Breaker Drive overhauling and Bay AMP work	NLDC
	400/220KV 500MVA ICT-1 AT PUSAULI	01/06/18	09:00	02/06/18	18:00	OCB	POWERGRID ER-1	Shifting of transformer for Transformer Retrofitting Work	BSPHCL
	400/220 KV 315 MVA ICT-II	01/06/18	08:00	30/06/18	18:00	OCB	POWERGRID ER-1	Replacement of 315 MVA ICT by 500 MVA ICT	
	400 Kv BSF-Ballia ckt-1	01/06/18	08:00	02/06/18	18:00	ODB	POWERGRID ER-1	for replacement of 160 KN and 120 KN porcelain insulator by polymer insulator.	NLDC
	400KV Durgapur-Jamshedpur S/C	01/06/18	09:00	02/06/18	17:00	ODB	POWERGRID,ER-II	Rectification of damage conductor,Jumper, Corona ring and Insulator	
	400 KV BUS-II of NTPC Farakka	01/06/18	10:00	01/06/18	18:00	ODB	POWERGRID,ER-II	For connecting BUS isolator of bay no-24 & 35 to BUS-II (After augmentation of BUS Isolator from 2000A to 3150 A rating under ERS-XV projects).	Subject to all other bays at FSTPP shall remain in service.
	220 kv TBC at Powergrid, Malda	01/06/18	10:00	30/06/18	16:00	OCB	POWERGRID,ER-II	For Bay upgradation under ERS-XVII	
	400KV Jeerat Line & 315MVA ICT#2 Tie Bay (Bay No. 405) at Subhasgram	01/06/18	08:00	04/06/18	17:30	OCB	POWERGRID,ER-II	CGL make CB overhauling	
	400 KV BINAGURI-KISHANGANJ-D/C & 400 KV KISHANGANJ-PURNEA-D/C.	01/06/18	08:00	02/06/18	17:00	OCB	POWERGRID,ER-II	Isolation of multicircuit line portion feeding Kishanganj sub station at shorting at 1st multicircuit tower (Anchor-I) to facilitated erection of new 400KV tower on pile foundation. After shoring & removal of jumper at Anchor-I tower Power will flow directly BINAGURI to NIPEN bypassing KNE s/s. During returning of S/D connection will be established as 400 KV BINAGURI-PURNEA-III CKT & Kishanganj S/S will not have any connection to Binaguri till shifting of the lines to new towers (Expected return at End of June'2018). Necessary protection modification will be taken at both end.	Subject to Hydro situation
	Auto reclose of 400 KV Rengali- Indravati line in non-Auto mode	01/06/18	08:00	30/06/18	18:00	ODB	ER-II/Odisha/Bolangir	PID Testing	
	400 kv JEYPORE-GAJIWAKA-I LINE	01/06/18	09:00:00	02/06/18	17:30:00	ODB	ER-II/Odisha/Jeyapore	For Rectification of Shut Down Nature of Defects	NLDC
	80 MVAR Bus Reactor at Pandiabili	01/06/18	10:00	01/06/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating on 400 kv porcelain insulator(Reactor bushing and BPI)	
	Main Bay-718 of 765KV Sundargarh-Dharamjaygarh Line-4 at Sundargarh	01/06/18	08:00	01/06/18	18:00	ODB	ER-II/Odisha/Sundargarh	AMP work	NLDC
	400 KV Rourkela-Sundargarh - I (One) A/R Switch is to be kept at non auto mode at both end.	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	
	400 KV Sundargarh-Raigarh - I (One) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	NLDC
	400 KV Rourkela-Sundargarh - II (Two) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	
	400 KV Sundargarh - Raigarh - II (Two) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	NLDC
	400 KV Rourkela-Sundargarh - III (Three) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	
	400 KV Sundargarh - Raigarh - III (Three) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	NLDC
	400 KV Rourkela-Sundargarh - IV (Four) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	
	400 KV Sundargarh - Raigarh - IV (Four) A/R Switch is to be kept at non auto mode at both end	01/06/18	08:00	30/06/18	17:00	ODB	Sundargarh TLM	For PID Testing of Porcelain Insulator	NLDC
	Bus Reactor BS-2 400KV Sub-station of DMTCL at Darbhanga	01/06/18	09:00	07/06/18	18:00	ODB	ALIPURDUAR TRANSMISSION LIMITED	For Erection of Gantry Tower 4T1A and 1No Beam.	

5	220 kV Maithon-Dhanbad line 1 Bay	01/06/18	09:00	05/06/18	18:00	OCB	ER-II	CB overhauling work, There will be no power interruption occurred/ The said line will be in service through TBC/	
	400KV MEJIA-MAITHON PG CKT#3	01/06/18	09:00	01/06/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	204 BAY(220kv Pandiabili-Samagara ckt-1)	02/06/18	10:00	26/05/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 220 kv porcelain insulator(BPI , wavetrap & CVT)	GRIDCO
	Main Bay-721 of 765KV Dharamjaygarh-I at Sundargarh	02/06/18	08:00	26/05/18	18:00	ODB	ER-II/Odisha/Sundargarh	AMP Work	NLDC
	400KV MEJIA-MAITHON PG CKT#3	02/06/18	09:00	02/06/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	3*110MVAR 765KV Bus Reactor Bay@Pusauli	03/06/18	09:00	03/06/18	18:00	ODB	POWERGRID ER-I	AMP work	NLDC
	400KV S/C FARAKKA - DURGAPUR-I	03/06/18	08:00	03/06/18	18:00	ODB	POWERGRID,ER-II	For stringing between location no- 10/0 to 11/0 of 400 KV Farakka -Behrampur D/c line	WB
	400 Kv BSF-Ballia ckt-2	03/06/18	08:00	26/05/18	18:00	ODB	POWERGRID ER-1	for replacement of 160 kN and 120 kN porcelain insulator by polymer insulator.	NLDC
	315 MVA ICT-II at Subhasgram	03/06/18	08:00	26/05/18	17:30	ODB	POWERGRID,ER-II	CGL make 02 nos. 400KV old LA (Y Ph) and 01 nos. 220KV old LA replacement .	WB
	400 kv Bus-II at Baripada	03/06/18	08:30	26/05/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	For GIS bay EXTN works(for isolation of GIS Bus-II)	GRIDCO
	400 kv Bay 415 CB(GIS) at Baripada	03/06/18	08:30	26/05/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	For GIS Bus-II ext. works	
	400 kv JEYPORE- GAJUWAKA-II LINE	03/06/18	09:00:00	26/05/18	17:30:00	ODB	ER-II/Odisha /Jeyapore	For Rectification of Shut Down Nature of Defects	NLDC
	400KV Rengali-Talcher # 1 Tie Bay-406 at Rengali	03/06/18	09:00	26/05/18	17:00	ODB	ER-II/Odisha/Rengali	For CB Mechanism and Pole overhauling work and AMP.	
	400KV MEJIA-MAITHON PG CKT#2	03/06/18	09:00	03/06/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	400/132KV 200 MVA ICT-I AT LAKHISARAI	04/06/18	08:00	05/06/18	18:00	ODB	POWERGRID ER-1	For bay construction work of 125 MVAR B/R(NEW)	BSPHCL
	400KV D/C Farakka - Kahalgaon Ckt-III & IV	04/06/18	09:00	18/06/18	17:00	OCB	POWERGRID ER-1	for construction work of 400KV D/C Rajarhat-Purnea Line	FSTPP shall remain in service.
	400/220KV 315MVA ICT-II AT PUSAULI	04/06/18	09:00	09/07/18	18:00	OCB	POWERGRID ER-1	For Transformer Retrofitting Work	BSPHCL
	400KV HVDC East side Converter Thx Main Bay @ Pusauli	04/06/18	09:00	06/06/18	18:00	OCB	POWERGRID ER-1	For Breaker Drive overhauling and bay AMP work	NLDC
	400KV Teesta 3-408 bay at Powergrid,Rangpo	04/06/18	08:00	08/06/18	17:00	OCB	POWERGRID,ER-II	For rectification of SF6 gas leakage repair work	
	765/400KV 3X500 MVA ICT-I AT NRNC	04/06/18	08:00	06/06/18	18:00	ODB	POWERGRID ER-1	STATCOM CONSTRUCTION WORK	NLDC
	400 kv PTN-BALIA CKT – III	04/06/18	08:00	05/06/18	18:00	ODB	POWERGRID ER-1	Replacement of Porcelain Insulator with polymer insulators	NLDC
	400KV ICT-I Main Bay@ Pusauli	04/06/18	09:00	06/06/18	18:00	OCB	POWERGRID ER-1	To attend Gas Leakage in Breaker.	
	125 MVAR-Bus Reactor-3 at Durgapur	04/06/18	09:00	04/06/18	17:00	ODB	POWERGRID,ER-II	FF commissioning balance works under BHEL (ERSS-IX)	
	400 KV BUS-I of NTPC Farakka	04/06/18	10:00	04/06/18	18:00	ODB	POWERGRID,ER-II	For disconnecting BUS isolator of bay no-22 & 33 from BUS-I (For augmentation of BUS Isolator from 2000A to 3150 A rating under ERSS-XV projects).	Subject to all other bays at FSTPP shall remain in service.
	66KV Gangtok-Tadong (Line#2)	04/06/18	09:30	04/06/18	12:30	ODB	POWERGRID,ER-II	CT tan delta and Line Isolator and Transfer Bus Isolator AMP	SIKKIM
	220KV Tashiding- Rangpo	04/06/18	09:00	04/06/18	17:30	ODB	POWERGRID,ER-II	Top phase Disc flash in LOC 79	
	400KV NTPC-Talcher HVDC Feeder I	04/06/18	09:00	04/06/18	18:00	ODB	ER-II/Odisha/HVDC Talcher	For Extension of CT Inputs, Trip, BFR etc. to the Bay Unit of Feeder I.	NLDC
	400 KV BUS-I at Bolangir	04/06/18	09:00	05/06/18	18:00	ODB	ER-II/Odisha /Bolangir	For IPS Tube erection under Construction of Reactor bay extension work.	GRIDCO
	205 BAY(Pandiabili-Samagara- ckt-2)	04/06/18	10:00	04/06/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 220 kv porcelain insulator(BPI , wavetrap & CVT)	
	765KV 240MVAR Bus Reactor-2 at Sundargarh	04/06/18	09:00	04/06/18	13:00	ODB	ER-II/Odisha/Sundargarh	Shifting of Spare Reactor to Y-Phase reactor after attending oil leakage of Y-Phase Reactor	NLDC
	765 kv, 3*500 MVA ICT 1 at Angul	04/06/18	10:00	04/06/18	18:00	ODB	ER-II/Odisha/Angul SS	For attending oil leakage in R phase of ICT 1 bank at Angul	NLDC
	400KV DURGAPUR : 50 MVAR BUS REACTOR	04/06/18	09:00	04/06/18	14:00	ODB	WB	ODB for maintenance of bus side isolator	
	56TPP : 315MVA ICT#	04/06/18	08:00	04/06/18	13:00	ODB	WB	ODB for maintenance of oil leakage	
1	66KV Tadong (Line#2) Feeder	04/06/18	09:30	04/06/18	17:30	ODB	ER-II	CT tan delta and Line Isolator and Transfer Bus Isolator AMP and Dir/ O/C Relay Replacemet/	Gangtok POWER Department
	400KV MEJIA-MAITHON PG CKT#2	04/06/18	09:00	04/06/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
	400KV Maithon-Durgapur Ckt-1	05/06/18	09:00	06/06/18	17:00	ODB	POWERGRID,ER-II	Rectification of Loose Jumper	Subject to Revival of 400KV Mithon-MPL-DC & 400KV DGP- FSTPP-I
	400KV S/C FARAKKA - DURGAPUR-II	05/06/18	08:00	05/06/18	18:00	ODB	POWERGRID,ER-II	For stringing between location no- 8/0 to 9/0 of 400 KV Farakka -Behrampur D/c line	WB
		05/06/18		05/06/18		ODB	POWERGRID,ER-II		WB
	220KV DALKHOLA-DALKHOLA-I		09:00		13:00			CT OIL SAMPLING & BAY MAINTENANCE	
	220KV DALKHOLA-DALKHOLA-II	05/06/18	14:00	05/06/18	17:00	ODB	POWERGRID,ER-II	CT OIL SAMPLING & BAY MAINTENANCE	WB
	400KV MAIN BAY OF 500MVA ICT-I (403) at New	05/06/18	10:00	05/06/18	18:00	ODB	POWERGRID ER-1	AMP WORK	
	400KV Tie Bay of B/R and RKL-II AT CHAIBASA	05/06/18	10:00	05/06/18	17:00	ODB	POWERGRID ER-1	AMP	
	400/220KV 315 MVA ICT-II AT RANCHI	05/06/18	10:00	05/06/18	17:00	ODB	POWERGRID ER-1	For fixing of heatshrink inLV Bushing	JUSNL
	Tie bay of Bsf. Muz Ckt-1 & 2 (402 Bay) AT BSF	05/06/18	10:00	05/06/18	18:00	ODB	POWERGRID ER-1	AMP Work	
	220KV Main Bus-I @ Pusauli	05/06/18	08:00	05/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	BSPHCL
	125 MVAR Bus Reactor - I	05/06/18	08:00	09/06/18	18:00	ODB	POWERGRID,ER-II	AMP	
	400 KV Bheramara-1/ Bus Reactor-2 Tie Bay (Bay No. 405) at Baharampore	05/06/18	09:00	05/06/18	17:00	ODB	POWERGRID,ER-II	AMP	
	220 KV Birpara-Siliguri Ckt I	05/06/18	08:00	06/06/18	17:30	ODB	POWERGRID,ER-II	Fixing of Arching Horn & VD Fixing/ Tighting	Subject to Hydro situation
	400 KV Farakka- Kahalgaon-I	05/06/18	10:00	05/06/18	18:00	ODB	POWERGRID,ER-II	For disconnecting bay-22 (Main Bay of 400 KV Farakka- Kahalgaon-I) from line side for augmentation of Isolator & CT from 2000A to 3150 A rating under ERSS-XV projects.	Subject to all other bays at FSTPP shall remain in service.
	Main Bay of 400 KV Farakka- Kahalgaon-I (Bay-22) at Powergrid,Farakka	05/06/18	10:00	20/06/18	18:00	OCB	POWERGRID,ER-II	For augmentation of Isolator & CT from 2000A to 3150 A rating under ERSS-XV projects.	Subject to all other bays at FSTPP shall remain in service.
	400 KV Malda-Purnea-II	05/06/18	08:00	05/06/18	17:00	ODB	POWERGRID,ER-II	Numerical diff relay retrofitting for Line reactor suitable for NITAMC Adoption	
	220 kv Siliguri- Kishangang - I	05/06/18	10:00	05/06/18	17:00	ODB	POWERGRID,ER-II	AMP of 220 KV Kishangang bay -I, at Siliguri	
	315 MVA ICT#1 main Bay (Bay No. 403) at Subhasgram	05/06/18	08:00	08/06/18	17:30	OCB	POWERGRID,ER-II	CGL make CB overhauling	
	400 KV ANDAL-JAMSHEDPUR-I	05/06/18	10:00	07/06/18	17:00	ODB	ER-II	For replacement of polymer insulator at identified locations.	
	400KV NTPC-Talcher HVDC Feeder II	05/06/18	09:00	05/06/18	18:00	ODB	ER-II/Odisha/HVDC Talcher	For Extension of CT Inputs, Trip, BFR etc. to the Bay Unit of Feeder II.	NLDC
	400 kv Jeyapore-Indravati S/C Line	05/06/18	09:00:00	07/06/18	18:00:00	ODB	ER-II/Odisha /Jeyapore	For Replacement of PID Defective Insulators in Jey-Ivt Line	NLDC
	208 BAY(220KV Pandiabili-Atri-2)	05/06/18	10:00	05/06/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 220kv porcelain insulator(BPI , wavetrap & CVT)	
	765KV 240MVAR Bus Reactor-1 at Sundargarh	05/06/18	09:00	05/06/18	13:00	ODB	ER-II/Odisha/Sundargarh	Shifting of B-Ph Reactor to Spare reactor for attending oil leakage of B-Phase Reactor	NLDC
	315MVA ICT#2 AT ROURKELA	05/06/18	10:00	05/06/18	13:00	ODB	ER-II/ODISHA/ROURKELA	FIXING OF ALUMINIUM/STEEL ENCLOSERS FOR COVERING OF BUCHHOLZ/PRD RELAYS.	GRIDCO
	765 kv Sundargarh-DHARAMJAYGARH - I & II	05/06/18	08:00	07/06/18	17:00	ODB	Sundargarh TLM	Replacement of Pocelin insulator at power line crossing by CLR polymer insulator (crossing with 400 KN Sundargarh-Indbarharth Line)	NLDC
	400kv Barh Patna line -2	05/06/18	09:30	06/06/18	18:00	OCB	BARH	Attending defect of isolator & annual testing of bay equipments.	
	DURGAPUR : 400KV DURGAPUR-ARAMBAG S/C	05/06/18	09:00	05/06/18	14:00	ODB	WB	ODB for maintenance of bus side isolator	
2	66KV Bulbulay (Line#1) Feeder	05/06/18	09:30	05/06/18	17:30	ODB	ER-II	Dir/ O/C & EF Relay Replacemet/	Gangtok POWER Department
16	125 MVAR Bus Reactor - I at Alipurduar/	05/06/18	08:00	09/06/18	18:00	ODB	ER-II	Painting	

