

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 66 of 2021

Case of NVR Mahasolar Pvt. Ltd. seeking waiver of REDSM charges on account of the time drift error observed in the Special Energy Meters used for REDSM billing

Coram
Sanjay Kumar, Chairperson
I. M. Bohari, Member
Mukesh Khullar, Member

NVR Mahasolar Pvt. Ltd

.....Petitioner

V/s

Maharashtra State Electricity Transmission Co. Ltd. (MSETCL) Respondent No. 1
Maharashtra State Load Despatch Centre (MSLDC) Respondent No. 2
Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) Respondent No. 3
RE Connect Energy Solutions Pvt. Ltd. (RE Connect)	... Respondent No. 4

Appearance:

For the Petitioner	: Ms. Swapna Seshadri (Adv.) Ms. Harini Subramani (Adv.)
For MSETCL	: Shri Prasad Narnaware (Rep.)
For MSLDC	: Shri Ashok Gade (Adv)
For MSEDCL	: Shri Ravi Prakash (Adv.) Shri Nikhil Meshram (Rep.)
For RE connect	: Shri Anurag Dhyani (Rep.)

ORDER

Dated 11 January 2022

1. NVR Mahasolar Pvt. Ltd. (**NVR Mahasolar/Petitioner**) has filed a Case on 10 May 2021 under Section 86(1)(c) of the Electricity Act, 2003 (**EA**), Regulation 92 of MERC

(Conduct of Business) Regulations, 2004 and under Regulation 19 of MERC (Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) Regulations, 2018 (**F&S Regulations**) seeking rectification of time drift issue noticed in the Special Energy Meters (**SEM**) used for RE Deviation Settlement Mechanism (**REDSM**) billing and requesting to set aside the REDSM charges (Rs. 28,59,568/-) levied on the Petitioner through the Qualified Co-ordinating Agency (**QCA**) i.e. M/s. RE Connect, for the period from 6 January 2020 to 25 October 2020. This period has been further revised by the Petitioner from 6 January 2020 to 28 March 2021 (except for the period 1 June 2020 to 28 June 2020 and 26 October 2020 to 31 January 2021, which need to be resolved by MSLDC based on actual meter data) alongwith REDSM charges as Rs. 38,73,462/-. The Petitioner has also raised the issue of oral backing down instructions issued by the Maharashtra State Load Despatch Center (**MSLDC**) for curtailment of its solar generation and sought for an appropriate mechanism to deal with such instructions.

2. The Petitioner's main prayers are as follows:

- i. Direct the Respondents to waive off the DSM charges already levied on the Petitioner through the Respondent No. 4 – QCA and further, not to impose any DSM charges in subsequent billings till the Time drift issue at the Petitioner's sub-station is resolved;*
- ii. To set aside the invoices for DSM charges amounting to Rs. 28,59,568/- consequently raised by the Respondent No. 4 - QCA upon the Petitioner for the period from 06.01.2020 till 25.10.2020 (Annexure K);*
- iii. Direct the Respondents to extend all possible cooperation to the Petitioner for immediate rectification of the time drift issue being faced by the Petitioner;*
- iv. Evolve an appropriate mechanism to deal with the oral backing down instructions issued by MSLDC to the Petitioner and discount the same while levying the DSM Charges;*
- v. Till the time, the above issues are sorted out, restrain the Respondents from recovering any DSM Charges from the Petitioner;---*

3. The Petitioner, vide its additional submission dated 28 August 2021, has revised its prayers which are as follows:

- i. Direct the Respondents to waive off the DSM charges levied on the Petitioner through the Respondent No. 4 – QCA till 02.07.2021 i. e the date of replacement of ABT meters at the Petitioner's sub-station;*
- ii. To set aside the invoices for DSM charges amounting to Rs. 38,73,462/- consequently raised by the Respondent No. 4 – QCA upon the Petitioner for the period from 06.01.2020 till 28.03.2021 except for the period 01.06.2020 to 28.06.2020 and 26.10.2020 to 31.01.2021(Annexure - L to the Petition and Annexure - I of the petition);*

- iii. *In the alternative to prayers (i) and (ii) above, direct the Respondent No. 2 to consider the actual generation data for calculation of DSM charges for the period of i) 01.06.2020 to 05.07.2020; ii) 02.11.2020 to 31.01.2021 and iii) 26.03.2021 to 28.03.2021 so that the petitioner can compute the loss due to time drift issue and also direct the Respondent No. 2 to freshly compute the DSM charges factoring in the difference due to time drift in respect of the Petitioners' solar power plant for the period 06.01.2020 till 02.07.2021;*
- iv. *Evolve an appropriate mechanism to deal with the oral backing down instructions issued by M-SLDC to the Petitioner and discount the same while levying the DSM Charges.*

4. The Petitioner has stated as follows:

4.1. NVR Mahasolar has a 50 MW solar power generation facility in Mograle, Tah.-Man, Dist.- Satara which was commissioned on 15 July 2017. NVR Mahasolar has Power Purchase Agreement (PPA) dated 11 April 2016 with Solar Energy Corporation of India (SECI).

4.2. The Petitioner has raised mainly following two issues in its Petition:

Issue I: Rectification of time drift in the SEM used for RE DSM :

4.3. The Petitioner's billing meters used for raising power purchase bills under PPA have time synchronization/RTC issues. The same billing meters are also used for computation of 15-minute block-wise REDSM charges. Since the meters are not time synchronized, the metered data is recorded with time drift. Therefore, REDSM charges have been incorrectly computed and these incorrect REDSM charges have been levied on the Petitioner.

4.4. The details of meters along with the corresponding time drift in these billing meters is provided in the following table:

Sr. No.	Meter Type	Meter Make	Meter Serial No.	Time Drift observed
1	132 kV Main Meter	Elster	2793590	19 Mins – Lagging
2	132 kV Check Meter	Elster	2838086	15 Mins – Leading
3	132 kV Stand by Meter	Elster	2795089	18 Mins – Lagging

4.5. As the billing meters are in the custody of MSEDCL, all time-drift related rectifications or calibrations are under the scope of MSEDCL.

4.6. The chronology of events relating to the time drift issue of SEMs and Petitioner's communications with MSLDC, MSEDCL and MSETCL are as under:

Sr. No.	Date	Particulars / Events
1	11 April 2020	MSLDC issued the REDSM bill for the period from 6 January 2020 to 2 February 2020.

Sr. No.	Date	Particulars / Events
2	15 May 2020	The Petitioner highlighted the time drift issue in the billing meters installed at the Mograle Pooling Sub-station (PSS).
3	5 June, 15 June, 18 August and 24 August, 2020	The Petitioner communicated Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) for rectification of the time drift issue of these meters.
4	24 August 2020	MSEDCL granted approval for replacement of ABT meters installed at PSS in consultation with Executive Engineer Testing Division, Satara.
5	10 September 2020	The Petitioner contacted MSEDCL's approved vendors and issued Purchase Order for purchase of three ABT meters.
6	November 2020	The ABT meters were delivered at site.
7	1 December 2020	The Petitioner submitted intimation to MSEDCL for issuance of demand note for testing charges of the ABT meters.
8	23 December 2020	MSEDCL issued the demand note for testing charges of the meters.
9	5 January 2021	The Petitioner made the payment towards testing charges.
10	19 January 2021	ABT meters were sent at MSEDCL (Testing Division), Pune for testing.
11	1 February 2021	MSEDCL (Testing Division), Pune issued the test reports of the ABT meters to the Petitioner.
12	3 February 2021,	The Petitioner intimated the Superintending Engineer, MSEDCL, Satara Division to issue Demand note for installation charges of the ABT meters.
13	12 March 2021	MSEDCL issued the Demand Note for installation of the ABT meters and subsequently the payment against the said installation charges was made by the Petitioner.
14	26 March 2021	<ul style="list-style-type: none"> Existing ABT main meter of Elster Make was replaced with ABT main meter of Secure Make. MSEDCL informed the Petitioner that the check meter and standby meter will be replaced with Secure ABT meters in the consecutive month i.e., in April, 2021 by MSEDCL testing team.
15	5 April 2021	The Petitioner (through its QCA) communicated the above change of Main Meter to MSLDC for billing purpose.
16	9 April 2021	The Petitioner requested to consider the data from the new ABT Main Meter for calculation of RE DSM charges.
17	5 May 2021	<ul style="list-style-type: none"> The Petitioner completed the pre-requisites for replacement by procuring new meters. The Petitioner requested the Executive Engineer (Testing), MSEDCL (Satara Division) for replacement of

Sr. No.	Date	Particulars / Events
		existing ABT Check meter and Standby meter of Elster Make with Secure Make meters.

