CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 208/SM/2011

Coram:
Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member

Date of Hearing: 10.01.2012
Date of Order: 18.12.2013

In the matter of

Implementation of Automatic Demand Management Schemes in compliance of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010

And
In the matter of

1. Executive Engineer, (SLDC-EO), UP Power Corporation Ltd, Lucknow
2. Deputy General Manager, SLDC, Virbhadra, Rishikesh, Power Transmission Corporation of Uttarakhand Ltd., Dehradun
3. Superintendent Engineer (SLDC), Haryana Vidyut Prasaran Nigam Limited, Panchkula
4. General Manager (SLDC), Delhi Transco Limited, Delhi
5. Director (PR&CERC), Himachal Pradesh State Electricity Board, Shimla
6. Chief Engineer (SO&C),State Load Despatch Centre, Punjab Power Transmission Corporation Ltd., Patiala
7. Chief Engineer (S&F), SLDC, Jammu
8. Chief Engineer (LD), Electricity Department, UT, Chandigarh, Chandigarh
9. Chief Engineer (LD), SLDC, Madhya Pradesh Power Transmission Company Ltd, Jabalpur
10. Chief Engineer (LD), SLDC, Maharashtra State Electricity Transmission Corporation Ltd (MSETCL), Mumbai
11. Chief Engineer (LD), SLDC, Gujarat Energy Transmission Corporation Ltd., Vadodara
12. Chief Engineer (LD), Chhattisgarh State Power Transmission Co. Ltd., SLDC, Raipur
13. Chief Executive Engineer, Goa Electricity Department, Panaji, Goa
14. Executive Engineer, Electricity Department, Daman & Diu, Nan Daman
15. Executive Engineer (LD), Electricity Department, Dadar & Nagar Haveli, Silvasa

16. Chief Engineer (Electricity), Karnataka Power Transmission Corporation Ltd., SLDC, Bangalore
17. Superintending Engineer (LD), SLDC, TANTRASCO, Chennai
18. Chief Engineer (System Operation), Kerala State Electricity Board, Ernakulam, Kerala
19. Superintending Engineer (GO) Transmission Corporation of Andhra Pradesh Ltd., SLDC, Hyderabad
20. Executive Engineer (System Control Centre) Electricity Department, Puducherry
21. Chief Engineer, SLDC, Bihar State Electricity Board, Patna
22. Chief Engineer, West Bengal State Transmission Corporation Ltd., Howrah
23. Chief General Manager, SLDC, Orissa Power Transmission Corporation Ltd., Bhunaneswar
24. General Manager-cum-CE (SLDC) Jharkhand State Kusai Colony, Ranchi
25. Chief Engineer, Power Department, Govt. of Sikkim, Gangtok
26. Chief Engineer, (CLD) SLDC, Damodar Valley Corporation, Dhanbad, Jharkhand
27. Chief General Manager, SLDC, AEGCL, Guwahati
28. Superintending Engineer (SLDC), Electricity Department, Govt. of Manipur, Imphal
29. Superintending Engineer (SLDC), Power and Electricity Department, Govt. of Mizoram, Aizawl
30. Executive Engineer, (SLDC), Electricity Department, Govt. of Nagaland, Dimapur
31. Chairman-Cum-Managing Director, TSECL, Govt. of Tripura, Agartala
32. Executive Engineer, SLDC, Department of Power, Govt. of Arunachal Pradesh, Itanagar
33. Superintending Engineer (SLDC), Director Distribution Office, Shillong

….Respondents

Following were present:

Shri S.K.Soonee, NLDC
Shri V.K.Agarwal, NRLDC
Shri V.V.Sharma, NRLDC
Shri Rajiv Porwal, NLDC
Shri S.R.Narasimhan, NLDC
Shri S.S.Barpanda, NLDC
Shri G.Mitra, ERLDC
Shri S.Banerjee, ERLDC
Shri V.Suresh, SRLDC
Miss S.Usha, WRLDC
Shri Kharshing, MeECL
Shri B.B.Mehta, SLDC, Gujarat
Shri Rahul Srivastava, Advocate, SLDC, UP
Shri Mukesh Kumar Gupta, UPPTCL

