CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 120/2011

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

Date of Hearing: 09.06.2011 Date of Order : 22.02.2014

In the matter of

Maintaining grid security of the Southern Regional Grid by curbing overdrawal and effecting proper load management by Tamil Nadu Electricity Board.

And

In the matter of:

Southern Regional Load Despatch Centre, 29, Race Course Road, Bangalore-560 009

...... Petitioner

Vs

Tamil Nadu Electricity Board 800, Anna Salai, Chennai Chennai

..... Respondent

- 1. Transmission Corporation of Andhra Pradesh Limited, Vidyut Soundh, Hyderabad-500 082
- 2. Karnataka Power Transmission Corporation Limited, Cauvery Bhawan, Bangalore-560 009
- 3. Kerala State Electricity Board, Vaidyuthi Bhvanam, Pattom, Trivandrum-695 004
- 4. Electricity Department, Pondicherry-605 001
- 5. Member Secretary, Southern Regional Power Committee,



29, Race Course Road, Bangalore-560 009

...... Proforma Respondents

Parties Present:

Shri V. Suresh, SRLDC hri C. Kaliaperumal, TANTRANSCO Shri Arum Kumar Samuel, TANTRANSCO Shri V.K. Jain, RM/ ND, TANTRANSCO

ORDER

This petition has been filed by the Southern Regional Load Despatch Centre (SRLDC) alleging overdrawal at low frequency by Tamil Nadu Electricity Board during the period from 1.2.2011 to 17.4.2011, despite issue of A, B and C messages by SRLDC under Section 29 of the Electricity Act, 2003 (the Act) read with Regulation 5.4.2 of the Central Electricity Regulatory Commission (Indian Electricity Grid Coe) Regulations, 2010 (Grid Code). The petitioner has prayed as under:

- "(a) To advise TNEB for proper demand management thereby avoiding over drawals from gird particularly when system frequency is below 49.5 Hz in the interest of grid security and safety;
- (b) Issue directions to TNEB to carry out necessary exercise regarding short-term and long-term demand estimation to plan in advance so as to how they would meet the consumer load without over-drawing from the grid in line with Regulations 5.4.2 and 6.4.7 of IEGC and 7 (1) and (2) of CERC (Unscheduled Interchange) Regulations, 2008;
- (c)To advise TNEB to develop and implement a contingency plan for mitigating the loss of wind generation on priority;
- (d) To review the present LT capacitor banks position around Chennai Area and add the required additional quantum to avert low voltage condition around Chennai area; and

- (e) Issue any other direction on any other matter as it may deem fit."
- 2. The petitioner has submitted that the Chairman, TNEB during the hearing of the Adjudication Case No. 1/2010 on 10.8.2010 had assumed the Commission that required measures would be taken by TNEB for adhering to the grid discipline and complying with the instructions of SRLDC. Subsequent to the assurance, there was improvement in the Southern Region (SR) system operations for some time. However, from February, 2011 onwards, SR system frequency operated below 49.5 Hz for considerable duration on many days primarily due to inadequate demand side management by Tamil Nadu Transmission Corporation Limited (TANTRANSCO) and consequent overdrawal at low frequency.
- 3. In support of its contention, the petitioner has submitted the frequency profile of SR gird for the months of February, March and April, 2011 (up to 17.4.2011). The petitioner has also furnished the tabulated data of the dates when frequency remained below 49.5 Hz for more than 20% of the time which is extracted as under:

(Table-1)

Date	Minimum Frequency in Hz	% time of the day	
		F<49.5	F<49.5
4.2.2011	49.05	20.00	70.27
9.2.2011	49.09	21.60	83.05
18.2.2011	48.83	23.26	80.14
19.2.2011	48.90	33.82	87.15
21.2.2011	49.02	24.66	82.77
8.3.2011	49.22	21.81	81.52
9.3.2011	49.04	27.57	81.46
10.3.2011	49.24	22.92	84.37
18.3.2011	48.81	23.61	75.69

