Peak Power Costlier, Solar Cheaper: MERC's ToD Changes Hit Open Access

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Synopsis:

- The recent circular issued by the Maharashtra Electricity Regulatory Commission (MERC) on March 25, 2026, significantly altered the landscape for commercial and industrial (C&I) consumers. The revised framework restricts utilisation of banked solar energy largely to the same solar time block (09:00 hrs to 17:00 hrs) where the bulk of the solar power is generated, compared to ~17 hours permitted earlier, reducing the flexibility available to commercial and industrial (C&I) consumers in optimising renewable energy usage and managing power costs. In addition, the revised Time-of-Day (ToD) tariff structure mandates higher peak-hour tariffs and rebates during solar hours, weakening tariff competitiveness of open-access renewable projects and compressing savings for consumers procuring power directly from developers.
- In response to the circular, developers and off-takers are likely to evaluate multiple alternatives, including reallocation of excess capacities to existing off-takers in line with their consumption patterns or securing new off-takers for surplus power. Another emerging solution is the deployment of Battery Energy Storage Systems (BESS). These alternatives are expected to introduce new commercial, regulatory, and contractual variables and challenges, which may take time to implement and, in the interim, have a temporary impact on project cash flows.
- CARE Ratings Limited's (CareEdge Ratings') analysis indicates that projects with banking exposure above 10% could face liquidity stress, weaker debt service coverage ratios (DSCRs), and heightened credit risks. In contrast, projects with limited banking exposure, strong sponsor support, and adequate liquidity buffers are expected to remain relatively unaffected. Although these rules are currently applicable in Maharashtra, similar regulatory challenges in other industrial states as well cannot be ruled out. This will impact the risk profile of the entire C&I renewable energy segment.

Background of the issue

On 25 June 2025, MERC issued a review order under the Multi-Year Tariff (MYT) framework that significantly restricted the flexibility of banking for C&I consumers. In CareEdge Ratings' opinion, this would be significantly detrimental to open-access consumers procuring solar power and would also affect the attractiveness of this specific segment to solar power developers. A large number of solar projects had been structured on the basis of oversizing, with the expectation that surplus generation during solar hours would be banked with the distribution utility and subsequently utilised in non-solar or non-peak hours.

Under the earlier regulatory framework, banked renewable energy (RE), particularly energy generated during non-peak periods, could be drawn for a substantial part of the day- ~17 hours, excluding designated peak hours. However, the revised MERC order limited the utilisation of banked energy. This is expected to adversely affect solar projects, as generation occurs from 9:00 AM to 5:00 PM, and consumption must mirror it. This restriction substantially reduces the practical utility of banking arrangements, especially since the electricity demand profile of C&I consumers typically extends into evening and night-time hours. As a result, the order adversely affects commercial viability and project economics of open-access and captive solar projects.

The order was subsequently challenged before the Hon'ble Bombay High Court by developers and industry associations, including the National Solar Energy Federation of India (NSEFI) and the Distributed Solar Power Association (DISPA). The principal grounds of challenge included:

- The retrospective impact of the order on existing power purchase agreements (PPAs); and
- The absence of adequate stakeholder consultation before issuance of the order.

On 01 July 2025, the Hon'ble Bombay High Court granted an interim stay and directed continuation of the earlier regulatory framework until a proper consultative process was undertaken. The Hon'ble Supreme Court subsequently upheld this position and directed MERC to conduct fresh hearings on the matter.

What MERC changed in March 2026 and why it matters?

