

BEFORE

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

In the matter of:

Uttarakhand Power Corporation Limited's proposal seeking approval of the Commission on scheduled load shedding with immediate effect in the State of Uttarakhand.

Coram

V.J. Talwar Chairman

Anand Kumar Member

Date of Order: 20th June 2009

ORDER

These proceedings relate to the proposal received from Managing Director, Uttarakhand Power Corporation Ltd. (UPCL) (vide their letter No. 3743/MD/UPCL/C-4 dated 03.06.2009), requesting for approval of the Commission of Schedule Load Shedding. Since UPCL in its proposal had not submitted any relevant information in support of its claim for imposition of scheduled power cuts due to shortage of availability of power for meeting State's demand on a daily basis and also the proposal was not in accordance with the UERC (Conduct of Business) Regulations, 2004, UPCL

was asked to file a Petition along with relevant information. UPCL was also asked to submit measures taken by it for demand side management (DSM) and the long term and short term power procurement plans to meet the forecast gap in demand and supply as required under terms of its licence. On 11.06.2009 UPCL submitted an application on affidavit seeking approval of scheduled load shedding of electricity in the State under section 23 of the Electricity Act, 2003 and clause-22(1)(b) of the Distribution and Retail Supply Licence read with the provisions of the UERC (Conduct of Business) Regulations, 2004.

2. UPCL in their proposal have mentioned that average daily energy demand in the State in the month of March/April, 2009 has increased considerably and gone up to 22.50 MU/day in comparison to be energy availability from firm sources of 17.12 MU resulting in the gap of 5.50 MU/ day. In the month of May 09 the average daily energy demand of the State has gone up to 23.00 MU/day as compared to 21 MU/day in the same month during last year. UPCL has stated that on 3rd June, 2009 the energy demand went as high as 25.865 MU. UPCL has also stated that unallocated quota of electricity from central sector generating stations has been reduced from 0.714 MU/day to 0.21 MU/day w.e.f. 08.06.2009. UPCL has submitted that it has met the demand supply gap in last 3 months submitted by a combination of the following three methods:

- i) Through overdrawls from grid
- ii) Advance banking taken from BRPL/PSEB to be returned in summers
- iii) Emergency load shedding

3 UPCL submitted that due to the high supply - demand gap and low frequency prevailing in the Northern grid particularly during peak hours, UPCL had to resort to unscheduled rostering in the range of 50 to 150 MW as per directions of NRLDC, which has resulted in uncertain power availability to consumers and dissatisfaction. For next 15 days UPCL has projected firm availability of 24.789 MU/day against which it has projected 29.765 MU/day of the total energy requirement including daily energy demand of the State as 25.865 MU, return banking (against advance banking taken during winters) of 1.5 MU/day and advance banking of 2.4 MU/day to be done by

UPCL for getting back power during winters. This leaves a net energy shortage of around 5 MU/day. In support of its Banking arrangements, UPCL has stated that in order to optimally manage the power supply in coming winters months, it is expected that due to increase in demand and reduction in hydro generation the gap between demand and supply would further increase and therefore, UPCL is willing to bank the power to other States during summer season to meet the demand in winter months alongwith return of banked power.

4 The proposed load shedding plan of UPCL and possible relief in demand from this schedule is placed at **Annexure - 1**.

5 The Commission notes that DSM measure of implementing Bachat Lamp Yojana submitted by UPCL, which seeks to replace incandescent lamps with CFLs, shall not provide any relief in the present crisis as it is proposed to be completed by March 2010. On Commission's query regarding UPCL's plan for short-term and long-term procurement of power for meeting the deficits, UPCL has submitted in its reply dated 19.06.2009 that in the monthly forecast of availability and demand for 2009-10 the State was expected to have 29 MU shortage and 65 MU surplus energy in the months of April and May 2009 respectively. In contrast, the State actually witnessed shortages of 143 MU and 15 MU in these months, which has been attributed to low discharge in the rivers leading to lower State generation and unexpected increase in demand. The monthly generation reports for last three months (**Annexure-2**) downloaded from the website of Central Electricity Authority also confirms that the State generation for last three months has been around 70-75% of the planned generation for this year and is also of similar order in comparison to previous year. UPCL has also stated that after reviewing the situation, short term tender was invited on 31.05.2009 for the procurement of 800 MU upto March 2010. Due date for opening the tender is 20.06.2009. For long term, UPCL has submitted that procurement of power through Case 1 bidding is under process. **The Commission hereby directs UPCL to submit quarterly reports**

on the progress made in the short-term and long-term power procurement process within 15 days of each quarter beginning 1.7.2009.