400KV MEJIA-MAITHON PG CKT#1	05/06/18	09:00	05/06/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST OF CT	
400KV 63 MVA R/LR OF KGP-I AT CHAIBASA	06/06/18	10:00	06/06/18	17:00	ODB	POWERGRID ER-1	AMP	
50 MVAR BR1 AT JAMSHEDPUR	06/06/18	09:30	06/06/18	17:30	ODB	POWERGRID ER-1	MOG REPLACEMENT WORK,125MVAR B/R-3 WILL BE OUT FOR 10MIN FOR TAKING OUT AND TAKING IN OF B/R-1	
400KV TIE BAY OF 80MVAR B/R & RGP-3 AT RANCHI	06/06/18	10:00	06/06/18	17:00	ODB	POWERGRID ER-1	AMP	
MAIN bay of Bsf- Muz Ckt-1 (403 Bay) AT BSF	06/06/18	10:00	06/06/18	18:00	ODB	POWERGRID ER-1	AMP Work	
400 kV PTN-BALIA CKT – IV	06/06/18	08:00	07/06/18	18:00	ODB	POWERGRID ER-1	Replacement of Porcelain Insulator with polymer insulators	NLDC
220KV Main Bus-II @ Pusauli	06/06/18	08:00	06/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	BSPHCL
400 KV BHP-Beramara-2 Main Bay (Bay No. 401) at Powergrid,Baharampore	06/06/18	09:00	06/06/18	17:00	ODB	POWERGRID,ER-II	AMP	
125 MVAR BUS REACTOR-2 at Durgapur	06/06/18	09:00	06/06/18	17:00	ODB	POWERGRID,ER-II	FF commissioning balance works under BHEL. (ERSS-IX)	
400 KV Farakka- Kahalgaon-III	06/06/18	10:00	06/06/18	18:00	ODB	POWERGRID,ER-II	For disconnecting bay-34 (Tie Bay of 400 KV Farakka-Kahalgaon-III) from line side for augmentation of	Subject to all other bays at FSTPP shall remain in service.
Tie Bay of 400 KV Farakka- Kahalgaon-III (Bay-33 & 34) at Powergrid,Farakka	06/06/18	10:00	20/06/18	18:00	OCB	POWERGRID,ER-II	For augmentation of Isolator & CT from 2000A to 3150 A in bay-34 & for installation of new equipment in Bay-	Subject to all other bays at FSTPP shall remain in service.
66KV Gangtok-Lagayp (Line#3)	06/06/18	09:30	06/06/18	12:30	ODB	POWERGRID,ER-II	CT tan delta and Line Isolator and Transfer Bus	SIKKIM
400 KV Maithon-Jamshedpur Line	06/06/18	09:00	06/06/18	17:30	ODB	POWERGRID,ER-II	Line AMP	
132KV Slg-Meli	06/06/18	09:00	06/06/18	17:30	ODB	POWERGRID,ER-II	Jumper Tightning Loc No. 31	SIKKIM
220KV Bus 1 at New Meli	06/06/18	11:00	06/06/18	14:00	ODB	POWERGRID,ER-II	Refilling of SF6 gas in G11- R Phase & Y phase	
220 kV Siliguri -Kishangang - II	06/06/18	10:00	06/06/18	17:00	ODB	POWERGRID,ER-II	AMP of 220 KV Kishangang bay-II, at Siliguri	
220KV DALKHOLA-MALDA-II	06/06/18	09:00	06/06/18	13:00	ODB	POWERGRID,ER-II	CT OIL SAMPLING	
400KV NTPC-Talcher HVDC Feeder III	06/06/18	09:00	06/06/18	18:00	ODB	ER-II/Odisha/HVDC Talcher	For Extension of CT Inputs, Trip, BFR etc. to the Bay Unit of Feeder III.	NLDC
209BAY(220KV Pandiabili-Atri-1)	06/06/18	10:00	06/06/18	17:00	ODB	ER-II/Odisha/ Pandiabili GIS	RTV Coating of 220 kv porcelain insulator(BPI , wavetrap &	
765KV Bus-I at Sundargarh	06/06/18	08:00	08/06/18	18:00	ODB	ER-II/Odisha/Sundergarh	Dismantling, shifting and re-erection of 765 Bus E/s to a	NLDC
765 KV, 3*500 MVA ICT 2 at Angul	06/06/18	10:00	06/06/18	18:00	ODB	ER-II/Odisha/Angul SS	For Replacing NRV of B-phase of ICT 2 bank at Angul SS	NLDC
DURGAPUR : 400KV DURGAPUR-PP5P CKT-II	06/06/18	09:00	06/06/18	14:00	ODB	WB	ODB for maintenance of bus side isolator	
3 66KV Lagayp (Line#3) Feeder	06/06/18	09:30	06/06/18	17:30	ODB	ER-II	CT tan delta and Line Isolator and Transfer Bus Isolator AMP & Dir/ O/C & EF Relay Replacemnet/	Gangtok POWER Department
6 220 kV Maithon-Dhanbad line 2 Bay	06/06/18	09:00	10/06/18	18:00	OCB	ER-II	CB overhauling work, There will be no power	
400KV MEJIA-MAITHON PG CKT#1	06/06/18	09:00	06/06/18	17:00	ODB	DVC	PREVENTIVE MAINTENANCE OF BAY AND TAN DELTA TEST	
220KV Pusauli-Sahpuri	07/06/18	13:00	07/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	NLDC
400KV HVDC East side Converter Tnx_Filter Tie Bay @	07/06/18	09:00	09/06/18	18:00	OCB	POWERGRID ER-1	For Breaker Drive overhauling and Bay AMP work	NLDC
400KV MAIN BUS-2 AT New Purma	07/06/18	10:00	07/06/18	18:00	ODB	POWERGRID ER-1	ISOLATOR ALIGNMENT WORK	BSPHCL
765/400KV 3X500 MVA ICT-II AT NRNC	07/06/18	08:00	09/06/18	18:00	ODB	POWERGRID ER-1	STATCOM CONSTRUCTION WORK	NLDC
220 KV BUS-I at Gaya S/S	07/06/18	09:00	07/06/18	18:00	ODB	POWERGRID ER-1	For KHUARSARAI bay commissioning work (Construction	BSPHCL
220KV Pusauli-Dehri	07/06/18	08:00	07/06/18	13:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	BSPHCL
765 KV Gaya-Balia-S/C	07/06/18	08:00	09/06/18	18:00	ODB	POWERGRID ER-1	for replacement of 160 KN and 120 KN porcelain insulator	NLDC
220 KV Birpara-Siliguri Ckt II	07/06/18	08:00	08/06/18	17:30	ODB	POWERGRID,ER-II	Fixing of Arching Horn & VD Fixing/ Tightning	Subject to Hydro situation
315 MVA ICT-I at Powergrid,Subhasgram	07/06/18	08:00	07/06/18	17:30	ODB	POWERGRID,ER-II	CGL make 01 no. 400KV old L.A (Y Ph) and 02 nos. 220KV old L.A replacement .	WB
160 MVA ICT#1 at Baripada	07/06/18	09:00	07/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	AMP	GRIDCO
400 KV BUS-II at Bolangir	07/06/18	09:00	08/06/18	18:00	ODB	ER-II/Odisha /Bolangir	For IPS Tube erection under Construction of Reactor bay	GRIDCO
400KV Bus-I at Keonjhar	07/06/18	09:00	12/06/18	18:00	ODB	Keonjhar	Stringing of Jack Bus over Bus-I for 125 MVAR Reactor	
400KV NTPC-Talcher HVDC Feeder IV	07/06/18	09:00	07/06/18	18:00	ODB	ER-II/Odisha/HVDC Talcher	For Extension of CT Inputs, Trip, BFR etc. to the Bay Unit of Feeder IV.	NLDC
400KV Kahalgaon-Lakhisarai Line-I	07/06/18	09:30	07/06/18	17:30	ODB	KAHALGAON	PM works & relay testing	
DURGAPUR : 400/220/33 KV 315MVA ICT-I	07/06/18	09:00	07/06/18	14:00	ODB	WB	ODB for maintenance of bus side isolator	
4 132 KV Gangtok- Rangpo Line	07/06/18	09:30	07/07/18	17:30	ODB	ER-II	Dir/ O/C and EF Relay Replacemnet/	
400/220KV 500MVA ICT-I @ Pusauli	08/06/18	08:00	08/06/18	12:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	BSPHCL
400 KV BIHARSARIF- VARANASI- I & II	08/06/18	08:00	09/06/18	18:00	ODB	POWERGRID ER-I	FOR POWER LINE CROSSING WORK OF 400 KV NABINAGAR - II - PATNA TRANSMISSION INE	NLDC
400KV Maithon-Durgapur Ckt-2	08/06/18	09:00	09/06/18	17:00	ODB	POWERGRID,ER-II	Rectification of Loose Jumper	Subject to Revival of 400KV Mithon-MPL-DC & 400KV DGP-FSTPP-I
400KV Tie bay of KGP-I AND FUTURE AT CHAIBASA	08/06/18	09:00	14/06/18	18:00	ODB	POWERGRID ER-1	for bay construction work of 125 MVAR B/R(NEW) at Chaibasa	
400 kV Main Bus-2 AT LAKHISARAI	08/06/18	10:00	08/06/18	14:00	ODB	POWERGRID ER-1	AMP	BSPHCL
400KV JSR-Baripada	08/06/18	09:30	08/06/18	17:30	ODB	POWERGRID ER-1	for replacement of flashed insulators.	
220 KV BUS-II at Gaya S/S	08/06/18	09:00	08/06/18	18:00	ODB	POWERGRID ER-1	For KHUARSARAI bay commissioning work (Construction work)	BSPHCL
400 kV PTN-BARH CKT – IV	08/06/18	08:00	08/06/18	18:00	ODB	POWERGRID ER-1	Replacement of Porcelain Insulator with polymer insulators	
220KV Pusauli-Ara	08/06/18	12:00	08/06/18	16:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	BSPHCL
220KV Pusauli-Nadhokhar	08/06/18	16:00	08/06/18	20:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	BSPHCL
400 KV BHP- Bheramara-1 Main Bay (Bay No.404) at Powergrid,Baharampore	08/06/18	09:00	08/06/18	17:00	ODB	POWERGRID,ER-II	AMP	