Shri P.A.R. Bende, SLDC, MP
Shri M.L.Batra, PXIL
Shri S.Vallinayagam, Advocate, TAGEDCO
Shri M.K.Adhikary, APDCL
Shri J.K.Baishya, ASGCL
Shri R.B.Sharma, Advocate, BSEB, JSEB and BSES

ORDER

Regulation 5.4.2 (d) of the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 as amended from time to time (hereinafter referred to as 'Grid Code') provides for implementation of demand management schemes (the schemes) by State Load Despatch Centre through their respective State Electricity Boards/Distribution Licensees.

2. The Commission vide its order dated 1.12.2011 in Petition No. 208/SM/2011 had observed as under:

> "3. It has come to the notice of the Commission that the automatic demand management schemes as mandated by the Grid Code are either ineffective or are yet to be implemented in most of the States. Similarly, contingency procedures have not been formulated by most of the users or STUs or SLDCs to carry out demand disconnection under normal or contingency conditions as a result of which the messages issued by Regional Load Dispatch Centers are not being responded or acted upon by the SLDCs leading to fall in grid frequency.
>
> 4. All SLDCs are directed to file on affidavit the following by 20.12.2011:
> (a) The current status of the automatic load management scheme, indicating date of implementation of the scheme, its maintenance and operational preparedness to meet the normal and contingent situations;
> (b) Where the scheme has not been implemented so far, the reasons thereof; and
> (c) The status of contingency procedures and arrangements for demand disconnection during normal or contingency conditions."

3. In response to Commission`s direction, Delhi Transco Limited, Uttar Pradesh Power Corporation Ltd., Haryana Vidyut Prasaran Nigam Ltd. M. P. Power Transmission Company Ltd., Maharashtra State Electricity Transmission Company Ltd., Chhattisgarh State Load Despatch Centre, SLDC, Gujarat, Gujarat Discoms (Madhya Gujarat Vij

Company Ltd., Dakshin Gujarat Vij Company Ltd, Paschim Gujarat Vij Company Ltd. and Uttar Gujarat Vij Company Ltd.), Damodar Valley Corporation, Jharkhand State Electricity Board, Torrent Power Ltd., West Bengal State Electricity Transmission Company Ltd., SLDC, Orissa, Assam Electricity Grid Corporation Ltd., Tamil Nadu Transmission Corporation Limited, Transmission Corporation of Andhra Pradesh Limited, Kerala State Electricity Board, Karnataka Power Transmission Corporation Ltd., Madhya Pradesh Power Transmission Corporation Ltd., Power and Electricity Department, Mizoram, Electricity Department, Dadra and Nagar Haveli, Electricity Department, Daman and Diu, Tripura State Electricity Corporation Ltd., Electricity Department, Government of Puducherry have filed their replies. Reply to the petition has not been filed by the respondents, SLDC, Uttarakhand, Himachal Pradesh State Electricity Board, Punjab State Power Distribution Corporation Ltd., SLDC, Jammu, Electricity Department, Chandigarh, Electricity Department, Goa, Power Department, Sikkim, Electricity Department, Govt. of Manipur, Electricity Department, Govt. of Nagaland, Department of Power, Govt. of Arunachal Pradesh and SLDC Shillong.

