MADHYA PRADESH POWER MANAGEMENT COMPANY LIMITED

INTRODUCTION

- Madhya Pradesh Power Management Company Ltd (MPPMCL) is a holding company of the three distribution licensees of M.P.
- MPPMCL manage power for the distribution licensee to meet the demand of consumers in the state of M.P.
- MPPMCL provides the requisition of revision of scheduling the Power on real time basis.
- Any surplus /deficit of power is also managed by MPPMCL through various modes
  - Bilateral transaction
  - Through Power Exchanges
  - Through banking arrangement
- Thus, MPPMCL is obliged to follow the guidelines/regulations of appropriate commission

CERC DSM- FOURTH AMENDMENT

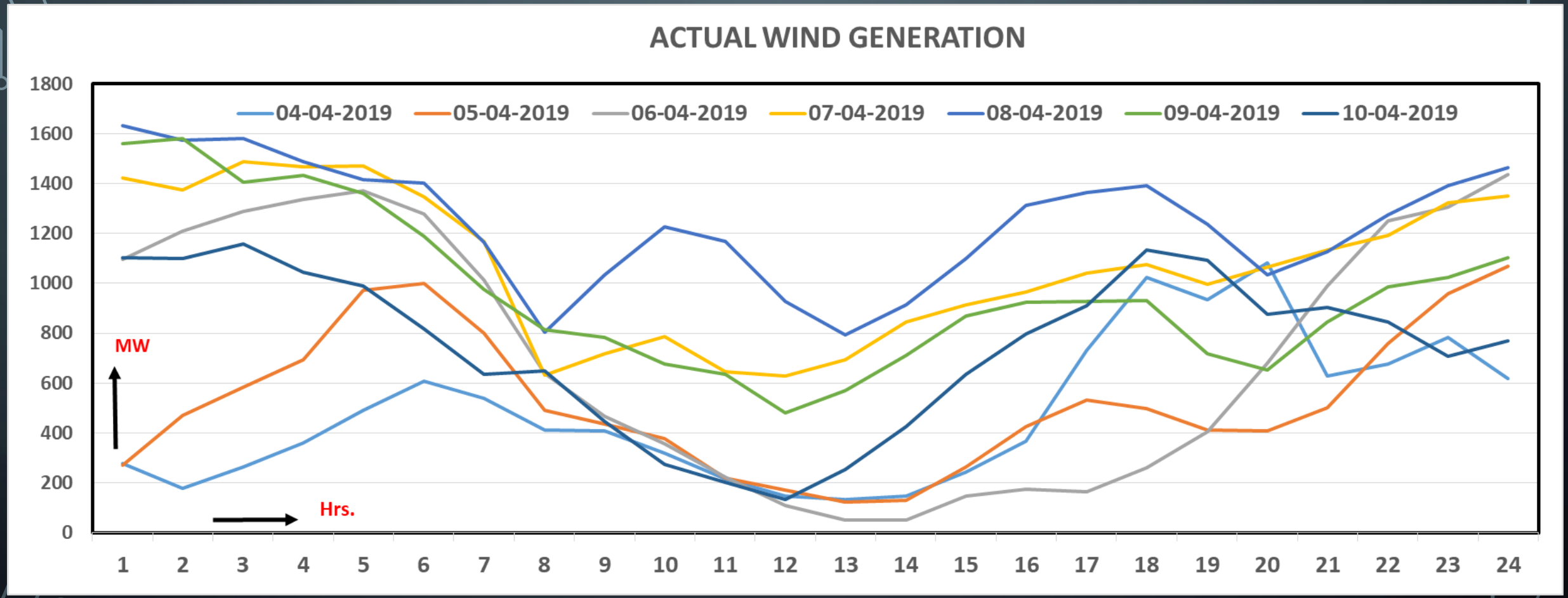
- Draft Fourth amendment issued on 29th June, 2018
- Public notice issued on 7th August, 2018
- Public hearing held on 21st August, 2018
- Final fourth amendment issued on 20th November, 2018
- Fourth amendment applicable w.e.f 1st January, 2019
  - Thus, only about a month period is provided to the entities before implementation of provision of fourth amendment which incorporated wide modifications/new provisions.
  - Aggrieved by fourth amendment, MPPMCL filed a petition no. 2911/2019 before the High Court of Delhi in which issues related to technical and operational constraints were raised.
  - Hon'ble Court on date 27th March, 2019 has directed CERC regarding consideration of the representation of various entities and therefore, CERC has issued the Draft (Fifth) Amendment of DSM Regulation.

