



MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

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Ref: SE / TRC / Z-20 / 6876

Date: 05/03/2010

To
The Secretary,
Maharashtra Electricity Regulatory Commission,
13th Floor, World Trade Centre,
Cuffe Parade, MUMBAI-400 005

Subject: Data Gaps in the matter of petition filed by MSEDCL for determination of Reliability Charge for withdrawal of load shedding in the District Headquarters of MSEDCL License area (MERC Case No. 110 of 2009).

Ref:

1. MERC Email dated 4th March 2010
2. Petition for determination of Reliability Charges for withdrawal of Load Shedding in the District Head Quarters vide Petition no. SE/TRC/Z-20/5204 dated 18th February 2010 – Case no. 110 of 2009.
3. Addendum to the Petition filed to the Hon'ble Commission dated 25th February 2010.
4. Technical Validation Session held on 3rd March 2010;

Respected Sir,

MSEDCL is herewith filing the required additional data as directed by the Hon'ble Commission during the Technical Validation Session (TVS) held on 3rd March 2010 in relation to the petition submitted by MSEDCL for determination of Reliability Charges for withdrawal of Load Shedding in the District Head Quarters dated 18th February 2010.

It is submitted that the further regulatory process in this regard may please be expedited, so that the proposal can be implemented and the consumers situated under the District Head Quarters can be given relief in Load Shedding.

Thanking you,

Yours faithfully,

Sd
Executive Director (Commercial)
MSEDCL

Encl: As above.

BEFORE THE MAHARASHTRA ELECTRICITY REGULATORY COMMISSION, MUMBAI

FILING NO.

CASE NO.

IN THE MATTER OF

Submission of Data Gaps in the matter of Petition (Case no. 110 of 2009) for determination of Reliability Charges for withdrawal of Load Shedding in the District Head Quarters

I, Shri. **Abhijit Deshpande**, Aged 44 years, son of **Shri. Jayant Deshpande**, having my office at MSEDCL, Prakashgad, Plot No.G-9, Anant Kanekar Marg, Bandra (E), Mumbai-400051 do solemnly affirm and say as follows:

I am Executive Director (Commercial) of Maharashtra State Electricity Distribution Co. Ltd., the petitioner in the above matter and am duly authorized to make this affidavit.

All the other necessary details as specified in the attached submissions are based on the information received from the concerned officers of the Company and I believe them to be true.

I say that there are no proceedings pending in any Court of Law / Tribunal or Arbitrator or any other authority, wherein the Petitioners are the Party and where the issues arising and / or relief sought are identical or similar to the issues arising in the matter pending before the Commission.

I solemnly affirm at Mumbai on this 5th March 2010, that the contents of this affidavit are true to my knowledge, no part of it is false and nothing material has been concealed there from.

Sd

Executive Director (Commercial)
MSEDCL

Identified before me

- I. MSEDCL has filed a petition dated 18th February 2010, proposing implementation of Zero Load Shedding model for the area covered under District Headquarters, and for approval of Reliability Charges to be recovered thereof and for compensating the expenditure that would be incurred for procurement of power necessary to mitigate Load Shedding (LS) in the District Head Quarters.
- II. MSEDCL submits that as envisaged in the “roadmap for reduction of load shedding” and as a next step towards the phase – wise reducing / eliminating Load Shedding in the State, MSEDCL now proposes to withdraw load shedding of District Head Quarters against recovery of “Reliability Charge” from the beneficiary consumers.
- III. MSEDCL has planned to implement the plan of reducing / eliminating Load shedding of District Headquarters based on the methodology to identify the Group, as per the Hon’ble Commission order dated 20th June 2008 alongwith Head Quarter of Revenue Division at Nasik as was proposed in Case no. 31/2009.
- IV. Considering the implementation on group wise basis, initially MSEDCL proposes to restrict the scheme of withdrawal of load shedding to such District Head Quarters having DCL group up to “D” only (i.e. Group A, B, C and D), however excluding Revenue Head Quarter of Nashik and intends to extend the scheme to other areas also on a gradual time period.
- V. As specified in the petition, MSEDCL submits that for implementation of Zero Load Shedding scheme of District Head Quarters, the Hon’ble Commission may, instead of directing MSEDCL to independently procure additional power as may be required for withdrawal of load shedding from the District Head Quarters, permit MSEDCL to continue power procurement process in normal manner and may further permit to allocate the costly power according to merit order dispatch for withdrawal of load shedding from the District Head Quarters.
- VI. The assumptions submitted for calculation of Reliability Charges are as outlined in the following Table:

Table 1: Summary of Assumptions

Particulars	Assumptions
Sales	<ul style="list-style-type: none"> • Sales considered on Yearly basis; • No Seasonal Variation considered;
Load Shedding Protocol	<ul style="list-style-type: none"> • Scenario IV – Circular No.29 dated 31.12.09
Effective Days of Load Shedding	<ul style="list-style-type: none"> • 100% - for assessing MWh requirement

<u>Particulars</u>	<u>Assumptions</u>
Power Purchase Rate	<ul style="list-style-type: none"> Allocation Basis – Most expensive power (e.g. RGPPL Power at Rs. 4.42 /kWh);
Category Exempted	<ul style="list-style-type: none"> BPL Consumers; Agricultural Consumers; All Express feeders consumers like Railway Traction, Industry, PWW;
Growth Rate	<ul style="list-style-type: none"> 5.23% - T.O. 17th August 2009;
Transmission Losses	<ul style="list-style-type: none"> 4.85% - T.O. 28th May 2009;
Distribution Loss	<ul style="list-style-type: none"> 20.98% - Estimated for FY 09-10
Average Billing Rate	<ul style="list-style-type: none"> Rs. 4.32 / kWh – T.O. 17th August 2009* (* - Subject to reconciliation to ensure recover of power purchase expenses for beneficiaries consumers only)

VII. Technical Validation Session was held by the Hon'ble Commission on 3rd March 2010 whereby a detailed discussion was carried out with representatives of MSEDCL and Consumer representative. The Hon'ble Commission has appreciated the action taken by MSEDCL to mitigate the load shedding and has directed MSEDCL to submit the additional data required in relation to the referred petition.

VIII. Therefore, MSEDCL in compliance of the direction of the Hon'ble Commission is hereby submitting the additional data in a point wise manner as outlined below:

1. **Data on Monthly Demand ~ Supply gap in MW in the state over the following time-periods:**

Reply:

The demand supply gap data for the state for the following time period is attached as **Annexure A:**

- Past 12 months – January 2009 to December 2009.
- 12 months from January 2010 to December 2010 (Actual & Projected, as applicable)
- 6 months period from January 2011 to June 2011 (Projected)

It is submitted that about 500 MW of Chandrapur Power Plant is not considered in April 2010 and May 2010 as the same will be under outage due to water scarcity issue. Also, a worst case scenario has been considered whereby, it is assumed that the rainfall will be available in Maharashtra in first week of July 2010 and

therefore, due to water scarcity possibly, the whole plant (installed capacity 2340MW) will be out of operation and would not be available for generation.

2. **The % DCL (weighted average distribution loss and collection efficiency level) for all the District Headquarters for last one year (4 quarters) in the format specified below:**

Reply:

It is submitted that the detailed calculation of DCL % is computed on yearly basis and not on quarterly basis.

In view of this MSEDCL is submitting that the %DCL (weighted average distribution loss and collection efficiency level) for all the District Headquarters for last one year (4 quarters) in the format as specified by the Hon'ble Commission is attached as **Annexure B**.

3. **The coverage of the ZLS schemes in a phased manner in the format specified below:**

Reply:

MSEDCL submits that, given the constraints of the availability of power, MSEDCL proposed to withdraw the load shedding in a phased manner for the benefits of the consumers. MSEDCL has taken the initiative and explored the options for giving power supply on a continuous basis to the growth centres, economic driving engines in the State of Maharashtra and the other beneficiary consumers. It is also submitted that, the withdrawal of load shedding has already been initiated from the December 2009 for Revenue Headquarters and currently, the petition is filed for area to be covered under District Headquarters whereby the consumers specified in the given area will be benefitted by way of withdrawal of load shedding.

This ZLS schemes are in addition to the overall reduction of Load Shedding throughout the state as the requisite quantum of power becomes available to MSEDCL. Thus, overall reduction in load shedding in the state will also commence during 2010-11, after stabilization of the generating stations which are in the phase of declaration of Commercial operation.

The coverage of the ZLS schemes in a phased manner in the format specified by the Hon'ble Commission is attached as **Annexure C**.

Also, the Hon'ble Commission has expected the similar information in respect of Municipal Corporation area, Taluka Headquarters, etc. In this regard, it is submitted that, such specific information is not readily available and MSEDCL shall ensure that whenever MSEDCL approaches the Hon'ble Commission for further extending the scope of Zero Load Shedding (ZLS) Scheme, the desired information will be submitted in the same petition.

