

Before the
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION
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Case No. 190 of 2014

In the matter of
Verification of compliance of Renewable Purchase Obligation targets by MSEDCL for
FY 2013-14

CORAM

Smt. Chandra Iyengar, Chairperson
Shri. Azeez M. Khan, Member
Shri. Deepak Lad, Member

Parties

1. Maharashtra State Electricity Distribution Co. Ltd.
2. Maharashtra Energy Development Agency
3. Maharashtra State Load Despatch Centre

Appearance

- | | | |
|---------------|---|--------------------------|
| 1. For MSEDCL | : | Shri. Abhijeet Deshpande |
| 2. For MEDA | : | Dr. J.V. Torane |
| 3. For MSLDC | : | Shri. Jayant Kulkarni |

ORDER

Date: 4 August, 2015

1. The Commission has notified the Maharashtra Electricity Regulatory Commission (Renewable Purchase Obligation, its Compliance and Implementation of Renewable Energy Certificate Framework) Regulations, 2010 ('RPO-REC Regulations') on 7 June, 2010. These Regulations specify the Renewable Purchase Obligation (RPO) targets for Obligated Entities, including the Maharashtra State Electricity Distribution Co. Ltd., a Distribution Licensee, for FY 2010-11 to FY 2015-16. The specified RPO targets are as below:

| Year | Minimum quantum of purchase (in %) from Renewable Energy sources (in terms of energy equivalent in kWh) | | |
|---------|---|----------------------|-------|
| | Solar | Non-Solar (other RE) | Total |
| 2010-11 | 0.25% | 5.75% | 6.0% |
| 2011-12 | 0.25% | 6.75% | 7.0% |
| 2012-13 | 0.25% | 7.75% | 8.0% |
| 2013-14 | 0.50% | 8.50% | 9.0% |
| 2014-15 | 0.50% | 8.50% | 9.0% |
| 2015-16 | 0.50% | 8.50% | 9.0% |

The Regulations also stipulate that,

“Further, the Distribution Licensee (s) are also mandated to procure 0.1% per year of their Non-Solar (other RE) RPO obligation for the period from FY 2010-11 to FY 2012-13 and up to 0.2% of their Non-Solar (other RE) RPO obligation for the period from FY 2013-14 to FY 2015-16 by way of purchase from Mini Hydro or Micro Hydro power project.”

2. The Commission, through its *suo moto* Order dated 1 July, 2010 in Case No. 21 of 2010, designated the Maharashtra Energy Development Agency (MEDA) as the State Agency to undertake the functions envisaged under the Regulations.
3. As per Regulation 10.4 of the RPO-REC Regulations, 2010, a Distribution Licensee is obliged to submit, at the end of each financial year, a detailed statement of energy procurement from various Renewable Energy (RE) sources, duly certified by the auditors.
4. Vide its Order dated 12 March, 2014 in Case No. 180 of 2013 in *suo moto* proceedings regarding compliance of RPO targets by MSEDCL for FY 2012-13, the Commission had directed as follows:

“

27 *Regarding Solar RPO targets, the Commission has already dealt the same in the Order dated 24 December, 2012 wherein the Commission has allowed MSEDCL to cumulatively fulfil its Solar RPO targets by FY 2015-16.*

28 *The Commission allows carry forward of surplus Non-Solar RE power of 386.52 MU of FY 2010-11 and FY 2011-12 to FY 2012-13.*

29 *The Commission observed that MSEDCL has shortfall of 684.89 MU for FY 2012-13 in meeting their Non-Solar RPO targets. After considering the surplus of 386.52 MU of previous years, there is still a shortfall of 298.37 MU in FY 2012-13. The Commission allows MSEDCL to meet its Non-Solar RPO shortfall of 298.37 MU for FY 2012-13 in FY 2013-14 on cumulative basis.*

30 *Further, the Commission allows MSEDCL to meet its RPO target of Mini/Micro Hydro by FY 2015-16 on cumulative basis.*

31 *The Commission directs MEDA to undertake a detailed study to re-assess the realistic Capacity Utilisation Factor (CUF) for Wind power projects in the*

State with the help of reputed technical institutes within six months from the date of this Order. ”

5. In accordance with Regulation 9.6 of the RPO-REC Regulations, MEDA, vide its letter dated 18 September, 2014, submitted the RPO settlement data cumulatively as of FY 2013-14, i.e. cumulatively for the four years FY 2010-11 to FY 2013-14, in respect of the Distribution Licensees, including MSEDCL. The RPO compliance details of MSEDCL for FY 2010-11 to FY 2013-14, as submitted by MEDA, is summarised in Table A below:

Table-A: RPO Settlement data for MSEDCL, as furnished by MEDA

| Item | FY 2010-11 | | FY 2011-12 | | FY 2012-13 | | FY 2013-14 | | Cumulative RPO (Surplus) / Short fall |
|---|------------|----------|------------|----------|------------|----------|------------|----------|---------------------------------------|
| | % | MU | % | MU | % | MU | % | MU | |
| | | (a) | | (b) | | (c) | | (d) | Z = (a)+(b)+(c)+(d) |
| Gross Energy consumption in MU | 100% | 85357.35 | 100% | 94967.36 | 100% | 93264.55 | 100% | 98839.86 | |
| Solar RPO target | 0.25% | 213.39 | 0.25% | 237.42 | 0.25% | 233.16 | 0.5% | 494.19 | 1178.16 |
| Solar RPO Met | 0.001% | 1.13 | 0.01% | 10.89 | 0.03% | 27.74 | 0.21% | 211.55 | 251.31 |
| Solar RPO (surplus)/shortfall | 0.249% | 212.26 | 0.24% | 226.53 | 0.22% | 205.42 | 0.29% | 282.64 | 926.85 |
| Non Solar RPO target | 5.75% | 4908.05 | 6.75% | 6410.30 | 7.75% | 7228.00 | 8.5% | 8401.39 | 26947.74 |
| Non Solar RPO Met | 5.77% | 4926.42 | 7.14% | 6778.45 | 7.02% | 6542.26 | 6.03% | 5957.10 | 24204.23 |
| Non Solar RPO (surplus)/shortfall | (0.02)% | (18.37) | (0.39)% | (368.15) | 0.73% | 685.74 | 2.47% | 2444.29 | 2743.51 |
| Mini/Micro Hydro RPO target(within Non Solar) | 0.10% | 4.91 | 0.10% | 6.41 | 0.10% | 7.23 | 0.2% | 16.80 | 35.35 |
| Mini/Micro Hydro RPO target Met | 0.01% | 0.49 | 0.01% | 0.61 | 0.01% | 0.85 | 0.01% | 0.42 | 2.37 |
| Mini/Micro Hydro RPO target (surplus)/shortfall | 0.09% | 4.42 | 0.09% | 5.80 | 0.09% | 6.38 | 0.19% | 16.38 | 32.98 |

6. Since FY 2013-14 had already elapsed, the Commission decided to initiate *suo moto* proceedings for verification of compliance of RPO targets by MSEDCL and undertake consequent actions if required in accordance with the Regulations. Accordingly, vide Notice dated 24 November, 2014, the Commission directed MSEDCL to submit its response to the data furnished by MEDA within two weeks.
7. In its response dated 23 January, 2015, MSEDCL has submitted that, regarding RPO settlement details for FY 2013-14, the data considered by MEDA is not in order for the following reasons:
- 1) Vide letter dated 19 August, 2014, MSEDCL had submitted a detailed report regarding compliance of RPO targets for FY 2013-14, in the format prescribed by MEDA. As per this report, MSEDCL is in shortfall of 737 MUs in meeting the Non-Solar RPO target for FY 2013-14.