4. Delhi Transco Limited (DTL) in its reply affidavit dated 19.12.2011 has submitted that on 28.9.2010, 2.12.2010, 7.12.2010, 28.12.2010, 30.12.2010, 6.4.2011, 4.5.2011 and 23.09.2011, Delhi Discoms were sounded to implement the schemes in line with the Grid Code and the orders of the State Electricity Regulatory Commission. The matter has also been pursued with the Discoms in various Operation Coordination Committee meetings at State level. DTL has further submitted that the schemes have been implemented in Delhi by all Distribution Licensees except NDMC who has undertaken that they would implement the scheme by 31.3.2012. With regards to contingency

procedure, DTL has submitted that SLDC, Delhi has drawn out the load shedding and black start procedure in the month of January, 2010 in consultation with the stakeholders.

5. Uttar Pradesh Power Corporation Ltd (UPPCL) in its affidavit dated 7.1.2012 has submitted the scheme(s) are under process and the work of identification of suitable feeders is going on. It has been further stated that due to technical and operational problem and in absence of the identification of the dedicated feeders, the scheme(s) could not be implemented so far. With regards to contingency procedure(s) it has been submitted that in normal condition the required load shedding is being carried out by manual instruction by telephonic and automatic operation of U.F.R. The Officers of the SLDC are doing all possible efforts for implementation of the scheme as early as possible and it hopes that by end of July 2012 the scheme would be operational. UPPCL has tendered its unconditional apology for unintentional contravention of the provisions of the Act and Grid Code.

6. Haryana Vidyut Prasaran Nigam Limited (HVPNL) in its reply affidavit dated 21.12.2011 has submitted that Automatic Load Management Scheme (ADMS) in the form of rotational load shedding scheme, Under Frequency Relay and df/dt scheme are already operational. On the issue of contingency procedures, HVPNL has submitted that in compliance with NRLDC directions, System Protection Scheme is provided at various feeders to curtail drawal, schedules for power generation regulations was made and 132 kV and 66 kV HT lines of HVPN were opened by SLDC, Haryana. In addition, 220 k V Simaypur (BBMB)-Palwal D/C, 220 kV Dadri (BBMB)-Rewari and 220

kV Dadri (BBMB)-Mohindergarh also got opened by NRLDC as per already agreed contingency scheme.

7. M. P. Power Transmission Company Ltd (MPPTCL) in its affidavit dated 17.12.2011 has submitted that schemes have not been implemented by Madhya Pradesh Discoms. Discoms have informed that they are exploring the possibility of operating selected 132 kV radial feeders through SCADA system from SLDC, Jabalpur and Sub-LDC Bhopal and Indore. In case of non-compliance of directions of WRLDC/SLDC by Discoms, such feeders may be operated under distress conditions when frequency is falling and overdrawal is not curtailed by State Discoms within safe limits. On the issue of contingency procedure(s), MPPTCL has submitted that the same are being prepared by Discoms since September, 2010 and are updated regularly. The Discoms have confirmed that the contingency procedures are kept in DCC (Distribution Control Centre) of respective Discom.

8 Maharashtra State Electricity Transmission Company Ltd (MSETCL) in its affidavit dated 16.12.2011 has submitted that presently the Automatic Load Management Scheme (other than load trimming schemes on 400/220 kV ICTs and UFR/FTR) is not in place. The Automatic Load Management Scheme (ALMS) could not be implemented so far in such area where the scheme of remote opening of power transformers and redial feeders through SCADA is under implementation. With regards to contingency procedures, MSETCL has submitted planned measure and contingency measure. MSETCL has submitted that all corrective actions such as planned load shedding, distress load

shedding and opening of 132 kV and 110 kV radial feeders were taken as per system requirement in case of low frequency overdrawal.

9. Chhattisgarh State Power Transmission Co Ltd (CSPTCL), in its affidavit dated 15.12.2011 has submitted that apart from the Under Frequency Load Shedding (UFLS) scheme, no Automatic Load Management Scheme is functioning or has been envisaged presently in the State. The load regulation is done over telephonic messages on the basis of plans provided by the distribution licensee of the State i.e. CSPTCL. On the issue of contingency procedure, SLDC has submitted that the load disconnection plan of the State is complying with Regulation 5.4.2 (e) of the Grid Code which is in 6 groups with an approximate relief of 100 MW in each group and the exigency plan is functioning effectively.