19.3.2011	49.03	38.13	86.05
20.3.2011	49.18	21.11	60.42
22.3.2011	48.82	50.21	91.25
23.3.2011	48.82	38.12	91.04
24.3.2011	49.02	31.67	89.24
25.3.2011	49.06	27.08	76.18
28.3.2011	49.17	23.61	85.13
29.3.2011	48.84	30.62	88.68
30.3.2011	49.01	46.39	93.05
31.3.2011	48.87	40.00	89.24
1.4.2011	48.81	29.86	90.00
5.4.2011	49.22	22.08	85.35
6.4.2011	48.92	28.61	91.59
7.4.2011	48.81	24.37	90.76
8.4.2011	48.48	47.57	90.83
9.4.2011	48.88	50.07	91.11
10.4.2011	48.83	37.57	86.24
11.4.2011	48.88	40.97	92.57
12.4.2011	49.06	54.44	93.61
13.4.2011	48.95	36.19	89.02
14.4.2011	49.02	33.40	81.73
16.4.2011	48.82	31.74	74.24

4. The petitioner has submitted the details of TANTRASCO's overdrawal at frequencies below 49.5 Hz and 49.7 Hz during the months of February, March and April 2011 (up to 16.4.2011). The petitioner has submitted the tabulated data regarding the details of the dates when TANTRANSCO's overdrawal at frequency below 49.5 Hz exceeded 2.0 Million Units/ day as under:

(Table-2)

TN OD WHEN F<49.5			TN OD WHEN F<49.7			
Date	In MU	% OF SCH	MAX in MW	In MU	% OF SCH	MAX in MW
18.2.2011	3.20	18.33	973	9.90	16.73	974
19.2.2011	3.12	11.69	708	7.28	10.80	775
21.2.2011	3.74	21.61	1178	10.81	20.15	1219
9.3.2011	3.07	16.44	781	8.25	15.23	781
19.3.2011	2.31	9.11	865	8.03	13.10	865
22.3.2011	3.71	10.31	898	6.82	10.31	898
23.3.2011	2.99	11.47	727	6.62	10.22	784
25.3.2011	2.31	10.83	617	5.85	10.24	622
29.3.2011	3.46	12.87	854	8.07	11.54	854

30.3.2011	3.69	9.89	867	6.31	9.07	867
31.3.2011	4.10	13.33	676	7.54	11.96	716
8.4.2011	2.89	7.34	719	5.24	7.33	719
9.4.2011	4.29	9.59	752	6.74	8.92	776
10.4.2011	3.09	10.22	754	6.99	9.74	893
11.4.2011	2.63	8.01	785	5.92	7.87	929
12.4.2011	2.71	5.66	779	3.98	5.42	779
13.4.2011	2.21	6.73	551	4.73	6.70	559
14.4.2011	2.26	8.86	677	5.29	9.65	708
16.4.2011	2.69	11.23	973	8.36	14.88	1188
31.3.2011	4.10	13.33	676	7.54	11.96	716
8.4.2011	2.89	7.34	719	5.24	7.33	719
9.4.2011	4.29	9.59	752	6.74	8.92	776
10.4.2011	3.09	10.22	754	6.99	9.74	893
11.4.2011	2.63	8.01	785	5.92	7.87	929
12.4.2011	2.71	5.66	779	3.98	5.42	779
13.4.2011	2.21	6.73	551	4.73	6.70	559
14.4.2011	2.26	8.86	677	5.29	9.65	708
16.4.2011	2.69	11.23	973	8.36	14.88	1188

- 5. The petitioner has submitted that as per the data explained in Table-1, SR gird operated up to 54.99% of the time on 12.4.2011 at low frequency and the minimum frequency was as low as 48.81 Hz on 18.3.2011. The petitioner has further submitted that as per the data in Table -2, the depleted system frequency was primarily due to the persistent overdrawal by TANTRANSCO in the range of 300 MW to 1100 MW at frequency below 49.5 Hz. According to the petitioner, TANTRANSCO's overdrawal at frequency below 49.5 Hz was as high as 1178 MW and it excluded 4.29 MUs on 9.4.2011.
- 6. The petitioner has submitted that during the months of February, March and April, 2011, the following messages were issued:-

Month	Type of Messages			
	Α	В	С	Total
February 2011	388	160	49	1221
March 2011	435	399	107	2007

April 2011	161	214	91	1053
(upto 17.4.2011)				

