MAHATRANSCO
Maharashtra State Electricity Transmission Co. Ltd.

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.

CIN NO. U40109MH2005SGC153646

Tele :91-022-27601762 (P)
91-022-27601931 (O) Extn.1003
Email: cesldc@mahatransco.in
website : www.mahasldc.in

Office of The Chief Engineer
Maharashtra State Load Despatch Center
Thane-Belapur Road, P.O. Airoli Navi Mumbai
Pin – 400 708.

RIGHT TO INFORMATION

Ref. No. CE/MSLDC/OP/OCC/ **2286** **Date: 05.10.2026**

To,

Members of the OCC as per mailing list.

Sub: Minutes of the 15th Operation Co-ordination Committee (OCC) meeting held on 04.10.2026 at 15:00 hrs. through Virtual Mode.

Ref.: Mail dtd. 04.10.2026 from Superintending Engineer (Operations) MSLDC

Dear Sir/Madam,

In reference to the above subject, the 15th Operation Co-ordination Committee (OCC) meeting was held on 04.10.2026 at 15:00 hrs. through Virtual Mode. The Minutes of the said meeting are attached herewith.

Yours sincerely,

Encl: As above.

5/10/26

(Dinesh Patil)
(I/C)Superintending Engineer
(Operations), MSLDC
(Member Convener of OCC)

Copy s.w.rs. to:
The Director (Operations), MSETCL, Prakashganga, Mumbai.
The Executive Director & Chairman of OCC, MSLDC, Airoli, Navi Mumbai.

OCC members as per list shown below:

All OCC members as per list

Sr. No.	Name of Organization	Name of Nominee	Designation	Committee constituent	Contact No.	E-mail ID
1	SLDC	Shri Shashank Jewalikar	ED, MSLDC	Chairperson	022-27301931	edsldc@mahasldc.in
2	MSETCL	Smt. Shilpa Kumbhar	CE, Tr O&M MSETCL	Member	8411001431	ceom@mahatransco.in
3	SLDC	Shri Girish Pantoji	CE (I/c), MSLDC	Member	9822414154	cesldc@mahasldc.in
4	STU/ MSETCL	Shri. Peeyush Sharma	CE, STU	Member	9769213865	cestu@mahatransco.in
5	MSEDCL	Shri. Sandeep Patil	CE, PP	Member	9594938238	cepp@mahadiscom.in
6	MSEDCL	Shri Pravin Annachatre	S.E (LM), MSEDCL	Member	9833980238	selmkalwa@gmail.com
7	MSPGCL	Shri. Pankaj Nagdeote	CE, Generation (Works) MSPGCL	Member	022-6952200 69853535 Ext. 3519	cegw@mahagenco.in
8	TPCL	Shri Kiran Desale	Chief – Transmission TPCL	Member	9223553342	desalekv@tatapower.com
		Shri Milind Gole	Head (PSCC), TPCL	Member	9820868264	goleml@tatapower.com ddveer@tatapower.com
9	TPCL-Generation	Mr Hemant Karadkar	Head Operations – Trombay	Member	9223553195	karadkarhr@tatapower.com
10	AEML	Shri Mahesh Andhari	Head Operations (Distribution & Transmission)	Member	9323549996	mahesh.andhari@adani.com
11	AEML	Shri Ranjeet Sawardekar	Head ABT	Member	9324818009	ranjeet.sawardekar@adani.com
12	ATIL	Shri Saurabh Sharma	Manager-O&M	Member	8233552863	saurabh.sharma@adani.com
13	MEGPTCL	Shri Rakesh Bhalerao	Associate Manager-Business Development	Member	7045953823	rakesh.bhalerao@adani.com
14	JPTL	Shri Vaibhav D Sansare	Associate Manager-Transmission	Member	9552577122	Vaibhav.sansare@jsw.in
15	APTCL	Shri Rajiv Nimje	AGM, APTCL	Member	9422308883	Rajiv.nimje@rattanindia.com
16	KVTL	Shri Rakesh Bhalerao	Associate Manager-Business Development	Member	7045953823	rakesh.bhalerao@adani.com
17	VIPL	Shri Ashish Kumar Shukla	HOD-Electrical Maintenance	Member	6358853165	ashishkumar.shukla@adani.com

18	JSWEL	Mr. Prasanna Ghatge	AGM (Head-OSTS)	Member	9552577141	prasanna.ghatge@jsw.in
19	ADTPS	Shri Pinal Desai	Associate VP ADTPS	Member	9325119747	pinal.desai@adani.com
20	RIPL	Mr Ashish Kunal	DGM, RIPL	Member	7028938800	ashish.kunal@rattanindia.com
21	APML, Tiroda	Shri Manoj Taunk	Associate VP-Protection & Metering	Member	9099005517	Manoj.Taunk@adani.com
		Shri Akshay Mathur	VP-Business Development group, Adani	Member	9870663062	Akkshayv.Mathur@adani.com
22	SWPGPL Warora.	P Kalyan	AGM - Electrical	Member	8600400107	Kalyan.p@saiwardha.com
		Barath Muthusamy	Deputy Manager-BDG	Member	9154674864	bdg.operations@saiwardha.com
23	M/S. Bothe wind Park Development Pvt. Ltd.	Mr. Dhananjay Joshi	Manager	Member (Wind)	9971274700	dhanajay.joshi@continuumenergy.in vijay.karale@continuumenergy.in
24	TP Saurya Ltd.	Mr. Gunesh Kusurkar	Manager	Member (Solar)	9930867996	gunesh.kusurkar@tatapower.com
25	Jarandeshwar Sugar Mills pvt. Ltd.	Mr J T Gore Mr A V Patil	Co-gen in-charge Elect. Engineer	Member (Co-gen)	9922254115 9673889938	jsmlcogen@gmail.com
26	BEST	Shri S. S. Bansode	Chief Engineer (Regulatory)	Member	9869407196	cerc@bestundertaking.com
27	Dhariwal	Pundlik Mahadeorao Wanwe	General Manager	Member	9561112008	pundlik.wanwe@rpsg.in
28	IEPL	Mr. Sandip V. Kawale	Manager (Regulatory, Sales & Purchase-Dept)	Member	8799967053	sandip.iepl@gmail.com
29	JPL	Mr. Gaurav Grover	Manager	Member	9718306200	gaurav.grover@jindalpower.com
30	Vidharbh Mineral and Energy Pvt. Ltd.	Mr. V.N. Kulkarni	HOD Electrical	Member	9158555616	electrical@vidarbhamineral.com maintenance.gepl@gmail.com
31	SLDC	Shri Girish Pantoji	SE(OP), MSLDC	Member-Convener	9822414154	seop@mahasldc.in

Minutes of the 15th Operation Co-ordination Committee (OCC) meeting held on 04th October 2026 at 15:00 Hrs. through Virtual Mode

The 15th meeting of the OCC, was convened on 04.10.2026 at 15:00 hrs. through virtual mode. The meeting was chaired by Executive Director, MSLDC.

The Executive Director (MSLDC) & the Chairman of the OCC, welcomed all the members.

The list of participants in the meeting is attached herewith as ANNEXURE – A.

The detailed point-wise discussions held during the meeting are as follows:

Meeting Agenda :- "Sustained insecure grid operations in non-solar hours and indiscipline of key stakeholders"

1. **Discussion on System Security, Resource Adequacy and System Conditions observed during September 2026 and 03.10.2026**

Discussion in OCC:-

The Executive Director, SLDC, informed that the meeting had been convened on an urgent basis considering the sustained stressed operation of the Maharashtra power system observed during September 2026 and the recent system condition of 03.10.2026. It was emphasised that the OCC has an entrusted responsibility under the State Grid Code to remain aware of such conditions and provide appropriate directions for secure and stable operation of the grid.

The MSLDC presented the system behavior for the month of Sept. 2026, the highlights are as follows: -

- The grid remained below the normal frequency band for around 110 hours during September 2026, with the lowest frequency reported as 49.41 Hz at 18:45Hrs on dt.11.09.2026.
- Frequency remained below 49.90 Hz for about 15% of the month, while frequency remained within the normal band for approximately 70% of the time.
- Around 43.368MU of energy was curtailed as reported by MSEDCL and load shedding was necessitated at different periods particularly in non-solar hrs.
- Feeder-wise UFR operations were reported on 8 days at different locations in Maharashtra.
- Maharashtra demand during September 2026 increased by more than 20% compared with September 2025 and energy consumption is also raised significantly, reducing the available operating margin.
- The major stress was observed during the evening period in non-solar hours, particularly during the evening peak.
- SLDC assessed daily system stress using frequency excursion, depth of minimum frequency, unserved energy and UFR relief as key indicators.

The detailed analysis presented is attached in Annex II , It indicated that stressed hours were concentrated during the evening period. It was observed that frequency volatility during such periods is an important indicator of system stress and requires coordinated action by all stakeholders.

1. UFR Scheme Performance

The MSLDC informed to OCC members that operation of UFRs does not by itself establish adequate relief unless the expected quantum of relief is actually delivered. The following observations were brought to the notice of OCC:

- Overall, only about 58% of the expected UFR relief was reported to have been delivered.
- Chhatrapati Sambhaji Nagar area: approximately 70% of the target relief.
- Amravati area: approximately 70% of the target relief.
- Nashik area: approximately 39% of the target relief.
- Karad area: approximately 31% of the target relief.
- UFR/ (df/dt) schemes at the concerned locations need to remain functional and their actual relief needs to be tested and verified.
- UFR operation was also reported on 03.10.2026.

Recommendations / Directives of OCC:-

- The concerned transmission utilities/STU shall test the location wise under frequency relays which are non-Operated and shall take correction actions.
- UFR/(df/dt), islanding and SPS schemes shall be tested and should ensure its healthiness,
- The concerned utilities shall ensure that the protection and load-relief schemes remain available during the stressed system period.

With due deliberations, all OCC members took note of the same.

2. Thermal Generation Availability and Under-Declaration

MSLDC informed OCC that approximately one-fourth of the Maharashtra thermal fleet was unavailable during the period under review due to planned/forced outages and under-declaration. Under-declaration by both MSPGCL and IPP generators was highlighted as a significant concern during the critical period (1800hrs -2000hrs).

Recommendations / Directives of OCC:-

- Yearly Resource adequacy planning should realistically account for the actual availability of generating stations in terms of capacity credit calculations.
- Generating stations were requested to restore planned and forced-outage units at the earliest possible time.
- Generating stations should declare the maximum technically available capacity, particularly during critical non-solar/evening peak hours.
- Under-injection from units which are on bar should be avoided and adequate fuel stock should be maintained as per applicable norms.

Discussion in OCC:-

MSEDCL stated that efforts were being made to tie up resources and utilise available hydro and other resources. Concern was raised regarding generating units remaining on bar while declaring lower DC, which adversely affect resource planning and may ultimately result in load curtailment. MSEDCL requested that appropriate action be taken in respect of generators not declaring full available capacity during insecure/stressed periods.

The MSPGCL representative informed that continuous efforts were being made to restore units under forced outages and to maintain availability. MSLDC emphasized the importance of maximum availability during the forthcoming critical period.

With due deliberations, all OCC members took note of the same.