4. **Extent of Overlap, if any, between the various groups listed above, i.e. Headquarters of Revenue Divisions, District Headquarters, Municipal Corporation Areas, Other Areas having National and regional significance, and Taluka Headquarters, to be depicted in % terms.**

Reply:

The present proposal is restricted to the implementation of Zero Load Shedding (ZLS) Scheme upto District Headquarters only and all the Revenue Division Headquarters i.e. Amravati, Nagpur, Aurangabad, Pune, Navi Mumbai / Thane and also Nashik are the District Headquarters also. So in case of Revenue Headquarters, there will be 100% overlapping in District Headquarters.

Whenever, MSEDCL will approach the Hon'ble Commission for extending the scope of ZLS, overlapping of Municipal Corporation areas and Taluka Headquarters will be identified and submitted to the Hon'ble Commission.

5. **Documentary evidence that the consumers of Nashik are seeking introduction of the proposed model to mitigate load shedding**

Reply:

The same is attached as per **ANNEXURE D** of this submission.

6. **Calculation of Reliability Charges for Nashik based on the present scenario of PPLS.**

Reply:

The load requirement and calculation of Reliability Charges (i.e. 51 paise per unit) for Nashik as per Scenario IV is enclosed as **Annexure E**.

7. **In page no.12 of petition, MSEDCL has stated that the effective days of load shedding is 80%, whereas in the calculation submitted on 25/02/2010, the same has been considered as 100%. MSEDCL should clarify the percentage of effective days of load shedding, with justification of the same.**

Reply:

It is submitted that due to oversight, the effective days of load shedding submitted in the petition is 80%. The effective days of load shedding considered by MSEDCL for determination of reliability charges is 100% and MSEDCL request the Hon'ble Commission to condone this error.

Also, though the effective days of load shedding was considered as 80% for assessing the MWh requirement during the calculation of Reliability charges for Revenue headquarters, it is humbly submitted that the same was considered due to the reason that the power was to be procured from the other sources. However, in the given petition, MSEDCL is continuing to procure power as it normally does and then allocate the same. Therefore, 100% of the power needs to be considered for assessing the MWh requirement for withdrawal of load shedding. In line with the above submission, MSEDCL request to consider 100% effective day of load shedding for assessing the MWh requirement.

8. **The rationale for considering the distribution losses as 20.98% in the petition when the approved distribution loss for FY 2009-10 is 18.2% and other parameters like ABR, etc have been taken from the tariff order in case no. 116 of 2008 dated August 17, 2009**

Reply:

The Hon'ble Commission has determined the tariff for FY 2009-10 on the basis of the Distribution loss levels of 18.2%. However, MSEDCL has considered the estimated distribution loss of 20.98% for calculation of the reliability charges. It is submitted that the entire scheme of ZLS relies on MSEDCL to be Revenue Neutral. In case, the distribution loss as approved by the Hon'ble Commission is considered, it is obvious that MSEDCL would suffer Revenue Loss or whenever the reconciliation process will be carried out on the basis of actual distribution loss, the consumers would be burdened on account of difference in loss levels. In the proposal already under implementation, the revenue estimation is based on the estimated loss level and subsequently at the time of reconciliation, the actual loss

level is considered for determining the near to accurate reliability charges to be recovered from the beneficiary consumers.

It is submitted that, if estimation of reliability charges are based on distribution loss of 18.20%, the beneficiary consumers may be required to pay a considerable additional reliability charges after reconciliation. It may therefore happen that, the beneficiary consumers at that stage may agitate the levy of additional reliability charges, which were not projected in the present proposal. Also the loss levels are likely to be around 20.98% only.

In view of the above, it is earnestly submitted that the Hon'ble Commission may please consider the estimated distribution loss to ensure near to accurate reflection of the Reliability charges payable by the beneficiary consumers.

9. **The method of mitigating load shedding in District Headquarters without affecting the prevailing PPLS to the consumers situated in other areas in case of increase in demand~Supply gap.**

Reply:

MSEDCL is concerned about the load shedding in the State and the problems caused by the same to its consumers. MSEDCL is aware about the future power requirement (Estimated) and has accordingly arranged to tie-up appropriate sources of power to maintain the demand ~ supply gap. However, in case of any abnormal and unexpected variation in either demand or supply, MSEDCL will first ensure to maintain the prevailing PPLS and as be required, may procure additional short term power for maintaining Zero Load Shedding of District Headquarters. In case of emergency such necessary steps will be taken under intimation to the Hon'ble Commission.

10. **The rationale for consideration of the ABR of the entire state instead of ABR of respective area, since ABR of the state includes sale to agricultural category.**

Reply:

The Hon'ble Commission has suggested MSEDCL to consider the region specific loss and Average Billing Rate for calculation of Reliability Charges. MSEDCL submits that the current petition submitted for withdrawal of load shedding in District Headquarter is a first step towards uniform approach whereby the consumers under similar group will be paying uniform reliability charges.