10. SLDC, Gujarat in its affidavit dated 16.12.2011 has submitted the distribution companies have established "Load Management Unit" at Gandhinagar, Jetpur, Jambuva and Gotri. If grid frequency so demand, company has its own load curtailment priority. Automatic Under Frequency Load Shedding Scheme has been installed in the transmission network of STU, which have been tested for proper operation. SLDC has submitted that entire load of the agricultural category has been segregated from non-agricultural load. Thus, all the distribution companies are having separate feeders (11 kV Feeders) supplying to agricultural category. It has been stated that district-wise staggered holiday is fixed for industrial category consumers. Presently, staggered holiday is observed on optional basis for industrial category consumers, however if situation so warrants, the companies have planned for imposing compulsory holiday for the industrial

category consumer and additional staggered holiday is also imposed if system condition warrants so. All Discoms have identified the feeders having high distribution loss from all the categories. In case of exigency for getting immediate relief, load of such identified feeders can be curtailed for the time being.

11. Gujarat Discoms, namely Madhya Gujarat Vij Company Ltd., Dakshin Gujarat Vij Company Ltd, Paschim Gujarat Vij Company Ltd. and Uttar Gujarat Vij Company Ltd. in their affidavits have submitted that as per the Commission`s directions dated 14.2.2013 in Petition No. 264/MP/2012, WRPC has formed a Group. The Group convened its first meeting on 22.4.2013 in which it was brought to the notice of Gujarat Discoms that the loading of 11/22 kV is highly dynamic. Therefore, if scheme is implemented at 11/22 kV voltage level, it may not give desired relief in case of situation so warrants. Thus, the purpose of demand disconnection in case of exigency and to get immediate relief, Gujarat Discoms have prioritized 66 kV sub-station is to be disconnected on rotational basis. Gujarat Discoms have further submitted that issue of technology and system constraints in implementation of Automatic Demand management Scheme was discussed during 23rd meeting of WRPC and it was decided that to form a committee comprising of members from SLDCs and Discoms of WR to identify appropriate technology and system. It was also decided that Committee shall be led by Maharashtra.

12. Damodar Valley Corporation (DVC) in its reply dated 27.12.2011 has submitted that ADMS, through UFR (Under Frequency Relay) has been established in DVC before the year 2000. It has been further submitted that the Automatic Demand Management Scheme is done in two ways under normal operating condition, namely (i) Enhancement

of generation at different power houses as far as possible and (ii) Disconnection/Restriction of Load (through telephonic communication) in four phases in a day for concerned State domestic feeders and in four groups in a day for industrial load with prior intimation.

13. Jharkhand State Electricity Board (JSEB) in its affidavit dated 11.1.2012 has furnished the details of contingency procedures. It has been submitted that Distribution and Transmission wing of JSEB have already started to take initiative to address the issue of demand management and grouping of loads as per Regulation 5.4.2 of Grid Code and necessary steps are being initiated to comply with the above Regulations.

14. Torrent Power Ltd. (TPL) in its reply affidavit dated 27.6.2013 has submitted that WRPC has formed a Group comprising of members from different utilities of Western Region. The Group convened its first meeting on 22.4.2013 in which various were discussed. It has been further state that the issue of technology and system constraint in implementation of Automatic Demand Management Scheme was also discussed during the 23rd meeting of WRPC held on 12.6.2013 in which it was decided to form a Committee comprising of members of SLDCs and distribution companies of Western Region to identify appropriate technology and system. TPL has further submitted that based on the outcome of the Committee report, it would take necessary steps to meet with the requirement.