- 7. The petitioner has submitted that as there was inadequate response to SRLDC's instructions by the respondent to curtail over-drawal even after advising to open out the radial feeders, SRLDC imposed physical regulation of power supply on 18th and 21st February, 2011, 9th, 18th, 22nd, 23rd, 25th, 28th, 29th & 30th March, 2011 1st, 8th, 9th, 10th, 11th, 13th and 16th April 2011 by disconnecting 400 kV Salem Interconnectors and 320 kV Hosur-Soolagiri lines and Udumpalpet, after giving adequate time for corrective action to safeguard the grid security. The petitioner has submitted that the criticality of grid condition was continuously taken up at all levels of TANTRANSCO officials including the Chairman of TNEB, requesting for immediate corrective measures by TANTRANSCO to avoid overdrawal from the grid during low frequency condition so that safety and security off the grid could be maintained. A special meeting of Technical Coordination Committee of SRPC was held on 29.3.2011 with serious concern on sustained overdrawal of Tamil Nadu at low frequency. The Committee reviewed SR system conditions, constraints/actions briefed by the regional entities, anticipated demand growth etc., and recommended the action plan for the constituents. The petitioner has submitted the details of hourly wind generation in Tamil Nadu.
- 8. In response to the efforts of SRLDC, MD, TANTRANSCO requested SRPC/SRLDC for exploring the possibility of operating HVDC Talcher-Kolar bi-pole in extended mode by maintaining power flow to the extent of 2500 MW (i.e.1.25 per unit) for at least 10 MW in a day subject to ambient conditions and technical operating

limitations of HVDC bi-pole so that additional power purchase through STOA/ Power Exchange could be made by Tamil Nadu during such hours. After detailed deliberation on the 56th and 57th OCCM of SRPC, the matter was taken up by SRLDC/ SRPC with PGCIL and consequently w.e.f. 26.3.2011, Talcher-Kolar HVDC bi-pole were scheduled for 2500 MW for 10 MW a day on temporary basis. The petitioner has further submitted that during the outage of NTPC Talcher Stage II unit and Ramagundam Unit 4, ATC margin available for import by SR constituents from WR/ER was increased by doing dynamic system studies on real time by SRLDC for facilitating additional STOA/PX power purchase by SR constituents including the respondents. The petitioner has submitted that despite these efforts, the overdrawal of TANTRANSCO continued at low frequency above 300 MW for significant duration endangering grid frequency.

- 9. The petitioner has submitted that due to lack of adequate demand side management and tendency to plan for meeting sizeable portion of State demand through UI and high volume of power purchase without considering grid condition has posed threat to the grid security. The petitioner has further submitted that for the number of 'C' messages issued to TANTRANSCO by SRLDC and the analysis of the response/ compliance by TANTRANSCO states that certain actions taken by TANTRANSCO were nil or much delayed in ratio or inadequate.
- 10. The petitioner has submitted that in accordance with Regulation 5.4.2 (d) of Grid Code, SLDC through the respective State Electricity Boards/ Distribution Licenses shall formulate and implement state-of-the-art demand management schemes for cumulative

demand management w.e.f. 1.1.2011. Though SLDC, TANTRASCO identified radial feeders for load relief quantum (645MW) and confirmed successful testing of tripping the identified radial feeders remotely from SLDC, this system has not yet been utilized practically by SLDC.

- 11. The respondent, Tamil Nadu Transmission Corporation Ltd.(TANTRANSCO) (erstwhile TNEB) in its reply vide affidavit dated 6.6.2011 has submitted that the overdrawal was on account of curtailment of power purchase by NLDC/SRLDC citing corridor congestion. The respondent has enumerated following circumstances as the reasons for overdrawal:
 - (i) The Jeypore-Gazuwakka HVDC back-to-back link was loaded only up to 400 MW as against its full load capacity of 1000 MW. The problem of much lower import of power was prevailing from January 2010, though in many cases export was done. This shows that there is no real corridor congestion. The issue was not taken up properly. In addition, the grid frequency would have been improved and thus grid security is assured.
 - (ii) SRLDC declared less ATC for the next day, assuming that there may be system constraint which created corridor congestion, as a result power purchase by TANGEDCO was being curtailed. During the real time operation of such less declaration, TANTRANSCO may have overdrawn. However, there was no notable system constraint, which proves that the curtailment of

power purchase stating corridor congestion is not true. This was perhaps due to over cautious or partiality being shown by SRLDC/ NLDC.