- 2) However, in its report to the Commission, MEDA has shown a shortfall of 2428 MUs against the Non-Solar RPO targets for FY 2013-14. A higher shortfall in Solar and Mini/Micro Hydro Power procurement has also been shown.
 - 3) On the basis of MEDA's report, the Commission has considered the shortfall by MSEDCL to be higher, which is not correct.
- 8 MSEDCL has submitted the following in support of its contention:
- 1) MEDA has considered Gross Energy Consumption (GEC) based on the IBSM /FBSM report submitted by the Maharashtra State Load Despatch Centre (MSLDC) for FY 2013-14. This report show MSEDCL's GEC as 98839.86 MUs, which includes energy consumption of 4559 MUs by Open Access (OA) consumers (both conventional and non-conventional). OA consumption should be deducted from the GEC based on MSLDC's report.
 - 2) The same is the case for RE power procurement. The IBSM /FBSM report indicates the total source-wise procurement of RE. From this, the RE consumption of OA consumers and Mumbai Utilities should be segregated so as to give the RE procurement of MSEDCL.
 - 3) Wind power procurement as per the MSLDC report is 5678 MUs, which would reduce to 4090 MUs after deducting RE for OA and Mumbai Utilities. However, MEDA has referred to the reports prepared by MSEDCL for Fuel Adjustment Charge (FAC) calculations, which is not the correct methodology.
 - 4) Referring to FAC for RE procurement is not logical for the following reasons:
 - a) MSLDC's IBSM report and MSEDCL's monthly FAC report regarding RE power purchase for the same month generally show different units due to difference in basic concepts.
 - b) Practically, there is always a mismatch between various figures of MSLDC's IBSM report and MSEDCL's monthly FAC report regarding RE power purchase. For example, in case of Wind, the mismatch may be due to netting of import units (import units are deducted from export units, and thus procurement appears to be less), units deductible as loss, mismatch between the JMR /billing cycle of Wind Generators and IBSM reading, overlapping of JMR/billing cycle, delay in issuance of Generation Credit Note (GCN) for payment, delay in sale to MSEDCL permission, delay in execution of Energy Purchase Agreement (EPA), etc.
 - c) The Wind mills are commissioned in FY 2013-14. Due to delay in execution of EPAs, the energy injected by them into the MSEDCL grid by during FY 2013-14 is accounted for in the FAC report of FY 2013-14 very late, and the major quantum would appear in the FY 2014-15 FAC Report. This will create a mismatch in MSLDC's IBSM /FBSM Report and MSEDCL's FAC report for a particular month.
 - d) In some cases, Wind Generators cancel their OA permission at the end of the year and then apply for sale to MSEDCL. Such applications are processed in due course. Meanwhile, this energy will appear in the IBSM

report of SLDC, but will not be reflected in the FAC report which is for payment based on the EPAs.

- e) MSEDCL also procures Wind energy OA units, which remain unadjusted at the end of the financial year and may not appear in the FAC report for that particular year.
- f) Due to such practical difficulties, the RE (Wind) procurement should be considered from the IBSM report only (less OA consumption as per the actual GCN), which represents the actual Wind Energy injection / procurement.
- g) The methodology of assessing RPO compliance based on IBSM Reports adopted since the past few years need not be changed. The RE procurement needs to be determined on the basis of IBSM / FBSM reports only and not on the basis of MSEDCL's FAC report regarding RE Power Purchase.
- h) If it is proposed to consider only the FAC report instead of the IBSM/FBSM report, it would be necessary to resolve the practical difficulties stated above, and to permit truing up / reconciliation of RPO accounts on a year to year basis.

5) The above clarification was furnished to MEDA on 22 October, 2014. However, vide letter dated 5 November, 2014, MEDA has declined to consider MSEDCL's submission and to modify the RPO compliance report.

9. In view of the above, MSEDCL seeks that its compliance of RPO targets for FY 2013-14 be assessed accordingly. In support, the following details are submitted:

- i) Month-wise FBSM report by MSLDC for FY 2013-14.
- ii) Details of total OA consumption for FY 2013-14, which was 4559 MUs (Conventional OA 3412 MUs, Wind OA 1055 MUs and Small Hydro OA 92 MUs).
- iii) Calculation of GEC

10. The energy accounting for the Non-Solar RPO target compliance has been carried out on the basis of the IBSM/ FBSM report of MSLDC. As per GEC, the Non-Solar RPO target works out to 8014 MUs (8.5%) whereas the achievement is 7575 MUs (8.03%). The shortfall in meeting the Non-Solar target for FY 2013-14 is to the extent of 737 MUs. Source-wise contracted commissioned RE capacity in MW is: Wind - 3156 MW, Bagasse Co-gen - 1246 MW, Biomass - 137 MW, Small Hydro - 246 MW (total: 4817 MW).

11. Regarding fulfilment of Solar RPO targets cumulatively by FY 2015-16, the Commission directed MSEDCL to submit the status of Solar RPO compliance by FY 2013-14 and to confirm the shortfall as submitted by MEDA. MSEDCL submitted that the data considered by MEDA for Solar RPO compliance is generally in order. Total Solar contracted installed capacity is 152 MW as on date. For FY 2013-14, Solar Energy procured is 211.459 MUs. The cumulative shortfall of Solar RPO for the period FY 2010-11 to FY 2013-14 is 260 MUs.

12. Regarding fulfilment of Mini /Micro Hydro RPO targets cumulatively by FY 2015-16, the Commission directed MSEDCL to submit the status of its compliance upto FY 2013-14 and to confirm the shortfall as submitted by MEDA. MSEDCL submitted that 3 Mini / Micro Hydro projects have been contracted, viz. Yeoteshwar Hydro Electric Project (HEP) - 75 kW, Shahanoor HEP - 750 kW and Terwanmedhe HEP - 200kW. The Mini /Micro Hydro target for FY 2013-14 is 16.03 MUs and achievement is 0.67 MUs, i.e. a shortfall of 15.36 MUs and cumulative shortfall of 34.57 MUs.
13. Regarding action/ efforts made before and during FY 2013-14 for compliance of Solar, Non-Solar and Mini/Micro Hydro RPO, MSEDCL submitted as follows:
- a) Non-Solar RPO targets:
- i) MSEDCL has executed long term EPAs with all the Renewable (Non-Solar) generators approaching it, at preferential tariff in line with the terms and conditions specified by the Commission from time to time.
 - ii) MSEDCL has contracted sufficient power for meeting the year wise RPO targets for FY 2014-15 and 2015-16. Total contracted capacity for different types of Non-Solar RE sources as on 31 March, 2014 is 5465 MW, out of which 4817 MW has been commissioned as on that date. Capacity addition of 707.85 MW is expected in FY 2014-15.
 - iii) Out of the above 4817 MW capacity, Wind capacity is of 3156 MW and expected is 400 MW. As per the norms set by MERC/ MEDA, with Capacity Utilisation Factor (CUF) of 20%, total generation from Wind is expected to be about 6230 MUs, but the actual Wind generation is less than expected because of lower actual CUF.
 - iv) The estimated GEC of MSEDCL for FY 2014-15 will be around 1,00,000 MUs. To fulfil the Non-Solar RPO target of 8.5%, around 8500 MUs RE power will be required. Considering the CUF specified by MERC/MEDA, around 12800 MUs of RE is expected to be generated and procured by MSEDCL. Therefore, it is expected to meet the RPO target for FY 2014-15 and FY 2015-16 also as the target percentage remains the same.
- b) Solar RPO targets:
- i) MSEDCL has contracted Solar capacity of 327 MW as on date to meet the Solar RPO targets from FY 2010-11 onwards under various schemes of Government of India and from the Maharashtra State Power Generation Co. Ltd. (MSPGCL), but only 167 MW have been commissioned so far. MSEDCL has decided to purchase the Solar power from MSPGCL at the Commission-determined preferential tariff. MSEDCL is also purchasing Solar power from all those Solar Projects which have participated in various schemes of Jawaharlal Nehru National Solar Mission and Government of India.
 - ii) Presently, MSEDCL is not purchasing Solar power from private generators in the State at the preferential tariff. However, to encourage Solar generation in the State, MSEDCL has been purchasing such power from private Solar power projects at the Average Pooled Power Purchase Cost (APPC) rate on short term basis (1 year), thereby making them eligible to claim Solar Renewable Energy