3. Resource Adequacy of Buyers / Distribution Licensees

MSLDC presented the resource adequacy in Sept 2026 with consistent shortfalls during non solar hrs. (18:00 hrs to 20:00Hrs). The major shorfalls observed are 64% of blocks for MSEDCL ,98% of blocks for Railway,50% of block for AEML. It was also emphasized that resource adequacy is a planned activity and should not be depend on a real-time deviation as a standby.

The forecast trend, if it continues in line with the demand observed during September 2026, may result in further shortfall in month of October 2026.

- MSLDC Control room has issued multiple real-time notices to distribution licensees especially to Railways, MSDCL , AEML , etc. to arrange resources for meeting evening non-solar demands.
- Local recovery of curtailed load shall be undertaken only in consultation with SLDC and after system frequency has recovered.

Recommendations of OCC:-

- The OCC chairman has raised major concern regarding inadequate resource adequacy planning by Central Railways as this entity is serving the critical load of traction and hence such entity should has adequate resources and fallback arrangements to serve critical load.
- It was also instructed to all Mumbai Distribution Utilities to maintain drawal schedules within limit to avoid any kind of load curtailment in critical regions
- All concerned entities shall recheck their week-ahead forecasts for the period 5th Oct to 11 oct.2026 considering the actual demand observed on 03.10.2026 and 04.10.2026 and resubmit the forecast/resource adequacy details.
- Resource arrangements for critical evening/non-solar hours shall be strengthened and dependence solely on last-minute market procurement shall be avoided.

With due deliberations, all OCC members should take note of the same.

D. System Condition observed on 03rd October 2026

MSLDC presented the system behaviour observed on 03.10.2026. A strong correlation between Maharashtra overdrawal and frequency fall during the evening period was highlighted.

- Frequency during the evening period reached approximately 49.444 Hz.
- Maharashtra demand crossed 32,000 MW during the short-duration peak.
- It is observed that there is sudden drop of demand at 18:00hrs and demand rise at 18:30 hrs which causes sudden change in overdrawal during the evening period created a zig-zag pattern in frequency, making real-time corrective action more difficult.
- SLDC requested MSEDCL to take appropriate measures to flatten the evening response and avoid sudden changes in drawal which may be due to AG load switching.

Directives of OCC:-

- All concerned buyers/licensees especially Railways and MSEDCL, shall maintain actual drawal within schedule and proactively manage their evening resource requirement.
- MSEDCL directed to flatten the demand behavior during 18:00 hrs to 18:30 hrs.
- SLDC shall continue to monitor frequency, resource behaviour and deviations and issue operational instructions wherever necessary.

With due deliberations, all OCC members should take note of the same.

E. Opening of EHV Elements by WRLDC

On 3rd Oct 2026, despite multiple notices from WRLDC and MSLDC curtailment action, there was persistent OverDrawl at state periphery. Further MSLDC team informed OCC that seven elements in the Maharashtra grid had been opened by WRLDC on 03.10.2026. Particular concern was expressed regarding opening of an ICT at Talegaon feeding the Pune area.

- Simultaneous/long-duration opening of multiple network elements reduces network availability and operating margins.
- Such EHV openings by WRLDC may adversely affect N-1 security, loading of other elements and ATC/TTC considerations.
- Opening of critical network elements without adequate coordination creates operational difficulty for SLDC, particularly in stressed pockets such as Pune.
- The STU/MSETCL was requested to ensure network availability and expedite associated network strengthening/project works.

Recommendations of OCC: -

- Concerned transmission utilities shall ensure network availability during the stressed period and expedite critical network/project works.

With due deliberations, all OCC members took note of the same.

F. Week Ahead Demand Forecast, LGBR and Curtailment Instructions

MSLDC informed that the continuing demand trend likely indicates in under-forecasting of Oct. demand and further resource shortfall. All DISCOMs/buyers were therefore advised to recheck their forecasts and resource adequacy arrangements.

- All DISCOMs/buyers shall recheck the week-ahead forecast considering actual demand observed on 03.10.2026 and 04.10.2026 and resubmit the same.
- Each concerned utility shall submit details of its resource arrangement, including market dependence and contracted resources, to OCC/SLDC.
- In case of scenario considering ISGS 5% lower and demand 2% above forecast & thermal availability is 10% lower, the shortfall might reach up to level of 3GW

Recommendations of OCC:-

- All buyers shall comply with SLDC curtailment instructions without delay.
- Local recovery of curtailed load shall be undertaken only in consultation with SLDC and after recovery of system frequency.
- SLDC shall issue operational instructions in a standard format and track acknowledgement and compliance.

G. Expectations from Stakeholders

- Timely compliance with SLDC instructions is essential for maintaining grid security, particularly during stressed system conditions.
- Stakeholders shall ensure that declared schedules and actual drawal/injection remain aligned, with necessary corrective action taken promptly.
- The 18:00hrs to 20:00 hrs evening period requires specific resource planning and forecast accuracy.
- Generators are expected to maximize availability and avoid under-injection during non-solar hours.

- Protection systems, including UFR and df/dt relays, shall remain operational and ready for deployment.
- Persistent deviations or non-compliance shall be monitored and escalated to GCC and further MERC as per provisions of regualations.

H. Stakeholder Views on Resource Adequacy

MSEDCL stated that it had taken efforts to tie up resources, utilise hydro resources and manage the system during the stressed period. MSEDCL also raised concern regarding thermal generators being on bar but declaring lower DC during evening non-solar period and requested appropriate accountability/action so that resource arrangements made by buyers are not rendered ineffective.

TPCL informed that, due to a Trombay unit 5 (500MW) forced outage and reduction in wind generation, shortfall had occurred during the recent period. Efforts were being made to procure additional power, including evening peak power. It was informed that approximately 130 MW of RTC power had been tied up for October and that LGBR during non-solar hours would be maintained.

AEML informed that approximately 640 MW of bilateral short-term power had been contracted for non-solar hours for October. The reduction in wind generation was stated as one of the reasons for the recent shortfall, and additional procurement was being explored.

BEST informed that its resource adequacy plan was being followed and that during evening hours normally around 40–50 MW was procured from exchanges, with additional short-term procurement to be arranged in case of unit outage/shutdown.

The OCC Chairman emphasized that Mumbai utilities, being critical city loads, should have suitable standby/fallback arrangements. The utilities were requested to submit details of the resource adequacy arrangements and the curtailment plan i.e. Details of low priority load to be curtailed in case of contingencies after instructions of SLDC.

Railway representatives informed OCC that efforts were being made to procure power from the open market through tenders and short-term arrangements; however, adequate seller response was not available.

The Chairman emphasized that Railways, being a critical service provider, should have a workable resource/standby arrangement so that its shortage does not adversely affect the Maharashtra grid. Railway representatives requested generators/eligible sellers to participate in their tenders.

With due deliberations, all OCC members took note of the stakeholder views.

I. Discussion on New DSM Rates and Consequence/Penalty for Persistent Resource Inadequacy

MSLDC informed OCC that persistent resource inadequacy and deviations had resulted in a significant deficit in the state pool due to hefty payments to WRLDC for the period discussed. SLDC proposed that the new DSM deviation rates for state entities as applicable in MERC (Deviation Settlement Mechanism & related matters) Regulations, 2026 notified on 21.09.2026 to be implemented with immediate effect.

MSLDC further proposed that an appropriate consequence/penalty mechanism may be considered for persistent failure to maintain resource adequacy in consecutive time blocks, as the resulting shortfall affects grid security and the state pool.

Discussion in OCC:-

MSEDCL supported the need for accountability of stakeholders and generators where inadequate availability or under-declaration results in system stress. It was emphasised that grid security is a shared responsibility and that action should be applicable appropriately to the concerned entity based on its shortfall and impact on system security.

The Chairman stated that the issue of resource adequacy and grid security needs to be viewed as a shared responsibility of all stakeholders. The proposals regarding implementation of the new DSM rates and an appropriate consequence/penalty mechanism should be taken forward through GCC & Commission regulatory process.

Recommendations of OCC:-

- The proposal for implementation of the new DSM rates may be taken forward for approval of GCC
- An appropriate consequence/penalty mechanism for persistent resource inadequacy may be placed before the appropriate regulatory forum/Commission for consideration through GCC.

With due deliberations, all OCC members took note of the same.

Consolidated Directions / Action Points

- Grid security and resource adequacy shall be treated as a shared responsibility of all Maharashtra stakeholders.
- All Discoms has to comply the instruction of SLDC regarding load curtailment as per clause no. 39 of MEGC. In case of non-curtailment of load from respective Discoms ,SLDC shall initiate the EHV opening of feeders. Hence as per approved load curtailment procedure, all DISCOM's are hereby directed to submit low priority load/feeders list as per MSLDC requirement immediately , which shall be curtailed by MSLDC in case of noncompliance of load curtailment instructions issued by SLDC to DISCOMS.
- All buyers/licensees shall maintain adequate resources and keep actual drawal within schedule, particularly during evening critical hours.
- All concerned entities shall resubmit/revalidate their forecasts and resource adequacy arrangements considering the recent demand trend and system conditions.
- All utilities shall submit details of their resource adequacy, fallback arrangements and low priority load curtailment plans in case of contingency to OCC/SLDC.
- Generating stations shall maximise availability during critical non-solar hours, restore outages at the earliest and avoid avoidable under-declaration/under-injection.
- UFR/(df/dt) , islanding and SPS schemes shall be kept functional, tested and their actual relief shall be verified.
- Concerned transmission utilities shall ensure network availability and expedite critical network works/projects identified during the meeting.
- SLDC shall continue monitoring resource behaviour, forecast adequacy, frequency and shall issue standard operational instructions wherever necessary.
- Persistent non-compliance with SLDC instructions shall be monitored and may be reported to the Commission as per applicable regulatory provisions.
- The proposals put by MSLDC regarding implementation of the new DSM deviation rates for state entities as applicable in MERC (Deviation Settlement Mechanism & related matters) Regulations, 2026 notified on 21.09.2026 and an appropriate consequence/penalty mechanism for persistent resource inadequacy is approved by OCC forum and shall be taken forward to GCC.
  With due deliberations, all OCC members took note of the above directions.

Conclusion

The MSLDC thanked all stakeholders for joining the urgently convened meeting and for deliberating on the concerns raised by SLDC. It was reiterated that stable and secure operation of the Maharashtra grid can be achieved only through coordinated action by all stakeholders. All concerned were requested to take immediate corrective measures for ensuring adequate resources and reliable system operation during the forthcoming period.

ANNEXURE – A

List of participants / OCC members as per attendance recorded for the 15th OCC meeting held on 04.10.2026 through Virtual Mode.