MERC issued a fresh order in March 2026 which, in substance, brings back several elements of the earlier June 2025 framework. These have been mentioned below -

- The banking window for solar projects was effectively reduced to ~8 hours/day (against ~17 hours earlier)
- The unutilised banked energy would lapse every month, which is in line with green energy open access (GEOA) rules
- Banking is aligned with ToD principles (drawal allowed only within same or lower tariff time blocks)

Banking Provisions: Then Vs Now

ToD Slabs	Energy banked during	Earlier Provision regarding banking adjustment		Amended Provision	
		Same ToD Slot	Another ToD Slot	Same ToD Slot	Another ToD Slot
Solar Hours	09:00 hrs to 17:00 hrs	Yes	Yes, except peak hours	Yes	No
Peak Hours	17:00 hrs to 24:00 hrs	Yes	Yes, all other slots	Yes	Yes, all other slots
-	00:00 hrs to 06:00 hrs	Yes	Yes, during solar hours	Yes	Yes, during solar hours
	06:00 hrs to 09:00 hrs				

Source: MERC order dated March 2026

The restriction on the fungibility of banked solar energy across time blocks is expected to impact the viability of existing projects and those in the pipeline. Most C&I solar projects were designed with some level of oversizing, assuming flexibility to utilise generation beyond solar hours. As highlighted in the table, if existing off-takers are unable or unwilling to absorb the surplus solar generation, cash flows for such projects could decline.

While the MERC order issued in March 2026 stipulated applicability from July 2025 onwards, uncertainties persisted regarding reversal of power drawn through the banking route from July 2025 to March 2026. Given the inherent nature of solar plants, which do not generate power during nighttime, offsetting or squaring off the previously drawn units was not feasible. If they were to pay an extra price for drawing power in a higher ToD slot, there were uncertainties about the price at which settlement would occur. CareEdge Ratings understands that, for the time being, APTEL has stayed the retrospective implementation of the revised banking provisions; however, settlements from April 2026 onwards are being carried out in accordance with the revised norms.

In line with the original MYT order in March 2025, MERC revised the ToD framework, mandating that peak-hour tariffs for eligible C&I categories be materially higher than base tariffs, while solar-hour tariffs offer meaningful rebates to encourage demand-shifting to hours of abundant renewable generation. Accordingly, the revised ToD tariff structure (charges/rebates) for eligible consumer categories in its final order, as outlined below: -

Revised ToD Slabs:

ToD Slabs	Period	Duration (hrs)	Commission approved ToD Slots ToD Charge/ (Rebate) (% of Energy Charge)
-	00:00 hrs to 06:00 hrs	6	0%
	06:00 hrs to 09:00 hrs	3	0%
Solar Hours	09:00 hrs to 17:00 hrs	8	-15%'^ (April to September) -25%'^ (October to March)
Peak Hours	17:00 hrs to 24:00 hrs	7	+20%'#

[#Note – For HT & LT Industrial & Commercial Categories = +25%]
[^Note – ToD Rebate during solar hours proposed to increase in steps (From -15% (FY 26), -15% (FY27), -20% thereafter for April to September & From -25% (FY 26), -25% (FY27), -30% thereafter for October to March.]
Source: MERC order dated March 2026
Note: The ToD rebate of 15% from April to September and 25% from October to March FY26 results in an annual average rebate of 20%, which is the minimum rebate allowed for solar hours per the Ministry of Power (MoP) Rules.

The revision in the rebate structure has further impacted the viability of C&I renewable energy projects, as rebates during solar hours have effectively reduced grid tariffs for the off-takers, weakening the tariff competitiveness of such projects and narrowing the margin of safety (MoS) available to the off-takers. Third-party open-access projects are likely to be affected most, as they do not benefit from certain exemptions available to captive power projects, particularly regarding charges such as the additional surcharge (AS) and the cross-subsidy surcharge (CSS). Consequently, overall economic incentive for off-takers to procure power through such arrangements has diminished following issuance of the order.

Impact on C&I projects:

The revised framework has materially altered the economics of open access procurement:

- **Higher risk of energy lapse → weaker cash-flow resilience:** Developers that structured projects around oversized solar capacities under the earlier banking framework are likely to face heightened risks under the revised regime. With banking now largely restricted to the same ToD slot, surplus solar generation can no longer be carried forward across time periods, increasing the likelihood of energy lapses and weakening cash-flow resilience. As a result, key credit metrics, including DSCRs, could come under pressure, particularly for projects with higher dependence on banking.