Certificates (RECs).

- iii) Since MSPGCL's Solar projects are delayed, adequate Solar power is not available.
- iv) In view of the above, the Solar power procured by MSEDCL at the APPC rate as a promotional activity may be considered for meeting the Solar RPO target.

c) Mini/ Micro Hydro RPO Target:

- i) Currently, there are only 3 Projects commissioned under this category namely, Shahnoor (0.75 MW), Yeoteshwar (0.075 MW) and Terwanmedhe (0.2 MW). These are old Projects developed by Govt. of Maharashtra (GoM).
- ii) MSEDCL is executing EPAs with all the Project holders approaching it for sale of power. MSEDCL is willing to execute long term EPAs with Mini/ Micro Hydro Project holders in order to fulfil the RPO target as and when they approach it.
- iii) However, no capacity addition has taken place during FY 2013-14; this situation is likely to continue in the near future.
- iv) Hence, considering the ground realities, the Commission may do away with the separate Mini/Micro Hydro RPO targets.

14. Regarding the long term RE procurement plan for meeting the year-wise RPO targets for FY 2014-15 and FY 2015-16, MSEDCL has estimated GEC for FY 2014-15 of around 1,00,000 MUs. Expected Non-Solar RPO target is 8500 MUs. MSEDCL has contracted capacity of 4817 MW, and expects addition of 707.85 MW in FY 2014-15. Expected generation is 12756 MUs, which is more than the target.

15. In response to the Commission's direction to explain why action should not be initiated against it for non-compliance of the Non-Solar RPO target under Regulation 12, without prejudice to any penalty under the EA, 2003, MSEDCL submitted as follows:

- 1) MSEDCL has pro-actively participated in the development process by providing necessary infrastructure and guarantee of purchase. It has always encouraged RE generation in the State by providing guarantee of purchase and suitable evacuation infrastructure. It has also executed long term EPAs with all the RE generators approaching it, at the preferential tariff and on the terms and conditions specified by the Commission.
- 2) MSEDCL has contracted adequately with the RE generators to meet the RPO target up to FY 2015-16. However, the actual power injected is much less than the expected generation (i.e. not as per PLF/CUF).
- 3) The GEC of MSEDCL is increasing in line with load growth. Similarly, the RPO target is also increasing by 1 % every year and is required to be met on this increased GEC quantum. However, since sufficient capacity addition is not taking place in the RE sector, adequate RE power is not available for purchase by MSEDCL.
- 4) MSEDCL has been contracting all the RE from projects that are being commissioned in a non-discriminatory manner irrespective of Renewable source (except for Solar).
- 5) MSEDCL has contracted adequately with RE Generators to fulfill the RPO target up

to FY 2015-16. The Non-Solar contracted capacity as on 31 March, 2014 is 5465 MW, out of which capacity commissioned is 4817 MW. The expected generation from the commissioned capacity (Non-Solar) upto FY 2013-14 was 11050 MUs. However, only 7575 MUs have been injected as against expected generation of 11050 MUs.

- 6) Thus, based on the projections of MEDA and the CUF worked out by it, MSEDCL has contracted more than sufficient quantum of RE fulfill its RPO target.
- 7) In case of shortfall, the Commission may direct MEDA to find out the reasons for shortfall (either the CUF projections are to be rationalised or the Generators' efficiency has to be improved). MSEDCL would co-operate in this exercise as may be directed by the Commission.
- 8) Alternatively, considering the efforts of MSEDCL, the RPO target compliance may be considered on the basis of actual contracted RE capacity vis-à-vis CUF approved by the Commission, and not on the basis of the actual units injected.
- 9) Due to increase in Open Access (OA) in RE, RE available for contracting is decreasing. At the same time, RPO fulfillment targets are increasing.
- 10) The promotion of RE OA needs to be viewed in the light of the mandated RPO of MSEDCL, and needs to be linked with a corresponding reduction in its Non-Solar / Solar RPO target.

16. MSEDCL has submitted the following in further support of its contentions:

- 1) The West Bengal Electricity Regulatory Commission (WBERC) has allowed OA consumption, distribution loss and transmission loss to be accounted for fulfilment of RPO target of Distribution Licensees. A similar dispensation may be provided to MSEDCL for meeting the RPO target in view of shortage of RE.
- 2) The RPO target specified by the Commission is high compared to the actual RE capacity addition that could take place in the State. Even if 1150 MUs of RE wheeled under OA is taken into account, there is a shortage of RE.
- 3) Further, compliance by the other Obligated Entities such as Captive Power Plants (CPPs) and OA consumers is not taken into consideration, which may further increase the shortfall.
- 4) Hence, it has become necessary to ascertain the actual RE potential in the State and the actual number of RE generators who are ready to exercise the option of sale to Licensees. The RPO targets needs to be reviewed accordingly. If there is no RE available for purchase, the shortfall in meeting the RPO targets needs to be waived.