(iii) In the 19th Standing Committee meeting held on 14.6.2004, it was deliberated that four gas based short gestation projects are likely to come up in Vemagiri area and an exclusive 220 kV and 400 kV system for evacuation of power from these stations had been planned and the proposal made by APTRANSCO for LILO of Vemagiri will not be used for evacuation purpose under normal conditions and will support under contingency conditions. However, the generators at North Eastern Andhra Pradesh have come up without sufficient evacuation system and utilizing the CTU lines for their evacuation was not as per the decision of Standing Committee.

(iv) In real-time operation, SRLDC was permitting LTA customers of APTRANSCO to evacuate their generation into the evacuation system of Jeypore–Gazuwaka back-to-back link resulting in curtailment of power purchase to TANGEDCO through Power Exchange and bi-lateral transaction. During the special TCC meeting held on 3.1.2011 and 16th SRPC meeting held on 30.4.2011, APTRANSCO has declined to back down their generation in the Vemagiri complex. SRLDC pointed out that as per the Grid Code and relevant regulations, LTOA transactions would be having higher priority over STOA transactions in the scheduling process. In response, MD,

TANTANSCO submitted that priority should be given to evacuate ISGS power and other Short Term Open Access power on the ISTS system and it should not be used to transfer State power during congestion.

(v) Due to the evacuation of STU generation at Vemagiri complex, Vemagiri generators were utilizing CTU lines for their evacuation. Further, Jeypore-Gazuwaka back-to-back link was loaded only to 55 MW (yearly average) as against its total capacity of 1000 MW, which shows that a very important regional corridor was kept idle. This also shows that corridor was available for procurement of power from other regions. The IPPs at APTRANSCO is enjoying the surplus gas allocation and also utilizing CTU grid for its evacuation without paying CTU's transmission charges, which has mounted the misery of the constituents at S2 zone especially TANTRANSCO.

(vi) In a number of occasions, SRLDC had exported power at Jeypore-Gazuwakka B2B line top evacuate generation at North Eastern Andhra Pradesh. If this pole is blocked or tripped, a cascaded tripping would occur in Southern Region and this shows that prejudiced operation of SRLDC compromising grid security.

(vii) TANTRANSCO vide its various communication requested to SRLDC to close 230/220 kV ISTS lines to enhance the corridor availability from S2 zone to S1 zone and to improve the stability. However, SRLDC is conveying the difficulties projected by APTRANSCO and other regions to

tie the ISTS lines instead of taking prompt action to tie the line by shifting of up-stream loads, replacement of towers and provision of SPS etc.

- (viii) In the PoC regime, all inter-State 220 kV lines are being declared as deemed ISTS irrespective of the ownership. If following ISTS lines are not closed, it is financial loss to the Nation:
 - (a) 220 kV Kolapur–Belgam D/C line (New grid to SR Grid)
 - (b) 220 kV Nagajari–Ponda D/C line (New grid to SR Grid)
 - (c) 220 kV Balemela–Upper Sileru S/C line (New grid to SR Grid)
 - (d) 220 kV Kaniampet–Kadakolla S/C line (S1 to S2)
 - (e) 230 kV Thiruvalam-Chittore S/C line (S1 to S2)
 - (f) 230 kV Gumidipoondi–Sulurpet S/C line (S1 to S2)
- (ix) Load management measures for curbing the over drawals was carried out. The urban load shedding was increased from 2 hours to 3 hours from 29.3.2011, there by an additional relief of 400 MW was realized. From 30.3.2011, rural load shedding duration was increased from 2 hours to 3 hour. In addition to the existing load shedding of 500 MW, agricultural three-phase power supply was decreased from 9 hours to 6 hours. Identified radial feeders as well as other 110 kV radial feeders were opened in rotation of 20 minutes. 20% power cut on base Demand and Energy for HT Industrial and Commercial Services has been increased to 30% from 3.4.2011. Chennai and its suburbs were bought under scheduled load shedding of 1 hour in rotation between 8:00 Hrs and 18:00 Hrs from 22.4.2011.