ANNEXURE – B:- Presentation by MSLDC

Annexure A

Attendance Sheet for 15th Operation Coordination Committee (OCC) Meeting scheduled on 04.10.2026 at 15.00 Hrs in Virtual Mode

Sr. No	Name	Designation	Organization/Company	Mobile No	E-mail
1	**Shashank Jewlikar**	Ex Director	**MSLDC**		edsldc@mahatransco.in
2	**Milind eole**	Chief Engineer (I/C)	**MSLDC**		cesldc@mahatransco.in
3	**Dinesh Patil**	Sup. Enginner	**MSLDC**		ee1op8000@mahatransco.in
4	Dinesh Agrwal	Ex Director	MSEDCL		
5	Sainath Bongane	Chief Enginner (CEPP)	MSEDCL		
6	Shri Pramod Chimankar	Chief Engineer ACI&P	MSETCL		ceaci@mahatransco.in
7	Smt Shilpa Kumbhar	Chief Engineer Tr. O&M	MSETCL		ceom@mahatransco.in
8	Shri. Pankaj Nagdeote	CE, Generation (Works) MSPGCL	MSPGCL	022-6952200 69853535 Ext. 3519	cegw@mahagenco.in
9	RAJIV NIMJE	GENERAL MANAGER	APTCL	9422308883	rajiv.nimje@rattanindia.com
10	Ashish Kunal	DGM	RattanIndia Power Ltd, Amravati	7387900378	ashish.kunal@rattanindia.com
11	Milind Gole	Head - PSCC	Tata Power	9820868264	goleml@tatapower.com
12	Nityanand Prasad	Dy.CEE HQ Central Railway	Central Railway	8828110311	dycee_g@cr.railnet.gov.in
13	Ranjeet Savardekar	Head - ABT Cell	AEML	9324818009	ranjeet.savardekar@adani.com
14	Gaurav Sisode	Deputy Manager	Jindal Power Limited Dhule (Shirpur)	7020631057	gaurav.sisode@jindalpower.com
15					
16	Nitesh Dongre	Assistant Engineer	Area Load Despatch Centre Ambazari	8554995666	ae1op8100@mahatransco.in
17	Pravin Harne	Superintentand	BEST	9967530681	bestpscc@bestundertaking.com
18	Vivek kurade	Divisional Engineer	BEST	9869065499	bestpscc@bestundertaking.com
19	M.M.Shaikh	Dy.Chief Engineer(Regulatory)	BEST	9820236483	dcemerc@bestundertaking.com
20	Vijay Pednekar	Sr. MAnager	JSW Energy Limited, Ratnagiri	9890182006	vijay.pednekar@jsw.in
21	Sandip Kawale	Manager (Power Regulatory)	Ideal Energy Projects Limited	8799967053	rsp@idealenergy.in
22	Hemant R Karadkar	Head-Operation	Tata Power Trombay Thermal Power Station	9223553195	karadkarhr@tatapower.com
23	Ashish Shukla	GH-DSM	Tata Power Trombay Thermal Power Station	9029180365	ashishshukla@tatapower.com
24	Raguvendra Singh Dewra	DGM	Adani Power Limited	9099075026	Raguvendral.dewra@adani.com
25	Lalit Kumar	Manager	Adani Power Limited(VIPL)	9765491836	lalitv.pathan@adani.com
26	Shri Pravin Annachatre	S.E (LM), MSEDCL	MSEDCL	9833980238	selmkalwa@gmail.com
27	Shri. Sandeep Patil	CE, PP	MSEDCL	9594938238	cepp@mahadiscom.in

28	Shri Kiran Desale	Chief – Transmission TPCL	TPCL	9223553342	desalekv@tatapower.com
29	Shri Milind Gole	Head (PSCC), TPCL	TPCL	9820868264	ddveer@tatapower.com
30	Mr Hemant Karadkar	Head Operations – Trombay	TPCL-Generation	9223553195	karadkarhr@tatapower.com
31	Shri Mahesh Andhari	Head Operations (Distribution & Transmission)	AEML	9323549996	mahesh.andhari@adani.com
32	Shri Vaibhav D Sansare	Associate Manager-Transmission	JPTL	9552577122	vaibhav.sansare@jsw.in
33	P Kalyan	AGM - Electrical	SWPGPL Warora.	8600400107	kalyan.p@saiwardha.com
34	Barath Muthusamy	Deputy Manager-BDG	SWPGPL Warora.	9154674864	bdg.operations@saiwardha.com
35	Mr. Dhananjay Joshi	Manager	M/S. Bothe wind Park Development Pvt. Ltd.	9971274700	dhanajay.joshi@continuumenergy.in vijay.karale@continuumenergy.in
36	Kusurkar Gunesh	Manager	TP Saurya Ltd.	9930867996	gunesh.kusurkar@tatapower.com
37	Mr J T Gore	Co-gen in-charge Elect. Engineer	Jarandeshwar Sugar Mills pvt. Ltd.	9922254115 9673889938	jsmlcogen@gmail.com
38					electrical@vidarbhamineral.com
39	Lalit Kumar		Adani Power Butibori		<sce.butibori@adani.com
40	Pundlik Mahadeorao Wanwe	General Manager	Dhariwal	9561112008	pundlik.wanwe@rpsg.in
41	Kishor Shirshat	Ex. Engr	MSPGCL		
42	Mr. Sandip V. Kawale	Manager (Regulatory, Sales & Purchase-Dept)	IEPL	8799967053	sandip.iepl <sandip.iepl@gmail.com
43	Devyani Kamle	SSE, Energy Cell	Central Railway	8828324479	dyceeprdprly@gmail.com
44	Nityanand Prasad	DyCE, Central Railway	Central Railway	8828110311	dyceeprdprly@gmail.com
45	Mr. Gaurav Grover	Manager	JPL	9718306200	gaurav.grover@jindalpower.com
46	Dipali Sonar	AdEE	MSLDC		
47	Suyog Marathe	AdEE	MSLDC		
48	Amit Sawant	AdEE	MSLDC		
49	Avinash Dhwade	DyEE	MSLDC		
50	Ganeh Ozare	DyEE	MSLDC		

ANNEXURE “B”

Sustained Insecure Grid Operation and Necessity of Stakeholder Discipline and Resource Adequacy

September 2026 review, 3 October case and the October adequacy outlook

OCC Meeting | 4 October 2026, 15:00 hrs | Virtual

September: The Grid spent 110 hours below its normal band

110 h

below 49.90 Hz, 15% of the month

49.41 Hz

lowest frequency, 11 September at 18:45 hrs

@43.368 MU

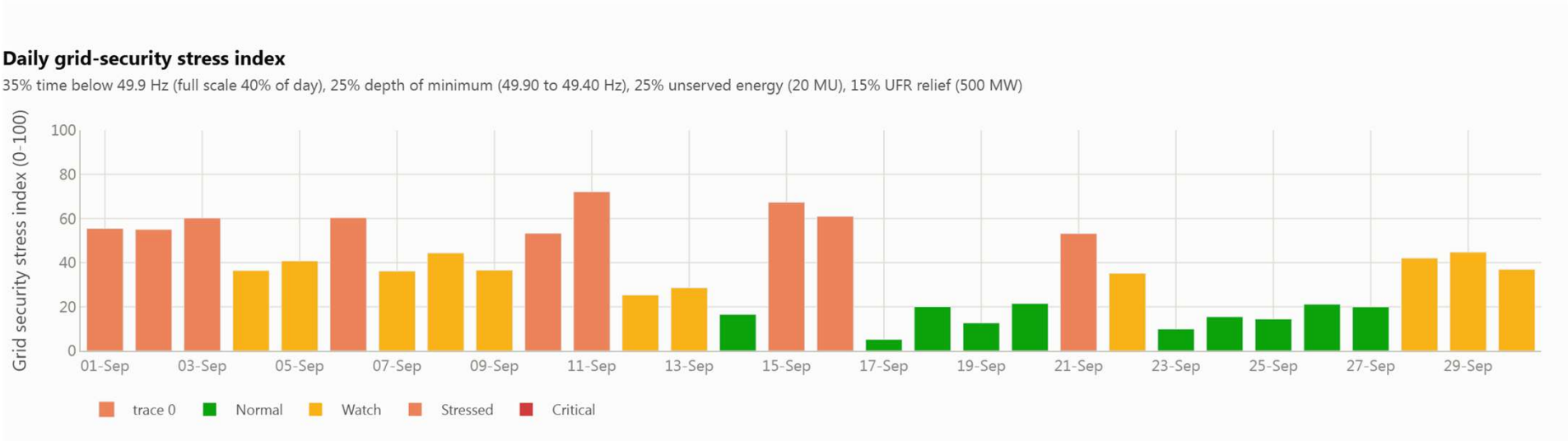
load curtailed in 40 events on 17 days

355

UFR feeder operations on 8 days

- Demand grew 23% on September 2025, and the system had no spare resources in the evening.
- Only 70% of the month was inside the 49.90-50.05 Hz band; 15% was above it.
- 9 stressed days on a fixed 0-100 scale; the worst, 11 September, scored 72 and reached 49.41 Hz.

Stress Peaks After Sunset — Every Day



- 48% of the daily lowest frequencies fall between 17:00 and 19:59, in the solar-set and evening-peak ramp.
- Highest scores: 11 Sep (72), 15 Sep (67), 16 Sep (61), 3 and 6 Sep (60). Tiers: Watch from 25, Stressed from 50, Critical from 75.
- The second half of September was calmer (10.3% of time below 49.90 Hz against 19.6% in the first half); October demand will be higher.

How a day is banded: Normal, Watch, Stressed, Critical

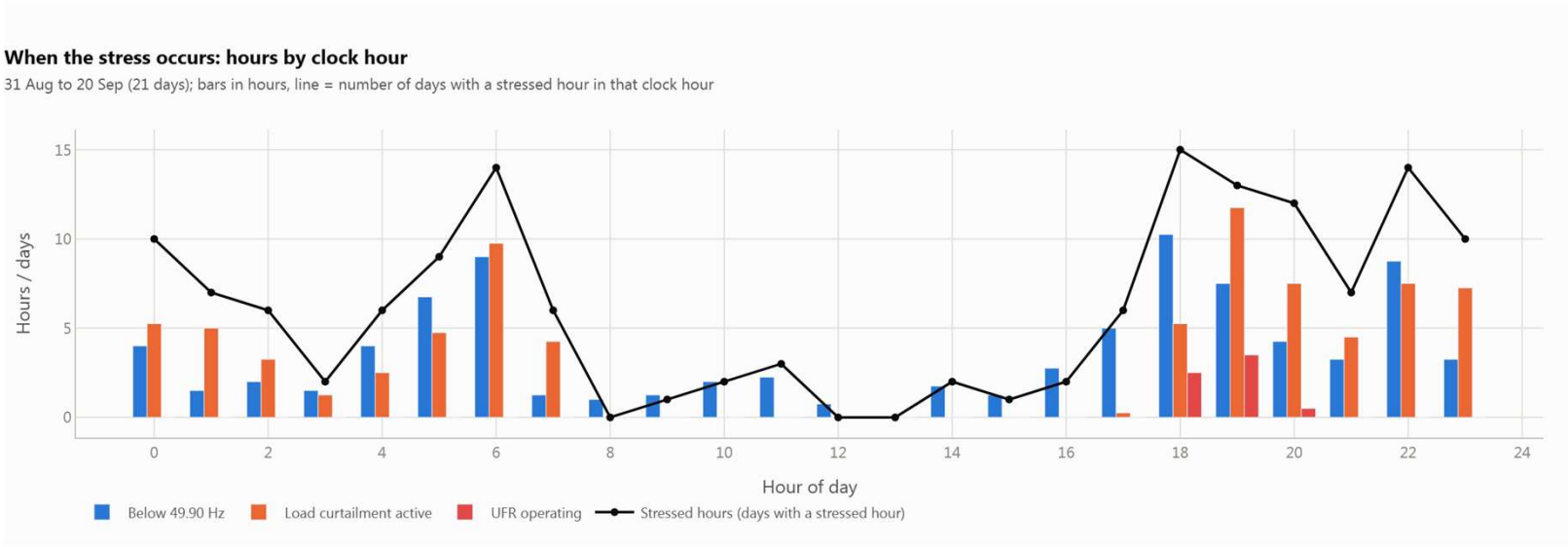
Band	Index	Days	Share	Time below 49.90 Hz, average day	Average daily lowest	Load curtailed, total	UFR days	Dates
Normal	0 to 25	**10**	33%	6.5% (1.6 h)	49.71 Hz	0.4 MU	1	14-Sep, 17-Sep, 18-Sep, 19-Sep, 20-Sep, 23-Sep, 24-Sep, 25-Sep, 26-Sep, 27-Sep
Watch	25 to 50	**11**	37%	15.2% (3.6 h)	49.54 Hz	42.4 MU	3	04-Sep, 05-Sep, 07-Sep, 08-Sep, 09-Sep, 12-Sep, 13-Sep, 22-Sep, 28-Sep, 29-Sep, 30-Sep
Stressed	50 to 75	**9**	30%	25.1% (6.0 h)	49.46 Hz	95.3 MU	4	01-Sep, 02-Sep, 03-Sep, 06-Sep, 10-Sep, 11-Sep, 15-Sep, 16-Sep, 21-Sep
Critical	-	**0**	0%	-	-	-	-	none (highest day 11 Sep, index 72)