- 4.7. The RE deviation is calculated in each time block of 15 minutes. The time drift of upto 19 minutes in the Meters gives erroneous values as compared to the actual generation which should have been recorded in the meters and thus, it has resulted in erroneous REDSM charges levied upon the Petitioner.
- 4.8. Inspite of several representations to MSEDCL on the issue of time drift in meters, MSEDCL had replaced only main ABT meter (i.e., 26 March 2021) and other two i.e. check and standby meters were yet to be replaced. Thus, imposition of REDSM charges on the Petitioner is unjustified and need to be quashed. Hence, till the time drift issue of meter is resolved, REDSM charges should not be levied on the Petitioner.
- 4.9. MSLDC has raised weekly REDSM bills for the period of 6 January 2020 to 25 October 2020 (except for the period 1 June 2020 to 28 June 2020) for 54 MW solar capacity connected at Mograle PSS which includes REDSM charges for 50 MW Project of the Petitioner. The REDSM charges for 54 MW are de-pooled by the QCA based on capacities of individual generators connected at the PSS.
- 4.10. The PSS wise REDSM charges raised by MSLDC upon the QCA (i.e RE Connect) for the period of 6 January 2020 to 25 October 2020 and the corresponding de-pooled REDSM charges, excluding State Periphery charges in respect of 50 MW solar project of the Petitioner are as detailed below:

Period	REDSM Charges at Mograle PSS Level pertaining to petitioner's plant (For 50 MW) (Rs.)	REDSM Charges at Mograle PSS Level pertaining to all plants connected to the PSS (For 54 MW) (Rs.)
6 January 2020 to 25 October 2020	28,59,568	30,88,333

Note: The REDSM bill for the period 1 June 2020 to 28 June 2020 was yet to be issued. The amount of REDSM Charges pertaining to Petitioner's 50MW Plant revised to Rs. 38,73,461/- and pertaining to all plants connected to Mograle PSS revised to Rs.41,83,338/-.

Issue II: Oral instructions issued by MSLDC for backing down of Solar Generation:

- 4.11. The frequent load curtailment instructions for its Solar Generator from MSLDC cannot be captured under Available Capacity (AvC) reporting to respective QCAs for revision of schedules due to erratic and inherent nature of the curtailments. Further, revision in the schedule provided to MSLDC is effective only from the 4th time block (considering the time block in which revision is initiated as the 1st time block) and such unforeseen load curtailment cannot be factored in the original schedule immediately.

- 4.12. There is no provision in the Regulations which allows immediate revisions in schedules due to the unforeseen curtailment instructions by MSLDC and hence this results in higher REDSM charges, which is beyond control of the Petitioner. Thus, imposition of REDSM charges on the Petitioner on this account also, is unjustified and such REDSM charges ought to be quashed.
- 4.13. During the month of August 2020, MSLDC has orally asked the Petitioner to backdown its solar generation during various instances which has caused a generation loss of 66788 kWh to the Petitioner.
- 4.14. During real time grid operations, MSLDC has to ensure grid stability. However, practical difficulty being faced by the generators (oral backing down instructions) cannot be ignored and need to be factored in, while calculating the REDSM charges, in a fair and reasonable manner.
- 4.15. The deviations on account of the grid curtailments instructions issued by MSLDC should be deducted from the deviation being attributed to each generator on which the REDSM charges would be levied.

5. MSLDC, vide its reply dated 3 July 2021, stated as below:

Time drift issue in SEM used for REDSM computations:

- 5.1. The grievance of the Petitioner in present Petition is absolutely technical in nature, which ought to have been resolved in consultation and co-ordination of MSETCL and MSEDCL.
- 5.2. The Petitioner is indirectly challenging the REDSM charges on the ground of the erroneous calculation for not replacing the meters of Sub-station by MSEDCL and drift of the meters cannot be a ground to set aside the statutory DSM Charges.
- 5.3. In present case, QCA had submitted data of meters installed at 132 kV Phaltan and 132 KV Dahiwadi Lines connected to 132 KV Mograle Sub-station which are identified as Interface meters for REDSM purpose, as the STU Main/Check meters at common interface point were not installed as per the Metering Code. On account of Loop In Loop Out (**LILO**) configuration, the resultant of the difference between total export and total import of meter data was considered for REDSM Computation. However, it was telephonically informed by the QCA that the resultant summation of LILO line meters was showing solar injection during non-solar hours which was not expected. Hence, in absence of STU Main/Check meters at common interface point, MSLDC utilized data of MSEDCL's ABT meter which was furnished by QCA for REDSM calculation.
- 5.4. As per the Clause Nos. 3.12 and 3.17 of the F&S Procedure, the metering, meter data acquisition and making it available to MSLDC in coordination with the State Transmission Utility (**STU**)/Transmission Licensee/Distribution Licensee is the sole responsibility of QCA and the meter data submitted by QCA has been considered for REDSM computation.

- 5.5. Vide emails dated 15 May and 5 July 2020, QCA informed MSLDC that MSEDCL's billing ABT meters which were used for REDSM billing, were having time drift issues. MSLDC, vide email dated 9 July 2020, suggested to QCA to resolve the issue in coordination with the concerned utility.
- 5.6. The Petitioner's billing meters are in the custody of MSEDCL. Therefore, all time drift related rectification or calibrations are under the scope of MSEDCL.
- 5.7. On 3 May 2020, MSETCL informed MSLDC that it had checked all physical parameters in LILO Meters and these parameters were found in order. It was further opined by MSETCL that in order to avoid calculation i.e., sum of export /import reading etc., it was better to install STU's ABT meters in series with MSEDCL Check meter at 220 KV Varkute and 132 KV Mograle Sub-station so that unique data of this interface point shall be made available at MSLDC. MSETCL also suggested that data of MSEDCL's existing billing meters since January 2020 may be obtained from MSEDCL.
- 5.8. On 4 May 2020, MSLDC asked MSETCL/MSEDCL to take up the issue. The Petitioner's grievance about the time drift issue requires to be addressed by the concerned licensee i.e., STU/ MSEDCL. Therefore, resolution of any meter related issue is out of MSLDC's purview.
- 5.9. In view of the above, REDSM charges cannot be waived, as these are the statutory charges required to be paid by the wind/solar generators like the Petitioner under the F&S Regulations.

Issue II: Oral backdown instructions by MSLDC for curtailment of its solar generation

- 5.10. MSLDC had not issued any curtailment instruction to QCA or to the Petitioner. Hence, the claim of the Petitioner on this issue lacks merit.
- 5.11. The QCA, through e-mail dated 4 November 2020, informed the issue of curtailment in generation in the month of August 2020. In this respect, QCA submitted letter dated 13 June 2018 issued by the Executive Engineer, Testing Division, Karad, MSETCL regarding manually backing down of generation at Mograle/Dahiwadi/Aundh Sub-station, as and when, required in consultation with EHV O&M Authority of MSETCL to avoid tripping of 132 kV Mograle-Phaltan line due to overload. There was no intimation/information to MSLDC about the above curtailment instruction.
- 5.12. After receipt of the curtailment details from the QCA vide e-mail dated 4 November 2020, MSLDC modified schedules for the specified dates and time blocks by the updated schedules received from the QCA. The changes were made on 5 November 2020. Thus, while doing calculation of REDSM charges, the issue of curtailment quantum in schedules and AvC has been addressed.
- 5.13. Also, the issue of curtailment of the generation due to overloading of associated EHV lines was intimated by MSLDC to STU and MSETCL through the quarterly feedback report vide letter dated 25 March 2021. The curtailment issue was also briefly discussed in the first meeting dated 12 May 2021 of Operational Co-ordination Committee

Meeting (**OCC**) wherein MSETCL was requested to take appropriate measures to resolve the issue of evacuation of power to avoid curtailment to RE Generations. Therefore, the Petitioner's contention on this issue has already been dealt with and discussed in the meeting dated 12 May 2021.