- (x) A quantum of 100 MW during peak hours and 150 MW during non-peak hours was procured from KSEB (BSES) from 12.3.2011 onwards even at higher cost of ₹ 12.50. An additional quantum of 15 MW of Kayamkulam power to the existing quantum of 150 MW scheduled through KSEB from 11.3.2011.
- (xi) Due to unforeseen outages and unexpected flash strike at Talcher during 1.2.2011 to 7.2.2011, Tamil Nadu was forced to meet a generation loss of around 150 MW to 200 MW. There was a loss in generation of around 18 MUs per day.
- (xii) Tamil Nadu applied for full schedule from NTPC Kayamkulam. However, NTPC Kayamkulam had requested to avail shutdown on GT-2 for a mandatory inspection. With no other option, Tamil Nadu was forced to give concurrence for the same. In addition to the loss in generation of 150 MW from this plant, an equal amount of power was lost due to corridor congestion. However, Tamil Nadu vide its letter dated 14.2.2011 requested NTPC to bring back GT-2 of NTPC Kayamkulam at an earlier date which did not materialize.
- (xiii) To compensate the reduction in available capacity due to the curtailment, TANTRANSCO has utilized all its hydro reserves and run the hydro stations more than the target generation as under:

Month	Hydro generation Target (MU)	Hydro Generation for the month (MU)
February,2011	375	408.981
March,2011	378	414.563
April,2011 (till 17.4.2011)	161	171.357

- (xiv) From the third week of March, 2011, the net storage of Kadamparai power house was run close to its MDDL. This was due to the artificially created corridor congestion. Even during the off peak hour, the high cost was compromised. Therefore, the precious Hydro storage was depleted.
- (xv) All Bio-Mass, co-generation, CPP inside S2 zone were purchased.
- (xvi) There was huge variation in SCADA data and Special Energy Meter (SEM) data. The percentage error of SCADA data when compared with SEM data works out to about 127%, 136% and 152% for the months of February, March, and April 2011 respectively. On account of this, the curtailment of load was 3, 2 and 1.9 times the overdrawal < 49.7 Hz for the months of February, March and April 2011(till April 2011), respectively.
- 10. The respondent has further enumerated the following constraints in Tamil Nadu Grid in controlling overdrawal from the grid:
 - (i) The generation availability was much volatile causing hardship in grid operation resulting in over drawal / under drawal.
 - (ii) Variation in wind generation during February 2011 from 0 to 1123 MW and during March 2011 from 0 to 1189 MW: During this period, the variability

is unusually so large. Hence, accurate purchase plan could not be done which resulted in unintentional occasional excess overdrawal or excess underdrawal.

- (iii) Non-conventional energy sources such as bio-mass and co-generation: A number of small capacity generators of 10 MW capacity or more are connected to the Tamil Nadu grid. Therefore, Tamil Nadu grid is truly a Distributed Generation (DG) grid. The installed capacity of these private generations is around 2060 MW. These are non-conventional energy sources, therefore, assured generation cannot be guaranteed. In addition, since most of them are connected to distribution side feeders, load shedding could not be carried out in these feeders.
- (iv) Due to change in schedules, UI was high. To balance this sudden +ve or-ve UI quantum, TANTRANSCO does not have sufficient spin reserve to bring back the UI in control. The sudden variation of schedule in the succeeding block was 779 MW in February, 2011, 980 MW in March, 2011 and 621 MW in April, 2011(up to 16.4.2011). Number of such sudden variations were due to the introduction of Power Exchanges. To smoothen such sharp changes in schedule, the need for Real Time Power Exchange have become more crucial.
- (v) The installed capacity of non-irrigation hydro station is 1325 MW and has to be operated only during peak hours. During the period from 1.2.2011 to 17.4.2011, most of the times, hydro generation was operated as base load station. Kadamparai PH was run close to MDDL level. Therefore, it is not

available most of the time which reduced hydro machine availability to 925 MW. Therefore, few peaking stations were available to control the UI variations.

- (vi) Installed capacity of IPPs is 1180 MW and the technical minimum is 797 MW. Therefore, an unforeseen variability of 383 MW alone can be absorbed. However, during the above period the IPPs are run on full load. Even the costliest Open Cycle Basin Bridge, Gas turbine station was run at full load. Hence, there are few options to control UI variations.
- (vii) Load shedding was carried out continuously and most of the times the same feeders were tripped repeatedly for want of feeders. Load shedding was used as the grid operating tool.
- (viii) The time taken to operate Kadamparai either in pump mode or in generation mode takes half-an hour time as special pre-checks are required. The ramp up/ ramp down of diesel IPPs are 45 minutes. The generation, which can be picked up immediately, is non-irrigation based hydro units having installed capacity of 1325 MW and as the upper reservoir catchment is comparatively low, this can be operated only during peak hours.
- (ix) During the period in question, all options were exhausted and requested to the neighboring constituents to help in picking up the frequency and they have given timely help in improving the frequency. During the ensuing wind season, TANTRANSCO will reciprocate and the neighboring constituents can preserve their generation reserves and be benefited

financially.