6 Taking note of the Power Supply position in the Northern region for 17.06.2009 as per NRLDC report, it is seen that against total requirement of 26.59 MU of the State of Uttarakhand, the demand met by the State was 23.959 MU which comprised of 6.819 MU from central sector, 13.489 MU from State's own generation and 3.651 MU of overdrawls. Despite these substantial over drawls, the energy shortage faced by the State was as high as 2.63 MU/day. The position has been similar in last few days, when not only the State is continuously overdrawing for almost 24 hours of the day even after load shedding but also the frequency of the grid is consistently low. Graphs downloaded from NRLDC website showing these overdrawls and frequency are given at **Annexure-3**.

7 The seriousness of the availability constraint can be seen from the details of the overdrawls by the State under low frequency (<49.20 Hz) during 01-May-2009 to 31-May-2009 (**Annexure-4**) which shows that out of 131 time Blocks when frequency was below 49.2 Hz during the month, Uttarakhand had overdrawn 3.64 MUs at an average rate of Rs. 7.35/kWh for as many as 121 blocks. These being highest number of blocks of under frequency overdrawls in comparison to other States in the Northern Region only second to Uttar Pradesh which has overdrawn 124 number of times. Overdrawls below 49.2 Hz are prohibited and in complete violation of the provisions of Indian Electricity Grid Code (IEGC) dated 30.03.2009 which stipulates that "*..... provided that the States, through their SLDCs, shall always endeavour to restrict their net drawl from the Grid to within their respective drawl schedules, whenever the system frequency is below 49.5 Hz. When the frequency falls below 49.2 Hz, requisite load shedding shall be carried out the in the concerned State(s) to curtail the overdrawl.*" A similar provision also exists in Regulation 4.2.2 (1) of the UERC (State Grid Code) Regulation, 2007 which provides for that "*The State Constituents shall endeavour to restrict their net drawl from the grid to within their respective drawal schedules whenever the system frequency is below 49.5 Hz. When the frequency falls*

below 49.0 Hz, requisite load shedding (manual) shall be carried out in the concerned Area/User to curtail the over-drawl." The State Load Despatch Centre (SLDC) has sent copies of communications received from NRLDC in this regard for last few days, which require it to curtail load in the State in such adverse Grid conditions and warn for punitive action in case of violations. Some of such recent communications are placed at **Annexure-5**. The Commission feels that the provisions of IEGC and State Grid Code should be implemented without any deviation by UPCL to avoid any crippling/collapse of Grid irrespective of financial implication of the same. Accordingly, load shedding would be unavoidable in the present deficit scenario to prevent endangering of Grid.

8 It has come to the notice of the Commission that due to power shortage and low frequency in the grid UPCL is engaged in emergency load shedding in the State which is causing considerable loss to industry and large commercial consumers. In order to avoid inconvenience to the general public from unscheduled power cuts and to enable them to plan their routine according to scheduled power cut and also for maintaining the efficient supply, securing the equitable distribution of electricity in accordance with section 23 of the Electricity Act, 2003, the Commission feels it is expedient to approve scheduled load shedding plan in the current scenario. The Commission has examined UPCL's proposal and considers that the following modifications are necessary in the same:

(i) In order to provide supply for essential services like drinking water, security, essential lighting etc. the supply of Induction Furnaces, Rolling Mills and 132, 33, 11 kV industrial and independent feeders emanating from Primary & Secondary sub-stations including SIDCUL Hardwar/Pantnagar shall not be cut. However, restriction in usage upto 15% of contracted load shall be applicable during the restricted hours (except the industrial consumers who have opted for supply during restricted hours at higher tariff) with applicable provisions of Tariff Order for violations. Irrespective of individual drawls on industrial feeder during restricted hours, UPCL shall be at a liberty to cut the feeder, if the situation so warrants, in case the overall loading on the feeder is more than 15% of the total contracted load of all the consumers on the feeder

provided, however, that such feeder shall not be cut if continuous supply consumer(s) is/are connected to that feeder.

(ii) Considering the gravity of present situation, no consumer shall be allowed to opt for continuous supply during the period of Scheduled Restriction/Load Shedding.