6. MSEDCL, in its reply dated 5 July 2021, stated as below: -

6.1. The chronology of events submitted by MSEDCL is as follows:

Sr. No.	Date	Events
1	5 June 2020 / 15 June 2020	The Petitioner requested the Superintending Engineer (SE), Satara to look into the time drift issue of meters and to get it corrected through the testing team.
2	10 July 2020	As per instructions from SE, Satara, Executive Engineer-Testing submitted its report showing laggings of 19 minutes in main meter, by 16 minutes in stand by meter and by 19 minutes in check meter. Further, EE-Testing also recommended to replace the meters with latest specifications.
3	24 August 2020	MSEDCL asked the Petitioner to arrange for ABT meter replacement in consultation with EE-Testing, Satara.
4	10 September 2020	The Petitioner placed the order for procurement of ABT meters.
5	1 December 2020	The Petitioner approached MSEDCL for testing of new meters.
6	23 December 2020	SE issued a demand note to the Petitioner for payment of testing charges of new meters.
7	5 January 2021	The Petitioner paid the meter testing charges.
8	1 February 2021	Meter testing report was issued to the Petitioner.
9	3 February 2021	The Petitioner requested the SE, MSEDCL to install the new ABT meters.
10	2 February 2021	SE, Satara sought permission of Chief Engineer-Renewable Energy (CE(RE)) for replacement of ABT meters.
11	9 March 2021	CE(RE) permitted SE, Satara to replace the Petitioner's meters as per the specifications provided by the EE, testing Satara.
12	12 March 2021	The Petitioner paid the meter replacement fees to the MSEDCL.
13	26 March 2021	Metering installations was checked by the Testing team and the main meter was replaced.
14	2 July 2021	Check and standby meters were replaced.

6.2. Thus, it is evident that the issues regarding time drift of meter stands resolved as main meter was replaced on 26 March 2021 (mentioned at Sr. No. 13 of the above chronology) and check and standby meters were replaced on 2 July 2021 (mentioned at Sr. No. 14 of the above chronology). Hence, the Petitioner's prayers to that extent have become infructuous.

6.3. The Petitioner is trying to generalize the time drift issue which is incorrect, and the Petitioner should be put to the strict proof for the same. As required under the F&S

Regulations, MSEDCL checks each and every meter with highest testing standards before approving the meters for installations. The Petitioner's case is unique as all the three meters developed the time drift issue at same time, which is very rare.

- 6.4. During the period in question, there was lockdown situation in Satara and MSEDCL's offices were operating at reduced strength. However, MSEDCL made all possible efforts to redress the issue of the Petitioner in the present COVID 19 situation and thus, there was no willful delay. On the contrary, there was a considerable delay on the Petitioner's part in procurement of new meters.
- 6.5. As far as allegation of non-replacement of check and standby meter is concerned, as stated above, these meters have been replaced and are working satisfactorily to generate correct bills.
- 6.6. It is the responsibility of QCA to correctly forecast and schedule its injection and to see that in case, such type of contingencies arise as has happened in the present case, then there should be some backup option available with QCA to address the issue. There is very remote possibility that all the three meters i.e. main, check and standby meter, encounter the same problem at the same time. However, if such situation arises, QCA needs to be prepared to address the same.
- 6.7. Further, it seems that the issue was very much known to QCA and hence, it was in position to point out the same to MSLDC at the relevant time of deviation calculation. However, it seems that QCA has not communicated the same to MSLDC during the relevant time. Thus, the actual position was known to QCA, and it ought to have guided MSLDC to assess the deviation.
7. Vide E-mail dated 2 July 2021, MSETCL requested an adjournment of the hearing scheduled on 6 July 2021 and sought fifteen days' extension, to submit its reply citing unavailability of adequate manpower/ staff members due to Covid-19 pandemic condition. Therefore, the first hearing scheduled on 6 July 2021 was adjourned by the Commission.
8. **STU/MSETCL, in its reply dated 22 July 2021, stated as under:**
 - 8.1. The Petitioner's Solar plant is connected to MSETCL's 132 kV Mograle Substation. ABT meters have been installed and commissioned at LILO line bays of 220 kV Varkute and 132 kV Mograle Solar.
 - 8.2. In order to resolve the time drift issue noticed in the MSEDCL's billing meters, MSETCL/STU proposed the installation of ABT meter in series with MSEDCL's check meter at 220 kV Varkute and 132 kV Mograle Solar, so that load survey data of this interface point shall be made available at MSLDC.
 - 8.3. Installation of ABT meter in series with MSEDCL's check meter at 220 kV Varkute and 132 kV Mograle Solar has been completed as per Metering Code on 22 October 2020 and 17 December 2020 respectively and the issue regarding time drift of meter stands resolved.

9. **The Petitioner, in its rejoinder dated 24 July 2021 reiterated its earlier submissions and stated the following additional points:**

Rejoinder to reply of MSLDC:

- 9.1. The Petitioner is under an obligation to pay the REDSM Charges, however such charges need to be based on correct meter data. Under the garb of the said obligation, MSLDC cannot seek to recover the charges which have been calculated based on incorrect readings. Existence of time drift issue in MSEDCL's billing meters with a time drift of 16-19 minutes has not been disputed by any of the Respondents.
- 9.2. In its reply, MSLDC has provided no reason as to why these REDSM charges ought not to be waived of, except to say that the issue is technical in nature and that it had referred the issue to the concerned utilities for necessary resolution. MSLDC cannot blow hot and cold at the same time, by admitting that there was an issue which ought to have been resolved by the respective Licensees, but at the same time, penalizing the Petitioner for the said issue. MSLDC, in its reply, has further mentioned that it had directed the Petitioner to take up the time drift issue with the concerned licensee. However, the communication from MSLDC in this regard was received by the QCA only on 9 July 2020 i.e., after a delay of 55 days from first intimation of time drift issue by the QCA to MSLDC.
- 9.3. Nowhere in the reply, MSLDC has claimed any deficiency or delay or any fault on the part of the Petitioner. In spite of the above, MSLDC has contended that the REDSM Charges cannot be set aside as these are statutory charges and mandatory in nature. If that is so, no taxes or levies, however wrong or inflated they might be, can never be quashed. MSLDC has specifically admitted that the billing meters are in the custody of MSEDCL and that all time drift related rectifications and calibrations are under the scope of MSEDCL. Thus, it is not understood as to why the Petitioner shall be penalized for failure/delay on part of the licensees in performing their obligations under the Regulations.
- 9.4. On the issue of curtailment instructions issued to Petitioner, MSLDC has admitted that presently, the generation curtailment is being carried out and that this issue will subsist till the proposed 132 kV Ambheri – Aundh S/C line proposed during FY 2022-23 is carried out. MSLDC should be directed to consider and make necessary adjustments for any deviation caused because of sudden curtailment/backdown instructions given by MSLDC to the QCA and/or the Petitioner.

Rejoinder to reply of MSEDCL:

- 9.5. MSEDCL has alleged that there was a significant delay on the Petitioner's part as the orders for procurement of ABT meters were placed on 10 September 2020 and MSEDCL was approached on 1 December 2020 for testing of new meters, without appreciating that the ABT meters were not readily available with MSEDCL's approved vendor and hence, these meters could only be delivered at site in the month of November 2020.