How the index is built

Component	Weight	Scores 0 at	Scores full at
Share of the day below 49.90 Hz	35%	0% of the day	40% of the day
Daily lowest frequency	25%	49.90 Hz	49.40 Hz (UFR stage-1)
Load curtailed	25%	0 MU	20 MU
UFR relief	15%	0 MW	500 MW

- Each component is scaled from 0 to 1 on a fixed scale, so an October day can be compared directly with a September day.
- Bands: Normal below 25, Watch 25 to 50, Stressed 50 to 75, Critical 75 and above.
- No September day reached Critical; 11 September was the highest.

Stressed Hours: 148 of 504 hours in 21 days



Stressed hour = at least 30 minutes below 49.90 Hz, or at least 30 minutes of load curtailment, or any UFR operation. 31 Aug to 20 Sep (15-minute frequency data).

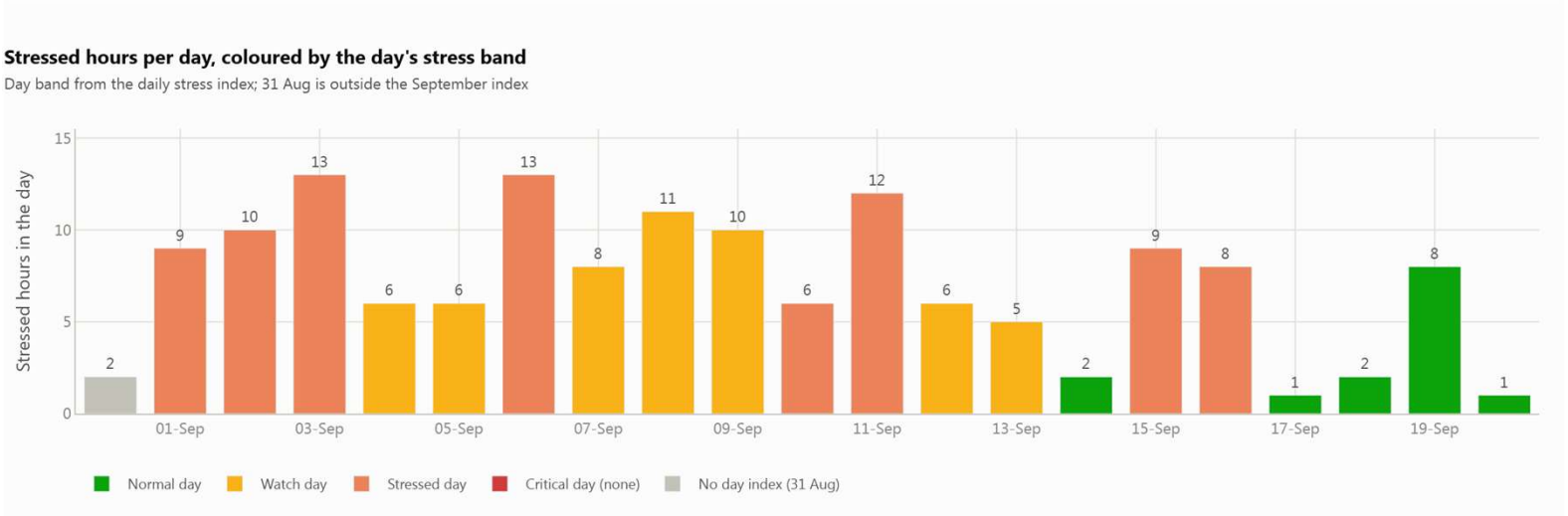
148 h
stressed, 29% of all hours

85 h
below 49.90 Hz

80 h
with load curtailment active

6.5 h
with UFR operating

Hour Bands: Days grouped by how many hours were stressed



Stressed hours in the day	Days	Share	Average stressed h	Average h below 49.90 Hz	Average day index	Dates
0-2 h	**5**	24%	1.6	1.5	16	31-Aug, 14-Sep, 17-Sep, 18-Sep, 20-Sep
3-6 h	**5**	24%	5.8	3.6	37	04-Sep, 05-Sep, 10-Sep, 12-Sep, 13-Sep
7-10 h	**7**	33%	8.9	5.2	46	01-Sep, 02-Sep, 07-Sep, 09-Sep, 15-Sep, 16-Sep, 19-Sep
11+ h	**4**	19%	12.3	5.9	59	03-Sep, 06-Sep, 08-Sep, 11-Sep

Day bands and Hour bands

Days in each day band, by stressed hours (1 to 20 Sep)

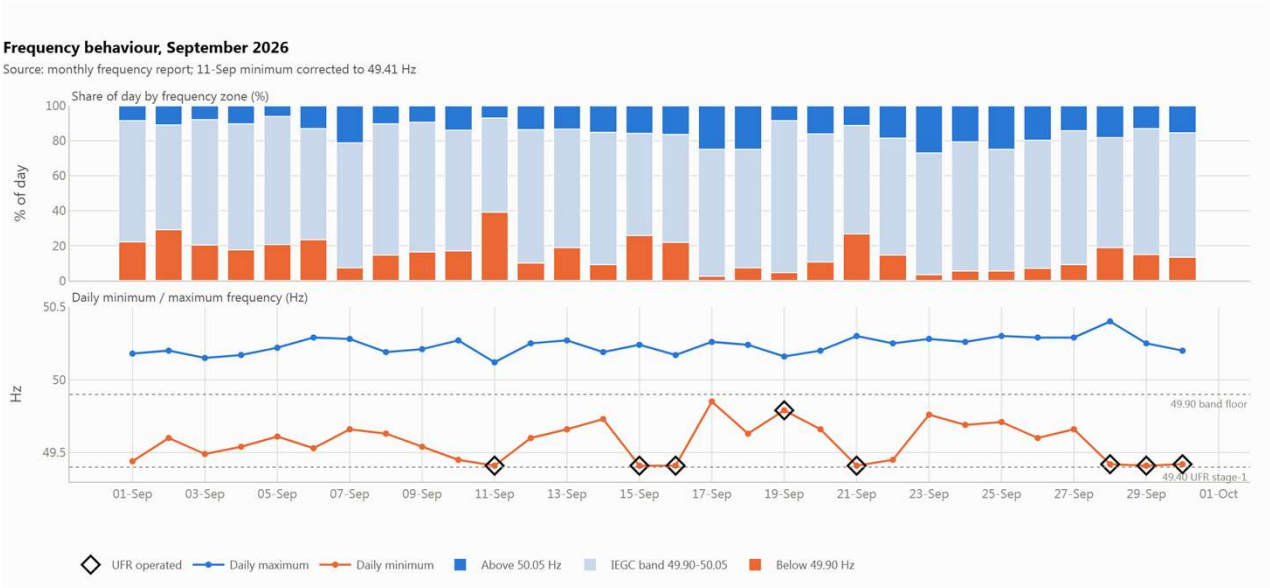
Day band	0-2 h	3-6 h	7-10 h	11+ h
Normal	**4**	0	1	0
Watch	0	**4**	2	1
Stressed	0	1	**4**	**3**
Critical	0	0	0	0

How the rule changes the count (21 days)

Rule for a stressed hour	Hours	Share	Per day
Base: 30 min below 49.90 Hz, 30 min curtailment, any UFR	**148**	29%	7.0
Looser: 15 min of any	**204**	40%	9.7
Stricter: 60 min of any	**79**	16%	3.8
Frequency line at 49.70 Hz	**90**	18%	4.3

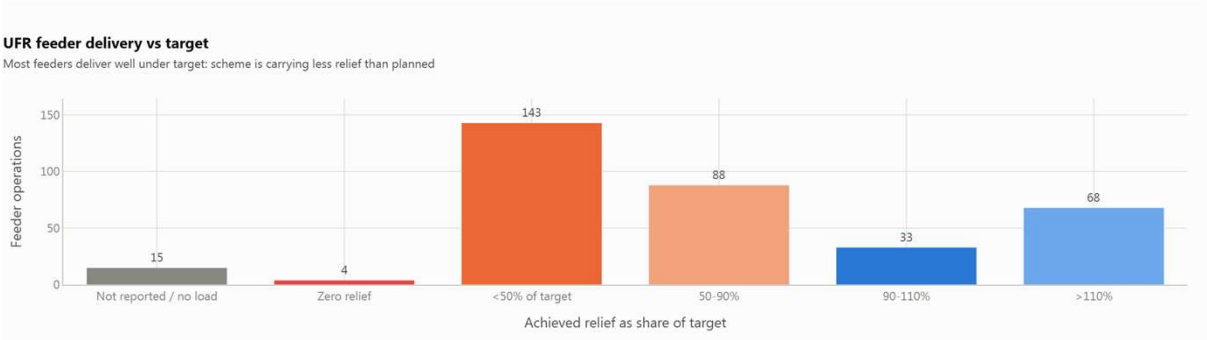
- 7 of the 8 Stressed days had 7 or more stressed hours, and 3 had 11 or more.
- 4 of the 5 Normal days had 2 or fewer; the exception, 19 September, had 8 hours with frequency dips below 49.90 Hz and UFR in the evening, but no load curtailment, so its day index stayed Normal.
- The two measures agree closely (correlation 0.78), but both use the same inputs, so they are not independent checks.
- The count depends on the rule: from 79 hours (60 minutes of any) to 204 hours (15 minutes of any). The base rule is 30 minutes.

Frequency sat outside the band for 30% of September



- 15.3% of time below 49.90 Hz, and 15.0% above 50.05 Hz.
- 3.0 h below 49.50 Hz; 11 days reached 49.50 Hz or lower.
- UFR operated on the days marked by diamonds.
- Low frequency follows the evening ramp; high frequency follows the solar hours.