Therefore, a region specific loss and average billing rate is difficult to derive as the same are scattered and cities within the similar group may have a different distribution losses and ABR. To avoid such perplexity in the calculation of losses and ABR, MSEDCL has proposed the state specific distribution losses and ABR which will be similar for every consumer under District Headquarters irrespective of the group they fall in. The Reliability charges will differ for the consumer based on the group it belongs only due to the reason of the requirement of load and the consumption in the given area. This will also nullify any discrimination among the various categories of consumers within the different group. Therefore, MSEDCL submits that rather than considering the region specific losses and ABR, the Hon'ble Commission may consider the State wise average distribution losses and ABR for calculation of reliability charges, which would be more appropriate since it will avoid discrimination in rate of reliability charges to the large extent.

11. **Impact of proposed methodology for recovery of Reliability Charge for Gadchiroli region should be clearly shown in the calculations, so that the increase in Reliability Charge for respective groups is clearly brought out.**

Reply:

The Hon'ble Commission has directed to treat the Gadchiroli District as a separate division for the purpose of calculation of reliability charges and expects that impact of the additional cost of power allocated to Gadchiroli District, which is included in estimation of reliability charges to the other respective beneficiary consumers of DCL group "B", "C" and "D" should be shown separately. However, it is submitted by MSEDCL that considering Gadchiroli District for withdrawal of load shedding is due to the reasons that it is being badly affected naxalite area. Also, Central Government are considering to take immediate steps to curb down the naxalism in the affected area and develop such area for the benefits of the people over there. In line with the same principle, MSEDCL submits that Gadchiroli needs to be considered for withdrawal of load shedding and the reliability charges need not be collected from the consumers in the given district but may be passed on to the other respective beneficiary consumers of DCL group "B", "C" and "D".

12. **Additional Scenario to be submitted by considering the standard methodology approved by the Hon'ble Commission for implementation of ZLS schemes in the State:**

Reply:

Based on the road map for ZLS implementation, this petition proposed District Head Quarters in categories of A, B, C & D only. Further to work out reliability charges, the cities in the particular DCL Group has been clubbed to insulate the factors beyond the control of MSEDCL and the consumers. These factors are city specific ABR [which mainly depends on the consumer mix] and the city specific distribution losses. Thus, MSEDCL humbly submits that the commission may not insist for area wise ABR and area wise Distribution Losses Scenario.

13. **Uniform Approach:**

Reply:

MSEDCL agrees with the Hon'ble Commission that there should be a uniform reliability charge for all areas benefiting from ZLS but the same can be implemented only once the concepts gets matured to sustain. Currently ZLS scheme is at an initial stage and as MSEDCL progresses on its roadmap and going forward all region can be clubbed to have an uniform approach, as suggested by the Hon'ble Commission.

14. **Inclusion of Pen Area:**

Reply:

In the petition dated 18th February 2010, MSEDCL has not considered the Headquarter of District Raigad i.e. City of Alibaug, since the said District Headquarter is presently enjoying ZLS under Hon'ble Commission order dated 15th June 2009 in Case No. 143 of 2008. However, the said order will be operative only upto 31st March 2010 and view of this MSEDCL desires to include the Headquarter of District Raigad, i.e. city of Alibaug in the present proposal and has accordingly re-estimated the reliability charges payable by beneficiary consumers of DCL Group "A" since the city of Alibaug is categorised as DCL Group "A" City. It is submitted that even after including the Alibaug into DCL Group "A" for calculation of Reliability Charges, due to low load requirement of 4 MW only, there is no change in the estimated reliability charges to be payable by Group "A" beneficiary consumers. The details are enclosed as per **Annexure F**.

15. **Interim Relief**

As submitted in the technical validation session on 3rd March 2010, MSEDCL earnestly requests the Commission to give a favorable dispensation before onset of summer. This early decision will alleviate the hardship of consumers of the

District Head Quarters covered in this proposal and will also send strong economic signal which will be beneficial for development of Maharashtra. MSEDCL is fully aware of the regulatory process and requests MERC to exercise its power under Section 94 (2) of the Electricity Act, 2003 to pass an interim order in case the Hon'ble Commission is not inclined to pass final order, due to such a short span of time. The direction/ decision of the Commission under the interim order will be subject to modification based on the final dispensation/ order of the petition. The said interim order may please consider implementing ZLS in the District Head Quarter proposed to be covered with effect from 1st April 2010. The Commission may please approve the following reliability charges for the period in the interim order is in force.