- 9.6. MSEDCL has admitted that on 26 March 2021, only the main meter was replaced, whereas the other meters (check meter and standby meter) were replaced only on 2 July 2021. There is however no justification by MSEDCL for the delay of more than three months in getting the other meters replaced, when the Petitioner had already procured all the meters, attained all the approvals and had made payments of the requisite fees towards replacement for all the meters, even before the main meter was replaced. MSEDCL has taken the defense of lockdown to justify the delay of nearly three months in replacing the other meters. However, such delay is not justified since the activities of MSEDCL were exempted from the restrictions of lockdown.
- 9.7. MSEDCL has replaced the check and standby meters on 2 July 2021, and thus, the time drift issue stands resolved. Accordingly, the claim of the Petitioner also stands modified to that extent. Hence, the weekly REDSM charges to be raised by MSLDC upon the QCA for the further period of 26 October 2020 to 2 July 2021 are also to be set aside.
- 9.8. There is no delay on part of the Petitioner. Instead, since the moment the time drift issue was detected in its meters, the Petitioner had been proactive in getting all the requisite approvals, making payments of fees/charges, procuring meters, etc. to get the said issue resolved
10. **At the E-hearing through video conferencing held on 27 July 2021:**
- 10.1. Advocate of NVR Mahasolar stated that it has raised two issues in its Petition. The issue of curtailment of its solar generation has been resolved. The issue of time drift has also been resolved in July 2021 after replacement of the SEM Meters by MSEDCL and only the impact of the time drift for prior period needs to be considered by the Commission.
- 10.2. Representatives of MSETCL/STU stated that they had already filed their reply and they had nothing to add further.
- 10.3. Advocate of MSLDC re-iterated its submissions as filed in the reply and stated that the issue of time drift had been resolved and hence the REDSM charges should not be waived as sought by the Petitioner.
- 10.4. Advocate of MSEDCL re-iterated their submissions as made out in the reply and further stated that metering is the responsibility of QCA and hence, REDSM charges should not be waived. It was also stated that there was no delay on MSEDCL's part.
- 10.5. Representative of QCA stated that the issue of time drift had been resolved and the issue of waiver of past period REDSM charges remained to be decided.
- 10.6. In response, the Advocate of the Petitioner stated that:
- i. MSLDC, in its submission, has stated that the LILO meters were showing the generation in night hours, which is not possible for solar generations. If such wrong readings are shown in the meters, then the REDSM charges for that period should be waived off.

- ii. The time drift in all the three meters is extremely rare and exceptional case which needs to be considered by the Commission.
 - iii. There was no delay from the Petitioner's end in resolving the time drift issue and it had duly intimated MSLDC and MSEDCL regarding the time drift of the meters.
- 10.7. The Commission opined that during certain period of time, the time drift may result in loss to the Petitioner, however during rest of the period, it may result in a benefit to the Petitioner and thus, the overall impact may even out over the period of time. Hence, instead of seeking waiver of entire REDSM charges, the Petitioner may assess and submit the actual impact of the time drift. In response, Advocate of the Petitioner stated that he will submit the calculations of the impact of the time drift. The Commission directed the Petitioner to file its submissions within two weeks' time and MSEDCL and QCA were directed to file their submissions, if any within a week.
- 10.8. The Commission further mentioned that it had constituted a DSM working group to monitor and address the difficulties/issues in the implementation of DSM framework in the State and the QCAs / Solar and Wind Generators should approach the DSM Working group for resolving their respective issues.
11. Thereafter, the Petitioner, vide email dated 12 August 2021, sought additional time to submit the information/additional data as directed by the Commission at the hearing held on 27 July 2021.
12. **MSEDCL vide email dated 16 August 2021 submitted a compilation of the Judgments of the Hon'ble Supreme Court/High Court stating that individual hardship cannot be considered a valid ground to challenge the Regulations.**
13. **The Petitioner, in its additional submission dated 28 August 2021, stated as under:**
- 13.1. The Petitioner has followed the methodology of adjusting the 19-minute time drift (based on meter testing data for identified time drift). One time block adjustment (shift) is made for all the time blocks at the beginning actual generation hours.
- 13.2. Out of total capacity of 54 MW, real time data is available only for 50 MW (NVR Mahasolar) through installed telemetry (meter-modems) installed at the site. For balance 4 MW capacity, real time data is not available due to absence of telemetry arrangement at site. Therefore, only 50 MW data is considered and then scaled up for complete PSS capacity i.e., 54 MW to arrive at the adjusted REDSM charges factoring in the time drift issues.
- 13.3. The summary, as provided by the QCA, is as follows:

Sr. No.	Period	Total DSM Charges in Rs. (For 54 MW)	After Adjusting Time Drift – DSM Charges in Rs. (For 54 MW)	Difference in DSM Charges in Rs. (For 54 MW)	Remarks
1	06-01-2020 to 12-01-2020	89754	89754	0	Non-availability of 15 min real-time data

Sr. No.	Period	Total DSM Charges in Rs. (For 54 MW)	After Adjusting Time Drift – DSM Charges in Rs. (For 54 MW)	Difference in DSM Charges in Rs. (For 54 MW)	Remarks
2	13-01-2020 to 19-01-2020	52723	52723	0	for calculation of REDSM charges based on Time drift adjustments
3	20-01-2020 to 26-01-2020	36696	36696	0	
4	27-01-2020 to 02-02-2020	47798	47798	0	
5	03-02-2020 to 09-02-2020	104068	104068	0	
6	10-02-2020 to 16-02-2020	37283	39593	-2310	-
7	17-02-2020 to 23-02-2020	6665	4091	2574	-
8	24-02-2020 to 01-03-2020	72989	51588	21401	-
9	02-03-2020 to 08-03-2020	65344	31916	33428	-
10	09-03-2020 to 15-03-2020	61061	39240	21821	-
11	16-03-2020 to 22-03-2020	32776	18700	14076	-
12	23-03-2020 to 29-03-2020	71916	43373	28544	-
13	30-03-2020 to 05-04-2020	36463	26261	10201	-
14	06-04-2020 to 12-04-2020	33465	17520	15945	-
15	13-04-2020 to 19-04-2020	52013	43270	8743	-
16	20-04-2020 to 26-04-2020	8419	1198	7221	-
17	27-04-2020 to 03-05-2020	37794	37794	0	There is no observable impact of time drift issue in this particular period.
18	04-05-2020 to 10-05-2020	43900	43900	0	
19	11-05-2020 to 17-05-2020	61773	61773	0	
20	18-05-2020 to 24-05-2020	22524	22524	0	
21	25-05-2020 to 31-05-2020	50353	50353	0	
22	01-06-2020 to 07-06-2020	752275	752275	0	Actual Generation data for calculation of REDSM charges is considered as zero by MSLDC. The issue was pointed out to MSLDC after release of DSM bills and is
23	08-06-2020 to 14-06-2020	671893	671893	0	
24	15-06-2020 to 21-06-2020	534654	534654	0	
25	22-06-2020 to 28-06-2020	733826	733826	0	

Sr. No.	Period	Total DSM Charges in Rs. (For 54 MW)	After Adjusting Time Drift – DSM Charges in Rs. (For 54 MW)	Difference in DSM Charges in Rs. (For 54 MW)	Remarks
26	29-06-2020 to 05-07-2020	168008	168008	0	yet to be resolved by MSLDC. Once the issue is resolved and the correct REDSM charges are released, then only the DSM charges can be calculated based on adjustment of time drift issues.
27	06-07-2020 to 12-07-2020	82821	71025	11796	-
28	13-07-2020 to 19-07-2020	138416	127190	11226	-
29	20-07-2020 to 26-07-2020	67650	64976	2674	-
30	27-07-2020 to 02-08-2020	83369	73251	10118	-
31	03-08-2020 to 09-08-2020	70198	61230	8968	-
32	10-08-2020 to 16-08-2020	61558	59361	2196	-
33	17-08-2020 to 23-08-2020	129861	111084	18778	-
34	24-08-2020 to 30-08-2020	96371	81966	14405	-
35	31-08-2020 to 06-09-2020	107418	94974	12444	-
36	07-09-2020 to 13-09-2020	102070	83468	18603	-
37	14-09-2020 to 20-09-2020	224545	199848	24698	-
38	21-09-2020 to 27-09-2020	107484	145173	-37689	-
39	28-09-2020 to 04-10-2020	96506	69229	27278	-
40	05-10-2020 to 11-10-2020	143461	95466	47995	-
41	12-10-2020 to 18-10-2020	173933	141331	32601	-
42	19-10-2020 to 25-10-2020	105568	88031	17536	-
43	26-10-2020 to 01-11-2020	44176	32434	11743	-
44	02-11-2020 to 08-11-2020	1748554	1748554	0	Actual Generation data for calculation of REDSM charges is considered as zero by
45	09-11-2020 to 15-11-2020	1617435	1617435	0	