UFR delivered 58% of the relief it was set to give

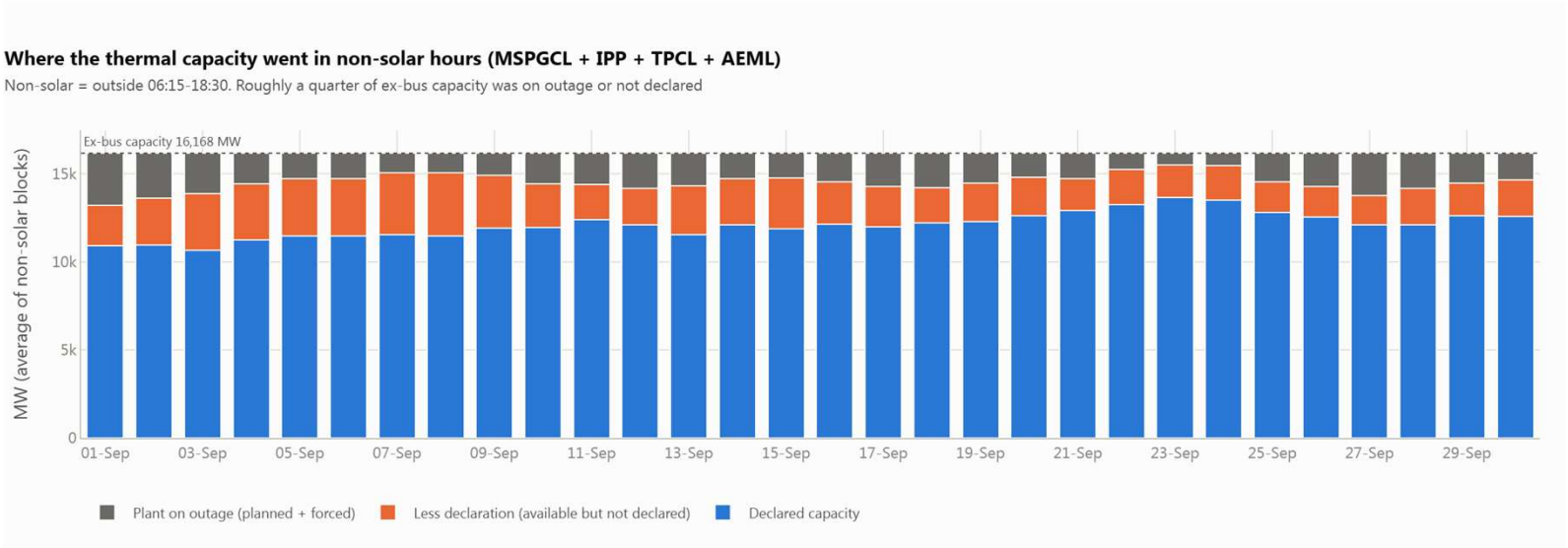


- 355 feeder operations on 8 days gave 1,225 MW of relief against 2,124 MW targeted.
- Largest event: 15 Sep, 415 MW.
- UFR operated again on 3 October (11, 15, 16, 19, 21, 28, 29, 30 Sep and 3 Oct).
- The same feeders trip in most events, so the relief comes from a small set of consumers.

Zone	Feeder ops	Delivery vs target
Ch. Sambhajinagar	177	71%
Amravati	56	70%
Nashik	51	**39%**
Karad	60	**31%**
Nagpur	11	110%

MEGC Reg 29.9-29.10: UFR and df/dt schemes must always be functional. SLDC keeps expected against actual relief (Reg 29.11).

@ A Quarter of the Thermal Fleet was not Available



4,074 MW

average not on offer in non-solar hours (25% of 16,168 MW)

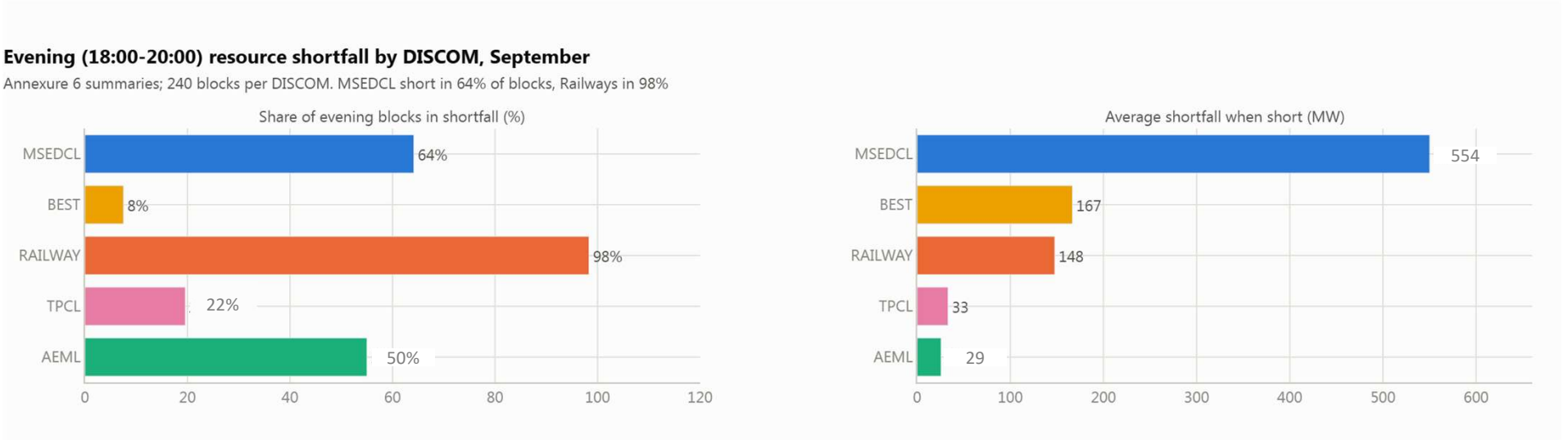
1,655 MW

on planned or forced outage

2,419 MW

available but not declared (59%); MSPGCL 23%, IPP 10% below declarable

Distribution Utilities – Inadequate Resources in The Evening



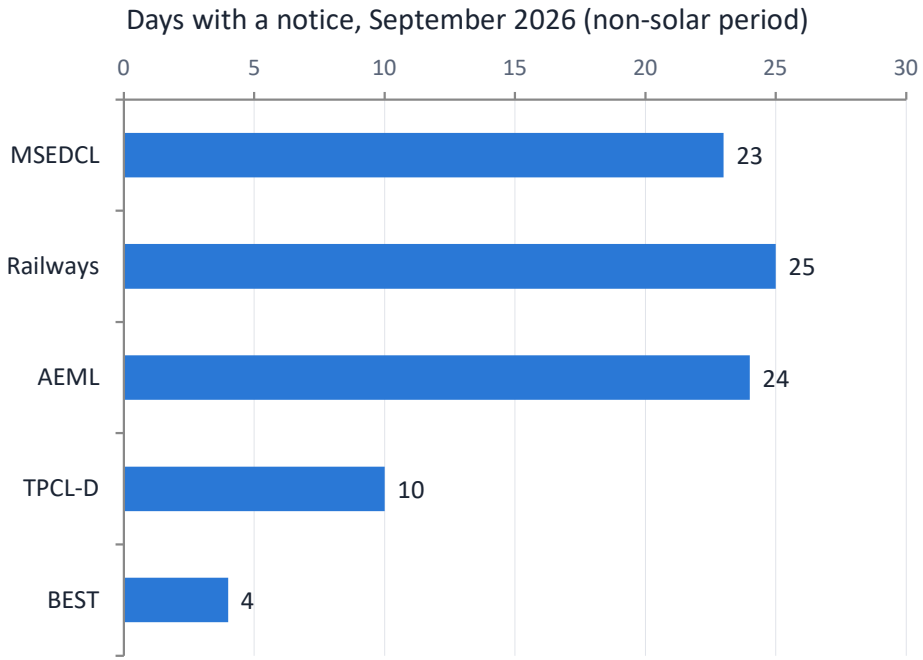
Utility (18:00-20:00, September)	Blocks short	Average when short, MW	Worst block, MW
MSEDCL	64%	**554**	1,645
Railways	98%	**148**	362
BEST	8%	167	245
AEML	50%	29	148
TPCL-D	22%	33	121

Railways were short for 4 or more blocks in a row on at least 28 of 30 evenings

Utility	Shortfall blocks, of 240	Share of blocks	Evenings with a run of 4 or more blocks
Railways	236	98.3%	**28 to 30 of 30 evenings**
MSEDCL	154	64.2%	0 to 30 of 30 evenings
AEML	132	55.0%	0 to 30 of 30 evenings
TPCL-D	47	19.6%	0 to 11 of 30 evenings
BEST	18	7.5%	0 to 4 of 30 evenings

- Blocks are the 18:00 to 20:00 evening blocks of September: 30 days of 8 blocks, 240 per utility.
- Railways were short in 236 of 240 blocks, so a run of 4 or more occurred on at least 28 evenings and at most 30.

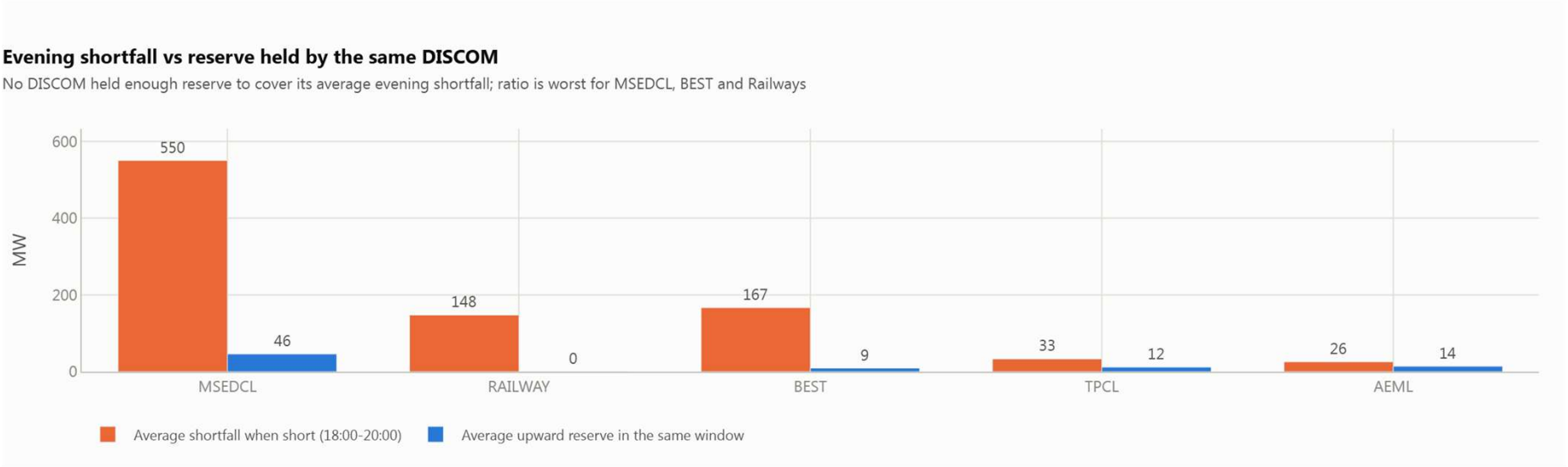
Intraday notices for Resource Inadequacy to Distribution Licensees



Utility	Days noticed	Average shortfall quoted
MSEDCL	23	244 to 821 MW
Railways	25	107 to 198 MW
AEML	24	2 to 39 MW
TPCL-D	10	14 to 44 MW
BEST	4	152 to 200 MW

- Railways and AEML were noticed on 25 and 24 days, MSEDCL on 23 and TPCL-D on 10; BEST on 4.
- MSEDCL's quoted shortfall reached 821 MW, the largest by far.