15. West Bengal State Electricity Transmission Company Ltd in its reply dated 3.1.2012 has submitted that with regards to demand management, presently following methods are in vogue:

(a) Under contingency planning: (i) Under Frequency Relay Tripping and (ii) Inter-tripping arrangements through relay

(b) Normal Demand Disconnection: ALDC's are liable to maintain the drawal schedule and accordingly, they prepare various groups and sub-groups of the demands and manually disconnect demand as and when drawal exceeds the drawal schedule.

16. SLDC, Orissa in its reply dated 28.12.2011 has submitted that Discoms in the State do not have adequate infrastructure for implementation of demand management on their own. Manual disconnection is done for load shedding. SLDC, Orissa has further submitted that STU has already installed numeric Under Frequency Relays in all its grid sub-stations as contingency arrangement for facilitating demand disconnection. In case of implementation of frequency related automatic demand isolation scheme, there is possibility of reduction of drawal of Discoms, even though the drawal is within the schedule in case of falling frequency condition. In case of contingency conditions, 132 kV feeders have been identified for demand disconnection to restrict the State drawal within the schedule.

17. Assam Electricity Grid Corporation Ltd (AEGCL) in its affidavit dated 27.12.2011 has submitted that schemes are not yet implemented in NER. The prerequisites necessary for implementation of Automatic Load Management are not yet ready in the State of Assam. However, the implementation of SCADA system is in progress. With regards to contingency procedures, AEGCL has submitted that during the time of system exigency, AEGCL often resort to contingency procedures which include switching off bulk

loads by opening 132 kV radial grid lines from a number of grid substations, 10 such feeders can be switched off during contingency. AEGCL has prayed requested to extend time for implementation of ADMS.

18. Tamil Nadu Transmission Corporation Limited (TANTRANSCO) in its reply dated 19.12.2011 has submitted the interruptible loads have been grouped and the same has already been intimated to SRLDC. The identified schemes are being implemented and connected to automatic demand disconnection during normal and contingency conditions except the SPS scheme for 400 kV Hosur-Salem feeder, which is connected in Semi Automatic tripping system. The fully automation tripping scheme is under progress. TANTRANSCO has further submitted that since the Tamil Nadu grid is having high quantum of non-conventional form of energy sources i.e. 40% in the total installed capacity of infirm power. Therefore, during high wind season in order to contain frequency backing down of wind generation is carried out. However, as the heavy wind season is only for 4 to 5 months TANGEDCO could not plan for LTA and MTOA. Hence, STOA has to be treated on par with LTA for having promoted more green energy. During contingencies, additional load shedding to a quantum of 200 to 250 MW is carried out to maintain grid discipline.

19. Transmission Corporation of Andhra Pradesh Limited (APTRANSCO) in its reply affidavit dated 20.12.2011 has submitted that APTRANSCO has formulated and implemented the Automatic Demand Management Scheme in terms of Regulation 5.4.2 (d) of Grid Code. APTRANSCO has also submitted that it has also identified 132 kV feeders and 132/33 transformer for a quantum of 800 MW for remote tripping from SLDC.

20. Kerala State Electricity Board in its reply dated 20.12.2011 has submitted that the load relief schemes has been implemented as per setting and quantum of relief decided in the RPC forum. The schemes includes (i) Under Frequency Relay schemes and rate of change of frequency relay schemes- Implemented long back and modified from time to time; (ii) Unscheduled load shedding schemes implemented from SLDC Control room (SCADA based remote tripping) – 2007 Onwards;(iii) Scheduled load shedding schemes implemented through grid stations- Implemented long back and modified time to time; and (iv)System protection schemes to prevent failure of part of grid on account of overloading- Implemented from 22.3.2010.

21. Karnataka Power Transmission Corporation Ltd in its reply dated 11.9.2012 has submitted that SLDC has implemented Automatic Demand Management Scheme from 1st week of July, 2012 which will provide an immediate relief of 350 MW and 66 kV and 110 kV feeders will be automatically opened out through remote operation from SLDC.