17. MSEDCL has made the following Prayers:

- i) *The compliance of RPO target may be considered on the basis of actual contracted RE capacity and not on the basis of the actual units injected.*
- ii) *Otherwise, the renewable energy procurement of MSEDCL may be determined on the basis of IBSM / FBSM report only as per existing procedure. Accordingly, MSEDCL net GEC may be considered as 94281 MUs after deducting Open Access consumption and the RE procurement in MUs may be considered as submitted by MSEDCL on the basis of IBSM reports.*

- iii) *MSEDCL has contracted more than sufficient quantum of RE power so as to meet the RPO target on the basis of CUF decided by MEDA and approved by MERC. However, there is shortfall in meeting cumulative RPO target (For FY 2013-14 including shortfall of 298 MUs of FY 2012-13 carried forward) due to short supply by RE generators vis-a-vis CUF. Hence, the Hon'ble Commission may direct MEDA to find out the reasons for shortfall (either the CUF projections are to be rationalized or the generator's efficiency has to be improved).*
- iv) *The shortfall may be waived in the interest of the common consumers.*
- v) *Procurement of RECs for fulfilling the RPO target will lead to financial burden on common consumers of MSEDCL. Hence, MSEDCL may not be compelled to procure the same.*
- vi) *The RPO target needs to be reviewed taking into consideration the simultaneous rise in GEC and actual RE potential in the State which is available for sale to utility.*
- vii) *It is submitted that, the Non-Solar/ Solar RPO target of MSEDCL needs to be reduced to the extent of the quantum of renewable energy wheeled under Open Access.*
- viii) *In case, if penalty is levied for non compliance of RPO, MSEDCL may be allowed to recover the same from the RE generators rather than procuring REC and burdening the common consumers.*
- ix) *It is requested to cancel the separate categorization of Mini/Micro Hydro RPO target considering the ground realities.*
- x) *The Solar Power procured at APPC rate, as a promotional activity may be allowed to be considered for meeting the solar RPO target of MSEDCL.*
- xi) *To permit MSEDCL to make further submissions, addition and alteration to this submission as may be necessary from time to time.*

18. Vide letters dated 9 February and 12 February, 2015, MEDA has responded as follows:

18.1 As per Regulation 9.3 and 10.4 of RPO-REC Regulations, the Distribution Licensees have to submit their detailed RPO achievement reports to MEDA duly certified by auditors. This was also accepted by all Licensees due to non-availability of FBSM reports in time.

18.2 For FY 2013-14, the GEC as submitted by MSEDCL is 94281.00 MUs. However, this is not supported by the FBSM data (energy drawal at T<> D interface). As per the FBSM report, the total energy procurement is 98839.860 MUs, which has been considered in MEDA's report.

18.3 MSEDCL's plea to exclude OA consumption is not supported by either its C.A. certified audited data or the FBSM report for FY 2013-14. Moreover, MSEDCL has not submitted the list of OA consumers along with the OA quantum so as to arrive at any conclusion. Therefore, in the absence of details from MSEDCL, the more reliable FBSM data of MSLDC was considered as GEC for RPO report compilation.

18.4 As regards Non-Solar energy procurement, the C.A. certified audited report submitted by MSEDCL was considered. RE procurement as per that report is as below:

- a) Non-Solar (excluding Mini/ Micro Hydro) RE procurement data as submitted by MSEDCL is 7574.11 MUs. As per the C.A. certified Audit Report for FY 2013-14, it is 5956.678 MUs, which includes Wind - 3854.620 MUs, and Biomass and Bagasse - 2101.851 MUs.
- b) Mini /Micro Hydro Power procurement considered by MSEDCL is 0.67012 MUs, whereas there is no such separate category in the C.A. report. However, the Small Hydro Plants (SHPs) data is reported as 195.614 MUs and Mini /Micro Hydro Power procurement data is reported as 0.421 MUs. Same is considered as per C.A. report of MSEDCL.
- c) Municipal Solid Waste (MSW) energy procurement data of 0.208 MUs submitted by MSEDCL is in line with the C.A. Certified Audit Report. Hence that has been considered.

19. Regarding MSEDCL's prayers, MEDA submitted as below:

- a) Compliance of RPO targets as per the Regulations may be considered on the basis of actual RE injected and procured. As per Regulation 10.4, the RE procurement of Licensees must be determined on the basis of energy procurement from various RE sources duly certified by the auditors.
- b) CUF of Wind projects depends on the power curve of the Wind Generator, which varies with wind density and its speed, which are defined by C-WET. Windy sites are declared by the Ministry of New and Renewable Energy (MNRE). Thus, CUF is not defined by MEDA and approved by MERC. It is upto MSEDCL to look into the reasons and take precautionary measures to meet the RPO targets through EPAs.
- c) MEDA is not in favour of considering Solar power procured at the APPC rate as eligible for meeting MSEDCL's RPO since power under APPC is eligible for the REC mechanism.

Regulatory Process

20. Vide Public Notice dated 27 February, 2015 published in the Loksatta and Lokmat (Marathi) and Times of India and Indian Express (English) daily newspapers, the Commission invited suggestions and objections considering the submissions made by MEDA and MSEDCL. The Commission also impleaded MEDA and the MSLDC as Parties. A Public Hearing was held on 23 March, 2015 at the Office of the Commission, World Trade Centre, Cuffe Parade, Mumbai. The list of persons who submitted their comments/suggestions in writing and/or made oral submissions during the Public Hearing is at **Annexure-1 (A)**. The list of persons present at the Public Hearing is at **Annexure-1(B)**.
21. At the Hearing, the Commission directed that a meeting be held by officers of the Commission with representatives of MSEDCL, MEDA and MSLDC regarding various issues raised relating to GEC, OA consumption and RE power procurement. A meeting was accordingly held on 23 March, 2015. It was decided that MSEDCL would provide the details of OA consumption and RE procurement to MEDA, and that MSLDC would also provide details of OA consumption available with it to MEDA. The information would be compiled by MEDA and submitted to the Commission.

22. Accordingly, vide letter dated 17 April, 2015, MEDA submitted the compilation report, considering the validated GEC and RE procurement data of MSEDCL for FY 2013-14 furnished by MSLDC, and the C.A. certified RPO data for FY 2013-14 received from MSEDCL in the format discussed at the meeting. The report sets out the RPO achievement of MSEDCL for FY 2013-14 as follows:

(In MUs)

| GEC | Solar RPO | | | Non-Solar RPO | | | Mini/Micro Hydro RPO | | |
|----------|------------------|--------|---------------|-------------------|---------|---------------|----------------------|------|--------------|
| | Target (0.5%) | Met | Shortfall | Target (8.48%) | Met | Shortfall | Target (0.02%) | Met | Shortfall |
| 98549.36 | 492.75 | 211.00 | 281.75 | 8359.94 | 7580.18 | 779.76 | 16.75 | 0.67 | 16.08 |

Suggestions/Objections received, and Commission's Rulings

Comments /Suggestions

23. Vide letter dated 10 March, 2015, Hydro Power Association (India) submitted that, in order to meet the planned target of RPO, Distribution Licensees need to make more source-wise efforts and be more transparent in their processes. Standard draft of EPA and other documents should be publicized. Project-wise contracted capacity and monthly energy fed into the grid should be made available by each Distribution Licensee separately for small Hydro Projects and Mini/Micro Hydro Projects.
24. Vide letter dated 13 March, 2015, Shri T.P. Vartak, Four Eyes Research Pvt. Ltd., submitted that special consideration should be given to Mini/Micro Hydro Projects. He refuted the contention that Mini/Micro Hydro Projects are not available or that their developers did not respond to Expressions of Interest sought. Sufficient potential for such Projects exists in the State. However, due to connectivity issues at LT level of distribution network, such potential has largely not been exploited. Distribution Licensees should co-operate to harness the available Mini/Micro Hydro potential in Maharashtra.