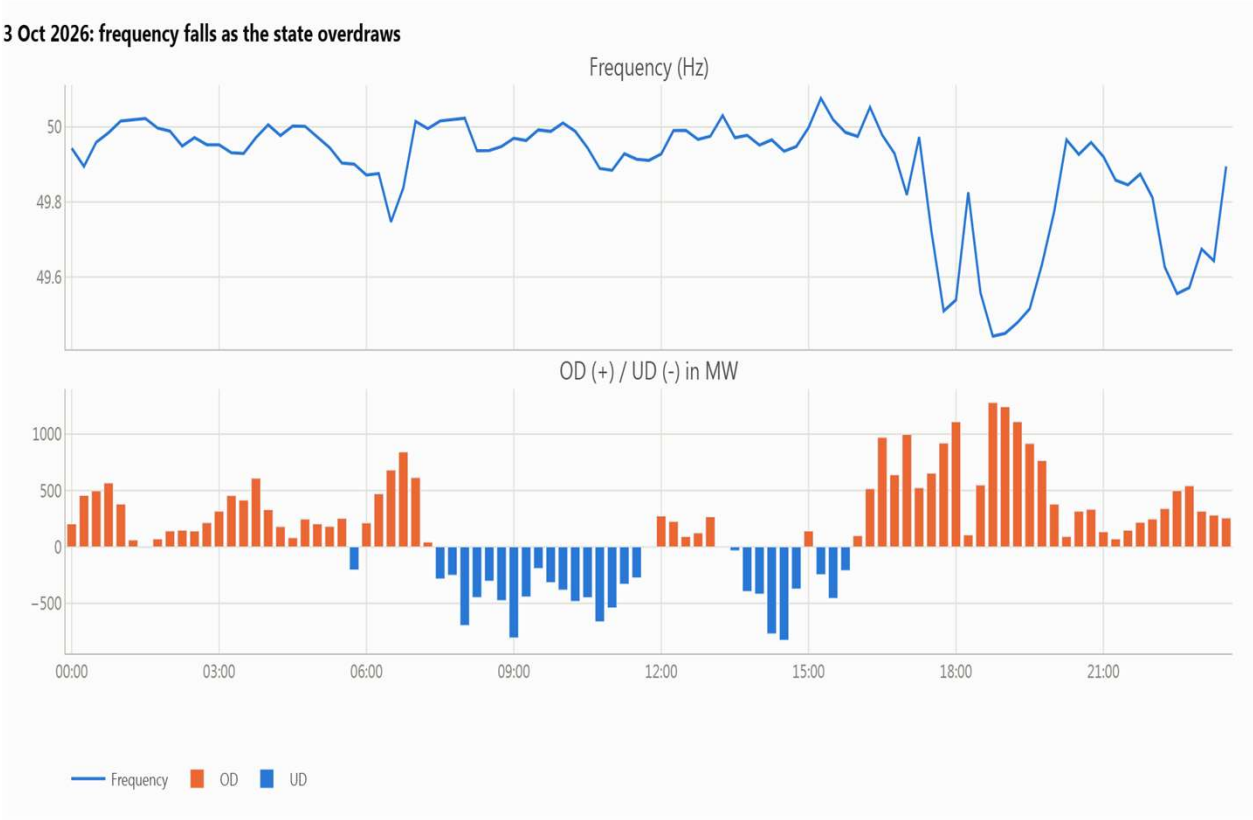
Lack of Reserves



- MSEDCL averaged 46 MW of upward reserve in the evening against a 550 MW average shortfall; under 10 MW in 93% of evening blocks.
- BEST 9 MW against 167 MW, TPCL-D 12 MW against 33 MW, AEML 14 MW against 26 MW.
- Railways reported 0 MW reserve in every block; resource data is needed.

With no headroom in the evening, every MW of shortfall is met from the OD affecting frequency.

3 October 2026



49.44 Hz

lowest frequency, at 18:45

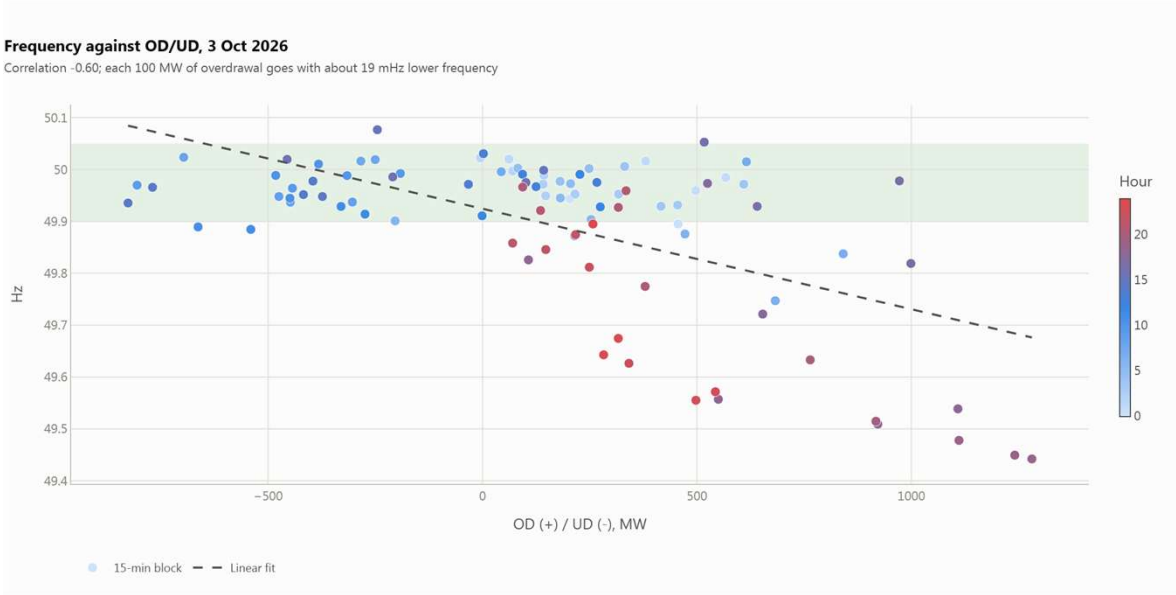
7.3 h

below 49.90 Hz (31% of blocks)

1,281 MW

peak overdrawal, at 18:45

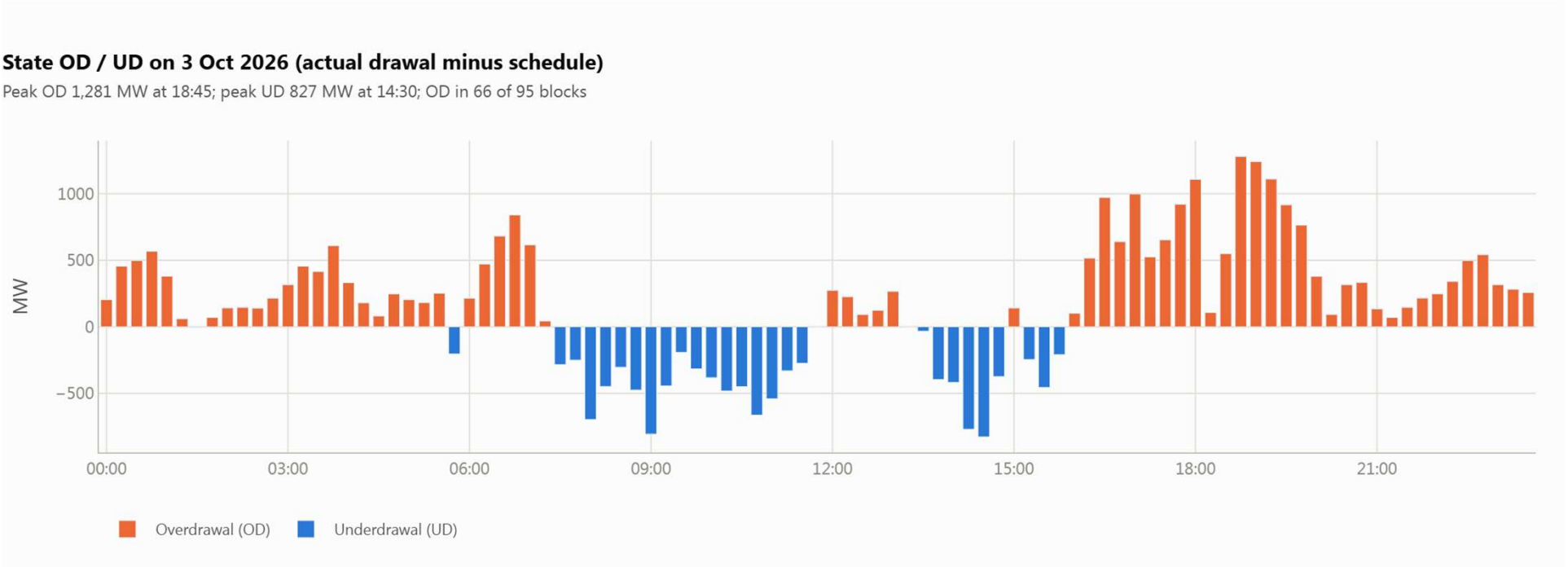
Overdrawal and Low Frequency Move Together



- Each 100 MW of overdrawal goes with about 19 mHz lower frequency (correlation -0.60).
- 3.9 MU of the 6.7 MU overdrawn was drawn while frequency was below 49.90 Hz.
- Evening average (18:00-20:00): 885 MW overdrawal at 49.55 Hz.
- Underdrawal peaked at 827 MW at 14:30, in solar hours; it cannot be banked for the evening.