22. Power and Electricity Department, Government of Mizoram in its reply dated 20.12.2011 has submitted that schemes as mandated by the Grid Code are yet to be implemented. Similarly, the Contingency Procedures have not yet been formulated by Electricity Department to carry out demand disconnection under normal and contingency condition. The Department is yet to set-up a full-fledged SLDC in the State for which preparation of DPR is under initiation. At present, no data and communication facilities for facilitating necessary communication, data exchange and supervision/control of the Grid under normal and abnormal conditions are available with the Department. The schemes

have not been implemented so far due to the absence of the required basic infrastructure for communicating and data collection facilities within the State.

23. Electricity Department, Dadra and Nagar Haveli in its reply affidavit dated 17.12.2011 has submitted that presently Automatic Demand Management Scheme has not been implemented. Electricity Department is in process of evaluating alternatives of automatic load shedding and in future it shall implement effective automatic load shedding schemes as per the provisions of Grid Code and guidance of CERC and JERC. It has been further stated that the contingency procedure will be formulated before 10.1.2012.

24. Electricity Department, Daman and Diu in its reply affidavit dated 19.12.2011 has submitted that presently Automatic Demand Management Scheme has not been implemented. Electricity Department is in process of evaluating alternatives of automatic load shedding and in future, it shall implement effective automatic load shedding schemes as per the provisions of Grid Code and guidance of JERC. It has been further stated that the contingency procedure will be formulated before 10.1.2012.

25. SLDC, Tripura in its reply affidavit dated 19.12.2011 has submitted that TSECL has implemented the Automatic Demand Management Scheme in the compliance with Grid Code. TSECL has provided automatic UFR and df/dt relays for load shedding in the system to arrest frequency decline that could result in collapse/disintegration of grid. It has been further submitted that a rational and continuous load shedding scheme is being implemented in every occasion of contingency to reduce overdrawal in order to comply with Regulation 5.4.2 (a) and (b) of Grid Code.

26. Electricity Department, Puducherry in its reply dated 16.12.2011 has submitted that necessary load relief by way of Under Frequency Relay tippings has been provided to provide total load relief. The Department has evolved cyclical load restriction scheme to restrict the drawal from the Central Generating Stations within the schedule allocated. With regards to contingency procedures, Electricity Department has submitted that during contingencies to curtail overdrawal, arrangements are also being made for remote tripping the 22/11 kV feeders from the System Control Centre. A total of 27 feeders have been identified contributing load relief to about 90 MW and grouped in such a way to provide the requisite load relief. It has been stated that all the ongoing works related to the demand management scheme shall be completed before the end of January 2012.

27. During the course of hearing on 10.1.2012, the representative of the National Load Despatch Centre (NLDC) submitted that the issue of Automatic Demand Management Scheme was debated in all the Operation Co-ordination Committee meetings of Regional Power Committees (RPCs) and also in the RPC meetings. He submitted that the frequency remained below 49.5 Hz during the month of October, 2011 for 23% of time and during the period from August to November, 2011 the frequency remained below 49.5 Hz for 12.3% of time. Temporary frequency excursions below 49.5 Hz was more 100 times during this period. He submitted that Grid Code stipulate that the utilities should endeavor to control frequency when the frequency comes below 49.7 Hz itself. He further submitted the position of implementation of the scheme as under:

(a) **Northern Region:** Except SLDC Delhi, none of the SLDCs in region have implemented the scheme. Under SLDC Delhi, NDPL has already implemented

the scheme through SCADA system whereas BYPL and BRPL are in the process of implementation of the scheme.

(b) **Western Region:** None of the States of the Western Region have implemented the scheme.

(c) **Southern Region:** As per information received from the SRLDC, the State Utilities of Andhra Pradesh, Kerala and Tamil Nadu were in the process of identification of the feeders and grouping up load. No response has been received from the State of Karnataka and Puducherry.

(d) **Eastern Region:** None of the States of the Eastern Region have implemented the scheme.