GROUP	Reliability Charge paise per unit
A	22
B	37
C	40
D	47
Nashik	51

Prayer:

On the basis of submissions made in the foregoing paragraphs, MSEDCL respectfully requests the Hon'ble Commission to admit the addendum to the Petition and to grant following prayers:

- a. To undertake the approval process for the petition cited above, along with this addendum at the earliest;
- b. The Hon'ble Commission may be pleased to permit MSEDCL to implement withdrawal of load shedding in the District headquarters in Group A, B, C and D including Alibaug which was not previously included in the Petition;
- c. The Hon'ble Commission may be pleased to permit MSEDCL to implement withdrawal of Load Shedding in Nashik Revenue Head Quarters on the same principles as proposed in Case No. 31 of 2009.
- d. The Hon'ble Commission may be further pleased to approve the determination of Reliability Charge for the above areas as proposed by MSEDCL based on the allocation of costliest power;
- e. The Hon'ble Commission may determine a ceiling rate for procurement of power purchase on a yearly basis, beyond which the power is not to be allocated for the beneficiary area;
- f. The Hon'ble Commission may be pleased to allow exemption for the consumers situated in the full district of Gadchiroli from payment of Reliability Charge and may also permit to pass on the burden of Reliability Charge of Gadchiroli District on the

beneficiary consumers situated in other District Head Quarters in respect to the group they belong to having DCL rating as "B", "C" and "D" or alternatively such burden may be allowed as a pass through in ARR;

- g. The Hon'ble Commission may approve implementation of such model for the period one year from the date of issue of the order and thereafter;
- h. The Hon'ble Commission may permit a detailed reconciliation of all costs and recovery of any shortfall on a quarterly basis whereby the reconciliation will have to factor in full recovery of power purchase cost irrespective of the additional consumption against additionally procured power for ZLS or otherwise;
- i. The Hon'ble Commission may consider the above proposal for a favourable dispensation;
- j. The Hon'ble Commission may allow to implement normal Load Shedding as per existing PPLS to all Agricultural and Rural feeder in these areas;
- k. The Hon'ble Commission may pass an interim order for implementation of ZLS in District Head Quarters with effect from 1st April 2010 and also allow the Reliability Charges as follows, including Reliability Charges at the rate of 51 paise/ unit for Revenue headquarter of Nashik.

GROUP	Reliability Charge paise per unit
A	22
B	37
C	40
D	47

The Reliability Charge as above to be charged in the interim period and subject to modification based on the final decision.

- l. The Hon'ble Commission may condone errors/omission, if any, and may please give an opportunity to rectify the same and to file additional data, information as may be required.

Deponent

Sd

Executive Director (Commercial)

MSEDCL

ANNEXURE A: Data on Monthly Demand~Supply gap in MW in the state over the following time-periods:

- **Past 12 months – January 2009 to December 2009.**

Table 2: Demand~Supply Gap from January 2009 to December 2009.

2009-2010			
	Demand	Availability	Short fall*
Jan-09	14926	10151	4775
Feb-09	15272	11010	4262
Mar-09	15332	11536	3796
Apr-09	15195	11325	3870
May-09	15304	11179	4125
Jun-09	14387	11175	3212
Jul-09	13044	10317	2727
Aug-09	15171	11384	3787
Sep-09	14800	11598	3202
Oct-09	15572	11714	3858
Nov-09	15988	11883	4105
Dec-09	15386	11713	3673

*Peak shortfall on a particular day

- **12 months from January 2010 to December 2010 (Actual & Projected, as applicable)**

Table 3: Demand~Supply Gap from January 2010 to December 2010.

2010				
	Remarks	Demand	Availability	Short fall*
Jan-10	Actual	15494	11758	3736
Feb-10	Actual	16036	11822	4214
Mar-10	Projected	15835	11671	4164
Apr-10	Projected	16000	11580	4420
May-10	Projected	16100	11680	4420
Jun-10	Projected	15600	9670	5930
Jul-10	Projected	15400	11700	3700
Aug-10	Projected	16100	12400	3700
Sep-10	Projected	16100	13000	3100
Oct-10	Projected	16800	13700	3100
Nov-10	Projected	16800	13700	3100
Dec-10	Projected	16800	13500	3300

*Peak shortfall on a particular day

#-It is estimated that the average shortfall will be ~3500 MW

##- Availability is subject to the commissioning of the plants in time and their stability.