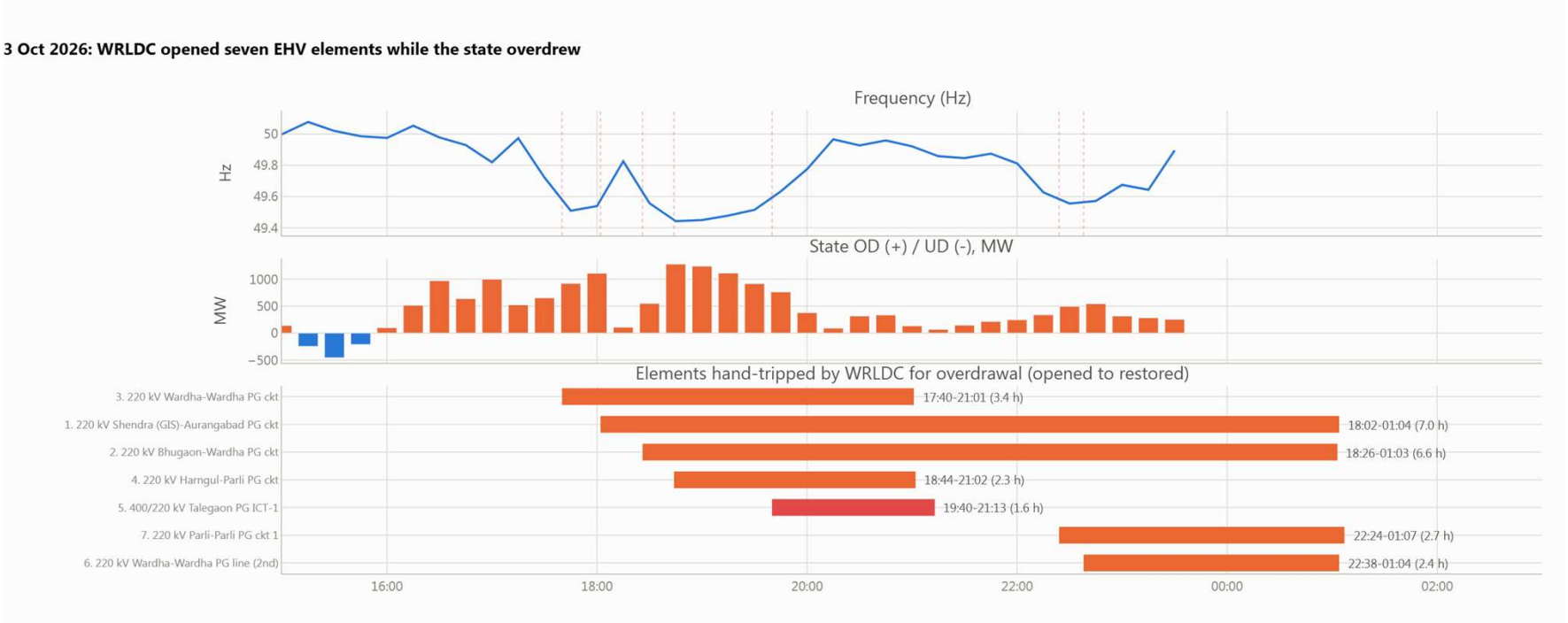
Staying within schedule in the evening is the fastest way to restore frequency.

The state drew above schedule through the evening peak



- Overdrawal in 66 of 95 blocks; 6.7 MU overdrawn over the day against 2.8 MU underdrawn.
- Overdrawal in 18:00-20:00 alone: 1.8 MU.

3 October: WRLDC opened seven EHV elements



5 of the 7 were open together from 19:40 to 21:01, with the frequency at its lowest. 26 element-hours in total.

Seven hand-trips in one evening, and why they matter

No.	Element, as reported	Opened	Restored	Hours	Freq. at opening, Hz	State OD at opening, MW
3	220 kV Wardha-Wardha PG ckt	17:40	21:01	3.4	49.72	653
1	220 kV Shendra (GIS)-Aurangabad PG ckt	18:02	01:04 (4 Oct)	**7.0**	49.54	1,109
2	220 kV Bhugaon-Wardha PG ckt	18:26	01:03 (4 Oct)	**6.6**	49.83	107
4	220 kV Harngul-Parli PG ckt	18:44	21:02	2.3	49.56	550
5	400/220 kV Talegaon PG ICT-1	19:40	21:13	1.6	49.51	917
7	220 kV Parli-Parli PG ckt 1	22:24	01:07 (4 Oct)	2.7	49.63	341
6	220 kV Wardha-Wardha PG line (second opening)	22:38	01:04 (4 Oct)	2.4	49.56	498

Network paths lost

Each element joins the national grid to the state network at Aurangabad, Wardha, Parli or Talegaon. Flow moves to the remaining elements, so the margin for the next fault is gone.

Several out together

5 elements were open between 19:40 and 21:01, while frequency was between 49.44 and 49.72 Hz.

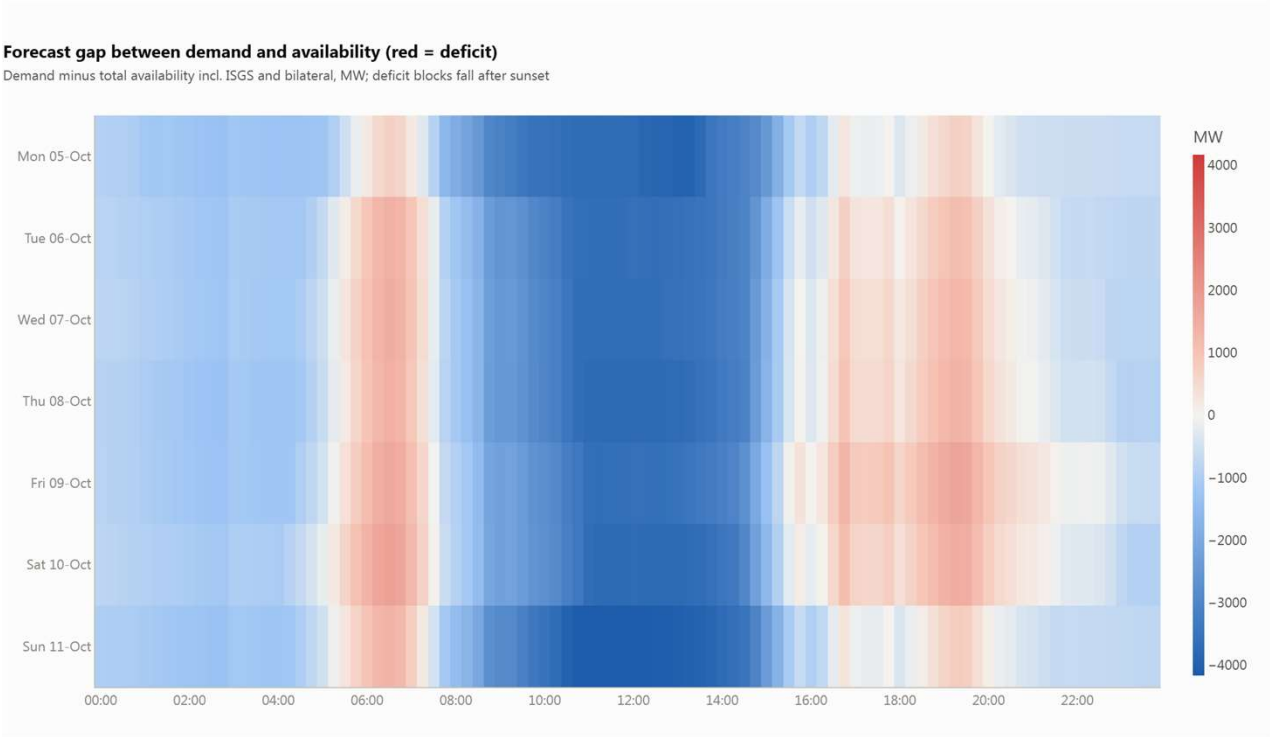
Long exposure

Elements stayed open 1.6 to 7.0 hours, 26 element-hours in all; three were out until about 01:00 on 4 October.

Loss of control

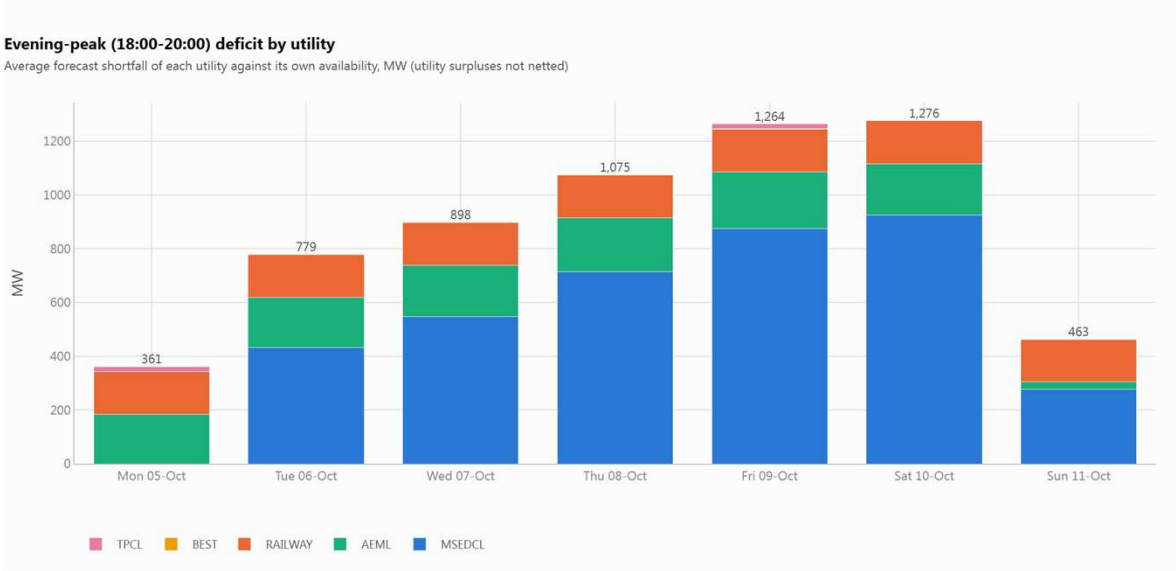
Opening is by location, not by a rotation SLDC chooses. Load that shifts can overload neighbouring lines.

The week-ahead forecast shows evening deficits all week



- Forecast peak rises from 29,172 MW (5 Oct) to 30,221 MW (9 Oct).
- Deficit blocks per day: 13, 24, 25, 27, 32, 32, 16 of 96.
- Evening-peak average deficit reaches 1,264 MW on 9 Oct; worst block 1,801 MW on 10 Oct.
- The forecast shows zero planned restriction or load shedding.