(iii) Mussoorie and Nainital proposed to be exempted shall also be subjected to rostering as per schedule for Dehradun, Hardwar and Jwalapur Towns.

(iv) The time period of rostering for Dehradun, Haridwar, Jwalapur, Kotdwar, Rishikesh towns and Hill Areas needs slight modification.

9 After considering UPCL's proposal, the Commission in exercise of its power under section 23 of Electricity Act, 2003, has approved load shedding in the State as per the load shedding program submitted by Uttarakhand Power Corporation Limited with minor modifications (attached as **Annexure- 6** to this Order) with the following terms & conditions:

- a) Power cuts/restrictions shall be applied from 22.06.2009 to 22.07.2009. If so required, UPCL shall submit fresh proposal for load shedding in the State thereafter. UPCL shall inform this schedule to the consumers through a public notice in at least one English and two Hindi daily newspapers having wide circulation in the State. The notified scheduled cut/restriction period shall be considered to be applicable only on or after the date of publication of such notice. UPCL shall also intimate the approved plan to the Industrial Associations individually within two days of receipt of this approval.
- b) All possibilities of availability of the power for the State to be explored and UPCL should not underdraw from the Northern Grid under normal circumstances and will undertake load shedding in its area as per the approved load shedding plan only in case of shortfall in availability.
- c) Load shedding shall not be made for consumers not included in the scheduled programme. The approved load shedding program gives the ceiling of power cut and licensee should not impose restriction over and above these ceilings except

under emergency conditions/instructions from NRLDC/Grid frequency being below 49.5 Hz.

- d) In case UPCL, while preparing day-ahead schedule or during the period of restriction/power cut, notes that there is a possibility of surplus in power during next day, relief shall be given to consumers of such period having longest period of power cut.
- e) The restriction period and corresponding penalty mechanism shall not be applicable for industrial consumers on mixed feeders subjected to such rostering. However, the mixed feeders on which continuous supply consumers are connected shall not be cut during scheduled/unscheduled load shedding.
- f) In case UPCL, upon getting direction from SLDC, is required to carry out unscheduled load shedding during scheduled restriction period approved by the Commission, UPCL shall be at liberty to carry out unscheduled load shedding of consumers, except for those industries who have opted for continuous supply, in whole of Uttarakhand or selective areas, as required under the prevailing conditions.
- g) In case of improvement in availability of power during scheduled/unscheduled power cuts, UPCL shall grant corresponding relief to consumers and gradually reduce load shedding for them. While doing so, UPCL shall ensure that imposition and reduction of load shedding is carried out in equitable manner across all consumers in all areas. UPCL shall also ensure that it does not underdraw from the grid for more than two consecutive time slots of 15 minutes during the period of load shedding. Record of Load Shedding shall be maintained at concerned Grid Sub-station. However, the evening/night hours of restriction on industrial consumer shall remain unaffected.
- h) UPCL shall implement provisions given in clause 6 (Restrictions in Usage) of Rate Schedule RTS 7 of tariff order dated 18.03.2008 read with order dated 05.12.2008 in the matter of "Finalization of clause 6 of RTS-7 in the Tariff Order dated 18.03.2008 for UPCL" for applying higher tariff on those industrial consumers, having continuous process and opting for continuous supply during

restricted period as well as penalty on non-continuous consumers who use power beyond 15% during restricted hours. Amended clause 6 of RTS 7 is attached as **Annexure - 7** to this order.

- i) Restriction will be closely monitored and field staff shall implement load shedding programme without any deviation except as provided in this order. At the time of meter reading of all industrial consumers, UPCL shall take out full MRI dump with load survey and submit to the Commission by 09.08.2009.
- j) UPCL's vigilance team shall monitor and report instances of deviation from load shedding schedule directly to the Commission.
- k) Scheduled load shedding in areas which remained without power during the day of restriction due to breakdown in EHV system, shall be reduced suitably.
- l) UPCL may synchronise their maintenance shutdowns within the period of cut as far as possible.
- m) UPCL shall submit a report of load shedding, availability, drawl schedules and load actually drawn, to the Commission by 09.08.2009.
- n) UPCL shall maintain separate account of revenue billed on account of continuous supply surcharge/penalties and data on additional power purchase incurred during the period of restriction and submit the same to the Commission by the end of succeeding month.

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(Anand Kumar)
Member

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(V.J. Talwar)
Chairman