(e) **North Eastern Region:** Electricity Department, Government of Nagaland has confirmed that it has implemented the scheme; a relief of 15.5 MW under peak load condition and 8.7 MW during off-peak condition. The scheme is under observation by NERLDC for the stated quantum of load relief. None of other States of the North Eastern Region have implemented the scheme.

28. The representative of NLDC further submitted that as per the response received, the States are in the process of implementing the scheme. He submitted that the States have not even prepared the road map for implementation of the scheme. Learned counsel for SLDC, Bhubaneswar submitted that SLDC has identified all the 132 kV feeders for manual disconnection and the State is in the process of implementing the scheme. The learned counsel submitted that the State of Odisha has four Distribution

Companies (DISCOMs) and none of the DISCOMs have this facility and hence, the scheme was being implemented at the State Transmission Network level. The demand regulation is being made from grid sub-stations by isolating 33/11 kV feeders on rotational basis in consultation with the DISCOM(s). If any DISCOM is drawing power more than its schedule, its load would be disconnected first. Learned counsel also submitted that in case of implementation of frequency related automatic demand isolation scheme, there was possibility of reduction of drawal of DISCOM, even though the drawal is within the schedule in case of falling frequency condition. Learned counsel for BSES and JSEB submitted that feeders have been identified for implementation of the scheme.

29. Learned counsel for TANTRANSCO submitted that the scheme is under process of implementation which would take some more time. He submitted that the identification of feeders for demand disconnection is under process. He submitted that the Special Protection Scheme (SPS) for 400 kV Hosur-Salem transmission line has already been implemented. With regards to implementation schedule, learned counsel for TANTRANSCO submitted that the Automatic Load Management Scheme would be implemented within 6 months. The representative of SRLDC submitted that the States of Southern Region including Tamil Nadu have identified the feeders in four categories as required in the Grid Code. Except Karnataka, all the SLDCs are tripping the feeders through SCADA system manually, which becomes discriminatory in the sense that sometimes they trip the feeders and sometimes they do not. As a result the frequency has fallen below 49.5 Hz on many occasions. Had the automatic scheme been there, the situation would have improved. The representative of NLDC submitted that the scheme for Karcham Wangtoo HEP was implemented within two weeks time. Basically,

the logic has to be developed, first whether there is over drawal and second whether the frequency is below 49.7 Hz.

30. Learned counsel for SLDC, Uttar Pradesh submitted that the present SCADA system does not have the facility for Automatic Demand Management Scheme. He submitted that vide letter dated 23.12.2011, NRLDC was requested to help in developing the scheme by way of supplying necessary procedure and circulars for implementation of the scheme. He submitted that 61 feeders have been already been indentified and the rest of the feeders would be identified by January, 2012 and thereafter six months time is required for developing the required infrastructure for implementation of the scheme and by the July 2012 end, the scheme would be operational. The representative of NRLDC submitted that Uttar Pradesh was not following the instructions of NRLDC to shed load when the frequency is below 49.5 Hz. The representative of SLDC, Delhi submitted that load shedding procedure was developed in the month January, 2010. Delhi has three DISCOMs and they are in process of implementation of the scheme. The representative of SLDC, Assam submitted that Automatic Load Management System has not been implemented so far. Necessary pre-requisites for implementation were not yet ready in the State of Assam. The present SCADA was implemented way back in 2002 and even then, not all the important sub-stations are connected on SCADA. He further submitted that the scheme would be implemented by the end of 2012. The representative of the SLDC, Meghalaya submitted that the automatic system has not been implemented in the absence of basic infrastructure for communication and data collection facilities.

31. The representative of SLDC, Madhya Pradesh submitted that there are three DISCOMs and at present the automatic demand management is being done through under frequency relays installed on various 33 kV feeders at EHV sub-stations to obtain required load relief automatically under defined low frequency conditions. The df/dt relays are also installed to get automatically load relief to arrest rapid fall in system frequency. He submitted that the present SCADA system does not have this facility. He submitted that by the end of December, 2012, the scheme would be implemented.