Commission's Ruling

25. **As regards the points made by the Hydro Power Association and Shri Vartak of Four Eyes Research Pvt. Ltd. concerning Mini and Micro Hydro Projects, the Commission has partly addressed some concerns in its Orders dated 27 October and 31 July, 2014 in Case Nos. 73 and 77 of 2014, respectively.**
26. **With regard to monitoring and dissemination of information, the Commission notes that the latest period for which data has been displayed on the MEDA website relates to the third quarter of FY 2013-14, with no data from MSEDCL. In recent Orders (in Case Nos. 191 to 193 of 2014) regarding RPO compliance by the other Distribution Licensees, the Commission had directed that the Monitoring Committee constituted under Regulation 13.1 of the RPO-REC Regulations meet (including MEDA, and an officer of the Commission as invitee) to resolve issues relating to regular RPO compliance reporting and publication so that MEDA can**

fulfil the requirements under Regulations 9.3 to 9.6. MSLDC has since reported the decisions at the meeting held on 4 June, 2015, which include the following:

- a) Licensees shall submit provisional information monthly to MEDA, to be corrected quarterly based on audited information, GCNs, consideration of migrated consumers, etc.;
- b) A protocol with time-lines has been set for inter-Licensee exchange of information, issue of GCNs, etc.
- c) OA consumption data will be furnished monthly by the Utilities to MEDA;
- d) The RPO monitoring portal being developed by MEDA is nearing completion, and will be put to Utilities for trial and suggestions;
- e) The Monitoring Committee will meet quarterly to review and improve the monitoring mechanism.

Comments /Suggestions

27. Vide letter dated 18 March, 2015, Power Exchange India Limited (PXIL) submitted that, with better forecasting and scheduling, a Distribution Licensee should be able to meet its obligations well in advance rather than resorting to last-minute efforts in order to avoid a penalty. Fulfilment of RPO on a quarterly rather than yearly basis is suggested so as to avoid a financial burden during the latter half of the financial year. PXIL further submitted that the actual energy consumption report for the financial year is available from MSLDC in April/May of the next financial year. Hence, the Distribution Licensees should be allowed time till the first quarter of the subsequent financial year to purchase RECs from the Power Exchanges and fulfil their RPO targets. While the Licensees have submitted that there is a dearth of long-term RE suppliers, purchase of RECs on the Power Exchanges will ensure compliance of yearly RPO target.

Commission's Ruling:

28. **While appreciating the objective behind PXIL's suggestion that RPO targets be met on a quarterly rather than yearly basis, the Commission notes that the present RPO-REC Regulations specify annual targets. As regards purchase of RECs in the first quarter of the subsequent year to meet the shortfall that may become evident only after the end of a particular year, the Commission notes that it has so far been dealing with shortfalls by allowing, on merits, fulfilment of targets on a cumulative basis in subsequent years.**

Comments /Suggestions

29. Vide letter dated 19 March, 2015, Indian Wind Turbine Manufacturer's Association (IWTMA) submitted that MSEDCL's shortfall in meeting RPO targets should not be waived or allowed to be carried forward and met on a cumulative basis. Obligated Entities may be penalised as per Regulation 12 of the RPO-REC Regulations. MSEDCL should not be allowed to recover this penalty from consumers or Generators, as prayed for by it. MSEDCL has contracted 812.72 MW in FY 2013-14, and this quantum has been commissioned in the span of one year (FY 2013-14). However, while estimating

expected generation from wind power, MSEDCL has taken into account generation of this entire 812 MW for the full year. However, only in case of the turbines commissioned at the beginning of the year will there be such generation, and not in the case of all Generators. MSEDCL's method of estimating expected generation for the whole year for the new capacity installed and commissioned at different points of time in that year is not correct. This is the only reason for Wind generation being lower than that expected by MSEDCL. Many Wind Projects in Maharashtra have been stalled due to MSEDCL not signing EPAs with Generators. Thus, the claim of non-availability of power is not correct.

Commission's Ruling:

30. **The Commission has noted the submission of IWTMA, and has dealt with the shortfall in meeting the Non-Solar RPO target subsequently in this Order.**

Comments /Suggestions

31. Vide letter dated 20 March, 2015, M/s. Bothe Windfarm Development Pvt. Ltd. submitted that, since MSEDCL's practice is to sign EPAs with Wind Generators after their commissioning and mostly towards the end of the financial year, it is impossible for it to exercise any choice in selection of the appropriate price mechanism, i.e preferential Tariff or REC mechanism, prior to commissioning of the RE Projects. Regarding discrepancies pointed out by MSEDCL in MEDA's report, MSEDCL can only claim fulfilment of its Non-Solar RPO on the RE procured by it at the preferential tariffs as per the RPO Regulations. It cannot claim RPO with regard to the balance available energy in the SLDC report after deducting OA and captive consumption. Such energy may be on account of banked energy of OA / captive consumers, inadvertent flow left after scheduling in schedulable source, or energy injected by RE Generators who are yet to enter into EPAs with MSEDCL. Further, the total installed Wind capacity in FY 2014-15 is much less than the capacity expected by MSEDCL. Moreover, MSEDCL has not yet signed EPAs for the commissioned capacity in FY 2014-15 which it has considered for its RPO fulfilment. MSEDCL has considered the energy generation for RPO at the defined CUF on the cumulative capacity at the end of the financial year. This is factually wrong. Therefore, MSEDCL's contention that the RE Projects have not generated as per the CUF is denied. MSEDCL should be directed to comply with the RPO Regulations and execute the pending and offered EPAs immediately in line with the Orders passed by the Commission from time to time.

Commission's Ruling:

32. The Commission notes the submission of M/s Bothe Windfarm. It has raised issues relating to signing of EPAs by MSEDCL in FY 2014-15. The present proceedings are for verification of RPO compliance for FY 2013-14 only.

Comments /Suggestions

33. Vide letter dated 19 March, 2015, Indian Wind Energy Association (InWEA) submitted that, under the RPO-REC Regulations, MSEDCL was bound to fulfil its RPO targets by purchasing RE power or RECs from Power Exchanges. Regarding MSEDCL's claim of encouraging RE generation, the fact is that after April, 2014 MSEDCL has not signed a single EPA with Wind developers. Around 400 MW of Wind Power Projects are ready

for commissioning and waiting for signing of EPAs. Regarding MSEDCL's claim that the RE generation is not as per the specified CUF, InWEA stated that, out of the total contracted capacity, the EPAs for wind power projects were signed in the last quarter of FY 2013-14. Thus, one full year's generation from such Projects did not happen. Had MSEDCL planned and signed the EPAs since the Projects were ready for commissioning, this situation would not have occurred. MSEDCL's request for considering RPO compliance on the basis of contracted capacity and CUF approved by the Commission cannot be considered since RPO targets are on the basis of actual RE or RECs purchased. Hence MSEDCL's compliance has to be in terms of the actual RE in MUs, or RECs. MSEDCL's suggestion to consider the consumption of captive and OA consumers towards the fulfillment of RPO of the Distribution Licensee is against the letter and spirit of the EA, 2003. MSEDCL has not made any efforts to meet its RPO targets by purchasing RECs. The Appellate Tribunal for Electricity (ATE) has categorically held that the REC scheme is binding. According to the Regulations, the carry forward of RPO is permissible if there is a genuine difficulty due to non-availability of RE or RECs. The RPO target as specified by the Commission can be fulfilled through purchase of RECs without depending on the RE potential in the State. The Commission may initiate action to penalise the Distribution Licensees/ Obligated Entities, as specified in Regulation 12 of the RPO-REC Regulations. Under Regulations 7 and 12, the Commission may direct them to deposit into a Fund an amount based on the shortfall in the Non-Solar RPO units at the Forbearance Price to be decided by the Central Electricity Regulatory Commission (CERC). It is a settled principle of law that, when a penalty has been envisaged under a legal set-up for grant of an exemption, then without imposition of penalty no exemption can be granted.