Sr. No.	Period	Total DSM Charges in Rs. (For 54 MW)	After Adjusting Time Drift – DSM Charges in Rs. (For 54 MW)	Difference in DSM Charges in Rs. (For 54 MW)	Remarks
46	16-11-2020 to 22-11-2020	1532405	1532405	0	MSLDC, The issue was highlighted after release of REDSM bills and is yet to be resolved by MSLDC.
47	23-11-2020 to 29-11-2020	1203106	1203106	0	
48	30-11-2020 to 06-12-2020	1656900	1656900	0	
49	07-12-2020 to 13-12-2020	1555769	1555769	0	
50	14-12-2020 to 20-12-2020	1502304	1502304	0	
51	21-12-2020 to 27-12-2020	1792650	1792650	0	
52	28-12-2020 to 03-01-2021	625084	625084	0	
53	04-01-2021 to 10-01-2021	975673	975673	0	
54	11-01-2021 to 17-01-2021	1643989	1643989	0	
55	18-01-2021 to 24-01-2021	1723041	1723041	0	
56	25-01-2021 to 31-01-2021	1725178	1725178	0	
57	01-02-2021 to 07-02-2021	37289	17528	19761	-
58	08-02-2021 to 14-02-2021	60350	37311	23039	-
59	15-02-2021 to 21-02-2021	78916	59623	19294	-
60	22-02-2021 to 28-02-2021	24745	7306	17439	-
61	01-03-2021 to 07-03-2021	4148	1288	2860	-
62	08-03-2021 to 14-03-2021	23021	11871	11150	-
63	15-03-2021 to 21-03-2021	48053	19168	28885	-
64	22-03-2021 to 28-03-2021	818485	813794	4691	Actual Generation data for 26 March, 2021 to 28 March 2021 is considered as zero by MSLDC. The issue was pointed out to MSLDC after release of REDSM bills and is yet to be resolved by MSLDC.
65	29-03-2021 to 04-04-2021	2423386	2423386	0	Actual Generation data for calculation of

Sr. No.	Period	Total DSM Charges in Rs. (For 54 MW)	After Adjusting Time Drift – DSM Charges in Rs. (For 54 MW)	Difference in DSM Charges in Rs. (For 54 MW)	Remarks
66	05-04-2021 to 11-04-2021	2083511	2083511	0	REDSM charges is considered as zero by MSLDC. The issue was pointed out to MSLDC after release of DSM bills and is yet to be resolved by MSLDC.
67	12-04-2021 to 18-04-2021	2083511	2083511	0	
68	19-04-2021 to 25-04-2021	0	0	0	

- 13.4. For the period, i) 1 June 2020 to 5 July 2020; ii) 2 November 2020 to 31 January 2021 and iii) 26 March 2021 to 28 March 2021, the actual generation data for calculation of REDSM charges has been considered as zero by MSLDC. Thus, MSLDC has failed to compute the REDSM charges correctly during this period as it has considered the entire scheduled generation as deviation for calculation of REDSM charges. The issue was highlighted after receipt of REDSM bills, however the issue is yet to be resolved by MSLDC. Once the issue is resolved and the correct REDSM bills are released, then only the Petitioner can calculate the REDSM charges based on adjustment of time drift issue for such period.
- 13.5. Hence, the Petitioner has sought to set aside the invoices of DSM charges amounting to Rs. 38,73,462/- raised by QCA for the period 6 January 2020 to 28 March 2021 except for the period 1 June 2020 to 28 June 2020 and 26 October 2020 to 31 January 2021 wherein MSLDC is yet to resolve calculation of REDSM Charges on account of non-availability of meter data.
- 13.6. In reply to the query of the Commission regarding not referring the issue to the DSM working group, the Petitioner stated that the DSM Working Group is not vested with any adjudicatory power. As such, the issue at hand with respect to removal of difficulties in giving effect to the provisions of statutory Regulations, is a sole discretionary power vested with the Commission only and cannot be exercised by any other authority. Further, the DSM Working Group is not a permanent working body with any structure for resolution of the issues as being faced by the Petitioner.
14. Considering the additional submission of the data by the Petitioner, the Commission, vide Notice dated 16 September 2021, scheduled the case for e-hearing on 24 September 2021.
15. **MSLDC, in its additional submission dated 23 September 2021, re-iterated its earlier submissions and further stated that:**
- 15.1. The Petitioner has contended that MSLDC has issued bills for the period of 6 January 2020 to 28 March 2021, except for the period of 1 June 2020 to 28 June 2020 and 26 October 2020 to 31 January 2021. On this contention, MSLDC has issued all the bills from 6 January 2020 to 28 March 2021. The bills for the period of 1 June 2020 to 28 June 2020 have been issued on 9 October 2020. The bills for the period of 26 October

2020 to 27 December 2020 have been issued on 26 February 2021. The bills for the period of 28 December 2020 to 31 January 2021 were issued on 4 March 2021. These bills are available on the website of MSLDC. Therefore, contentions of the Petitioner for non-receipt of bills for the period 1 June 2020 to 28 June 2020 and 26 October 2020 to 31 January 2021 is lack merit.

- 15.2. The calculations furnished by the Petitioner is based on approximations and is technically incorrect as it is done on incomplete data as admitted by the Petitioner itself. Thus, the Petitioner has failed to submit block wise benefits and losses due to time drift by adopting proper methodology.
- 15.3. For the period 1 June 2020 to 5 July 2020 and 26 March 2021 to 28 March 2021, meter data was available and bills were issued as per the actual meter data. However, for the period between 2 November 2020 to 31 January 2021, meter data was not submitted to MSLDC, despite continuous correspondence with the QCA and concerned Licensee. Therefore, MSLDC had issued bills for this period as per Clause 14.1 of amended Procedure by considering the meter data for above period as Zero. However, after receipt of meter data from the QCA, MSLDC shall issue the revised bills to the Petitioner for aforesaid period.

16. At the E-hearing through video conferencing dated 24 September 2021:

- 16.1. Advocate of the Petitioner stated that:
- i. As per the directives of the Commission, the Petitioner has submitted the differential REDSM charge after adjusting the time drift impact.
 - ii. The Petitioner has also revised its prayers and has sought to set aside the invoices for REDSM charges amounting to Rs. 38,73,462/- consequently raised for the period from 6 January 2020 till 28 April 2021.
 - iii. There is loss of solar generation and also the deviation impact on account of curtailment of solar generation through the oral instructions given by MSLDC.
- 16.2. Representative of MSETCL stated that they had already filed their reply and that they had installed the ABT meter in series with the MSEDCL meter.
- 16.3. Advocate of MSLDC reiterated its submission as made out in its replies.
- 16.4. Representative MSEDCL stated that MSEDCL was involved in meter replacement and that the meter had been replaced.
- 16.5. Representative of QCA stated that they had provided the details of time drift impact to the Generator.
- 16.6. Responding to the query of the Commission regarding need of revision of REDSM bills considering the fact that MSLDC had relied on incorrect meters while calculation of REDSM charges, the Advocate of MSLDC stated that the time drift impact calculations submitted by the Petitioner were on an approximate basis and the data submitted by the Petitioner was incomplete.

Commission's Analysis and Rulings:

17. After going through submissions of the Parties, it is observed that following two issues have arisen for consideration of the Commission:

Issue I:- Waiver/revision of the REDSM charges sought by the Petitioner on account of the time drift issue in MSEDCL's ABT Meters.