32. The representative of SLDC, Gujarat submitted that Automatic Load Management Scheme has not been implemented so far as the there was no deficit power situation in the State. The representative of Gujarat SLDC submitted that the State Electricity Regulatory Commission has issued directions to establish the demand management cell in all DISCOMs. In compliance, all Distribution Companies have submitted their automatic demand management scheme and SLDC is working on it and will be submitted before the State Commission.

33. The representative of SLDC, Chhattisgarh submitted that feeders have been identified. Since the schemes have to be implemented by the DISCOMs, he could not indicate any time frame for implementation of the scheme.

34. From the records available, it is evident that the issue of Automatic Load Management Scheme was discussed on 9.5.2011/11.9.2013, 9.2.2013, 28.2.2013 and 12.6.2013 in Southern Regional Power Committee, North Eastern Regional Power Committee, Northern Regional Power Committee and Western Regional Power Committee with their respective constituents *inter alia* to discuss Automatic Load

Management Scheme, respectively. On perusal of the minutes of meetings, it is observed that in Northern Region only Delhi Transco Limited has implemented the Automatic Demand Management. However, no other constituents have implemented the scheme. In Western Region and Southern Region, none of the constituents have implemented the Automatic Demand Management Scheme. In North Eastern Power Committee, no much deliberation on implementation of Automatic Load Management Scheme was discussed**.**

35. APTRANSCO, KSEB and TANTRANSCO in their submissions have submitted that they have implemented remote tripping which cannot be stated to be automatic. SLDC, Chhattisgarh, WBSETCL, JSEB and TSECL have not given any reasons for non-compliance of Automatic Demand Management Scheme. HVPNL in its submission has submitted that ADMS in the form of rotational load shedding scheme and Under Frequency Relay are already operational. DVC has in its submission submitted that the Automatic Demand Management Scheme through UFR has been established in DVC before 2000 and the revised scheme as per direction of ERPC would be implemented by March 2012. In this regard, we clarify that UFRs/Rotational Load Shedding Scheme are for grid security at low frequency and these schemes cannot be considered as ADMS.

36. As per Regulation 5.4.2 (d) of the Grid Code, SLDC through respective State Electricity Boards/Distribution licensees are required to formulate and implement state-of-the-art demand management schemes for automatic demand management like rotational load shedding, demand response before 1.1.2011, to reduce overdrawal. It is observed that except some utilities of Delhi, none other utility in the country has installed

the state-of-the-art demand management schemes for Automatic Demand Management. The relevant provision of Regulation 5.4.2 (d) of the Grid Code is as under:

> "(d) The SLDC through respective State Electricity Boards/Distribution Licensees shall also formulate and implement state-of-the-art demand management schemes for automatic demand management like rotational load shedding, demand response (which may include lower tariff for interruptible loads) etc. before 01.01.2011, to reduce overdrawal in order to comply para 5.4.2 (a) and (b). A Report detailing the scheme and periodic reports on progress of implementation of the schemes shall be sent to the Central Commission by the concerned SLDC."

37. We had directed in our order dated 1.12.2011 to all SLDCs to file the current status of the Automatic Load Management Scheme, reasons for not implementing the scheme and status of contingency procedures. None of the respondents, except DTL, has complied with our directions. We are of the view that these respondents have not only failed to comply with our directions but have also failed to discharge their responsibility under the Act and the Grid Code. We direct the staff of the Commission to process the case for initiation of action under Section 142 of the Act against the officers in-charge of STUs/SLDCs of the respondents States issuing show cause notice as to why penalty should not be imposed on them for non-compliance with our directions and the provisions of the Act and the Grid Code.

38. The petition No. 208/SM/2011 is disposed of with the above directions.

sd/-	sd/-
(M.Deena Dayalan)	**(V.S.Verma)**
Member	**Member**