34. In an additional submission dated 24 March, 2015, InWEA submitted a list of 36 Wind developers with a total of 288.85 MW installed capacity commissioned during FY 2014-15 and awaiting signing of EPAs with MSEDCL. InWEA further pointed out that, as stated by MSEDCL during the Public Hearing, although it procured the Wind power at the Average Power Procurement Cost (APPC), it will not be counted towards the RPO and will not help in compliance of RPO targets by MSEDCL. Considering this, the Commission impose a penalty on MSEDCL for non compliance of RPO under Regulation 12 of the MERC RPO-REC Regulations.

Commission's Ruling:

35. **The Commission notes the submission of InWEA. Regarding MSEDCL's shortfall in meeting Non-Solar RPO targets, the Commission has given directions subsequently in this Order.**

Comments /Suggestions

36. Vide e-mail dated 20 March, 2015, Prayas Energy Group (an authorised Institutional Consumer Representative) submitted that, although MSEDCL acknowledges that the RE units wheeled in its network under OA by other Obligated Entities should be deducted in the accounting of its RPO to avoid double accounting, there continues to be a difference between the RE units considered for RPO compliance (as per MSEDCL/MEDA and the IBSM/FBSM reports) and the number of RE units procured by MSEDCL as per the audited actuals from its Aggregate Revenue Requirement (ARR) filings. For FY 2013-

14, while 7786 MUs of RE (both Solar and Non-Solar) have been considered for RPO compliance (correctly subtracting the RE units wheeled under OA and self-use (1055 MUs of Wind) and accounted for Mumbai Utilities (532 MUs of Wind), the audited actuals as per ARR filings indicate procurement of only 6409 MUs. This difference of 1377 MUs results in an actual RPO compliance of 6.8% as against the reported figure of 8.26% (the requirement being 9%). A similar discrepancy in data is observed for the earlier three years. This puts a question mark over the carry forward of 18.37 and 368.15 MUs of Non-Solar RE allowed by the Commission for FY 2010-11 and 2011-12, respectively, as per the Order in Case no 180 of 2013. For 2012-13, instead of a reported shortfall of 205.42 Solar MUs and 684.89 Non-Solar MUs (i.e. 890 MUs), the shortfall works out to 1978.16 MU. The Commission may look into this discrepancy, and calculate the actual shortfall/surplus for cumulative compliance.

37. The submissions made in these proceedings reveal discrepancies in RPO compliance for 2013-14 as estimated by MSEDCL and by MEDA, with MEDA's estimation showing a higher shortfall. The reason is the different computation methodologies, with MSEDCL using data based on MSLDC's IBSM/FBSM report, and MEDA using data from MSEDCL's monthly FAC report on RE power purchased. A uniform procedure needs to be formulated for calculating RPO compliance by different Obligated Entities. The Commission may come up with a comprehensive and revised RPO compliance verification methodology.

Commission's Ruling

38. **As mentioned at para. 21 and 22 above, a meeting was held subsequent to the Public Hearing, as directed by the Commission. Thereafter, MEDA has submitted a revised RPO compliance report considering the C.A. certified data submitted by MSEDCL and data furnished by MSLDC. That report has been considered by the Commission for verification of RPO compliance by MSEDCL in FY 2013-14.**

Comments /Suggestions

39. Vide letter dated 21 March, 2015, Maharashtra Veej Grahak Sanghatana (MVGS) submitted that, while it accepts that there should be RPO targets, these should be decided taking into account RE availability and rates, and the impact on consumer tariffs. From MSEDCL's Multi Year Tariff Petition in Case No. 121 of 2014, it is observed that, due to RE procurement, there is an additional impact of Rs. 0.13 per unit on the total power purchase cost of MSEDCL and of Rs. 0.23 per unit on Average Cost of Supply, which is relatively high. Further, there is a Tax on Sale of Electricity of 8 paise per unit, which is also part of the Green Energy Fund and used for RE. Moreover, RE tariffs in Maharashtra are higher than in other States and the market. The Commission should rationalise the RE tariffs, or allow procurement of RE by competitive bidding. The RE tariff may be reduced from Rs. 5.22 per unit to Rs. 3.50-4.00 per unit by permitting competitive bidding. The Commission may decide the matter in order to reduce the impact of RE procurement on the common consumer's tariff.

Commission's Ruling

40. **The RPO targets of the Obligated Entities are set in accordance with the RPO-REC Regulations, 2010, which have been notified after due regulatory process and public**

consultation, and in pursuance of the mandate in the EA, 2003 with regard to the promotion of such energy sources. The rationalisation of RE tariffs is beyond the scope of these proceedings for verification of RPO compliance by MSEDCL.

Commission's Analysis and Rulings

RPO target shortfall

41. The status of achievement of RPO targets by MSEDCL, based on the revised details provided by MEDA, MSEDCL and MSLDC, and the shortfall in meeting the Solar, Non-Solar and Mini /Micro Hydro RPO targets for FY 2010-11 to FY 2013-14 and carried forward to subsequent years, is shown in Table B below:

Table B: RPO Settlement details for MSEDCL (in MUs)

| Item | FY 2010-11 | | FY 2011-12 | | FY2012-13 | | FY 2013-14 | | Cumulative RPO (Surplus) / Shortfall |
|---|------------|----------|------------|----------|-----------|----------|--------------|---------------|--------------------------------------|
| | % | MU | % | MU | % | MU | % | MU | |
| | | A | | B | | C | | D | E=A+B+C+D |
| Gross Energy Consumption | 100% | 85357.35 | 100% | 94967.36 | 100% | 93264.55 | 100% | 98549.36 | |
| <u>Solar RPO</u> | | | | | | | | | |
| Target | 0.25% | 213.39 | 0.25% | 237.42 | 0.25% | 233.16 | 0.50% | 492.75 | 1176.72 |
| Achievement | 0.001% | 1.13 | 0.01% | 10.89 | 0.03% | 27.74 | 0.21% | 211.00 | 250.76 |
| (Surplus) / Shortfall | 0.249% | 212.26 | 0.239% | 226.53 | 0.220% | 205.42 | 0.286% | 281.75 | 925.96 Shortfall |
| <u>Non-Solar RPO</u> | | | | | | | | | |
| Target | 5.75% | 4908.05 | 6.75% | 6410.30 | 7.75% | 7228.00 | 8.50% | 8359.94 | 26906.29 |
| Achievement | 5.77% | 4926.42 | 7.14% | 6778.45 | 7.02% | 6543.11 | 7.69% | 7580.18 | 25828.16 |
| (Surplus) / Shortfall | -0.02% | -18.37 | -0.39% | -368.15 | 0.73% | 684.89 | 0.81% | 779.76 | 1078.13 Shortfall |
| <u>Mini/Micro Hydro RPO (Within Non-Solar)</u> | | | | | | | | | |
| Target | 0.10% | 4.91 | 0.10% | 6.41 | 0.10% | 7.23 | 0.20% | 16.75 | 35.27 |
| Achievement | 0.01% | 0.49 | 0.01% | 0.61 | 0.01% | 0.85 | 0.01% | 0.67 | 2.62 |
| (Surplus) / Shortfall | 0.09% | 4.42 | 0.09% | 5.80 | 0.09% | 6.38 | 0.19% | 16.05 | 32.65 Shortfall |