  To mitigate the impact, developers are evaluating multiple strategies. One approach involves contracting the excess power, previously banked, with existing off-takers in line with their consumption patterns. However, whether off-takers agree to tie up this additional requirement at a similar tariff would be monitorable. Another option is to tie up the surplus power with new off-takers whose consumption profiles are better aligned, and the tariff determination in this case would also be monitorable. A third alternative involves deploying BESS to shift excess solar generation into peak demand periods. However, integrating storage would necessitate capacity augmentation and amendments to existing PPAs, pose execution and funding risks, and may also require additional equity contribution from off-takers in case of group captive arrangements. While the nameplate tariffs would increase, in CareEdge Ratings' opinion, the landed tariff during the peak period is likely to be competitive considering that recent bids for 4-hour BESS-linked projects have discovered tariffs in the range of Rs 6–6.5 per unit and the energy charges during the peak period in Maharashtra are likely to be ~Rs 12 per unit.

Scenario analysis: DSCR sensitivity

Given that these mitigation measures may take time to materialise, CareEdge Ratings has stress-tested an open-access captive solar project having a tariff of Rs 3.25 per unit and an average DSCR of 1.2x under varying banking exposure and tariff scenarios as an illustration.

The analysis assumes that surplus energy, which can no longer be effectively banked, gets tied through short-term bilateral arrangements. Based on discussions with industry participants, direct sale of surplus power on power exchanges remains operationally challenging in Maharashtra, as exchange-based transactions are subject to specific regulatory conditions. Consequently, developers are more likely to rely on bilateral tie-ups for monetising excess generation. Given the low spot prices during solar hours, the new arrangements are likely to be at a lower tariff than the original off-take arrangement, thereby limiting developers' pricing power and adversely impacting project viability.

Average DSCR:

Average DSCR sensitivity to change in Banking and Merchant Tariff Realisation					
Realisation per unit	**Banking (%)**				
1.20	10.00%	15.00%	20.00%	25.00%	30.00%
1.50	1.14	1.11	1.08	1.04	1.01
1.75	1.15	1.12	1.09	1.07	1.04
2.00	1.16	1.14	1.11	1.09	1.07
2.15	1.17	1.15	1.13	1.10	1.08
2.25	1.17	1.15	1.13	1.11	1.09

Minimum DSCR:

Minimum DSCR sensitivity to change in Banking and Merchant Tariff Realisation					
Realisation per unit	**PLF (%)**				
1.16	10.00%	15.00%	20.00%	25.00%	30.00%
1.50	1.10	1.06	1.02	0.98	0.95
1.75	1.11	1.07	1.04	1.01	0.98
2.00	1.12	1.09	1.06	1.04	1.01
2.15	1.12	1.10	1.08	1.05	1.03
2.25	1.13	1.11	1.08	1.06	1.04

The analysis indicates that projects with banking exposure of up to 10% remain comfortable from a lender's perspective, even at realisations as low as Rs 1.50 per unit compared to the existing contracted tariff of Rs 3.25 per unit. However, project internal rate of return (IRR) will moderate. For a project that depends on banking exposure of over 10%, lenders may take comfort if tariff reduction in those projects is up to Rs one per unit, with realisation of ~Rs 2.25 per unit. Projects with banking exposure above 20% appear particularly vulnerable, with minimum DSCR levels indicating heightened liquidity stress and an increased likelihood of requiring sponsor support in adverse scenarios.

- **Reduced Competitiveness of PPAs:** Even for projects that do not rely on banking provisions, the revised framework poses challenges. The availability of ToD-linked rebates offered by DISCOMs during solar hours effectively lowers grid tariffs, making them more competitive relative to existing long-term PPAs. This dynamic may reduce the attractiveness of such PPAs over time, leading C&I consumers to hesitate in entering into long-term commitments and instead favour shorter-term or more flexible procurement strategies in an increasingly dynamic pricing environment.