	220KV FARAKKA-LALMATIA	08/06/18	08:00	08/06/18	18:00	ODB	POWERGRID,ER-II	For stringing between location no- 5/0 to 6/0 of 400 KV Farakka -Behrampur D/c line	JUSNL
	132KV / 66KV 50 MVA ICT#2 at Gangtok	08/06/18	09:00	08/06/18	17:30	ODB	POWERGRID,ER-II	ICT AMP	SIKKIM
	132KV Rangit-Rangpo	08/06/18	09:00	08/06/18	17:30	ODB	POWERGRID,ER-II	Jumper Dead-End Changing in Loc No. 07	SIKKIM
	400 KV ANDAL-JAMSHEDPUR-II	08/06/18	10:00	10/06/18	18:00	ODB	ER-II	For replacement of polymer insulator at identified locations.	OVC
	400KV Jeypore - Bolangir Line at Jeypore	08/06/18	09:00:00	08/06/18	17:30:00	ODB	ER-II/Odisha /Jeypore	For Rectification of Shut Down Nature of Defects	NLDC
	125MVAR BUS REACTOR#1 AT ROURKELA	08/06/18	09:00	08/06/18	18:00	ODB	ER-II/ODISHA/ROURKELA	COMMISSIONING OF CSD IN ITS TIE BAY CB (42352 CB).	
	765 KV, 3*500 MVA ICT 3 at Angul	08/06/18	10:00	08/06/18	18:00	ODB	ER-II/Odisha/Angul SS	For Replacing NRV of R-phase of ICT 2 bank at Angul SS	NLDC
	765 KV Sundargarh-DHARAMJAYGARH - III & IV	08/06/18	08:00	17/06/18	17:00	ODB	Sundargarh TUM	Maintenance works and coconnection with new portion of balance line after swapping arrangement (Under Anti Theft Charge)	NLDC
	DURGAPUR : 400/220/33 KV 3*105 MVA ICT-II	08/06/18	09:00	08/06/18	14:00	ODB	WB	ODB for maintenance of bus side isolator	
	400KV DUBURI - PANDIABILI LINE	08/06/18	08:00	08/06/18	18:00	ODB	ER-II/Odisha/Cuttack TL	Installation of counter weight	
	400KV PANDIABILI - MENDHASAL CKT#-II	08/06/18	08:00	08/06/18	18:00	ODB	ER-II/Odisha/Cuttack TL	As above	GRIDCO
5	132KV / 66KV 50 MVA ICT#2 Gangtok	08/06/18	09:00	08/06/18	17:30	ODB	ER-II	ICT AMP Dir/ O/C and EF Relay Replacemet/	Gangtok POWER
	400kV East Side Bus-II@Pusauli	09/06/18	08:00	09/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	NLDC
	220KV BUS-I at Powergrid,Rangpo	09/06/18	08:00	11/06/18	17:00	OCB	POWERGRID,ER-II	For rectification of SF6 gas leakage repair work(both	
	400 kV Main Bay of 400 kV LKR-KHG-2 AT	09/06/18	10:00	09/06/18	11:00	ODB	POWERGRID ER-1	Taking Oil Sample of R-Phase CT	
	221 KV Birpara-Chukha ckt-I	09/06/18	08:00	09/06/18	17:30	ODB	POWERGRID,ER-II	Conductor repairing work at Loc 28	NLDC
	220KV Rangpo-NEW MELLI	09/06/18	08:00	11/06/18	17:00	OCB	POWERGRID,ER-II	For rectification of SF6 gas leakage repair work(both Shutdown needed on same dates)	
	400 KV Jeerat Line Main Bay (Bay No. 404) at	09/06/18	08:00	12/06/18	17:30	OCB	POWERGRID,ER-II	CGL make CB overhauling	
	132KV main BUS at Baripada	09/06/18	09:30	09/06/18	12:30	ODB	ER-II/Odisha/BARIPADA S/S	Bus CVT JB replacement	GRIDCO
	Indravati Line - Gajuwaka-I TieBay (411) at Jeypore	09/06/18	09:00:00	09/06/18	18:00:00	ODB	ER-II/Odisha /Jeypore	For AMP Works	
	400 KV BUS # 1 at Rengali	09/06/18	09:00	09/06/18	17:00	ODB	ER-II/Odisha/Rengali	For AMP work	
	765KV Bus-II at Sundargarh	09/06/18	08:00	11/06/18	13:00	ODB	ER-II/Odisha/Sundargarh	Dismantling, shifting and re-erection of 765 Bus E/s to a	NLDC
	DURGAPUR : 400 KV DURGAPUR-PGCIL CKT-II	09/06/18	09:00	09/06/18	14:00	ODB	WB	ODB for OSR relay replacement	
	400KV Main Bus -1 400KV Sub-station of DMTCL at	09/06/18	08:00	15/06/18	18:00	ODB	ALIPURDUAR	For Integration of Bus Bar	BSPHCL
	400KV BARIPADA - PANDIABILI LINE	09/06/18	08:00	09/06/18	18:00	ODB	ER-II/Odisha/Cuttack TL	As above	
6	132 KV Gangtok- Chuzachen Line	09/06/18	09:30	09/06/18	17:30	ODB	ER-II	Dir/ O/C & EF Relay Replacemet/	
	400KV BSF-Sasaram- I & II	10/06/18	09:00	20/06/18	17:00	OCB	POWERGRID ER-1	Tower Erection & Stringing for realignment of BSF-SAS-I & II for new construction of Railway Line at Islampur	NLDC
	400kV East Side Bus-II@Pusauli	10/06/18	08:00	10/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	NLDC
	400kV North Side Filter Main Bay@Pusauli	10/06/18	09:00	12/06/18	18:00	OCB	POWERGRID ER-1	For Breaker Drive overhauling and Bay AMP work	NLDC
	500 MVA 400/220KV ICT-I at Maithan	10/06/18	06:00	10/06/18	18:00:00 PM	ODB	POWERGRID,ER-II	Tan delta testing of Alstom Bushing at variable frequency, Onload testing of CSD, Rectification of	OVC, JUSNL
	132KV Rangit-Ramman S/C	10/06/18	09:00	11/06/18	17:30	ODB	POWERGRID,ER-II	Jumper Tightning Loc No. 68	WB
	400KV Fkk-Bahrampore Line	10/06/18	09:00	12/06/18	17:00	ODB	FARAKKA	CT replacement	WB
	400KV D/C FARAKKA - KAHALGAON -(I & II)	10/06/18	08:00	11/06/18	18:00	ODB	POWERGRID,ER-II	For stringing between location no- 4/0 to 5/0 of 400	FSPPP shall remain in service.
	220 KV SILIGURI-KISHANGANJ-D/C & 220 KV	10/06/18	10:00	12/06/18	18:30	OCB	POWERGRID,ER-II	through ERS to facilitate erection of M/C tower. After	Subject to Hydro situation
	Indravati Line Main Bay (410) at Jeypore	10/06/18	09:00:00	10/06/18	18:00:00	ODB	ER-II/Odisha /Jeypore	For AMP Works	
	400 KV Indravati FSC Bay (Bay-412 FSC)	10/06/18	09:00	12/06/18	17:00	ODB	ER-II/Odisha/Rengali	For AMP work	
	765 KV Gaya - Varanasi - I	11/06/18	09:00	20/06/18	18:00	OCB	POWERGRID ER-1	for tower strengthening work	NLDC
	400KV North Side Bus-II@Pusauli	11/06/18	08:00	11/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	NLDC
	765/400KV, 1500MVA, ICT for regular changeover in 06	11/06/18	09:00	13/06/18	18:00	OCB	POWERGRID ER-1	02 days for stability test and changing of Delta connection in	NLDC
	400KV Subhasgram- Jeerat Line	11/06/18	08:00	11/06/18	17:30	ODB	POWERGRID,ER-II	CGL make 400KV 03 nos. old LA (R, Y & B Ph) replacement at Subhasgram end.	WB
	132 KV RANGPO-GANGTOK	11/06/18	10:00	12/06/18	18:00	OCB		FOR NUMERICAL A/R RELAY INSTALLATION.	SIKKIM
	765 KV , NEW RANCHI - DHARMAJAYGARH-II	11/06/18	08:00	11/06/18	18:00	ODB	POWERGRID ER-1	STATCOM CONSTRUCTION WORK	NLDC
	765 KV L/R OF NEW RANCHI - DHARMAJAY GARH -	11/06/18	08:00	21/06/18	18:00	OCB	POWERGRID ER-1	STATCOM CONSTRUCTION WORK	NLDC
	400 kV Bus-II AT CHAIBASA	11/06/18	09:00	11/06/18	18:00	ODB	POWERGRID ER-1	Connection of 125 MVar Bus-Reactor to 400 KV Bus -Bar-II	JUSNL
	80 MVAR Bus Reactor AT LAKHISARAI	11/06/18	08:00	12/06/18	18:00	ODB	POWERGRID ER-1	For checking/rectification of alignment of Bus Reactor	
	400KV RNC- RKL-I	11/06/18	10:00	11/06/18	17:00	ODB	POWERGRID ER-1	for replacement of porcelain insulators with polymer	
	400 KV BUS-I at Gaya S/S	11/06/18	09:00	11/06/18	18:00	ODB	POWERGRID ER-1	for construction work of 400/220 kv ICT - III AT Gaya Sub-	BSPHCL
	220KV Main Bus-II @ Pusauli	11/06/18	09:00	11/06/18	18:00	ODB	POWERGRID ER-1	AMP work	BSPHCL
	ICT-I (3x 105 MVA) at Jeypore	11/06/18	09:30:00	11/06/18	17:30:00	ODB	ER-II/Odisha /Jeypore	For Extending Tertiary of Existing ICT-I (3x105MVA) for STATCOM Projects for Back-up Auxiliary supply, AMP Works & Isolator Rectification work	GRIDCO
	765 KV ANGUL-SUNDERGARH LINE I	11/06/18	07:00	20/06/18	18:00	ODB	ER-II/Odisha/Angul TL	Tower strengthening work	NLDC
	BUS Reactor at Barh	11/06/18	09:30	16/06/18	18:00	OCB	BARH	Annual testing of BUS Reactor	
7	220 kV Maithon-Kalyaneswari line 1 Bay	11/06/18	09:00	15/06/18	18:00	OCB	ER-II	CB overhauling work, There will be no power interruption occurred/ The said line will be in service	
	400kV North Side Bus-II@Pusauli	12/06/18	08:00	12/06/18	18:00	ODB	POWERGRID ER-1	To attend Isolator Misalignment Problem	NLDC
	765kV Fatehpur Line Main Bay @ Pusauli	12/06/18	09:00	12/06/18	18:00	ODB	POWERGRID ER-1	AMP work	NLDC
	220 kV BODHGAYA - DEHARI D/C	12/06/18	08:00	13/06/18	18:00	ODB	POWERGRID ER-1	FOR POWER LINE CROSSING WORK OF 400 kV NABINAGAR - II - PATNA TRANSMISSION IINE	BSPHCL