42. As will be seen from Table B above, MSEDCL has not fulfilled its Solar, Non-Solar and Mini /Micro Hydro Power RPO targets (within the Non-Solar RPO targets), cumulatively for past years or even those for FY 2013-14 alone.
43. In its Order dated 12 March, 2014 in Case No 180 of 2013, the Commission had ruled as follows:

“

- 27 *Regarding Solar RPO targets, the Commission has already dealt the same in the Order dated 24 December, 2012 [in Case No. 102 of 2012] wherein the Commission has allowed MSEDCL to cumulatively fulfil its Solar RPO targets by FY 2015-16.*
- 28 *The Commission allows carry forward of surplus Non-Solar RE power of 386.52 MU of FY 2010-11 and FY 2011-12 to FY 2012-13.*
- 29 *The Commission observed that MSEDCL has shortfall of 684.89 MU for FY 2012-13 in meeting their Non-Solar RPO targets. After considering the surplus of 386.52 MU of previous years, there is still a shortfall of 298.37 MU in FY 2012-13. The Commission allows MSEDCL to meet its Non-Solar RPO shortfall of 298.37 MU for FY 2012-13 in FY 2013-14 on cumulative basis.*
- 30 *Further, the Commission allows MSEDCL to meet its RPO target of Mini/Micro Hydro by FY 2015-16 on cumulative basis.*
- 31 *The Commission directs MEDA to undertake a detailed study to re-assess the realistic Capacity Utilisation Factor (CUF) for Wind power projects in the State with the help of reputed technical institutes within six months from the date of this Order.”*

A. Mini/Micro Hydro RPO

44. **The Commission notes the difficulties stated by MSEDCL in achieving its Mini / Micro Hydro RPO targets so far. Along the same lines as directed by the Commission in its earlier Order in Case No. 180 of 2013, MSEDCL may make up for the past shortfall, including the shortfall in FY 2013-14, by fulfilling its Mini/Micro Hydro RPO (32.65 MUs) targets on a cumulative basis by the end of FY 2015-16.**
45. **The Commission is not inclined to accept MSEDCL’s plea that it be allowed to make up for any persisting shortfall against its Mini/Micro Hydro RPO target by purchase of RECs in FY 2015-16 for the same reason as it had cited in earlier proceedings, namely that this would subvert the purpose of specifying a separate target for purchase of such power. However, considering the facts and circumstances, as in the past the Commission is of the view that imposition of Regulatory Charges is not called for in respect of the shortfall in FY 2013-14 either.**

B. Solar RPO

46. **There is a shortfall of 281.75 MUs in meeting the Solar RPO target for FY 2013-14. The Commission finds no merit in the justification put forward by MSEDCL for this shortfall. MSEDCL has taken the stand that it had decided (a) to purchase Solar power at the Commission’s preferential tariff (qualifying against its RPO) only from MSPGCL, but that capacity sufficient for meeting its RPO had not yet been commissioned by MSPGCL as expected; (b) from others at the APPC rate (thereby making them eligible for the REC mechanism), and also (c) from Solar**

generators within the framework of the bidding mechanism under Govt. schemes such as the JNNSM. Under the proviso to Regulation 7.2., neither (b) nor (c) count towards the RPO since such purchase is not at the Commission-approved rate. Thus, contrary to MSEDCL's contention that sufficient Solar power was not available, such power was available but not procured as per the RPO requirements. MSEDCL could also have purchased Solar RECs instead, but chose not to do so either even though sufficient Solar RECs were available at the Exchanges: the closing balance of Solar RECs at the end of March, 2014 was 3,46,872, i.e. equivalent to 346.872 MUs. In these circumstances, while the Commission has already allowed the cumulative shortfall of earlier years to be met by the end of FY 2015-16, the Commission cannot condone the shortfall against the Solar RPO target in FY 2013-14. However, MSEDCL may submit details of Solar power contracted/purchased under schemes such as JNNSM or at the APPC rate, and whether such projects have obtained RECs, when the Commission verifies its RPO compliance for FY 2014-15.

C. Non-Solar RPO (excluding Mini/Micro Hydro)

47. MSEDCL's Non-Solar RPO target for FY 2013-14 was 8359.94 MUs (excluding Mini/Micro Hydro RPO). In Case No. 180 of 2013, the Commission had allowed MSEDCL to meet its Non-Solar RPO shortfall of 298.37 MUs for FY 2012-13 in FY 2013-14. Hence, MSEDCL's cumulative Non-Solar RPO target for FY 2013-14 was 8658.31 MUs (8359.94 + 298.37). Of this, MSEDCL has procured 7580.18 MUs of Non-Solar RE (excluding Mini /Micro Hydro power) in FY 2013-14. Thus, there is a cumulative shortfall of 1078.13 MUs as at the end of FY 2013-14.
48. MSEDCL has stated that it has contracted adequately with RE (mainly Wind) Generators to fulfil its Non-Solar RPO targets upto FY 2015-16 on capacity basis; and that, considering normative CUF, sufficient generation could have been expected from them to enable MSEDCL to do so. However, the actual RE generation injected in energy terms (MUs) has been less than the expected generation considering the normative CUF. MSEDCL has contended that, since RE generators have not delivered as per the normative CUF, either the CUF projections should be revised, or the Generators must improve their efficiency. Alternatively, the RPO target compliance may be assessed on the basis of RE capacity contracted and not on the basis of the Units actually injected.
49. The Commission is of the view that, although MSEDCL has contracted adequately with RE Generators on capacity basis considering generation estimated at normative CUF, the inherent characteristics of RE sources have to be kept in view. Renewable sources dependent on natural phenomena like wind are intermittent by nature. The predictability of generation from these RE sources has certain limitations. Considering these limitations and other factors, the Commission has specified the REC mechanism as an alternative for fulfilling RPO targets. The Regulations provide for resort to the REC mechanism when MSEDCL finds that RPO targets are unlikely to be fulfilled because actual energy injection is less than

had been estimated. The compliance of RPO targets cannot be based merely on contracted RE capacity, as suggested by MSEDCL.

50. In this background, the Commission notes that the closing balance of Non-Solar RECs by the end of March, 2014 was 55, 15,639, i.e. equivalent to 5515.639 MUs. However, even though sufficient Non-Solar RECs were available, MSEDCL has not purchased any RECs to fulfill its RPO target for FY 2013-14 and earlier years. The Commission cannot, therefore, condone this default by MSEDCL.
51. In its Order dated 12 March, 2014 in Case No. 180 of 2013, the Commission had directed MEDA to undertake a study for assessment of realistic CUF as follows:

“21. The Commission is of the view that for realistic planning of contracting Renewable Energy for meeting RPO, realistic CUF plays vital role. In case there is large variation in CUF calculated by the MEDA and actual CUF achieved by Renewable Energy generators then it certainly affects the planning of Distribution Licensees. Hence the Commission directs MEDA to undertake a detailed study to re-assess the realistic Capacity Utilisation Factor (CUF) for Wind power projects in the State with the help of reputed technical institutes within six months from the date of this Order.”

MEDA has not submitted its study report so far. MEDA should intimate to the Commission the present status of the study, when it is expected to be ready, and the reasons for the delay.