CERC DSM- DRAFT (FIFTH) AMENDMENT

- Draft (Fifth) amendment issued on 18th April, 2019
- Public notice issued on 3rd May, 2019
- Public hearing – 22nd May, 2019
- Main provision proposed in Draft (Fifth) amendment
  - Deletion of provisions regarding 3% limits on deviation volume and consequences of crossing limits.
  - Introduction of allowable range of +/- 10 MW from schedule, which would be a subset of existing deviation flexibility of 150/200/250 MW.
  - For the purpose of sustained deviation of twelfth time block is permitted up to 31st March, 2020.
  - After 1st April 2020 sustained deviation of six time blocks is reintroduced.
  - The additional charge @ 10% of time block based DSM is introduced up to 31st March, 2020.
  - The additional charge @ 3%, 5% and 10% of daily based DSM for 1st to 5th, 6th to 10th, and 11th and above violations respectively is proposed to be charged.

OPERATIONAL CONSTRAINTS- RENEWABLE VARIATION

- Renewable Energy
  - Total RE Capacity- 4383 MW approx. as on 8th March, 2019
    - Solar- 1736 MW
    - Wind- 2436 MW
    - Other- 211 MW (Biomass/Bagasse/Biogas/Small hydro)
    - MPERC Regulation regarding forecasting and scheduling related matters of solar and wind generating stations issued on 12th April, 2018 effective from 20th April, 2018
    - No additional charge for deviation up to 15% of absolute error is payable by wind/solar stations.
- RE capacity is having major share in M.P. power mix
- The nature of RE particularly wind is infirm and unpredictable and changes abruptly within one or two time blocks.
- Thus it is practically difficult for implementation of provision of fourth/fifth amendment as far as mandatory sign change in every six/twelve time blocks is concerned.