The Deficit and Distribution Licensees

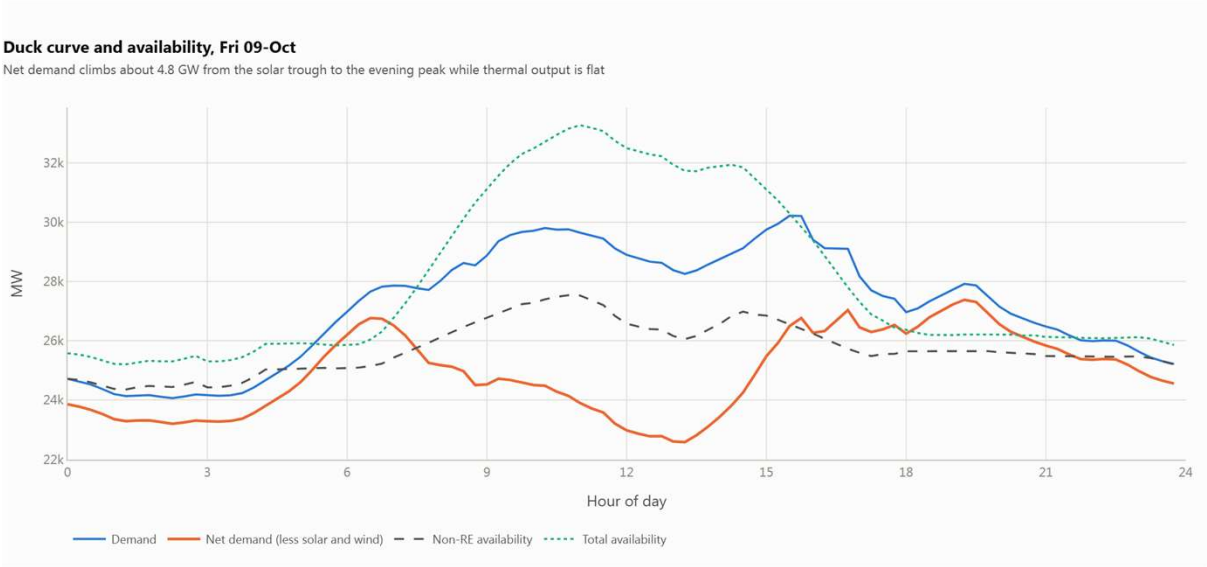


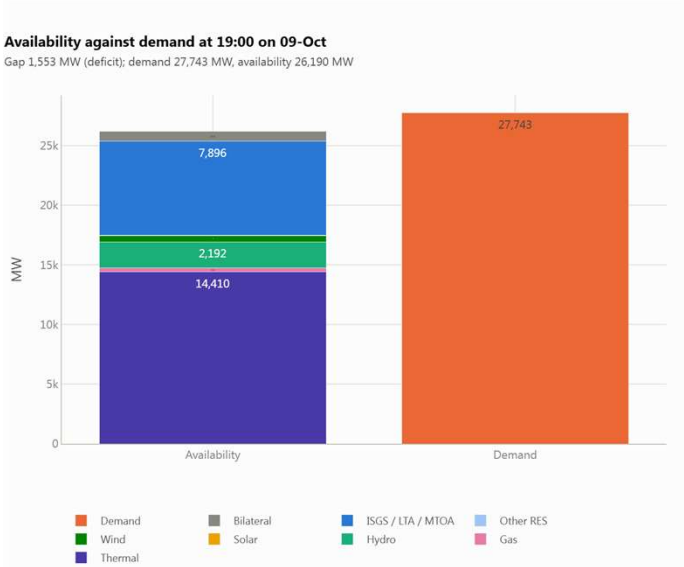
Utility, 18:00-20:00, 5-11 Oct	Demand MW	Available MW	Avg gap MW	Worst, MW
MSEDCL	22,923	22,392	530	1,340
AEML	1,741	1,571	170	275
Railways	545	386	159	173
BEST	761	760	1	8
TPCL-D	982	1,065	surplus	34

- MSEDCL carries the largest volume; Railways and AEML are having shortfall.

Utilities with a gap are expected to arrange resources for 18:00-20:00 ahead of the day, not rely on the overdraw from grid.

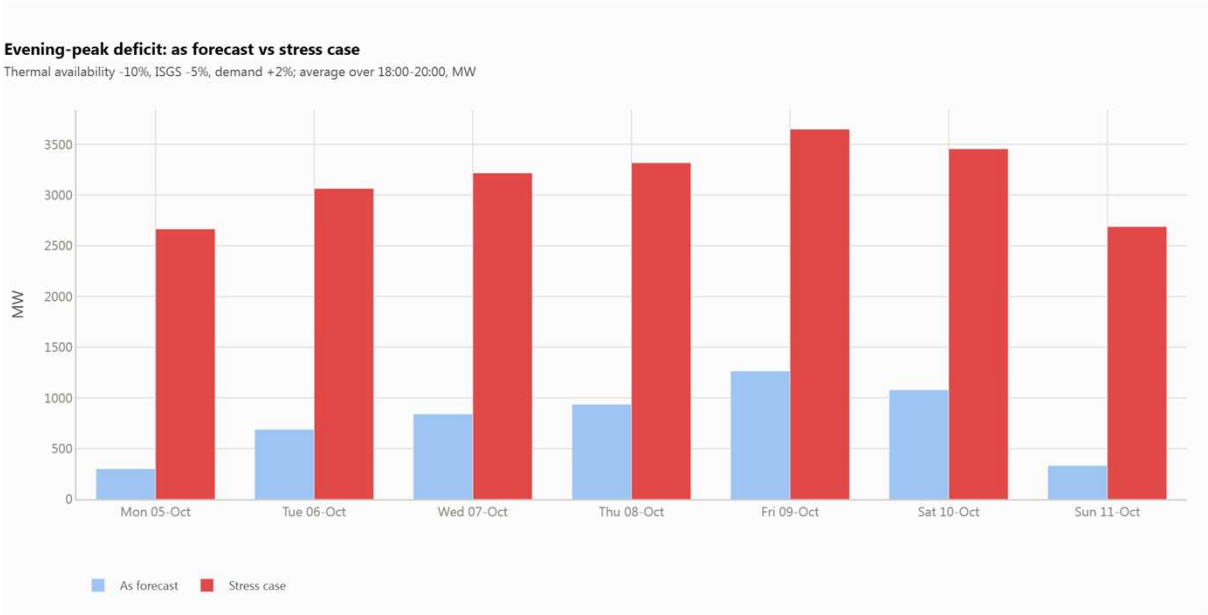
Net demand climbs 4.8 GW after the solar peak -9th Oct





- Own thermal is forecast flat at 14,410 MW in every block, so the ramp is met by solar going away and ISGS/LTA (about 7,846 MW in the evening) staying fixed.
- On 9 October the forecast gap at 19:00 is deficit: demand exceeds everything on offer.

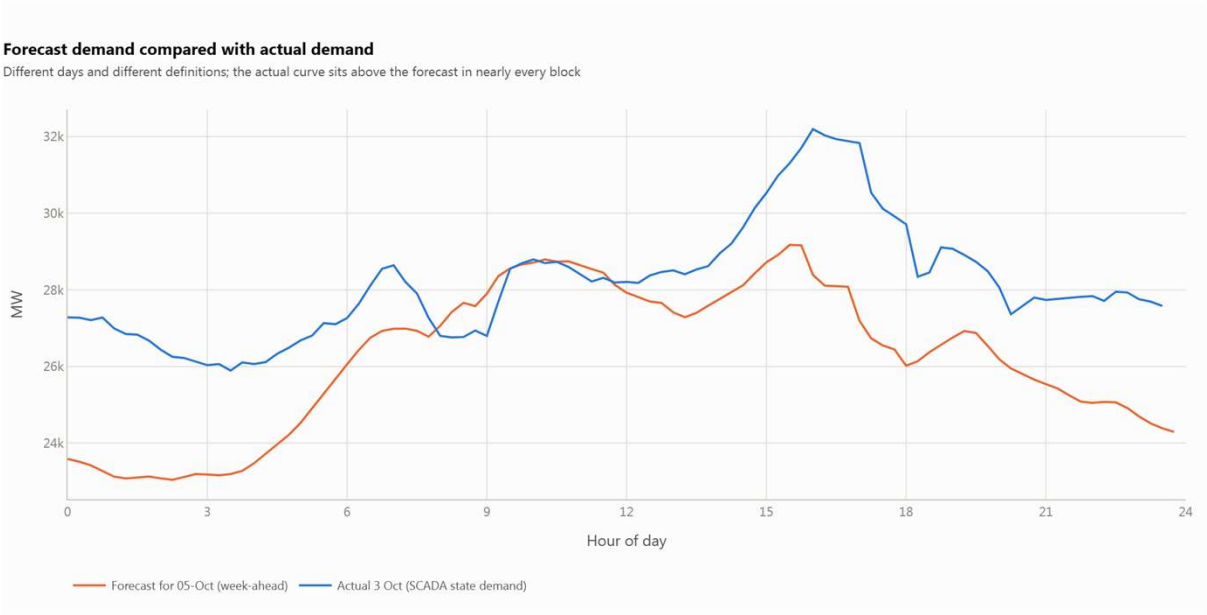
Probable Under stress the evening deficit approaches 3 GW or more



- As forecast, the evening average deficit is 300-1,264 MW.
- If thermal availability is 10% lower (about 1,440 MW): 1,741-2,705 MW.
- With ISGS 5% lower and demand 2% above forecast: 2,666-3,649 MW.
- In September, 25% of the core thermal fleet was not on offer in non-solar hours.

Resource adequacy is a shared duty: generators on offer, utilities tied up, demand forecast realistic.

Forecasts look low against Actual Grid Drawl



- The 5 Oct forecast averages about 1,934 MW below the 3 Oct SCADA state demand across the day.
- The days differ (Saturday and Monday) and the definitions may differ, so this is a prompt to check, not a finding.
- If forecasts are understated, schedules are too low and the evening deficits above are understated as well.
- MEGC Reg 38: each buyer estimates its own demand and tracks forecast error.

Responsibilities as per The State Grid Code – Maintain LGBR

MEGC 2020	What it requires
39.3.1	Buyers, including distribution licensees, keep actual drawal within schedule. If there is no automatic scheme, manual load curtailment shall occur so that there is no overdrawal.
39.3.2	Measures are not withdrawn while frequency stays below the limit, unless SLDC permits.
39.3.3 - 39.3.6	Every buyer keeps a procedure for demand disconnection on SLDC instruction; interruptible loads sit in four non-overlapping groups; UFR feeder lists are published.
39.1, 39.2, 39.4	SLDC may direct users to curtail drawal, stating the duration or condition. Users act immediately; non-compliance is dealt with under Regulation 98.
28 (proviso)	Distribution licensees above 100 MW peak, including Railways, run control rooms for load management and curtailment and act on SLDC instructions.
98	Directions are complied with pending any dispute. Persistent non-compliance is reported to the Commission; Section 33(5) penalties apply; consistent non-compliance can lead to disconnection.

What we ask of each stakeholder

DISCOMs and Railways

- Acknowledge SLDC instructions at once and report MW relief achieved
- Stay within schedule; curtail manually where no automatic scheme exists
- Keep curtailment until frequency recovers (39.3.2)
- Tie up resources for 18:00-20:00 and re-submit forecasts against actuals
- Railways: provide resource and reserve data

Generators

- Revive units on planned and forced outage at the earliest
- Declare full capacity in non-solar hours; avoid under-injection
- Hold fuel stock to CEA norms
- Avoid under injection from on bar units

STU and transmission

- Keep UFR and df/dt relays functional (29.9-29.10)
- Fix repeat feeders and low-delivery zones (Karad, Nashik)
- Publish feeder lists for UFR and rotational curtailment (39.3.6)

SLDC

- Issue instructions in standard formats with duration (39.3.7)
- Track acknowledgement and delivery for every instruction
- Forward WRLDC notices under IEGC 30(2) and 30(3) with MSLDC notices
- Report persistent non-compliance to the Commission

If instructions go unmet, the steps are already set

1

SLDC instruction

MW to curtail and the time or condition it applies until (39.4)

2

Notices

WRLDC notices under IEGC 30(2) and 30(3), with MSLDC notices, sent to DISCOMs and Railways

3

EHV circuit opening

Used by WRLDC on 3 Oct (seven elements). SLDC proposes suo-motu opening for consistent overdrawal and non-compliance.

4

Regulatory action

Reported to the Commission; Section 33(5) penalty.

What we need for October and Ahead

1. Each DISCOM and Railways confirm its resource adequacy.
2. Instructions issued by SLDC shall be strictly implemented
3. In case on non response from licensees SLDC can initiate curtailment from EHV substations
4. DISCOMs re-check week-ahead forecasts against the 3 and 4 October actuals and re-submit.

What we for October

5 Request Hon. MERC for immediate implementation of price vector as per new DSM regulation

6 Request Hon. MERC for applying penalty for persistent resource inadequacy

Grid Security: A Shared Responsibility

Thanks