	400 KV Ranchi-NPPSP-I line	12/06/18	08:00	13/06/18	18:00	ODB	POWERGRID ER-I	STATCOM CONSTRUCTION WORK	WB
	400 kv Bus-II AT CHAIBASA	12/06/18	09:00	12/06/18	18:00	ODB	POWERGRID ER-I	Connection of 125 MVAR Bus-Reactor to 400 KV Bus -Bar-II	JUSNL
	400KV RNC- RKL-II	12/06/18	10:00	12/06/18	17:00	ODB	POWERGRID ER-I	for replacement of porcelain insulators with polymer	
	400 KV BUS-II at Gaya S/S	12/06/18	09:00	12/06/18	18:00	ODB	POWERGRID ER-I	for construction work of 400/220 kv ICT - III AT Gaya Sub-	BSPHCL
	400KV Alipurduar-Bongaigaon-I & Binaguri-315 MVAR ICT-I at Durgapur	12/06/18	08:00	12/06/18	18:00	ODB	POWERGRID ER-II	flexible jumper connection at Alipurduar	NLDC
	132KV / 66KV 50 MVA ICT-1#1 at Gangtok	12/06/18	09:00	12/06/18	17:30	ODB	POWERGRID ER-II	One relay replace & LBB DC supply modification	SIKKIM
	400/220 kv 315 MVA ICT-2 at Rangpo	12/06/18	08:00	15/06/18	17:00	OCB	POWERGRID ER-II	For rectification of SF6 gas leakage repair work	
	400KV Malda - New Purnea-I	12/06/18	09:00	13/06/18	13:00	ODB	POWERGRID ER-II	T/L mtc. with 2 nos. bend earth peak repairing	
	400 kv Bus-II at Baripada	12/06/18	08:30	12/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	For GIS bay EXTN works(for reconnecting jumpers to GIS	GRIDCO
	220KV BUS COUPLER BAY CB (204 CB) at Bolangir	12/06/18	09:00	12/06/18	18:00	ODB	ER-II/Odisha /Bolangir	AMP work for 204 CB(Timing and DCRM) & 204 CT	NLDC
	220KV Jeypore- JEYNAGAR-I Line	12/06/18	09:30:00	12/06/18	17:30:00	ODB	ER-II/Odisha /Jeypore	For Isolator Retrofitting works (220KV Jeynagar-I TBC	
	400KV Sundargarh-Rourkela Ckt #4 at Sundargarh	12/06/18	09:00	12/06/18	13:00	ODB	ER-II/Odisha/Sundargarh	Rectification of phase to ground clearance issue of Bushing	
	400KV TALCHER#2 & CHAIBASA#2 TIE BAY (BAY NO.-408) at	12/06/18	09:00	13/06/18	18:00	ODB	ER-II/Odisha/ROURKELA	FOR ARRESTING SF6 GAS LEAKAGE FROM R-PH & B-PH OF	
4	132KV / 66KV 50 MVA ICT-1#1 Gangtok	12/06/18	09:00	12/06/18	17:30	ODB	ER-II	ICT AMP Dir/ O/C and EF Relay Replacement/	Gangtok POWER
9	400 KV FKK-GOK-I Alongwith associated main bay &	12/06/18	09:00	13/06/18	17:00	ODB	ER-II	FOR additional protection of mechanical interlocks to	
14	400KV Alipurduar- Bongaigaon-I & Binaguri-	12/06/18	08:00	12/06/18	18:00	ODB	ER-II	flexible jumper connection at Alipurduar	(Re-schedule)
	400KV East Side Filter Main Bay@Pusauli	13/06/18	09:00	15/06/18	18:00	OCB	POWERGRID ER-I	For Breaker Drive overhauling and Bay AMP work	NLDC
	200 MVA ICT-2 & 80 MVAR Bus Reactor AT	13/06/18	08:00	16/06/18	18:00	ODB	POWERGRID ER-I	Fire wall Construction, Checking of Arcel of ICT-2 and AMP	
	400KV Alipurduar-Bongaigaon-II & Binaguri-	13/06/18	08:00	13/06/18	18:00	ODB	POWERGRID ER-II	flexible jumper connection at Alipurduar	NLDC
	160 MVA ICT-I at Birpara	13/06/18	08:00	13/06/18	17:30	ODB	POWERGRID ER-II	Replacement of Quartz Valve	WB
	400KV Sagardighi Line & 315MVA ICT-1#1 Tie Bay (Bay	13/06/18	08:00	16/06/18	17:30	OCB	POWERGRID ER-II	CGL make CB overhauling	
	400 kv Bus-I at Baripada	13/06/18	08:30	13/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	For GIS bay EXTN works(for isolation of GIS Bus-I)	GRIDCO
	400 kv Bay 413CB(GIS) at Baripada	13/06/18	08:30	22/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	For GIS Bus-I ext. works	GRIDCO
	220KV JEYPORE- JEYNAGAR-II Line	13/06/18	09:30:00	13/06/18	17:30:00	ODB	ER-II/Odisha /Jeypore	For Isolator Retrofitting works (220KV Jeynagar-II TBC	GRIDCO
	400KV Rengali-Talcher # 2 Main Bay-403 at Rengali	13/06/18	09:00	14/06/18	17:00	ODB	ER-II/Odisha/Rengali	For CT replacement works.	
	400KV Sundargarh-Raigarh Ckt #4 at Sundargarh	13/06/18	09:00	13/06/18	18:00	ODB	ER-II/Odisha/Sundargarh	Rectification of phase to ground clearance issue of Bushing	
15	400KV Alipurduar- Bongaigaon-II & Binaguri-	13/06/18	08:00	13/06/18	18:00	ODB	ER-II	flexible jumper connection at Alipurduar	(Re-schedule)
	400/220 kv ICT-II at Gaya S/S	14/06/18	10:00	14/06/18	16:00	ODB	POWERGRID ER-I	for construction work of 400/220 kv ICT - III AT Gaya Sub-	BSPHCL
	765/400KV 1500MVA ICT Main Bay @ Pusauli	14/06/18	09:00	14/06/18	18:00	ODB	POWERGRID ER-I	AMP work	NLDC
	400 KV BUS -I AT NRRNC	14/06/18	08:00	15/06/18	18:00	ODB	POWERGRID ER-I	STATCOM CONSTRUCTION WORK	
	400 kv Bus-II AT CHAIBASA	14/06/18	09:00	14/06/18	18:00	ODB	POWERGRID ER-I	for bay construction work of 125 MVAR B/R(NEW) at Chabasa	JUSNL
	400/220KV, 315MVA ICT-2 AT JAMSHEDPUR	14/06/18	09:30	14/06/18	17:30	ODB	POWERGRID ER-I	ISOLATOR MAINTT. WORK	
	315MVA ICT-II at Baripada	14/06/18	09:30	14/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	AMP works	GRIDCO
	220KV Sadapalli Line BAY CB (205 CB) at Bolangir	14/06/18	09:00	14/06/18	18:00	ODB	ER-II/Odisha /Bolangir	AMP work for 205 CB(Timing and DCRM)& 205 CT	GRIDCO
	ICT-I (3x 105 MVA) at Jeypore	14/06/18	09:30:00	14/06/18	17:30:00	ODB	ER-II/Odisha /Jeypore	For Isolator Retrofitting works (220KV ICT I TBC Isolator)	GRIDCO
	400KV Bus-I at Keonjhar	14/06/18	09:00	19/06/18	18:00	ODB	Keonjhar	Stringing of Jack Bus over Bus-II for 125 MVAR Reactor	GRIDCO
	765KV Sundargarh-Dharamjaygarh Ckt #3at Sundargarh	14/06/18	08:00	14/06/18	18:00	ODB	ER-II/Odisha/Sundargarh	Modification of Line side Jumpering from quard to twin to	NLDC
	400KV Kahalgaon-Lakhsara Line-2	14/06/18	09:30	14/06/18	17:30	ODB	KHALGAON	PM works & relay testing	
10	400 KV FKK-GOK-II Alongwith associated main bay &	14/06/18	09:00	15/06/18	17:00	ODB	ER-II	FOR additional protection of mechanical interlocks to	
	400KV D/C SAGARDIGHI-II-BHP-1 LINE	15/06/18	08:00	16/06/18	16:00	ODB	POWERGRID ER-II	CC Ring, Arcing Horn, VD, Jumper Tightening &	WB
	400KV TISCO - BARIPADA	15/06/18	09:30	15/06/18	17:30	ODB	POWERGRID ER-I	for replacement of flashed insulators.	DVC
	400 KV Binaguri Purnea Ckt - I	15/06/18	09:00	28/06/18	17:00	ODB	POWERGRID ER-II	replacement of defective insulator identified in PID SD	Subject to Hydro situation
	400 KV Binaguri Purnea Ckt - II	15/06/18	09:00	28/06/18	17:00	ODB	POWERGRID ER-II	replacement of defective insulator identified in PID SD	Subject to Hydro situation
	400 kv Bus-4 at Durgapur	15/06/18	09:00	15/06/18	17:00	ODB	POWERGRID ER-II	Isolator Dropper connection with Bus in RT-01 Package	DVC
	400 kv Maithon-Kahalgaon line 1	15/06/18	09:00	15/06/18	17:00	ODB	POWERGRID ER-II	Retrofitting of Diff relay	
	220 kv Bus -II at Jeypore	15/06/18	09:30:00	15/06/18	13:30:00	ODB	ER-II/Odisha /Jeypore	Isolator Retrofitting Works of Bus-II side isolators of	GRIDCO
	400kv Bay 401 (Keonjhar Main) at Rengali	15/06/18	09:00	16/06/18	17:00	ODB	ER-II/Odisha/Rengali	For CT replacement works.	
	765KV Sundargarh-Dharamjaygarh Ckt #4 at Sundargarh	15/06/18	08:00	15/06/18	18:00	ODB	ER-II/Odisha/Sundargarh	Modification of Line side Jumpering from quard to twin to	NLDC
11	315 MVA ICT AT FARAKKA	15/06/18	09:00	15/06/18	17:00	ODB	ER-II	FOR AMP WORK BY NTPC/FKK/	
	400KV HVDC North side Converter Trnx. Filter Tie Bay @	16/06/18	09:00	18/06/18	18:00	OCB	POWERGRID ER-I	For Breaker Drive overhauling and Bay AMP work	NLDC
	400KV S/C FARAKKA - SAGARDIGHI	16/06/18	08:00	20/06/18	18:00	ODB	POWERGRID ER-II	For Rapalcment of Insulators damaged by Miscrants	WB
	765 KV NEW RANCHI - DHARMAJAYGRAH Ckt-1	16/06/18	09:00	16/06/18	18:00	ODB	POWERGRID ER-I	STATCOM CONSTRUCTION WORK	NLDC
	400 kv Maithon-Kahalgaon line 2	16/06/18	09:00	16/06/18	17:00	ODB	POWERGRID ER-II	Retrofitting of Diff relay	
	220/132 Kv 100 MVA ICT-2 at Rangpo	16/06/18	08:00	19/06/18	17:00	OCB	POWERGRID ER-II	For rectification of SF6 gas leakage repair work	
	220 kv Bus -II at Jeypore	16/06/18	09:30:00	16/06/18	13:30:00	ODB	ER-II/Odisha /Jeypore	Isolator Retrofitting Works of Bus-II side isolators of	GRIDCO
	400KV Main Bus -2 400KV Sub-station of DMTCL at	16/06/18	09:00	22/06/18	18:00	ODB	ALIPURDUAR	For Integration of Bus Bar	BSPHCL
8	220 kv Maithon-Kalyaneswari line 1 Bay	16/06/18	09:00	20/06/18	18:00	OCB	ER-II	CB overhauling work, There will be no power	
	125MVAR Bus Reactor-II Main Bay @ Pusauli	17/06/18	09:00	17/06/18	18:00	ODB	POWERGRID ER-I	AMP work	
	220 kv Bus -II at Jeypore	17/06/18	09:30:00	17/06/18	13:30:00	ODB	ER-II/Odisha /Jeypore	Isolator Retrofitting Works of Bus-II side isolators of ICT-I	GRIDCO
	400kv Bay 409 (ICT-2 Main) at Rengali	17/06/18	09:00	18/06/18	17:00	ODB	ER-II/Odisha/Rengali	For CT replacement works.	
	400KV Fkk-Malda Line-2	17/06/18	09:00	17/06/18	17:00	ODB	FARAKKA	Breaker Testing	
	400 KV PATNA - BALIA - I & II	18/06/18	08:00	19/06/18	18:00	ODB	POWERGRID ER-I	FOR POWER LINE CROSSING WORK OF 400 kv	NLDC
	400 KV D/C SAGARDIGHI-II-BHP-2 LINE	18/06/18	08:00	19/06/18	16:00	ODB	POWERGRID ER-II	CC Ring, Arcing Horn, VD, Jumper Tightening &	WB
	400 KV Ranchi-NPPSP-II	18/06/18	08:00	19/06/18	18:00	ODB	POWERGRID ER-I	STATCOM CONSTRUCTION WORK	WB
	400 KV BUS-1 AT MUZAFFARPUR	18/06/18	10:00	20/06/18	18:00	ODB	POWERGRID ER-I	AMP WORK	BSPHCL
	400KV MAIN BAY OF RGP-2 AT RANCHI	18/06/18	10:00	18/06/18	17:00	ODB	POWERGRID ER-I	AMP	
	400 kv Sagardighi Line Main Bay (Bay No. 401) at	18/06/18	08:00	21/06/18	17:30	OCB	POWERGRID ER-II	CGL make CB overhauling	
	220 kv Bus -II at Jeypore	18/06/18	09:30:00	18/06/18	13:30:00	ODB	ER-II/Odisha /Jeypore	Isolator Retrofitting Works of Bus-II side isolators of Bus	GRIDCO
	765KV Sundargarh-Darlipali(NTPC)1st Sundargarh	18/06/18	08:00	18/06/18	18:00	ODB	ER-II/Odisha/Sundargarh	Modification of Line side Jumpering from quard to twin to	NLDC
	220KV Fkk-Lalmatia Line	18/06/18	09:00	18/06/18	17:00	ODB	FARAKKA	Line maintenance	JUSNL
	400KV D/C Farakka - Kahalgaon Ckt I & II	19/06/18	09:00	21/06/18	17:00	OCB	POWERGRID ER-I	for construction work of 400KV D/C Rajarhat-Purnea Line	FSPPP shall remain in service.
	50 MVAR U/R of KAHALGAON-LAKHSARAI-I AT	19/06/18	10:00	19/06/18	17:00	ODB	POWERGRID ER-I	AMP	
	400 kv LKR-KHG Line-1	19/06/18	10:00	19/06/18	10:10	ODB	POWERGRID ER-I	for taking 50 MVAR Line Reactor-2 out of service.	
	400 kv LKR-KHG Line-1	19/06/18	16:50	19/06/18	17:00	ODB	POWERGRID ER-I	for taking 50 MVAR Line Reactor-2 in service.	
	80 MVAR BUS REACTOR AT RANCHI	19/06/18	10:00	19/06/18	14:00	ODB	POWERGRID ER-I	For Top up of oil in Conservator	
	400KV Allahabad Main bay @ Pusauli	19/06/18	09:00	21/06/18	18:00	OCB	POWERGRID ER-I	For Breaker Drive overhauling and Bay AMP work	
	220kv Alipurduar - Birpara Ckt - I	19/06/18	08:00	19/06/18	18:00	ODB	POWERGRID ER-II	AMP work Auto Reclose Relay Scheme Checking	
	400 Kv Bus-3 at Durgapur	19/06/18	09:00	19/06/18	17:00	ODB	POWERGRID ER-II	Isolator Dropper connection with Bus in ERSS- XVII(SFML)	DVC
	220 kv Bus -I at Jeypore	19/06/18	09:30:00	19/06/18	13:30:00	ODB	ER-II/Odisha /Jeypore	Isolator Retrofitting Works of Bus-II side isolators of	GRIDCO
	400kv Bay 408 (ICT-1 & ICT-II Tie) at Rengali	19/06/18	09:00	20/06/18	17:00	ODB	ER-II/Odisha/Rengali	For CT replacement works.	
	765KV Sundargarh-Darlipali(NTPC)2 at Sundargarh	19/06/18	08:00	19/06/18	18:00	ODB	ER-II/Odisha/Sundargarh	Modification of Line side Jumpering from quard to twin to	NLDC
	400 kv Sundargarh - Raigarh - II (Two)	19/06/18	08:00	19/06/18	17:00	ODB	Sundargarh TLM	For tree /Bamboo cutting at Loc No. 426	NLDC
12	220KV Alipurduar - Birpara Ckt - I	19/06/18	08:00	19/06/18	18:00	ODB	ER-II	AMP work	
	400KV Maithon-Gaya-2 & 400KV Koderma-Gaya-1	20/06/18	09:00	20/06/18	18:00	ODB	POWERGRID ER-I	For replacement of insulators damaged by miscreant AT	subject to revival of 400KV
	400 kv BUS -2 AT NRRNC	20/06/18	08:00	21/06/18	18:00	ODB	POWERGRID ER-I	STATCOM CONSTRUCTION WORK	
	63 MVARVaranasi Line Reactor(North Side)@ Pusauli	20/06/18	09:00	04/06/18	18:00	OCB	POWERGRID ER-I	For Reactor and Breaker Overhauling Work	NLDC
	220KV Alipurduar - Birpara Ckt - II	20/06/18	08:00	20/06/18	18:00	ODB	POWERGRID ER-II	AMP work	
	430 bay/ Jamshedpur-I Main) at Powergrid,Durgapur	20/06/18	09:00	20/06/18	17:00	ODB	POWERGRID ER-II	CB Aux. Contact replacement	
	400/220kv 315 MVAICT-1 at Rangpo	20/06/18	08:00	24/06/18	17:00	OCB	POWERGRID ER-II	For rectification of SF6 gas leakage repair work	
	400 KV MALDA-FARAKKA-II	20/06/18	10:00	21/06/18	18:00	ODB	ER-II	FOR NUMERICAL A/R RELAY INSTALLATION.	
	220 kv Bus -I at Jeypore	20/06/18	09:30:00	20/06/18	13:30:00	ODB	ER-II/Odisha /Jeypore	Isolator Retrofitting Works of Bus-I side isolators of	GRIDCO
	765KV 1500MVA ICT-1 at Sundargarh	20/06/18	09:00	20/06/18	13:00	ODB	ER-II/Odisha/Sundargarh	Shifting of R-Phase ICT to spare ICT to attend oil leakage of	NLDC
	400KV ROURLA-SUNDARGARH#2	20/06/18	08:00	20/06/18	18:00	ODB	ER-II/Odisha/ROURLA	RE-FIXING OF JUMPER BOLT, CC RING BOLT, VD, FIXING OF	
13	220KV Alipurduar - Birpara Ckt - II	20/06/18	08:00	20/06/18	18:00	ODB	ER-II	AMP work	
	400KV Maithon-Gaya-1 & 400KV Koderma-Gaya-2	21/06/18	09:00	22/06/18	18:00	ODB	POWERGRID ER-I	For replacement of insulators damaged by miscreant AT	subject to revival of 400KV
	400KV BSP-Varanasi-I & II	21/06/18	09:00	30/06/18	17:00	OCB	POWERGRID ER-I	Tower Erection & Stringing for realignment of BSP-VNS-I &	NLDC
	400 KV Farakka- Kahalgaon-I	21/06/18	10:00	21/06/18	18:00	ODB	POWERGRID ER-II	For connecting bay-22 (Main Bay of 400 KV Farakka-	FSPPP shall remain in service.
	220 kv BUS-I at Baripada	21/06/18	09:30	21/06/18	13:30	ODB	ER-II/Odisha/BARIPADA S/S	CVT JB replacement works	GRIDCO
	125 MVAR Bus Reactor at Jeypore	21/06/18	09:00:00	21/06/18	10:00:00	ODB	ER-II/Odisha /Jeypore	For STATCOM Post commissioning Test of External Reactive	
	400KV ROURLA-SUNDARGARH#4	21/06/18	08:00	21/06/18	18:00	ODB	ER-II/Odisha/ROURLA	RE-FIXING OF JUMPER BOLT, CC RING BOLT, VD, FIXING OF	
	765KV 1500MVA ICT-2 at Sundargarh	21/06/18	09:00	21/06/18	13:00	ODB	ER-II/Odisha/Sundargarh	Shifting of B-Phase ICT to spare ICT to attend oil leakage of	NLDC
	765 KV ANGUL-SUNDERGARH LINE II	21/06/18	07:00	30/06/18	18:00	ODB	ER-II/Odisha/Angul TL	Tower strengthening work	NLDC
	400KV Kahalgaon-Barh Line-2	21/06/18	09:30	21/06/18	17:30	ODB	KAHALGAON	PM works & relay testing	