ACTUAL WIND GENERATION
04-04-2019
05-04-2019
06-04-2019
07-04-2019
08-04-2019
09-04-2019
10-04-2019
1800
1600
1400
1200
1000
800
600
400
200
0
MW
Hrs.
1
2
3
4
5
6
7
8
9
10
11
12
13
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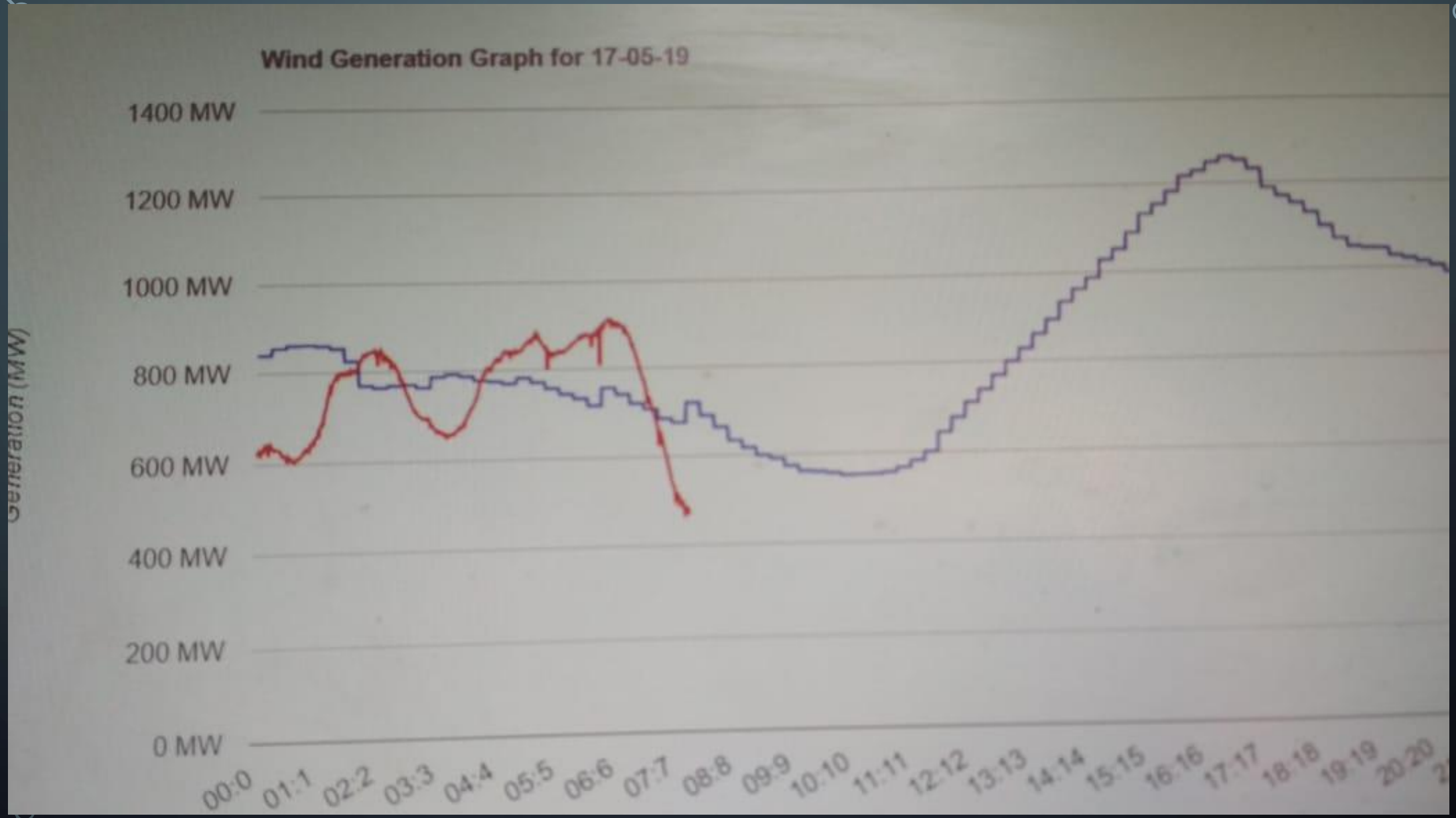
Wind Generation Graph for 17-05-19
1400 MW
1200 MW
1000 MW
800 MW
600 MW
400 MW
200 MW
0 MW
Generation (MW)
00:0
01:1
02:2
03:3
04:4
05:5
06:6
07:7
08:8
09:9
10:10
11:11
12:12
13:13
14:14
15:15
16:16
17:17
18:18
19:19
20:20

Operational Constraints- SCADA visibility

- Real time operations are managed with data fetched from SCADA system
  - The reliability of data fetched from SCADA system depend on the visibility of SCADA which is required to be maintained by system operator and entity like MPPMCL has no control on this parameter.
  - Discom is neither responsible for SCADA nor for installation of SEM meter.
  - RE generation is not yet covered fully under SCADA visibility system.
  - Many occasions, the violation of sign changes occurred due to SCADA problem causing undue financial burden on entities despite their fault.

OPERATIONAL CONSTRAINTS- GRID STABILITY

- For stability of grid there must be load generation balance and to maintain it certain deviation should be allowed.
  - If grid frequency is high (more than 50.05 Hz)- the Discom should be allowed to overdraw within the permissible limit till frequency stabilizes and therefore, exempt Discom for mandatory requirement of sign change from positive to negative.
  - If grid frequency is low (less than 49.85 Hz)- the Discom should be allowed to underdraw within the permissible limit till frequency stabilizes and therefore, exempt Discom for mandatory requirement of sign change from negative to positive.
  - Further, the direction of system operator for grid stability must be maintained and therefore, the mandatory requirement of sign change for such period should also be exempted.