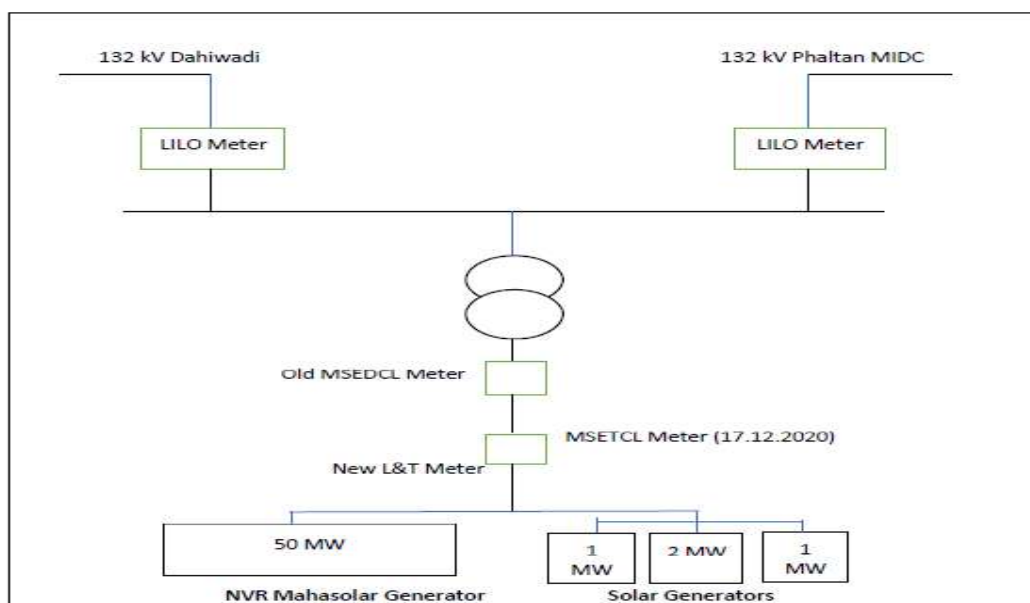
Issue II:-Mechanism to deal with the oral backing down instructions issued by MSLDC.

The aforesaid issues have been discussed in the following para:

18. ***Issue I:- Waiver/revision of the REDSM charges sought by the Petitioner on account of the time drift issue in MSEDCL's ABT Meters***
- 18.1 It is the contention of the Petitioner that on account of the time drift in MSEDCL's billing meters (which have been considered by MSLDC for raising REDSM bills), the REDSM charges till 2 July 2021 (the date when MSEDCL's check and standby meters were installed) need to be waived off. According to the Petitioner, summation of LILO meters' readings indicated solar generation in night hours and hence the REDSM bills issued based on these LILO meters also needs to be waived off.
- 18.2 MSLDC stated that rectification of time drift (which is a technical issue) was under the scope of MSEDCL and it was the Petitioner's responsibility to resolve it in coordination with MSEDCL. MSLDC further stated that QCA is responsible for metering and meter data acquisition in coordination with STU/MSETCL/MSEDCL and drift of the meters cannot be a ground to quash and set aside the statutory DSM Charges. MSLDC further contended that the time drift impact calculations submitted by the Petitioner were on an approximate basis and the data submitted by the Petitioner was incomplete.
- 18.3 MSEDCL stated that the time drift issue stands resolved as main meter was replaced on 26 March 2021 and check and standby meters were replaced on 2 July 2021. Hence, the Petitioner's prayers to that extent have become infructuous. There was no willful delay on MSEDCL's part for redressal of the Petitioner's grievance, however, there was considerable delay on the Petitioner's part in procurement of new meters.
- 18.4 MSETCL stated that installation of ABT meter in series with MSEDCL's check meter at 220 kV Varkute and 132 kV Mograle Solar had been completed as per Metering Code on 22 October 2020 and 17 December 2020 respectively and the issue regarding time drift of meter stood resolved.
- 18.5 The Commission notes that the SEM is fitted with RTC (Round the clock) which is prone to drift due to inherent variation of parameters like temperature, humidity etc. This drift may lead to mismatch in time stamping of SEM vis -a-vis the GPS time synchronized with grid (Global Positioning System) clock. Time drift in SEMs could lead to erroneous computation of energy drawal/injection.
- 18.6 Further, the Commission notes the following dates/chronology of the events:

Sr. No.	Date	Particulars / Events
1	6 January 2020	Commencement of commercial implementation of the REDSM Regulations.
2	11 April 2020	MSLDC issued the REDSM bill for the period from 6 January 2020 to 2 February 2020.
3	April 2020	QCA, in its comments to the invoices, informed about the night hour readings observed for its solar generation in its LILO meter.
4	3 May 2020	<ul style="list-style-type: none"> • MSETCL/STU informed MSLDC that all the parameters in ABT Meters installed and commissioned at LILO line of 132 kV Mograle PSS were found correct and in order. • MSETCL proposed to install STU's ABT Meter in series with MSEDCL's billing meters in order to get correct data to MSLDC. • Meanwhile data of existing billing meters of MSEDCL meters may be used by MSLDC.
5	5 May 2020	MSLDC used the readings of MSEDCL's billing meters.
6	15 May 2020	The Petitioner highlighted the time drift issue in the billing meters installed at the Mograle PSS.
5	5 June and 15 June, 2020	The Petitioner communicated MSEDCL for rectification of the time drift issue of these meters.
	24 August 2020	MSEDCL took the cognizance of time synchronization issues in the meters and granted approval for replacement of ABT meters installed at PSS.
6	17 December 2020	Installation of ABT meter in series with MSEDCL's billing meter was completed by MSETCL.
7	26 March 2021	MSEDCL's existing ABT main meter of Elster Make was replaced with ABT main meter of Secure Make.
8	5 April 2021	The Petitioner (through its QCA) communicated the above change of Main Meter (of MSEDCL) to MSLDC for billing purpose.
9	9 April 2021	The Petitioner requested to consider the data from the new ABT Main Meter of MSEDCL for calculation of REDSM charges.
10	2 July 2021	MSEDCL's existing check and standby meters were replaced.

18.7 Further, as per submissions of the Parties, the Commission notes the following metering arrangement at Mograle PSS:



18.8 Further, the Commission notes the following factual matrix based on submissions made by the Parties and based on relevant provision of the Regulations/procedure/code:

- i. The amended F&S Procedure provides that it is the responsibility of STU/MSETCL to ensure availability of ABT metering arrangements at all Pooling Sub-stations. The relevant extract is as follows:

“7. ROLES AND RESPONSIBILITIES OF STU/TRANSMISSION LICENSEES:

7.1. STU/Transmission Licensee shall ensure availability of ABT metering arrangements at all the Pooling Sub-Station.

Metering & its calibration arrangements shall be as per the MERC Metering Code,2019 and other Code/Regulations governing metering arrangements notified by the Commission or other Authorities, as amended from time to time.”

- ii. Further, the procedure requires that the SEMs at EHV Pooling Sub-station shall be under control of STU. Relevant extract of the procedure reads as under:

“15. ENERGY ACCOUNTING:

15.1. The energy accounting shall be undertaken on the basis of the data recorded by the Special Energy Meters (SEM) provided at interface points such as EHV/HV feeders or LV side of Power Transformers at STU/Distribution Licensee’s Pooling Sub-Stations capable of recording the energy in 15-minute time blocks. The SEMs shall be under the control of STU & Distribution Licensee for EHV & 33 kV Pooling Sub-Stations respectively.”