- **6 months period from January 2011 to June 2011 (Projected)**

Table 4: Demand~Supply Gap from January 2011 to June 2011

2011			
	Demand	Availability	Short fall
	Projected		
Jan-11	16900	13800	3100
Feb-11	17200	14400	2800
Mar-11	17200	14600	2600
Apr-11	17400	14700	2700
May-11	17200	14600	2600
Jun-11	17000	14600	2400

*Peak shortfall on a particular day

ANNEXURE B: Detailed calculation of DCL % for District Headquarters

Sr. No.	City	Jan08 to Dec08		April-08-March09		July08-June09		Oct-08-Sept-09		Other region /AG dominated
		% DCL	Group	% DCL	Group	% DCL	Group	% DCL	Group	
1	Kolhapur	13	A	13	A	14	A	13	A	Other region
2	Sangli	15	A	14	A	14	A	14	A	Other region
3	Alibag					8	A	9	A	Other region (Less Ag. Dominated)
4	Solapur	23	B	23	B	22	B	22	B	Other region
5	Ratnagiri	27	B	25	B	24	B	24	B	Other region (Less Ag. Dominated)
6	Sindhudurg	24	B	26	B	24	B	25	B	Other region (Less Ag. Dominated)
7	Chandrapur	15	A	22	B	23	B	26	B	Other region(Nax)
8	Wardha	18	A	21	A	25	B	24	B	Ag. Dominated
9	Brahmapuri Division - Gadchiroli	33	C	28	B	27	B	28	B	Other region (Nax)
10	Ahmednagar	33	C	31	C	26	C	26	C	Ag. Dominated
11	Bhandara	28	B	30	C	29	B	30	C	Ag. Dominated
12	Satara	26	B	31	C	32	C	30	C	Ag. Dominated
13	Buldhana	32	C	32	C	35	C	33	C	Ag. Dominated
14	Gadchiroli Divison	38	D	38	D	37	C	37	C	Other region (Nax)
15	Latur	45	D	40	D	37	C	40	D	Ag. Dominated
16	Akola	40	D	40	D	40	D	38	D	Other region
17	Washim	36	C	36	C	42	D	40	D	Ag. Dominated
18	Nanded	47	E	42	D	42	D	42	D	Ag. Dominated
19	Yavatmal	41	D	41	D	41	D	43	D	Ag. Dominated
10	Allpalli Division - Gadchiroli	27	B	31	C	32	C	38	D	Other region (Nax)

ANNEXURE C: Coverage of ZLS Schemes

Headquarters of Revenue Division Areas

Sr. No	Particulars	No. of Consumers	Energy in MU	Shadable Load in MW	Total Load of the divisions covering ZLS Area	Demand-Supply Gap (MW Requirement)	Hours
I	Headquarters of Revenue Division areas						
1	Nagpur	477598	86.12	219.45	405.36	57.00	12.00
2	Amravati	117237	16.17	42.65	60.75	12.00	12.00
3	Pune	1315381	341.73	712.33	894.40	135.00	12.00
4	Thane	518135	137.81	317.61	369.40	68.00	12.00
5	Vashi	516134	174.00	427.14	664.12	81.00	12.00
6	Aurangabad	210851	64.77	223.09	278.59	55.00	12.00
7	Nashik	477598	62.11	168.95	260.11	47.00	12.00
	Total	3632934	882.71	2111.22	2932.73	455.00	

As proposed in the earlier petition dated 15th June 2009, the Power requirement at the transmission periphery for Nashik Headquarters considering Scenario II of the existing PPLS was 39 MW and 0.46 MU's. However, due to objections and the rejection by the participants in the Public Hearing process, the same was not approved by the Hon'ble Commission.

However, considering the request from the majority of the consumers / Consumers organization of Nashik, MSEDCL requests the Commission to reconsider Nashik Region for withdrawal of Load shedding and have recalculated the Power requirement based on Scenario IV of the existing PPLS which is estimated to be 47 MW and 0.56 MUs.

Details of District Headquarters

Sr. No.	Particulars	No. of Consumers	Energy in MU	Shadable Load in MW	Total Load of the divisions covering ZLS Area	Demand-Supply Gap (MW Requirement)	Hours
II	District Headquarters						
1	Kolhapur	146299	29.12	44.38	73.58	4.85	24
2	Sangli	108027	7.24	56.51	61.16	6.37	24
3	Solapur	151628	23.94	74.50	89.12	10.59	24
4	Ratnagiri	188070	5.27	10.44	52.95	1.53	24
5	Sindhudurg	107756	0.22	1.60	17	2.4	24
6	Chandrapur	100952	13.25	54.60	153.96	9.09	24
7	Wardha	100572	5.49	22.71	170.36	2.42	24
8	Brahmapuri Divison - Gadchiroli	50776	2.90	18.52	20.02	2.84	24
9	Ahmednagar	136942	20.79	67.33	224.25	10.19	24
10	Bhandara	117993	2.95	6.71	119.08	1.55	24
11	Satara	147966	7.82	31.44	71.33	3.45	24
12	Buldhana	108714	2.07	7.41	127.98	1.38	24
13	Gadchiroli Division	56220	5.42	31.82	31.82	5.71	24
14	Latur	109802	9.37	31.70	67.85	6.09	24
15	Akola	89384	14.27	57.80	70.85	11.51	24
16	Washim	131161	1.70	8.27	92.58	1.62	24
17	Nanded	96724	17.32	75.09	171.7	15.35	24
18	Yavatmal	124575	6.38	18.82	65.73	3.73	24
19	Allapali Divison - Gadchiroli	36764	4.30	14.48	22.13	3.17	24
20	Alibag	99811	1.33	4.00	351.07	0.48	24
	Total	2210136	181.15	638.13	2054.10	104.32	