Based on CareEdge Ratings' assessment of rated open-access portfolios and prevailing tariff structures, the revised ToD regime is expected to compress the MoS for renewable open-access projects. Group captive projects, which benefit from cross-subsidy surcharge (CSS) and additional surcharge (ASS) exemptions, may see MoS moderate from 30–40% to 20–30%. The impact is likely more pronounced for third-party open access, where MoS could decline to low single digits. Overall, this may affect the long-term competitiveness and viability of such arrangements in certain cases.

- **Heightened tariff renegotiation risk:** Continued decline in solar power tariffs due to abundant market supply has further intensified pricing pressures. Many existing PPAs were structured on the assumption that solar energy procured through banking mechanisms could be utilised during peak-demand periods, thereby justifying relatively higher fixed tariffs. However, with banking restrictions limiting such flexibility, off-takers may seek to renegotiate tariff terms to align with prevailing market prices. This could further affect project returns and the overall viability of investments.

Surplus Power Management: Opportunities and Challenges across alternatives

S. No	Alternatives	Pros	Cons
Option 1	Existing off-taker absorbs excess energy	✓ Leverages existing customer relationship and reduces off-take risks	× Tariff renegotiation risk × Likely amendments to existing PPAs
Option 2	Onboarding new off-taker for surplus energy	✓ Enables monetisation of surplus energy	× Tariff renegotiation risk × Contractual risks as supplementary PPAs required × Regulatory approvals for captive compliance (51% off-take requirement)
Option 3	BESS Deployment	✓ Shifts excess generation to peak hours ✓ Enhances renewable utilisation and grid flexibility	× Higher Tariff × Capacity augmentation × Contractual risks as supplementary PPAs required × Regulatory approvals × Captive compliance requirements

To limit the potential impact on revenue and cash flow arising from the revised banking provisions, developers are likely to adopt a combination of the mitigation measures discussed above, depending on commercial feasibility and stakeholder negotiations. The choice of strategy would largely depend on factors such as the willingness of existing off-takers to absorb additional power and the off-taker and developer's ability and willingness to undertake new capex, especially if setting up BESS is the preferred route; the ability to onboard new consumers; regulatory approvals, and the economic viability of the preferred solution.

Consequently, developers may need to pursue a mix of contractual restructuring, new bilateral arrangements, and storage deployment to manage the extent of losses and maintain project viability.

CareEdge Ratings' view

"From a distribution utility point of view, the MERC order appears to be a logical step towards ensuring that applicable tariffs more accurately reflect the utility's cost of procurement. By restricting flexible banking of solar energy and revising ToD rebates, the framework is expected to ease the financial burden on distribution companies. However, this move is also expected to be detrimental to open-access developers. Other states may adopt similar regulatory measures, and hence, developers and consumers are bound to reassess their existing and prospective PPAs proactively, align power procurement more closely with consumption patterns, and explore alternative strategies to mitigate the potential impact," stated Jatin Arya, Director, CareEdge Ratings.

"This order is expected to have a ripple effect on the stakeholders. For off-takers, power procurement during peak hours is likely to become more expensive, while for developers, the economic viability of renewable energy projects could come under pressure due to reduced banking benefits. Although there are multiple alternatives to mitigate this impact, their implementation is expected to be gradual. In the interim, cash flows of impacted projects are expected to deteriorate; however, projects with adequate liquidity buffers, limited banking exposure of up to 10%, and strong sponsor support are expected to remain relatively resilient. Projects with high exposure to banking are likely to be adversely impacted, as even if they choose to deploy BESS, the process would be time-consuming and cumbersome," stated Prachi Gupta, Associate Director, CareEdge Ratings.

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