- iii. The Petitioner’s solar plant is connected to MSETCL’s EHV Sub-station and hence it was STU’s responsibility to ensure ABT metering at Mograle Sub-station as per prevailing Metering Code.
- iv. Further, as per the Clause 12.9 of the amended F&S Procedure 2019 (similar provisions was exist in original F &S Procedure which was in force in 2018), the

location of meter should have been the common interface point. However, LILO meters installed at 132 KV Phaltan and 132 kV Dahiwadi Lines were mapped as interface meters for Mograle PSS for REDSM purpose as the STU Main / Check meters at common interface point were not installed. This LILO metering arrangement was in line with the Metering Code notified in 2008 (the Metering Code which was in force when the solar plant was commissioned in 2017.) and hence, this arrangement was accepted by all parties including SLDC, QCA and generator. It was agreed to consider the summation of readings of two LILO meters for energy accounting of REDSM. However, post issuance of F&S procedure on 7 December 2018, STU should have ensured ABT metering arrangement at the Mograle PSS i.e., at common interface point and MSLDC should have ensured such metering arrangement by STU as MSLDC is the implementing agency for F&S Regulations and the F&S Procedure.

- v. Thus, while the Petitioner's /QCA role was limited to meter data uploading, it was STU's role and responsibility to ensure the metering at correct location with required specification, accuracy and complying with the requirements as laid down under the Metering Code.
- vi. The Petitioner had intimated the issues in LILO meters (night hours solar generation) as well as the MSEDCL's billing meters (time drift). STU should have taken necessary steps for installation of the ABT meters on immediate basis. However, STU's new ABT Meter was installed in series with MSEDCL billing meters on 17 December 2020 i.e. after a gap of seven months after the issue of night hours reading for solar generation at LILO meters was reported to MSETCL on 3 May 2020. STU/MSETCL has not submitted any reasons for delay in the installation of ABT meter. It is imperative to note that vide common Order dated 30 September 2019, Distribution Licensees/STU/Transmission Licensees were directed to install SEMs at various PSS, which were not having SEMs, within one month from date of issuance of that Order.
- vii. MSLDC shifted interface metering point to MSEDCL's billing meters for REDSM billing (which was for monthly energy charges billing purpose as per PPA) based on MSETCL's suggestions, however, it is not clear as to why STU's AMR meters installed in December 2020 was not considered for REDSM billing and why MSLDC continued with MSEDCL's ABT meter having time drift issue inspite of availability of new ABT meter of STU.
- viii. The Commission also notes that vide its Order dated 30th September 2019 it has clarified that QCAs are not expected to submit the availability of Solar generation during night hours. Further, vide its approved amended F&S Procedure Clause No. 15.3 provided that the AvC & Schedule for Solar Generation during night hours i.e., 18:30 Hrs. to 06:15 Hrs. shall be considered as 'ZERO' for obvious reasons. Hence, the Commission is of view that after being aware of the time drift issue in MSEDCL's billing meter, MSLDC could have considered LILO meters' reading, by adjusting the night-time solar generation error, in consultation with STU till

installation of the STU's new meter since MSETCL had already confirmed correctness of all parameters of LILO meters. MSLDC and QCAs should have considered this provision of amended F&S Procedure and its aforesaid Order and should have provided such treatment to the LILO meter reading observed during solar night hours. It is not clear as to why MSLDC did not take this corrective step and why it continued with the REDSM billing on MSEDCL's billing meter having time drift.

- ix. This gives the impression that MSLDC was not serious enough towards the energy accounting activity which is a key role of MSLDC in implementation of F&S Framework. Same observations are made regarding STU's response in respect of its role ensuring the ABT metering at the Petitioner's solar generation. While the Petitioner/QCA could have insisted with MSLDC for shifting to LILO or STU's new meter instead of continuing MSEDCL's billing meter having time drift issue, the Commission is of the view that MSLDC and STU, being the statutory authorities, could have acted in more responsible manner towards their respective obligations as laid down under respective F&S Regulations/ Code/ Amended F&S Procedure.
- x. Existence of time drift in MSEDCL's billing meter (which was considered by MSLDC for REDSM billing) is an admitted fact. No respondent has disputed this fact which has been established by the testing undertaken by MSEDCL. On account of such time drift, one cannot expect correct REDSM billing.

18.9 Thus, there have been a few avoidable lapses from STU and MSLDC which resulted into incorrect REDSM billing to the Petitioner for a longer period.

18.10 In view of the aforesaid factual matrix, the Commission does not find any merit in MSLDC's objections to grant relief to the Petitioner and an appropriate relief needs to be allowed to the Petitioner.

18.11 The Petitioner had initially sought waiver of entire DSM charges, however, in response to the Commission's direction at the hearing dated 27 July 2021, vide its additional submission, it has come out with a methodology of one-time block adjustment for REDSM computation by adjusting the 19-minute (lagging) time drift (based on meter testing data for identified time drift). One time block adjustment (shift) is made for all the time blocks at the beginning of actual generation hours. Following this methodology, the Petitioner has computed total REDSM Charges for its PSS as Rs. 3,21,85,203/- as against MSLDC's original REDSM Charges of Rs. 3,27,09,333/- and has computed Rs. 5,24,130 /- towards the impact of time drift during the period of 6 January 2020 to 25 April 2021 (till the replacement of billing main meter by MSEDCL).

18.12 The Commission is of the view that waiver of entire REDSM charges is not an appropriate solution as apart from the deviations due to time drift, there could be deviations on account of non-adherence of schedule by the Petitioner. The methodology suggested by the Petitioner of one-time block adjustment, although not very scientific or technical methodology, it appears to be a practical approach as it aims at restoring

the actual meter readings, to the extent possible, which would have been obtained, had there been no time drift in the meters.

- 18.13 MSLDC has objected to this methodology however, it has not suggested any alternate methodology with which the time draft impact can be identified or nullified from the REDSM charges. Further, MSLDC's stand for denying relief to the Petitioner is not acceptable as despite admitting the time drift errors in MSEDCL's billing meters, MSLDC is objecting to acknowledge the fact that there could be incorrect REDSM charges on account of the incorrect meter readings considered by MSLDC. Thus, there is a case made out by the Petitioner for revision of REDSM charges, though not waiver of these charges.
- 18.14 Ideally, there is no methodology for determining the impact of the time drift error occurred in the past period. However, the issue before the Commission is to provide treatment to the RE deviation accounting of the Petitioner's Solar Generator during a period when meter was having time drift error. As per the existing provisions of the F&S Regulations, the Deviation and Deviation Charges are computed on 15-minute time block basis, however the data considered by MSLDC for computation of RE deviation is under question as the meter was having time drift error.
- 18.14.1 Thus, on account of difficulty regarding absence of correct meter data for REDSM computation and on account of absence of any alternate and scientific methodology proposed by STU/MSETCL or MSLDC, the Commission thinks it fit to exercise its power under Regulation 19 of the F&S Regulations for removal of difficulty in the Petitioner's case (which is unique in nature as mentioned earlier) and directs MSLDC to adopt the methodology proposed by the Petitioner for adjusting the time drift to compute the deviation of the Petitioner's PSS during the period when the data of MSEDCL's old billing meter had been used by MSLDC for REDSM calculations.
- 18.15 The time drift error was reported on 15 May 2020. However, the Petitioner, while calculating the impact of time drift on REDSM charges as per its proposed methodology, has considered the existence of time drift error since the commencement of REDSM framework i.e. 6 January 2020. The Commission notes that during initial period after 6 January 2020, the data of LILO meters had been considered wherein there was an issue of night hour reading and there was no time drift issue in these LILO meters. Hence, one time block adjustment, right from 6 January 2020 cannot be considered.
- 18.16 Accordingly, the Commission directs MSLDC as under:
- i. MSLDC shall consider the methodology proposed by the Petitioner to shift the actual meter reading by 1 time block (in the next time block) for adjusting the time drift to compute the deviation of Petitioner's PSS during the period when the data of MSEDCL's old billing meter (having time drift) had been used for REDSM calculations.