400KV RANCHI MAITHAN RB-I	22/06/18	10:00	22/06/18	17:00	ODB	POWERGRID ER-1	FOR DIAMOND FORMATION OF RNC MTN LINE POWER LINE	subject to revival of 400KV
400KV RANCHI MAITHAN RB-II	22/06/18	10:00	22/06/18	17:00	ODB	POWERGRID ER-1	FOR DIAMOND FORMATION OF RNC MTN LINE POWER LINE	subject to revival of 400KV
400KV RANCHI-RAGUNATHPUR-I	22/06/18	10:00	22/06/18	17:00	ODB	POWERGRID ER-1	FOR DIAMOND FORMATION OF RNC MTN LINE POWER LINE	subject to revival of 400KV
400KV RANCHI- MAITHON	22/06/18	10:00	22/06/18	17:00	ODB	POWERGRID ER-1	FOR DIAMOND FORMATION OF RNC MTN LINE POWER LINE	subject to revival of 400KV
400 KV S/C BHP-JEERAT LINE	22/06/18	08:00	22/06/18	16:00	ODB	POWERGRID,ER-II	CC Ring Tightening & Replacement	WB
400 KV Durgapur-Bidhannagar line-I	22/06/18	09:00	22/06/18	17:00	ODB	POWERGRID,ER-II	CVT JB replacement work due damage	WB
400KV TIE BAY OF PURULIA -I AND PATRATU -I AT	22/06/18	08:00	22/06/18	18:00	ODB	POWERGRID ER-1	AMP 2018-19	
400KV Varanasi Main Bay (East Side) at Pusaui	22/06/18	09:00	22/06/18	18:00	ODB	POWERGRID ER-1	AMP work	NLDC
400 KV Farakka- Kahalgaon-III	22/06/18	10:00	22/06/18	18:00	ODB	POWERGRID,ER-II	For connecting bay-34 (Tie Bay of 400 KV Farakka-	FSTPP shall remain in service.
220KV Subhasgram-New Town Line Bay CB	22/06/18	08:00	24/06/18	17:30	OCB	POWERGRID,ER-II	CGL make CB overhauling	WB
400 kv Bus-I at Baripada	22/06/18	08:30	22/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	For GIS bay EXTN works(for reconnecting jumpers to GIS Bus-I)	GRIDCO
400 KV Indravati - Rengali Line	22/06/18	08:00	22/06/18	18:00	ODB	ER-II/Odisha /Indravati	AMP work of 50 MVAR L/R & 400 KV Jeypure-Rengali Tie Bay	NLDC
315 MVA ICT-II at Jeypure	22/06/18	12:00:00	22/06/18	13:00:00	ODB	ER-II/Odisha /Jeypure	For STATCOM Post commissioning Test of External Transformer Switching.	GRIDCO
400KV ROURKELA-TALCHER#1	22/06/18	08:00	22/06/18	18:00	ODB	ER-II/ODISHA/ROURKELA	RE-FIXING OF JUMPER BOLT, CC RING BOLT, VD, FIXING OF SPLIT PINS FOUND IN CROSS PATROLLING.	
400 KV Rourkela-Sundargarh - II (Two)	22/06/18	08:00	22/06/18	17:00	ODB	Sundargarh TLM	For S/D related works like C C Ring tightening,cotter pin inclusion, VD displaced work, Jumper tightening checking etc.	
400KV MAIN BAY OF PATRATU-I AT NRNC(Bay 421)	23/06/18	08:00	23/06/18	18:00	ODB	POWERGRID ER-1	AMP 2018-19	
220 kv BUS-II at Baripada	23/06/18	09:30	23/06/18	13:30	ODB	ER-II/Odisha/BARIPADA S/S	CVT JB replacement works	GRIDCO
220 kv Bus -I at Jeypure	23/06/18	09:30:00	23/06/18	13:30:00	ODB	ER-II/Odisha /Jeypure	Isolator Retrofitting Works of Bus-I side Isolators of ICT -I	GRIDCO
400KV ROURKELA-TALCHER#2	23/06/18	08:00	23/06/18	18:00	ODB	ER-II/ODISHA/ROURKELA	RE-FIXING OF JUMPER BOLT, CC RING BOLT, VD, FIXING OF SPLIT PINS FOUND IN CROSS PATROLLING.	
400 KV BUS-I of NTPC Farakka	24/06/18	10:00	24/06/18	18:00	ODB	POWERGRID,ER-II	For connecting BUS isolator of bay no-22 & 33 to BUS-I (After augmentation of BUS Isolator from 2000A to	
220KV Subhasgram-New Town Line	24/06/18	08:00	24/06/18	17:30	ODB	POWERGRID,ER-II	CGL make 220KV 01 nos. old LA (B Ph) replacement at Subhasgram end.	
400KV Baripada-Kharagpur line	24/06/18	09:30	24/06/18	13:30	ODB	ER-II/Odisha/BARIPADA S/S	Replacement of CVT JB	WB
220 kv Bus -I at Jeypure	24/06/18	09:30:00	24/06/18	13:30:00	ODB	ER-II/Odisha /Jeypure	Isolator Retrofitting Works of Bus-I side Isolators of Bus Coupler	GRIDCO
400KV Main Bus - 1 & 2 at 400KV Sub-station of DMTCL at Darbhanga	24/06/18	09:00	25/06/18	18:00	ODB	ALIPURDUAR TRANSMISSION LIMITED	For Bus Bar Protection Panel Integration	BSPHCL
400/132KV 200MVA ICT-1 AT BANKA	25/06/18	10:00	25/06/18	18:00	ODB	POWERGRID ER-1	Providing insulation sleeves on tertiary conductor	BSPHCL
100 MVAR Bus Reactor at WBSETCL, Jeerat S/s by Powergrid,Subhasgram	25/06/18	08:00	31/06/18	17:30	OCB	POWERGRID,ER-II	Replacement of Bushing of B Phase CGL Reactor	WB
400KV Varanasi North Side Main bay @ Pusaui	25/06/18	09:00	27/06/18	18:00	OCB	POWERGRID ER-1	For Breaker Drive overhauling and Bay AMP work	NLDC
220KV WBSETCL Subhasgram CKT #1 Bay (Bay No.207)at Powergrid,Subhasgram	25/06/18	08:00	27/06/18	17:30	OCB	POWERGRID,ER-II	CGL make CB overhauling	
132KV Baripada- Bangriposi line	25/06/18	09:30	25/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	CT JB replacemnet works	GRIDCO
220KV JEYPORE-JEYNAGAR-I Line	25/06/18	09:30:00	25/06/18	17:00:00	ODB	ER-II/Odisha /Jeypure	For Isolator Retrofitting works (220KV Jeynagar 89C Isolator) & R-ph CVT replacement work	GRIDCO
400/132KV 200MVA ICT-2 AT BANKA	26/06/18	10:00	26/06/18	18:00	ODB	POWERGRID ER-1	Providing insulation sleeves on tertiary bushing	BSPHCL
400 KV Durgapur-Bidhannagar line-II	26/06/18	09:00	26/06/18	17:00	ODB	POWERGRID,ER-II	CVT& LA shifting to new Location and jumper connection.	WB
400 KV NRNC - Chandawa Ckt-2	26/06/18	09:00	26/06/18	18:00	ODB	POWERGRID ER-1	STATCOM CONSTRUCTION WORK	
400KV 125MVAR Bus Reactor-II	26/06/18	09:00	26/06/18	18:00	ODB	POWERGRID ER-1	AMP work	
315MVA ICT-I at Baripada	26/06/18	09:00	26/06/18	13:30	ODB	ER-II/Odisha/BARIPADA S/S	AMP	GRIDCO
220KV JEYPORE-JEYNAGAR-II Line	26/06/18	09:30:00	26/06/18	13:30:00	ODB	ER-II/Odisha /Jeypure	For Isolator Retrofitting works (220KV Jeynagar 89C Isolator)	GRIDCO
220KV WBSETCL- Subhasgram CKT#1	27/06/18	08:00	27/06/18	17:30	ODB	POWERGRID,ER-II	CGL make 220KV 02 nos. old LA (Y & B Ph) replacement at Subhasgram end.	WB
63MVAR Biharsharif-II L/R at Pusaui	27/06/18	09:00	27/06/18	18:00	ODB	POWERGRID ER-1	AMP work	
ICT-I (3x 105 MVA) at Jeypure	27/06/18	09:30:00	27/06/18	13:30:00	ODB	ER-II/Odisha /Jeypure	For Isolator Retrofitting works (220KV ICT I 89C Isolator)	GRIDCO
400KV Berhampore-Jeerat Line	28/06/18	08:00	28/06/18	17:30	ODB	POWERGRID,ER-II	Relay testing due to CTR change and CB AMP.	WB
400KV Biharsharif-II Main Bay @ Pusaui	28/06/18	09:00	30/06/18	18:00	OCB	POWERGRID ER-1	For Reactor and Breaker Overhauling Work	
Bus Sectionaliser#1 at Powergrid,Durgapur	28/06/18	09:00	28/06/18	17:00	ODB	POWERGRID,ER-II	CB Aux. Contact replacement	
400 kv Jeypure-Indravati S/C Line	28/06/18	09:00:00	28/06/18	17:30:00	ODB	ER-II/Odisha /Jeypure	For replacement of 400KV B-ph Line CVT	NLDC
400KV Jeypure-Gazuwaka-I FSC at Jeypure	29/06/18	09:00:00	29/06/18	17:30:00	ODB	ER-II/Odisha /Jeypure	For rectification of SF6 gas leakage and overhauling of R-ph	NLDC
400 KV Sundargarh - Raigarh II (Two)	29/06/18	08:00	29/06/18	17:00	ODB	Sundargarh TLM	For S/D related works for various compliance of cross	NLDC
Bus Sectionaliser#2 at Powergrid,Durgapur	30/06/18	09:00	30/06/18	17:00	ODB	POWERGRID,ER-II	CB Aux. Contact replacement	
500MVA ICT #3 at Baripada	30/06/18	09:30	30/06/18	17:30	ODB	ER-II/Odisha/BARIPADA S/S	PRD replacement works	GRIDCO
Tie bay (414) of 400KV Gajuwaka Line-II & 400KV Bolangir	30/06/18	09:00:00	30/06/18	17:30:00	ODB	ER-II/Odisha /Jeypure	For rectification of Oil leakage of R-ph CB of 414CT-A	