*-Average energy in MU's is considered excluding express feeder and BPL.

ANNEXURE D – Documentary evidence from consumers of Nashik

ANNEXURE E – Load requirement and calculation of power as per Load Shedding Protocol IV for NASHIK

1. For Nashik Revenue Headquarter

Power Requirement for Nashik Revenue Head Quarters

Requirement of Power to mitigate Load shedding in District HQ as Per Scenario-IV Circular 29 dt. 31.12.2009											
Sr. No.	City	Division	% DCL	Group	Average load of Urban feeder	LS Hours as per Scenario-IV Circular 29		Average load of MIDC/ Industries having one day staggering	LS Hours as per Scenario-IV		Total MWH
					MW	LS Hrs.	MWH	MW	LS Hrs.	MWH	MWH
1	Nashik	Nashik U- I	16	A	54.80	2.75	150.70	49.00	2.29	112.21	262.91
		Nashik U- II	27	C	61.00	4.25	259.25	4.15	2.29	9.50	268.75
					115.80		409.95	53.15		121.71	531.66
		MW Requirement for 12 hrs at Dist. Periphery			MWH Requirement		410			122	532
					MW Requirement		34			10	44
		MW requirement at MSETCL Peripheri (Trns. Loss 4.85%)			MWH Requirement		431			128	559
					MW Requirement		36			11	47
					MW requirement for Urban	36	MW for 12 hrs		Mu requirement for Urban	0.43	Mus per day
					MW requirement for stagg.	11	MW for 12 hrs		Mu requirement for Stagg	0.13	Mus per day
					Total MW requirement	47	MW for 12 hrs		Total Mu requirement	0.56	Mus per day

Calculation of Reliability Charges for Nashik

Particulars	Rate	Assump	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	
Days			30	31	30	31	31	30	31	30	31	31	28	31	
Power purchase rate at State Boundary	Rs./kWh	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	6.75	
Energy requirement in MW	MW	44	44	44	44	44	44	44	44	44	44	44	44	44	
Hours usage	Hrs	12	12	12	12	12	12	12	12	12	12	12	12	12	
MUs required to mitigate load shedding per day (shadable) considering 80% consumption on average basis	Hrs	80%	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	9.60	
MWh requirement	MWh		425	425	425	425	425	425	425	425	425	425	425	425	
MU requirement per day	MU		0.425	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	
Consumption in MU excluding Expees feeder and BPL, considering CAGR	MU	65.36	65	65	65	65	65	65	65	65	65	65	65	65	850
Monthly support at Dist end in MU	MU		12.76	13.19	12.76	13.19	13.19	12.76	13.19	12.76	13.19	13.19	11.91	13.19	
Distribution loss	MU	11%	1.43	1.47	1.43	1.47	1.47	1.43	1.47	1.43	1.47	1.47	1.33	1.47	
Additional sales after accounting dist	MU		11.33	11.71	11.33	11.71	11.71	11.33	11.71	11.33	11.71	11.71	10.58	11.71	
Net units reqd for sale to consumers	MU		76.70	77.07	76.70	77.07	77.07	76.70	77.07	76.70	77.07	77.07	75.94	77.07	922.23
MW requirement at T<->D interface (add trans. loss of 4.85%)	MW	4.85%	46.56	46.56	46.56	46.56	46.56	46.56	46.56	46.56	46.56	46.56	46.56	46.56	
Monthly support after losses in MU	MU		13.41	13.86	13.41	13.86	13.86	13.41	13.86	13.41	13.86	13.86	12.52	13.86	
Power Purchase cost	Rs.Cr.		9.05	9.35	9.05	9.35	9.35	9.05	9.35	9.05	9.35	9.35	8.45	9.35	110.13
Reduction in purchase cost due to additional sale @ Rs/unit	Rs.Cr.	4.59	5.20	5.37	5.20	5.37	5.37	5.20	5.37	5.20	5.37	5.37	4.85	5.37	63.24
Actual burden of power purchase for mitigating load shedding	Rs.Cr.		3.85	3.98	3.85	3.98	3.98	3.85	3.98	3.85	3.98	3.98	3.60	3.98	46.89
Additional Supply charge per unit	Rs./kWh		0.50	0.52	0.50	0.52	0.52	0.50	0.52	0.50	0.52	0.52	0.47	0.52	0.51