- ii. For the period, during which the data of LILO meters was used, MSLDC shall recalculate REDSM charges by excluding the night hour solar generation i.e., making the night hour generation as zero as observed at Para 18.8 (viii) of this Order.
 - iii. The REDSM Charges for Mograle PSS computed by MSLDC as per the aforesaid, shall be compared with the earlier time clockwise REDSM Charges computed by MSLDC and MSLDC shall issue the differential supplementary bills to the QCA within a month of this Order.
 - iv. Further, based on the differential supplementary bills issued by MSLDC, the QCA shall undertake de-pooling of REDSM charges among the generators within PSS and inform MSLDC regarding compliance of the Commission's directions.
- 18.17 The Commission notes that the present case is unique case where LILO meters were showing solar generation during night-time which was not expected. Further, all the three meters of MSEDCL i.e., main, check and standby were having time drift error, either lag or lead. In view of these extra-ordinary and exceptional circumstances, the Commission has granted relief to the Petitioner. Hence, the ruling in this Order should not create a precedence. However, appropriate procedure needs to put in place to avoid such issues in future.
- 18.18 The Metering and Communication Coordination Committee constituted under the MERC (State Grid Code) Regulation, 2020 entrusts the responsibility for the implementation of provisions of Metering Code and Communication Code and related issues.
- 18.19 Accordingly, the Commission directs that STU, in consultation with Metering Co-ordination Committee, shall develop a procedure for time drift monitoring and time drift correction which should be followed by the respective Distribution or Transmission Licensee as the case may be.
- 18.20 STU is also directed to ensure metering at correct locations in line with the requirements specified in the Metering Code and the amended F&S procedure.
19. **Issue II: Appropriate mechanism to deal with oral backing down instructions issued by MSLDC**
- 19.1. The Petitioner has contended that during the month of August 2020, MSLDC had orally asked the Petitioner to back down its generation during various occasions causing a loss of solar generation. The Petitioner has further stated that there is no provision in the Regulations which allows immediate revisions in schedules due to the unforeseen curtailment instructions by MSLDC and hence this results in higher REDSM charges, which is beyond control of the Petitioner. Thus, imposition of REDSM charges on the Petitioner on this account also, is unjustified and unreasonable, and such REDSM charges ought to be quashed. According to the Petitioner, this issue will subsist till the proposed 132 kV Ambheri – Aundh S/C line proposed during FY 2022-23 is established.

- 19.2. On the other hand, MSLDC has contended that it has not issued any curtailment instructions to QCA of Mograle PSS or the Petitioner. Further, MSLDC has also clarified that, after receipt of the details of curtailment from the QCA, it had modified schedules for the specified dates and time blocks by the updated schedules received from the QCA for the Petitioner's Solar Power Plant. The changes have been made on 5 November 2020. Thus, while calculation of deviation charges, the issue of curtailment quantum in Schedules and AvC has been addressed and DSM bills have been issued accordingly.
- 19.3. In this context, the Commission notes that the amended F&S Procedure has provided a protocol for curtailment applicable to RE generators under the F&S Regulations. The relevant extract of the protocol reads as follows:

“ 13. PROTOCOL FOR CURTAILMENTS:

13.1. In-spite of having 'MUST RUN' status for Wind & Solar Generation, during real time operations there are chances for issuing curtailment/backing down instructions to such generators even though all the efforts for accommodating RE generation is taken by the System Operators.

13.3. Curtailed Schedules shall be effective from the 4th time block starting from the block in which instructions from MSLDC Control Room have been issued. QCAs/Generators/Transmission Licensees/Discoms shall immediately implement the actions required for curtailments from the 1st time block.

Provided that if reducing trend in actual injection of generation within Three time blocks is observed then these time blocks shall be excluded from deviation calculations.

- 19.4. Thus, it is seen that the amended F&S procedure has a provision for exclusion of first three time blocks for REDSM calculations meaning that there are sufficient safeguards in the procedure to protect the RE generators from undue REDSM charges on account of curtailment instructions issued by MSLDC.
- 19.5. Further, as per this procedure, the Transmission Licensee, Distribution Licensee, the RE Generator and QCA are required to intimate the incidences causing backing down/curtailment of Wind and Solar Generation to MSLDC Control Room and take action as instructed by MSLDC Shift In- -charge. The relevant extract is given below:

“13.4. Transmission Licensee, Distribution Licensee, Generator & QCA shall intimate the incidences causing backing down/curtailment of Wind & Solar Generation to MSLDC Control Room and take action as instructed by MSLDC Shift In-charge for respective Pooling SubStations under their ownership. The incidences resulting into curtailment of Wind/Solar Generation which shall be intimated to MSLDC area follows:

- Planned / Forced Outages on Evacuation infrastructure or Generating Plant,*
- Tripping of any transmission elements/Evacuation infrastructure /Generating Plant,*

• Overloading of any transmission elements/Evacuation infrastructure.”

- 19.6. In present case, it is seen that MSLDC was not aware of the generation curtailment undertaken in order to avoid tripping of 132 kV Mograle-Phaltan line due to overload and QCA and generator appears to have acted upon oral instructions issued by MSETCL’s field office. The Commission is of the view that this is clearly not consistent with the process stipulated in the procedure as referred above and hence all the stakeholders should follow the RE curtailment procedure as specified in the clause 13 of the amended Procedure.
- 19.7. The Commission also notes the submission of MSLDC that the issue of curtailment of the generation due to overloading of associated EHV lines was highlighted by MSLDC to STU and MSETCL through the quarterly feedback report vide letter dated 25 March 2021. The curtailment issue was also briefly discussed in the first operational Co-ordination Committee Meeting (OCC) held on 12 May 2021. In the said meeting, MSETCL has been informed to take appropriate measures to resolve the issue of evacuation of power to avoid curtailment to RE Generations.
- 19.8. Further the Commission also notes that, as per the provisions of the MERC (State Grid Code) Regulations, 2020, MSLDC has published a draft for separate detailed procedure for curtailment of RE (Wind and Solar) Generation on 21 September 2021 on its website and has invited comments from the stakeholders with last date of suggestion as 30th September 2021. Such consultative procedure has already provided the opportunity to all stakeholders including the Wind and Solar generators like the Petitioner and the QCAs to make their respective suggestions for finalization and the proposed detailed procedure after finalization would provide further clarity to all the stakeholders regarding the protocol to be followed by all the stakeholders for issuing curtailment instructions by MSLDC and its implementation by all QCA/Generators.
- 19.9. In view of the above, the Commission does not find it necessary to evolve a separate mechanism to deal with the oral backing down instructions issued by MSLDC to RE generators as prayed by the Petitioner.
20. **Hence the following Order:**

ORDER


1. **Case No. 66 of 2021 is partly allowed.**
2. **As mentioned in Para. 18.17 of this Order, Maharashtra State Load Despatch Center is directed to consider the methodology proposed by the Petitioner to shift the actual meter reading by 1 time block (in the next time block) for adjusting the time drift to compute the deviation of Petitioner’s Pooling Substation during the period when the data of old billing meter (having time drift) of Maharashtra State Electricity Distribution Company Ltd. had been used for deviation and deviation charges calculations.**

3. For the period, during which the data of Loop In Loop Out meters was used, Maharashtra State Load Despatch Center shall recalculate deviation and deviation charges by excluding the night hour solar generation i.e. making the night hour generation as zero.
4. The deviation charges for Mograle Pooling Sub-station computed by Maharashtra State Load Despatch Center as per the aforesaid, shall be compared with the earlier time block wise deviation charges computed by Maharashtra State Load Despatch Center and it shall issue the differential supplementary bills to the Qualified Co-ordinating Agency of Mograle Pooling Sub-station within a month of this Order.
5. Further, based on the differential supplementary bills issued by Maharashtra State Load Despatch Center, the Qualified Co-ordinating Agency shall undertake de-pooling of deviation charges among the generators within Pooling Sub-station of Mograle and inform Maharashtra State Load Despatch Center regarding compliance of the Commission's directions.
6. State Transmission Utility, in consultation with Metering Co-ordination Committee, shall develop a procedure for time drift monitoring and time drift correction which should be followed by the respective Distribution or Transmission Licensee as the case may be.
7. State Transmission Utility is directed to ensure metering at correct locations in line with the requirements specified in the Metering Code and the amended F&S procedure.

Sd/-
(Mukesh Khullar)
Member

Sd/-
(I. M. Bohari)
Member

**Sd/-
(Sanjay Kumar)
Chairperson**


(Dr. Rajendra G. Ambekar)
Secretary (I/c)