Outages proposed in other RPCs requiring ERPC approval

Sl No	Name of Elements	From		To		Basis	outages proposed in	Reason	Remarks
		Date	Time	Date	Time				
	400kv RAIGARH-SUNDERGARH I & III	04-Jun-18	08:00	04-Jun-18	18:00	continuous	WRPC	Diversion of Line at 622 -624 on account of Railway NTPC,Lara (Consultancy work)	
	765kv D/JAIGARH-RANCHI I	04-Jun-18	08:00	06-Jun-18	18:00	Daily	WRPC	Replacement of open gaud Line Spacer, Line Spacer more than 140 Spans opened approx 500Nos.	
	220kv KORBA(EAST)-BUDDHIPADAR III	04-Jun-18	08:00	10-Jun-18	18:00	continuous	WRPC	Diversion of Line at 190-192 on account of Railway NTPC,Lara (Consultancy work)	
	765kv D/C Jharsuguda-Dharamjaygarh ckt 3& 4	07-Jun-18	08:00	07-Jun-18	18:00	continuous	WRPC	Overhead stringing works of U/C 765KV D/C Rapur-Sundergarh Line	
	220kv Korba-Budhipadar circuit 3	27-Jun-18	07:00	29-Jun-18	18:00	continuous	WRPC	Overhead stringing works of U/C 765KV D/C Rapur-Sundergarh Line	
	A/R of Talcher-Kolar Pole-1 & 2	22-May-18	09:00	06-Jul-18	18:00	Daily	SRPC	A/R scheme to be kept in Non Auto mode for Hot line washing.	
	South Bus-1 at Gazuwaka SS	26-May-18	09:00	26-May-18	18:00	Daily	SRPC	RTV Coating Works	
	East Bus-1 at Gazuwaka SS	28-May-18	09:00	28-May-18	18:00	Daily	SRPC	RTV Coating Works	
	765KV, 1500 MVA ICT#2 at Vemagiri GIS	28-May-18	09:30	28-May-18	17:30	continuous	SRPC	For attending oil leaks in ICT-2 (New dates would be intimated soon)	1150MW curtailment in ER-SR
	765KV, 1500 MVA ICT#1 at Vemagiri GIS	29-May-18	09:30	29-May-18	17:30	continuous	SRPC	For attending oil leaks in ICT-1 (New dates would be intimated soon)	1150MW curtailment in ER-SR