COMMERCIAL CONSTRAINT

- DSM account is prepared on the basis of actual meter reading received after two to three days which is different from SCADA data.
- Real time decisions for change of sign is taken on the basis of SCADA data and therefore causes undue financial burden.
- Generator schedule is changed by system operator suo-moto to ensure technical minimum support to station. This unexpected change in schedule, many a times in next block, results violation of sign change.
- System operator also revise the schedule of APM, Liquid, RLNG, Non-APM, Atomic and hydel based generators post-facto which differ actual schedule during real time operation which causes undue financial burden.

COMPARISON REGARDING VIOLATION VARIATION- ACTUAL DSM BILL VS. REAL TIME SCADA DATA

S.No.	Month	No. of violation as per SCADA data	No. of violation as per DSM bill	Difference
1.	January ’19	28	64	36
2.	February ’19	36	53	17
3.	March ‘19	50	72	22

Amount paid towards additional charge due to no. of sign reversible violation

S.No.	Month	Additional charge paid due to No. of sign reversible violation (Rs. In Lakh)
1.	January ’19	413.39
2.	February ’19	153.37
3.	March ‘19	317.50

DSM CHARGES FOR MP COMPUTED AS PER CERC OLD & NEW DSM REGULATIONS

	January '19			February '19			March '19			Total (Jan '19 to Mar '19)		
	As per OLD DSM charges	As per NEW DSM charges	Difference	As per OLD DSM charges	As per NEW DSM charges	Difference	As per OLD DSM charges	As per NEW DSM charges	Difference	As per OLD DSM charges	As per NEW DSM charges	Difference
DRAWL IN MU	4230.31	4230.31		3127.65	3127.65		2698.40	2698.40				
SCHEDULE IN MU	4245.03	4245.03		3142.02	3142.02		2707.32	2707.32				
UNDER/ OVER DRAWL IN MU	-14.73	-14.73		-14.37	-14.37		-8.91	-8.91				
DSM CHARGES IN LAKH	252.76	384.35	131.59	123.37	185.68	62.31	171.57	261.72	90.15	547.70	831.75	284.05
DSM CHARGES WITHOUT CAP IN LAKH	62.80	51.31	-11.50	-30.72	-74.00	-43.27	3.41	-16.19	-19.60	35.49	-38.88	-74.37
TOTAL ADDL CHARGES IN LAKH	131.60	632.27	500.67	112.10	458.99	346.89	114.57	491.14	376.57	358.26	1582.40	1224.13
CAPPING AMOUNT IN LAKH	189.95	333.04	143.09	154.09	259.68	105.59	168.16	277.91	109.75	512.21	870.64	358.43
Addl Charges due to Sign reversal violation	0.00	413.39	413.39	0.00	153.37	153.37	0.00	317.50	317.50	0.00	884.26	884.26
Total DSM Charges in Lakh	384.35	1430.01	1045.66	235.47	798.04	562.57	286.14	1070.36	784.22	905.97	3298.41	2392.44

CONCLUSION

- Since, most of the provisions of Fourth amendment have been proposed to be notified in Draft Fifth amendment therefore the amount already paid after 1st January, 2019 may be recalculated and excess amount paid may be adjusted in future DSM bills.
- The following submission may please by considered while finalising the fifth amendment:-
  - Any post-facto revision of schedule may be exempted for the purpose of levy of additional charge.
  - The suo-moto schedule implemented by system operator may be exempted for the purpose of levy of additional charge.
  - The RE rich state like M.P. is allowed a range of 15% of schedule to correct its position.
  - Imposition of additional charge after 1st April, 2020 should be based on time block wise (as proposed for the period up to 31st March, 2020) be continued to avoid the double-burden on entities.

THANK YOU