- (x) All the three inter Regional HVDC links are terminated at S1 zone (Andhra Pradesh and Karnataka).
- 11. The respondent, TANTRANSCO has submitted that in view of the above constraint in operating the grid, it cannot be compared on par with other constituents having large Hydro capacity and meager infirm wind installed capacity.
- 12. We have considered submissions of the petitioner and the respondent. The respondent has submitted that variation of wind generation is a prime reason for overdrawal. The respondent is expected to make arrangements for tackling such contingencies. The documents available on record bear testimony to the fact that several times in different forums, respondent was repeatedly requested and advised to formulate special schemes to deal with such situation but to no avail. Consequently, the grid security was jeopardized by overdrawing heavily and continuously from the grid to compensate for the variation of generation due to wind. At present, Tamil Nadu has a wind generation installed capacity of around 6,000 MW and maximum generation of wind is the range of 2500-3000 MW. On perusal of records submitted by SRLDC, it is a challenging and arduous task to contain the wind variability without having high ramp up generators, i.e. gas based generation of ample capacity for minimizing the ill effects of the variability of wind energy generation. However, in our opinion, evacuation of the generation in around Vemagiri area needs detailed study. The Commission in its order dated 2.2.2012 in Petition No. 67/2012 had directed CTU to carry out detailed study for

the evacuation of the generation in around Vemagiri as under:

"We also direct the CTU to take immediate steps to remove the constraints highlighted by TANTRANSCO for evacuation of Power in the Vemagiri area cause d due to LILO arrangements of the existing transmission lines."

- 13. The respondent has submitted that all possible steps are being taken to reduce the overdrawal and to comply with the directions of the petitioner. However, the analysis of the data available on records reveals that in number of instances, the respondent had not taken any action. This shows the non-seriousness/non-preparedness of the respondent towards the grid security of the integrated regional grid also. Due to this approach, the petitioner was compelled to take the extreme measures of physical regulations of power supply by opening of lines and ICTs during the period in question. To reduce the delay in response and to ensure timely load shedding, there has to be an automatic demand management scheme in place to deal with contingencies.
- 14. During the course of hearing on 9.6.2011, the representative of TANTRANSCO requested to drop the proceedings on the ground that the overdrawal was beyond its control. The representative of TANTRANSCO also highlighted the corridor congestions between S1 and S2 areas, no capacity addition in the recent past and wind generation variability.
- 15. Considering the fact that actions have been taken by the respondent to comply with the Grid Code, we are not inclined to impose any penalty on the respondent. We administer a strong warning to the respondent to take all possible measures permissible

under the Act and Grid Code to ensure that no overdrawal shall takes place in future.

- 16. The respondent has submitted that all possible steps are being taken to reduce the overdrawal and to comply with the directions of the petitioner. However, the analysis of the data available on records reveals that the actions taken by the respondent were not adequate. This shows the non-seriousness/non-preparedness of the respondent towards the grid security of the integrated regional grid also. Due to this approach, the petitioner was compelled to take the extreme measures of physical regulations of power supply by opening of lines and ICTs during the period in question. To reduce the delay in response and to ensure timely load shedding, there has to be an Automatic Demand Management Scheme in place to deal with contingencies.
- 17. Regulation 5.4.2 (e) of Grid Code deals with demand management scheme, which provides as under:

"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 10.1.2011, to reduce overdrawl 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."

18. Under the Grid Code, SLDCs are responsible to formulate the automatic demand disconnection scheme to reduce overdrawal from the grid. We direct the respondent to take necessary steps to implement automatic demand management scheme to deal with the emergency situations such as sudden variation of wind generation or forced outages etc. and submit the monthly progress report to SRLDC and SRPC in this

regard. SRPC shall inform the Commission about any deficiency in the action taken by the respondent and non-compliance with the directions of the Commission. It is also clarified that the issue regarding implementation of Automatic Demand/ Automatic Load Disconnection Scheme has been dealt with in order dated 19.12.2013 in Petition No. 249/MP/2012, 250/MP/2012 and 251MP/2012

19. Petition No. 120/2011 is disposed of with above directions

Sd/- sd/-

(M. Deena Dayalan) Member (V.S. Verma) Member