RPO Regulatory Charges

52. In its Judgment dated 20 April, 2015 in O.P. No. 1 of 2013, IA No. 291 and IA No. 420 of 2013, O.P. No. 2 of 2013 and O.P. No. 4 of 2013, the ATE has given the following among other directions to the Regulatory Commissions regarding RPO compliance:

“28. In view of above discussions, we deem it appropriate to give directions to the State/Joint Commissions with regard to implementation of Renewable Energy Regulations in their respective States. The Tribunal after considering the contentions of the petitioners and the State/Joint Commissions, Central Commission and MNRE gives the following directions to the State/Joint Commissions under Section 121 of the Act:-

...(ii) ...If the distribution licensee is not able to tie up procurement of renewable energy to meet the RPO target, it may plan to purchase RECs to meet its RPO target as per the provisions of the Regulations. Advance planning of REC purchase will give opportunity to the distribution licensees/other obligated entities to purchase REC when the market conditions are more favourable to them...

(iv) The State Commission shall give directions regarding, carry forward/review in RPO and consequential order for default of the distribution licensees/other obligated entities as per the RPO Regulations. If the Regulations recognise REC mechanism as a valid instrument to fulfill the RPO, the carry forward/review should be allowed strictly as per the provisions of the Regulations keeping in view of availability of REC. In this

regard the findings of this Tribunal in Appeal no. 258 of 2013 and 21 of 2014 may be referred to which have been given with regard to RE Regulations of Gujarat Commission but the principles would apply in rem. In case of default in fulfilling of RPO by obligated entity, the penal provision as provided for in the Regulations should be exercised...

(vi) The provisions in Regulations like power to relax and power to remove difficulty should be exercised judiciously under the exceptional circumstances, as per law and should not be used routinely to defeat the object and purpose of the Regulations."

This is also essentially in line with the earlier ATE Judgment dated 25 April, 2014 in Appeal No. 24 and IA No. 39 of 2013.

53. Regulation 12 of the RPO-REC Regulations empowers the Commission to deal with shortfalls in compliance of RPO targets as follows:

"12. RPO Regulatory Charges

12.1 If the Obligated Entity fails to comply with the RPO target as provided in these Regulations during any year and fails to purchase the required quantum of RECs, the State Commission may direct the Obligated Entity to deposit into a separate fund, to be created and maintained by such Obligated Entity, such amount as the Commission may determine on the basis of the shortfall in units of RPO, RPO Regulatory Charges and the Forbearance Price decided by the Central Commission; separately in respect of solar and Non-Solar RPO.

Provided that RPO Regulatory Charges shall be equivalent to the highest applicable preferential tariff during the year for solar or Non-Solar RE generating sources, as the case may be, or any other rate as may be stipulated by the State Commission.

Provided further that the fund so created shall be utilised, as may be directed by the State Commission."

54. In the light of the facts set out at paras. 46 to 50 above and the provisions of the RPO-REC Regulations, 2010, the Commission finds no justification or mitigating circumstances (except in case of Mini/Micro Hydro power) for MSEDCL's shortfall, inspite of RECs being available, against its Solar RPO target for FY 2013-14, and cumulative Non-Solar RPO shortfall of FY 2013-14 and previous years. This is, therefore, a fit case for applying Regulation 12 of the RPO-REC Regulations, as envisaged by the ATE.

55. Consequently, the Commission directs as follows:

- 1) MSEDCL shall constitute, within a month of this Order, a separate 'RPO Regulatory Charges Fund';
- 2) The Fund shall be utilised by MSEDCL to purchase Solar and Non-Solar RECs and/or to procure power so as to fully meet the shortfall against RPO targets (as determined at paras. 46 and 47 above) by the end of March, 2016, and the amounts deposited into the Fund shall be determined by MSEDCL accordingly over the remaining period of FY 2015-16;

- 3) **MSEDCL shall furnish a statement of the amounts deposited into the Fund and the purchase of RECs and/or actual power therefrom to MEDA every month;**
- 4) **MEDA shall report the position to the Commission with its comments every month.**
56. **If the REC floor prices (Rs. 1500/MWh for Non-Solar and Rs. 3500/MWh for Solar) are considered, and if only RECs are purchased, a minimum of Rs. 260.33 crore (Rs. 161.72 crore for Non-Solar + Rs. 98.61 crore for Solar) would have to be deposited into the Fund. However, while CERC has fixed the floor and forbearance prices of RECs, the actual rate at which they may be available at any given time is not known. Hence, the Commission has not specified the total amount to be deposited in the Fund in terms of a figure. Moreover, MSEDCL need not deposit into the Fund the entire amount estimated to be required in a lumpsum at the outset, but spread it over the remainder of the year depending on its assessment of the REC market and/or actual power procurement.**
57. **MSEDCL has asked that it not be compelled to procure RECs to fulfil the RPO target since it would burden consumers. If a penalty is levied for non-compliance of RPO, MSEDCL may be allowed to recover it from RE generators. The Commission clarifies that, considering the circumstances set out in this Order which have led to it invoking the provisions of Regulation 12, the expenditure on purchase of RECs and/or actual power procurement from the Fund shall not be passed through to consumers to the extent of the shortfall not met by MSEDCL by the end of FY 2015-16.**

The proceedings of Case No. 190 of 2014 stand concluded accordingly.

**Sd/-
(Deepak Lad)
Member**

**Sd/-
(Azeez M. Khan)
Member**

**Sd/-
(Chandra Iyengar)
Chairperson**

ANNEXURE 1

A] List of persons who submitted written comments/suggestions or made oral submissions during the Public Hearing

1. MSEDCL
2. MEDA
3. Hydro Power Association (India)
4. Four Eyes Research (P) Ltd.
5. Power Exchange India Limited
6. Maharashtra Veej Grahak Sanghatana, Ichalkaranji, Dist. Kolhapur.

B] List of persons who attended the Public Hearing:

1. Shri. Abhijit Deshpande, MSEDCL
2. Shri Ram Dutonde, MSEDCL
3. Shri. P. H. Jambhulkar, MSEDCL
4. Shri. N. P. Jagaldas, BEST
5. Shri. M. M. Davare, BEST
6. Shri. V. K. Rokade, BEST
7. Shri. K. P. Khodke, BEST
8. Ms. Swati Mehendale, TPC-D
9. Shri. Bhaskar Sarkar, TPC-D
10. Shri. R. M. Ranade, TPC-D
11. Shri. Ghansham Thakkar, RInfra-D
12. Shri. Kishor Patil, RInfra-D
13. Dr. J. V. Torane, MEDA
14. Shri. Sugam Sangole, MEDA
15. Shri. Mahesh Vipradas, Indian Wind Energy Association (IWEA)
16. Shri. D. S. Kulkarni, Hydro Power Association (India)
17. Shri. Jayant Kulkarni, MSLDC
18. Shri. K. D. Daware, MSLDC
19. Shri. T. P. Vartak, Four Eyes Research (P) Ltd.
20. Shri. Anil Kale, PXIL
21. Shri. Prabhakar Narkar, Maharashtra Veej Grahak Sanghatna, Ichalkaranji, Kolhapur.
22. Shri Gautam Chopra, Bothe Windfarm Development Pvt. Ltd.
23. Shri. Harshad Gavkar, Bothe Windfarm Development Pvt. Ltd.
24. Shri. Jagdish F., Shalivahana Group