Pole 2 South Filter(WA1.Z11.Q3)	14-May-18	09:00	19-May-18	18:00	continuous	SRPC	For overhauling works on interrupter & pole column	
Pole 2 South Filter(WA1.Z11.Q2) at Gazuwaka SS	21-May-18	09:00	26-May-18	18:00	continuous	SRPC	For overhauling works on interrupter & pole column	
WA2.W1.Q3(Pole-2 East Bus-2) at Gazuwaka SS	25-May-18	09:00	25-May-18	18:00	Daily	SRPC	RTV Coating Works	
Pole 2 East Filter(WA2.Z11.Q2) at Gazuwaka SS	28-May-18	09:00	02-Jun-18	18:00	continuous	SRPC	For overhauling works on interrupter & pole column	
Pole 2 South Filter(WA1.Z11.Q1) at Gazuwaka SS	04-Jun-18	09:00	11-Jun-18	18:00	continuous	SRPC	For overhauling works on interrupter & pole column	
WA2.W1.Q1(Pole-2 East Bus-1) at Gazuwaka SS	23-May-18	09:00	23-May-18	18:00	Daily	SRPC	RTV Coating Works	
South Bus-1 at Gazuwaka SS	26-May-18	09:00	26-May-18	18:00	Daily	SRPC	RTV Coating Works	Curtailment 150 MW
East Bus-1 at Gazuwaka SS	28-May-18	09:00	28-May-18	18:00	Daily	SRPC	RTV Coating Works	Curtailment 150 MW
BUS Reactor (South side) at Gazuwaka SS	16-May-18	09:00	16-May-18	18:00	Daily	SRPC	AMP and RTV Coating Works	
WIN1.W1.Q1(East Bus Extension-1) at Gazuwaka SS	19-May-18	09:00	19-May-18	18:00	Daily	SRPC	RTV Coating Works	
WIN2.W1.Q1(East Bus Extension-2) at Gazuwaka SS	21-May-18	09:00	21-May-18	18:00	Daily	SRPC	RTV Coating Works	



AGENDA-1

***Diversion of 400kV S/C Berhampore-Farakka
TL in between Loc No.-150-151 due to Railway
Track widening in between Moregram to
Sagardighi Under Eastern Railway Howrah***

Diversion of 400kV S/C Berhampore-Farakka TL in between Loc No.-150-151 due to Railway Track widening in between Moregram to Sagardighi Under Eastern Railway Howrah

- * Based on the request as received from Eastern Railway Howrah in connection with doubling work of Nalhati-Sagardighi Section of Eastern Railway in between Sagardighi and Moregram Railway Station , POWERGRID have taken up the Line Diversion work of 400kV S/C Farakka-Berhampore section of original 400kV S/C Farakka-Jeerat Line-1.
- * Shifting of Line shall be carried out through construction of 4 Nos. New Towers.
- * As per present status of work ,Foundation work completed in all 4 locations.
- * We are getting repeated reminders from Railway Authorities in order to complete the work on an urgent basis.

Diversion of 400kV S/C Berhampore-Farakka TL in between Loc No.-150-151 due to Railway Track widening in between Moregram to Sagardighi Under Eastern Railway Howrah

- * Since 3 Nos. of new towers are on-line towers as such for taking up the erection work S/D of 400kV S/C Berhampore-Farakka TL is required.
- * As per our planning, we require complete S/D of 400kV S/C Farakka-Berhampore TL for 25 days tentatively from 22.05.2018 to 15.06.2018.
- * In view of the above, considering the urgency, it is requested to approve S/D of 400kV S/C Berhampore-Farakka TL as per the above mentioned dates and the said outage period may be treated as force majeure condition i.e. beyond the control of POWERGRID and the outage shall be excluded for the purpose of availability.



AGENDA-2

Replacement of defective Porcelain Insulators with CLR Insulators identified after PID Testing in Trans. Lines under ER-II

Replacement of defective Porcelain Insulators identified after PID Testing in Trans. Lines under ER-II

- * As part of improving the System availability, POWERGRID ER-II have carried out Puncture Insulator Detection Testing in lines which are 25 years in service and those lines which are frequently getting auto-reclosed/de-capped during lightening.
- * The list of lines under ER-II where PID Testing have been carried out are as per the following:-
 - * 400kV D/C Malda-Purnea TL
 - * 400kV S/C Farakka-Durgapur-II
 - * 400kV Jeerat-Subhasgram TL
 - * 400kV Subhasgram-Sagardighi TL
 - * 400kV S/C Durgapur-Jamshedpur TL
 - * 400kV D/C Malda-Farakka TL
 - * 400kV D/C Binaguri-Purnea TL
 - * 400kV D/C Andal-Jamshedpur TL

Replacement of defective Porcelain Insulators identified after PID Testing in Trans. Lines under ER-II

- * Upon analysing the test-results of PID testing, it has come into observation that in above mentioned lines more than 20% Porcelain Insulator strings have been found defective.
- * As such, it is urgently required to replace those insulators as those defective porcelain insulator strings are very vulnerable to sudden de-capping/Auto-reclosure of lines.
- * As such, we are planning to replace all those defective porcelain insulators with new CLR Insulators one line at a time and Ckt-wise.
- * The list of lines where Insulator Replacement shall be carried out and tentative date proposed for availing S/D are as per the following:-

Replacement of defective Porcelain Insulators identified after PID Testing in Trans. Lines under ER-II

- * 400kV D/C Binaguri-Purnea TL(15.06.2018 to 30.06.2018)(Ckt-wise)
- * 400kV D/C Malda-Purnea TL- 01.07.2018-15.07.2018 (Ckt-wise)
- * 400kV S/C Farakka-Durgapur-II-16.07.2018-30.07.2018
- * 400kV D/C Malda-Farakka TL-01.08.2018 to 15.08.2018(Ckt-wise)
- * 400kV S/C Durgapur-Jamshedpur TL-01.10.2018 to 15.10.2018
- * 400kV D/C Andal-Jamshedpur TL(16.10.2018 to 30.10.2018)(Ckt wise)
- * 400kV Jeerat-Subhasgram TL-01.11.2018 to 15.11.2018
- * 400kV Subhasgram-sagardighi TL-16.11.2018 to 31.11.2018
- * As this is an activity carried out for system improvement, it is requested to consider the outages for above activities as per CERC regulations for non-attributable to POWERGRID.

PHOTOS OF PID WORK IN 400KV S/C DGP-JSR TL





NTPC- KANIHA

Ref: 9501/O&M/EEMG/2646

Date: 10th May-2017

To
Member Secretary,
Eastern Regional Power Committee,
14 Golf Club Road, Tollygunge, Kolkata

Sub: Rescheduling of Unit-2 Planned Shutdown from 15th July-18

Sir,

The planned shutdown of TSTPS Unit-2 was initially scheduled from 10th Nov-18 for 30 days and accordingly it was included in LGBR.

Subsequently in the 144th OCC, our proposal to reschedule the unit shutdown from 15th Jul-18 was not agreed upon and was asked to submit justification. The following facts are put up for your kind perusal;

1. The Turbine-Generator bearing-1 & bearing-2 vibration is maintaining 85 & 105 micron. The Bearing-2 vibration has increased from 55 micron to 85 micron over last 2 months. This being the critical parameter, we are continuously monitoring the vibration and also in touch with the OEM. This TG set was supplied by ABB and we have tied up with them for their visit during the shutdown to attend.
2. One of the TDBFP of this unit is experiencing turbine vibration problem beyond the speed of 5300 RPM thereby restricting the generation. This will take 10-12 days shutdown (TDBFP) for attending the same. It is also planned during the unit shutdown to avoid increase in APC by taking MDBFP in service.
3. The unit is running for 18 months since the last overhauling in Dec-2016. The Efficiency and APC have deteriorated & need a overhauling to recover and to achieve the PAT-2 target set by BEE.

Because of the above, it is technically not advisable to run the unit beyond Jun-18 and hence we are proposing the planned shutdown for 30days wef 15th Jul-17 after the completion of Unit-5 overhauling already approved by SRPC.

Thanking you.

Sincerely Yours,


A. अश्विनी कुमार त्रिपाठी
ASHWINKUMAR TRIPATHY
General Manager (O&M)
महानिरीक्षक (प्र. व. मं.)
General Manager (O&M)

एन टी पी सी लिमिटेड, कनिहा थर्मल पावर स्टेशन, P.O.: Deepshikha-759147, Dist: Angul (Orissa)

Corporate Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodi Road, New Delhi -110003

Details of stations/Units required to operate under RGMO/FGMO as per IEGC							Whether operating under RGMO	indicate in case of status is not available
Name of State	Type	Name of Utility	Sector (CS/SS/Private)	Name of Station	Name of Stage/ Unit	Installed capacity (MW)		
JHARKHAND	Thermal	TVNL	SS	Tenughat	1	210	No	Difficulties in implementing RGMO & exemption not
			SS		2	210	No	
	Hydro	JSEB	SS	Subarnrekha	1	65	Yes	
			SS		2	65	Yes	
WEST BENGAL	Thermal	WBPDC	SS	Bandel TPS	1	82.5	No	
			SS		2	82.5	No	
			SS		3	82.5	No	
			SS		4	82.5	No	
			SS	Santalidih	5	250	No	Unit#6 could not be implemented because of some technical problem
			SS		6	250	No	
			SS	Kolaghat	1	210	No	Nil
			SS		2	210	No	Nil
			SS		3	210	No	Nil
			SS		4	210	No	Nil
			SS		5	210	No	Nil
			SS		6	210	No	Nil
			SS	Bakreshwar	1	210	Yes	
			SS		2	210	Yes	
			SS		3	210	Yes	
			SS		4	210	Yes	
			SS		5	210	Yes	
			SS	Sagardighi	1	300	No	Without OEM support it is not possible to put in FGMO/RGMO. At present OEM support is not
			SS		2	300	No	
	Hydro		SS	PPSP	1	225	Yes	In 134th OCC WBPDC informed that the units are in RGMO/FGMO mode
			SS		2	225	Yes	
			SS		3	225	Yes	
			SS		4	225	Yes	
	Thermal	CESC	SS	Budge-Budge	1	250	Yes	
			SS		2	250	Yes	
			SS		3	250	Yes	
			SS	Haldia	1	300	Yes	
			SS		2	300	Yes	
			SS		7	300	Yes	
Orissa		OPGC	SS	IB TPS	1	210	No	Not adequate response in RGMO
			SS		2	210	No	
	Hydro	OHPC	SS	Burla	1	49.5	No	
			SS		2	49.5	No	
			SS		3	32	No	
			SS		4	32	No	
			SS		5	37.5	No	
			SS		6	37.5	No	
			SS		7	37.5	No	
			SS	Balimela	1	60	No	
			SS		2	60	No	
			SS		3	60	No	
			SS		4	60	No	
			SS		5	60	No	
			SS		6	60	No	
			SS		7	75	No	
			SS		8	75	No	
			SS	Rengali	1	50	No	
			SS		2	50	No	
			SS		3	50	No	
			SS		4	50	No	
			SS		5	50	No	
			SS	Upper Kolab	1	80	No	
			SS		2	80	No	
			SS		3	80	No	
			SS		4	80	No	
			SS	Indravati	1	150	No	
			SS		2	150	No	