ANNEXURE F – Power Requirement for Group A (including Alibaug)

Requirement of Power to mitigate Load shedding in District HQ as Per Scenario-IV Circular 29 dt. 31.12.2009											
Sr. No.	City	Division	% DCL	Group	Average load of Urban feeder	LS Hours as per Scenario-IV Circular 29		Average load of MIDC/ Industries having one day staggering	LS Hours as per Scenario-IV		Total MWH
					MW	LS Hrs.	MWH	MW	LS Hrs.	MWH	MWH
1	Kolhapur	Kolhapur (U)	13	A	20.00	2.75	55.00	24.35	2.29	55.66	110.66
2	Sangli	Sangli Urban	14	A	34.93	2.75	96.06	21.58	2.29	49.33	145.38
3	Alibaug	Alibag	9	A	4.00	2.75	11.00	0.00	2.29	0.00	11.00
					58.93		162.06	45.93		104.98	267.04
		MW Requirement for 24 hrs at Dist. Periphery			MWH Requirement		162			105	267
					MW Requirement		7			4	11
		MW requirement at MSETCL Periphery (Tms. Loss 4.85%)			MWH Requirement		170			110	281
					MW Requirement		7			5	11.69
					MW requirement for Urban	7	MW for 24 hrs		Mu requirement for Urban	0.17	Mus per day
					MW requirement for stagg.	5	MW for 24 hrs		Mu requirement for Stagg	0.11	Mus per day
					Total MW requirement	12	MW for 24 hrs		Total Mu requirement	0.28	Mus per day

Calculation of Reliability Charges for Group A (Including Alibaug)

All CITY - A GROUP																
Particulars	Legend	Units	Assumpti	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Total
				30	31	30	31	31	30	31	30	31	31	28	31	365
MW Requirement at Trans. periphery	a	MW	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	
Effective days of Load Shedding	b	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
MW Requirement at Trans. periphery considering load shedding	c=a*b	MW		11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	11.69	140.33
Hours Requirement	d	Hr	24	24	24	24	24	24	24	24	24	24	24	24	24	
MU's requirment per day at Transmission periphery	e = c*d	MU		0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	3.37
MU's requirment per month at Transmission periphery	f=e*30	MU		8.42	8.70	8.42	8.70	8.70	8.42	8.70	8.42	8.70	8.70	7.86	8.70	102.44
Power Purchase Rate	g	Rs/kwh	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	4.42	
Cost of Power Purchase	h=f*g	Rs. Crs		3.72	3.85	3.72	3.85	3.85	3.72	3.85	3.72	3.85	3.85	3.47	3.85	45.28
MUs at Dist. Periphery considering 4.85% Transmission Loss	i=f*(1-4.85%)	MU	4.85%	8.01	8.28	8.01	8.28	8.28	8.01	8.28	8.01	8.28	8.28	7.48	8.28	97.47
Distribution Loss of the region in the year 2009	j	%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	20.98%	
Mus Available for Sale	k=i*(1-j)	MU		6.33	6.54	6.33	6.54	6.54	6.33	6.54	6.33	6.54	6.54	5.91	6.54	77.02
Average Billing Rate for ZLS area	l	Rs/kwh	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	4.32	
Revenue from Additional Sale	m=k*l	Rs Crs		2.73	2.83	2.73	2.83	2.83	2.73	2.83	2.73	2.83	2.83	2.55	2.83	33.27
Balance PP cost to be recovered	n=h-m	Rs. Crs		0.99	1.02	0.99	1.02	1.02	0.99	1.02	0.99	1.02	1.02	0.92	1.02	12.00
Average Consumption Considering Growth Rate as above	o	MU	39.66	39.66	39.66	39.66	39.66	39.66	39.66	39.66	39.66	39.66	39.66	39.66	39.66	475.92
Total Consumption including additional sale	s=r+k	MU		45.99	46.20	45.99	46.20	46.20	45.99	46.20	45.99	46.20	46.20	45.57	46.20	552.94
Reliability Charges	t=n/s	Rs/ kwh		0.21	0.22	0.21	0.22	0.22	0.21	0.22	0.21	0.22	0.22	0.20	0.22	0.22