			SS		3	150	No				
			SS		4	150	No				
			64								
Central Sector	Thermal	DVC	CS	Bokaro-A	1	500	Yes				
			CS	Bokaro-B	3	210	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.			
			CS	CTPS	3	130	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.			
			CS		7	250	Yes				
			CS		8	250	Yes				
			CS		DTPS	4	210	No	Not possible due to non availability of Electro hydraulic governing. The units will be decommissioned shortly.		
			CS	Mejia	1	210	No	Not possible due to non availability of Electro			
			CS		2	210	No	availability of Electro			
			CS		3	210	No	Action has been initiated to put in RGMO, but testing is not yet completed.			
			CS		4	210	Yes				
			CS		5	250	Yes				
			CS		6	250	Yes				
			CS	Mejia - B	7	500	Yes				
			CS		8	500	Yes				
			CS	DSTPS	1	500	Yes				
			CS		2	500	Yes				
			CS	KODERMA	1	500	Yes				
			CS		2	500	Yes				
			CS	RTPS	1	600	Yes				
			CS		2	600	Yes				
			Hydro		CS	Panchet	1	40	No	RGMO mode of operation would not be possible for	
					CS		2	40	No		
			Thermal	NTPC	CS	Farakka STPP-I	1	200	Yes		
					CS		2	200	Yes		
					CS		3	200	Yes		
					CS	Farakka STPP-II	1	500	Yes		
					CS		2	500	Yes		
					CS	Farakka-U#6		500	Yes	Kept in RGMO mode from April, 2014	
	CS	Kahalgaoan STPP			1	210	Yes				
	CS				2	210	Yes				
	CS				3	210	Yes				
	CS				4	210	Yes				
	CS				5	500	Yes				
	CS				6	500	Yes				
	CS				7	500	Yes				
	CS	Talcher STPP Stg-I			1	500	Yes				
	CS				2	500	Yes				
	CS	Barh			5	660	Yes				
	CS	Barh			6	660	Yes				
	Hydro				NHPC	CS	Teesta HEP	1	170	Yes	
						CS		2	170	Yes	
						CS		3	170	Yes	
			42								
IPP	Thermal	IPP	PS	Maithon RB TPP	1	525	Yes				
			PS		2	525	Yes				
			PS	Sterlite	1	600	Yes				
			PS		2	600	Yes				
			PS		3	600	Yes				
			PS		4	600	Yes				
			PS	Adhunik Power	1	270	Yes				
			PS		2	270	Yes				
			PS	JLHEP	1	48	No	(RoR project with 3 hours pondage)			
			PS		2	48	No				
			PS	Chujachen HEP	1	49.5	No	(RoR project with 3 hours pondage)			
			PS		2	49.5	No				
				1	200	No	could be put in RGMO				

	Hydro	IPP	PS	Teesta Urja	2	200	No	could be put in RGMO mode but because of transmission evacuation constraint RGMO/FGMO is disabled
			PS		3	200	No	
			PS		4	200	No	
			PS		5	200	No	
			PS		6	200	No	
			PS	Dikchu	1	48	No	(RoR project with 3 hours pondage)
			PS		2	48	No	

AVAILABILITY STATUS OF EVENT LOGGER, DISTURBANCE RECORDER & GPS

Sl. NO	Substation	Protection & Control System						Remarks
		Availability			Time Synchronization			
		EL	DR	GPS	Relay	DR	EL	
1	Subhasgram	Yes	Yes	Yes	Yes	Yes	Yes	
2	Maithon	Yes	Yes	Yes	Yes	Yes	Yes	
3	Durgapur	Yes	Yes	Yes	Yes	Yes	Yes	
4	Malda	Yes	Yes	Yes	Yes	Yes	Yes	
5	Dalkhola	Yes	Yes	Yes	Yes	Yes	Yes	
6	Siliguri	Yes	Yes	Yes	Yes	Yes	Yes	
7	Binaguri	Yes	Yes	Yes	Yes	Yes	Yes	
8	Birpara	Yes	Yes	Yes	Yes	Yes	Yes	
9	Gangtok	Yes	Yes	Yes	Yes	Yes	Yes	
10	Baripada	Yes	Yes	Yes	Yes	Yes	Yes	
11	Rengali	Yes	Yes	Yes	Yes	Yes	No	New EL would be implemented in BCU under NTAMC project by March'2015
12	Indravati (PGCIL)	Yes	Yes	Yes	Yes	Yes	No	EL is old one(model-PERM 200), provision for time synchronisation is not available. New EL would be implemented in BCU under NTAMC project by March'2015
13	Jeypore	Yes	Yes	Yes	Yes	Yes	Yes	EL is old and not working satisfactorily. New EL would be implemented in BCU under NTAMC project by March, 2015
14	Talcher	Yes	Yes	Yes	Yes	Yes	Yes	
15	Rourkela	Yes	Yes	Yes	Yes	Yes	Yes	
16	Bolangir	Yes	Yes	Yes	Yes	Yes	Yes	
17	Patna	Yes	Yes	Yes	Yes	Yes	Yes	
18	Ranchi	Yes	Yes	Yes	Yes	Yes	Yes	
19	Muzaffarpur	Yes	Yes	Yes	Yes	Yes	Yes	
20	Jamshedpur	Yes	Yes	Yes	Yes	Yes	Yes	
21	New Purnea	Yes	Yes	Yes	Yes	Yes	Yes	
22	Gaya	Yes	Yes	Yes	Yes	Yes	Yes	
23	Banka	Yes	Yes	Yes	Yes	Yes	Yes	
24	Biharsariif	Yes	Yes	Yes	Yes	Yes	Yes	
25	Barh	Yes	Yes	Yes	Yes	Yes	Yes	
26	Sagardighi	No	Yes	Yes	Yes	Yes	No	EL is under process of restoration with help from OEM, China
27	Kahalgaon	Yes	Yes	Yes	Yes	Yes	Yes	
28	Farakka	Yes	Yes	No	No	No	No	Time synchronization available for Farakka-Kahalgaon line-III & IV. The same will be implemented in rest of the lines by December, 2014.
29	Meramundali	Defunct	Yes	Yes	Yes	Yes	Yes	
30	Tisco	Yes	Yes	Yes	Yes	Yes	Yes	
31	Bidhannagar	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical

								relays. GPS will be put in service by January, 2015.
32	Indravati (OHPC)	Yes	Faulty	No	No	No	No	Time synchronization will be done by Feb, 2015. ICT-I feeders using DR & EL available in Numerical relays. 400 kV ICT-II feeder is being maintained by PGCIL, Mukhiguda. Status may confirm from PGCIL
33	Kharagpur	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical relays.
34	DSTPS	Yes	Yes	Yes	Yes	Yes	Yes	
35	Sterlite	Yes	Yes	Yes	Yes	Yes	Yes	
36	Mejia 'B'	Yes	Yes	Yes	Yes	Yes	Yes	
37	Mendhasal	Defunct	Yes	Yes	Yes	Yes	No	EL will be restored by March, 2015.
38	Arambagh	No	Yes	Yes	No	No	No	Using DR & EL available in Numerical relays
39	Jeerat	No	Yes	No	No	No	No	Using DR & EL available in Numerical relays. Procurement of new GPS is in progress.
40	Bakreswar	Yes	Yes	Yes	Yes	Yes	Yes	
41	GMR	Yes	Yes	Yes	Yes	Yes	Yes	
42	Maithon RB	Yes	Yes	Yes	Yes	Yes	Yes	
43	Raghunathpur	Yes	Yes	Yes	Yes	Yes	Yes	
44	Kolaghat	Yes	Yes	Yes	Yes	Yes	Yes	
45	Teesta V	Yes	Yes	Yes	Yes	Yes	Yes	
46	Koderma	Yes	Yes	Yes	Yes	Yes	Yes	
47	Sasaram	Yes	Yes	Yes	Yes	Yes	Yes	
48	Rangpo	Yes	Yes	Yes	Yes	Yes	Yes	
49	Adhunik	Yes	Yes	Yes	Yes	Yes	Yes	
50	JITPL	Yes	Yes	Yes	Yes	Yes	Yes	
51	765kV Angul	Yes	Yes	Yes	Yes	Yes	Yes	
52	Chuzachen	Yes	Yes	Yes	No	Yes	Yes	
53	New Ranchi 765kV	Yes	Yes	Yes	Yes	Yes	Yes	
54	Lakhisarai	Yes	Yes	Yes	Yes	Yes	Yes	
55	Chaibasa							
56	765kV Jharsuguda	Yes	Yes	Yes	Yes	Yes	Yes	All are in working condition. However a dedicated DR for 765KV Lines; make TESLA is not working. M/s Siemens has assured to commission the same by 31.01.15
57	Beharampur	Yes	Yes	Yes	Yes	Yes	Yes	
58	Keonjhar	Yes	Yes	Yes	Yes	Yes	Yes	

Eastern Regional Power Committee

The status of ERS towers in Eastern Region as updated in OCC meetings is given below:

1) ERS towers available in Powergrid S/s is as given below:

Sl. No.	Name of S/S	No. of ERS towers available
1	Durgapur, ER-II	1 Set (8 towers)
2	Rourkela, ER-II	3 towers incomplete shape
3	Jamshedpur, ER-I	15 towers (10 nos Tension tower and 5 nos suspension tower)

2) The present status of ERS towers in OPTCL system is as follows:

Sl. No.	Name of S/S	No. of ERS towers available
1	Mancheswar	2 nos, 400 kV ERS towers
2	Mancheswar, Chatrapur & Budhipadar	42 nos, 220 kV ERS towers

- 12 nos. of new 400 kV ERS towers have been recieved.
- Another, 16 nos of 400 kV towers accompanied with 6 sets of T&P are required which is under process

3) The present status of ERS towers in WBSETCL system is as follows:

Sl. No.	Name of S/S	No. of ERS towers available
1	Gokarna	2 sets
2	Arambag	2 sets

4) The present status of ERS towers in BSPTCL system is as follows:

Sl. No.	Type	Quantity	Remarks
1	Tension ERS Tower	12	New
2	Suspension ERS Tower	20	New
3	Old ERS Tower	10	1 no. is defective
Total		42	

- As informed in ERS meeting held on 10-11-2014 taken by Member (Power System), CEA; 2 sets (12 tension & 20 suspension) of ERS towers had been procured and currently available in BSPTCL system (as mentioned in above table with remarks "New").
- Same ERS tower is used in both 220 kV and 132 kV circuits.

- 5) In 25th ERPC meeting held on 21.09.2014, E R P C concurred to the proposal of procurement of four sets of ERS and it was also informed that, the proposed four sets of ERS will be kept at Sikkim, Siliguri, Ranchi and Gaya and will be used by all constituents of ER during emergencies.

Powergrid informed that four sets of ERS for Eastern Region will be procured.

- 5) DVC informed that they are in process of procuring two (2) sets of 400 kV ERS towers.

Checklist for Submission of new transmission elements for updation in Protection Database

NAME OF ORGANISATION:
FOR THE MONTH OF:

SUBSTATION DETAIL:

SI No	DETAILS OF ELEMENTS	DATA TYPE	Status of Submission (Y/N)	Remarks
1	TRANSMISSION LINE	LINE LENGTH, CONDUCTOR TYPE, VOLTAGE GRADE		
2	POWER TRANSFORMER	NAMEPLATE DETAILS		
3	GENERATOR	TECHNICAL PARAMETERS		
4	CURRENT TRANSFORMER	NAMEPLATE DETAILS		
5	VOLTAGE TRANSFORMER	NAMEPLATE DETAILS		
6	RELAY DATA	MAKE, MODEL and FEEDER NAME		
7	RELAY SETTINGS	NUMERICAL RELAYS: CSV or XML file extracted from Relay ELECTROMECHANICAL RELAYS: SNAPSHOT of RELAY		
8	REACTOR	NAMEPLATE DETAILS		
9	CAPACITOR	NAMEPLATE DETAILS		
9	UPDATED SLD			

SIGNATURE:
NAME OF REPRESENTATIVE:
DESIGNATION:
CONTACT:
E-MAIL ID: